

3.1.7 Visual/Aesthetics

3.1.7.1 Regulatory Setting

NEPA establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 U.S.C. 4331[b][2]). To further emphasize this point, FHWA in its implementation of NEPA (23 U.S.C. 109[h]) directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

CEQA establishes that it is the policy of the state to take all action necessary to provide the people of the state “with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities” (CA PRC Section 21001[b]).

3.1.7.2 Affected Environment

This section describes the aesthetic and visual resource conditions within the project limits. The section also discusses potential aesthetic impacts that could result from implementation of the proposed project build alternatives. A program of minimization measures is also included. Information in this section is based on the Visual Impact Assessment (VIA) completed for this project (May 2011).

The visual impacts of the proposed project were determined by assessing the existing visual resources, the visual resource change due to the project, and predicting viewer response to that change. The degree of visual quality in a view was evaluated using the following FHWA descriptive terms:

- **Vividness:** Vividness is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns (e.g., Niagara Falls is a highly vivid landscape component).
- **Intactness:** Intactness is 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 and natural settings (e.g., a two-lane road that meanders through the countryside).
- **Unity:** Unity is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the landscape (e.g., an English or Japanese garden).

The degree of visual character in a view was evaluated using the following FHWA descriptive terms:

- **Scale:** Visual scale is the apparent size relationship between landscape components or features and their surroundings.
- **Diversity:** Diversity is the number of pattern elements, as well as the variety among them and edge relationships between them.
- **Continuity:** Continuity is the uninterrupted flow of pattern elements and the maintenance of visual relationships between immediately connected or related landscape components or features.
- **Dominance:** Dominance of components or specific features in a scene may be dominant because of prominent positioning, contrast, extent, or importance of pattern elements.

For projects that do not create a significant impact on existing visual character or quality, a more nuanced approach categorizes impact levels as low, moderately low, moderate, moderately high, and high based on the following descriptions:

- **Low (L):** Low negative change to existing visual resources and low viewer response to that change. May or may not require mitigation.
- **Moderately Low (ML):** Low negative change to the visual resource with a moderate viewer response or moderate negative change to the resource with a low viewer response. Impact can be mitigated using conventional methods.
- **Moderate (M):** Moderate negative change to the visual resource with moderate viewer response. Impact can be mitigated within 5 years using conventional practices.
- **Moderately High (MH):** Moderate negative change in the visual resource with high viewer response or high negative change with a moderate viewer response. Extraordinary mitigation practices may be required. Landscape treatment required will generally take longer than 5 years to mitigate.
- **High (H):** High level of negative change in character or a high level of viewer response to the change such that extraordinary architectural design and landscape treatments may not mitigate impacts below a high level. An alternative project design may be required to avoid high negative impacts.

Visual Environment

A regional landscape defines those elements of the natural and built environment that together form a unique visual identity of a place or corridor. This regional landscape establishes the

general visual environment of the project, but the specific visual environment upon which this assessment is focused is determined by defining the landscape units and project viewshed, which are discussed below in greater depth.

The regional landscape of the project corridor is typical to that portion of southern California through which the corridor crosses. The terrain is relatively flat with nearly all available land already developed. A notable exception is in the northern portions of the corridor where significant undeveloped land associated with military facilities still exists. Along the corridor, the development patterns include notable commercial nodes, such as South Coast Plaza in Costa Mesa, Bella Terra in Huntington Beach, and Westminster Mall in Westminster. Interspersed with the commercial development are large areas of residential homes, both single- and multi-family. From I-405, these residential areas are usually screened by a soundwall near the edge of the I-405 ROW.

Project Viewshed

A viewshed is the area normally visible from an observer's viewpoint of location and is limited by the screening/obstruction effects of any vegetation or structures. A viewshed can include views from within the project outward or from outside of the area into the project corridor. While viewpoints represent specific locations within the project area, a viewshed describes what is seen from that viewpoint, including the limits of what can be seen. When these individual points are strung together, the viewsheds create an overall project viewshed that can be used to describe the project area. The viewshed includes the locations of viewers within the project area that are likely to be affected by visual changes brought about by the project features.

For the proposed project, views into the corridor are associated with the cross streets and are generally located near (approximately 0.25-mile) the corridor due to the relatively flat nature of the project area. Areas in which high-rise buildings are located may have views farther out from the corridor. From within the corridor, views out are also generally limited to a short distance due to the flat groundplane and the proximity of buildings. In addition, the existing soundwalls also help to screen views into and out of the corridor. Figure 3.1.7-1 depicts the project viewshed from within the corridor.

For the discussion of visual quality associated with each landscape unit described below, it is important to remember that these are general evaluations for the unit as a whole. Specific locations within the unit may have higher or lower visual quality than the average. In the discussion of key viewpoints, visual quality is assessed for specific views, and these may differ from the average, or general, visual quality rating assigned below because that rating only considers a specific location within the landscape unit.

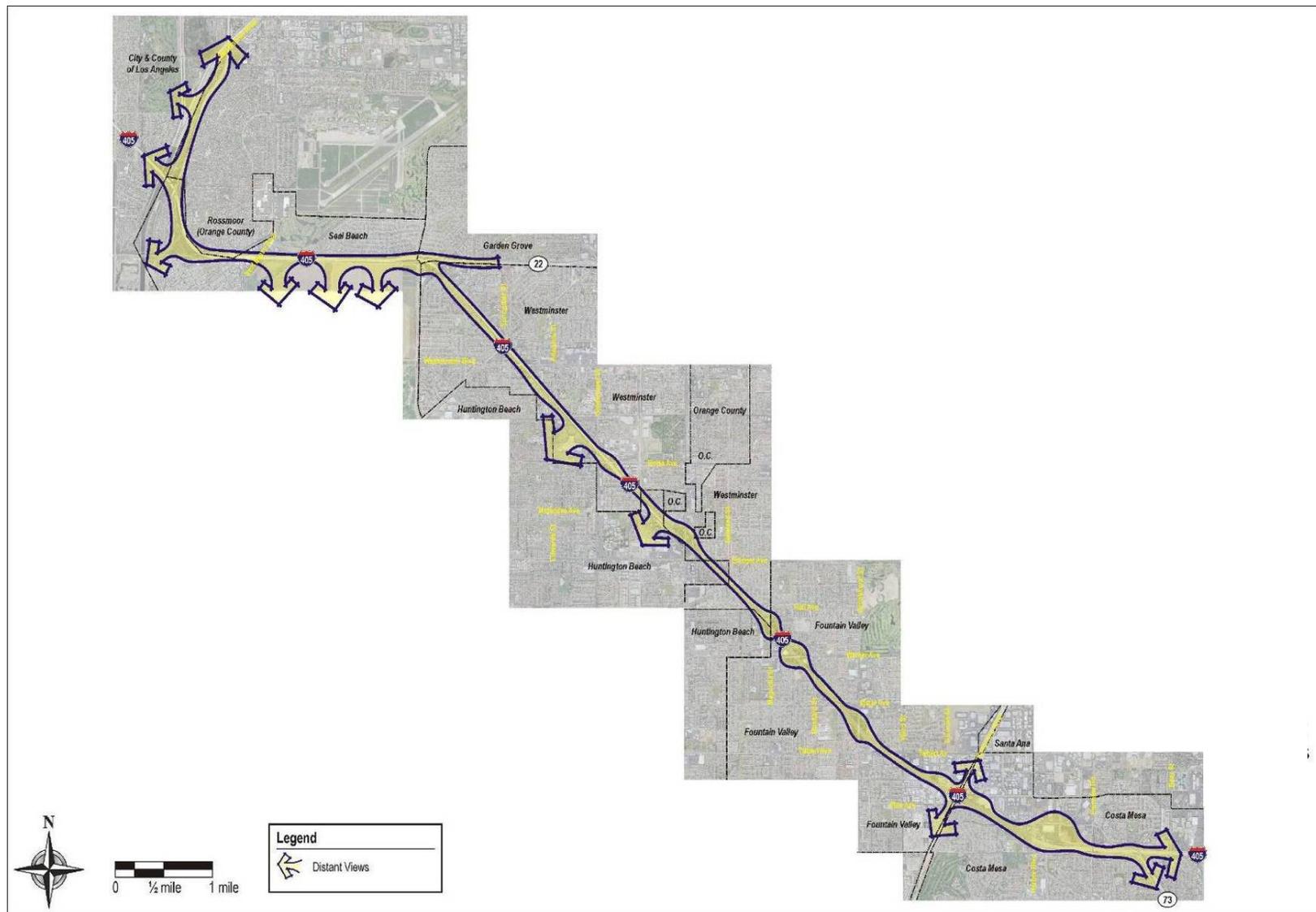


Figure 3.1.7-1: Corridor Viewshed

Landscape Unit

Landscape units are defined as that portion of the regional landscape that can be thought of as containing a distinct visual character. Another way to look at a landscape unit would be to consider it an outdoor room. A landscape unit will often correspond to a place or district that is commonly known among the community.

The proposed project area was divided into seven landscape units. These units are distinct, but not necessarily homogenous, in character. The landscape units within the project corridor from south to north are described below.

Shopping District Landscape Unit

The Shopping District Landscape Unit is the southernmost unit in the study area. It includes both I-405 and land along its northern edge. The unit is primarily commercial, but there is a large residential area between Bear Street and Fairview Road. Soundwalls in the unit are limited to this area along the ramp from SR-73. Typical views within the Shopping District Landscape Unit are shown in Figure 3.1.7-2.

Existing Visual Character: The development in much of this landscape unit is relatively new and generally well maintained. The buildings tend to be large, including the big box store IKEA. There is an existing soundwall along most of the southbound lanes, which forms the edge of the landscape unit. Views from the northbound I-405 lanes are into the commercial areas. East of Harbor Boulevard, there are many braided ramps and overcrossings that tend to restrict views for brief periods while traveling northbound on I-405. Most of the commercial properties that border I-405 have views into the I-405 corridor. Landscaping within the I-405 corridor is limited by the space available, while most of the commercial properties are landscaped along their perimeters and within associated parking lots.

Existing Visual Quality: The overall visual quality of the Shopping District Landscape Unit is moderate, with moderate vividness, intactness, and unity. In general, the areas on the southern edge of the unit have a higher visual quality than other areas. The freeway areas, due to the number of lanes and the scale in the landscape, tend to lower the overall visual quality found in the unit. South Residential Landscape Unit

South Residential Landscape Unit

The South Residential Landscape Unit falls exclusively within Costa Mesa. In general, there is an existing soundwall between I-405 and the landscape unit, except at Harbor Boulevard, where some commercial land uses exist. Both Moon Park and Gisler Park back on to the I-405 ROW in this unit. Typical views for this landscape unit can be seen in Figure 3.1.7-3.

Existing Visual Character: In general, this landscape unit is separated from the I-405 corridor by a soundwall that parallels the edge of I-405 through most of the unit. The exception to this is in the Harbor Boulevard area. The neighborhoods within the unit are primarily single-family homes that are well maintained and landscaped. Most of the landscaping within the unit is made up of ornamental species. In general, the unit sits level with I-405, except at the Santa Ana River crossing on the north end and the SR-73 interchange on the south end; at both locations, I-405 is generally above the adjacent neighborhoods. Two streets, Harbor Boulevard and Fairview Road, cross over I-405.

Existing Visual Quality: The overall visual quality of this landscape unit is moderately high, with moderate vividness, moderately high intactness, and moderately high unity. Because I-405 is visually separated from the landscape unit by a soundwall and the vegetation associated with the wall, it does not detract from the unit's visual quality.

Industrial Landscape Unit

The Industrial Landscape Unit is the smallest of the units. It is centered on the Santa Ana River and the adjacent OCSD facility. Because the unit has limited residential land uses, there are few existing soundwalls along I-405, except north of the Ward Street overcrossing. Typical views for the Industrial Landscape Unit can be seen in Figure 3.1.7-4.

Existing Visual Character: The dominant feature of the landscape unit is the Santa Ana River and its associated levees. The development pattern within the unit includes industrial/commercial buildings and a sewer treatment facility along the river. At the northern edge of the unit, south of Talbert Avenue and west of Ward Street, there is a multi-family residential area. On- and off-ramps from northbound I-405 to Euclid Street provide landscaping within the I-405 corridor for northbound traffic; likewise, southbound I-405 ramps to/from Ellis Avenue/Euclid Street provide a similar effect for southbound traffic.

Existing Visual Quality: The existing overall visual quality of the landscape unit is moderately low, with moderately low vividness and intactness, and moderate unity. The rip-rapped embankment of the levees along the river, the concrete river structure channel, and the wide paving of the freeway section with little visual relief from the paving combine to lower the visual quality.

Residential Connections Landscape Unit

The Residential Connections Landscape Unit consists of primarily single- and multi-family residential development, with commercial uses found along arterial roadways. There are many soundwalls along I-405. Typical views for this landscape unit can be seen in Figure 3.1.7-5.

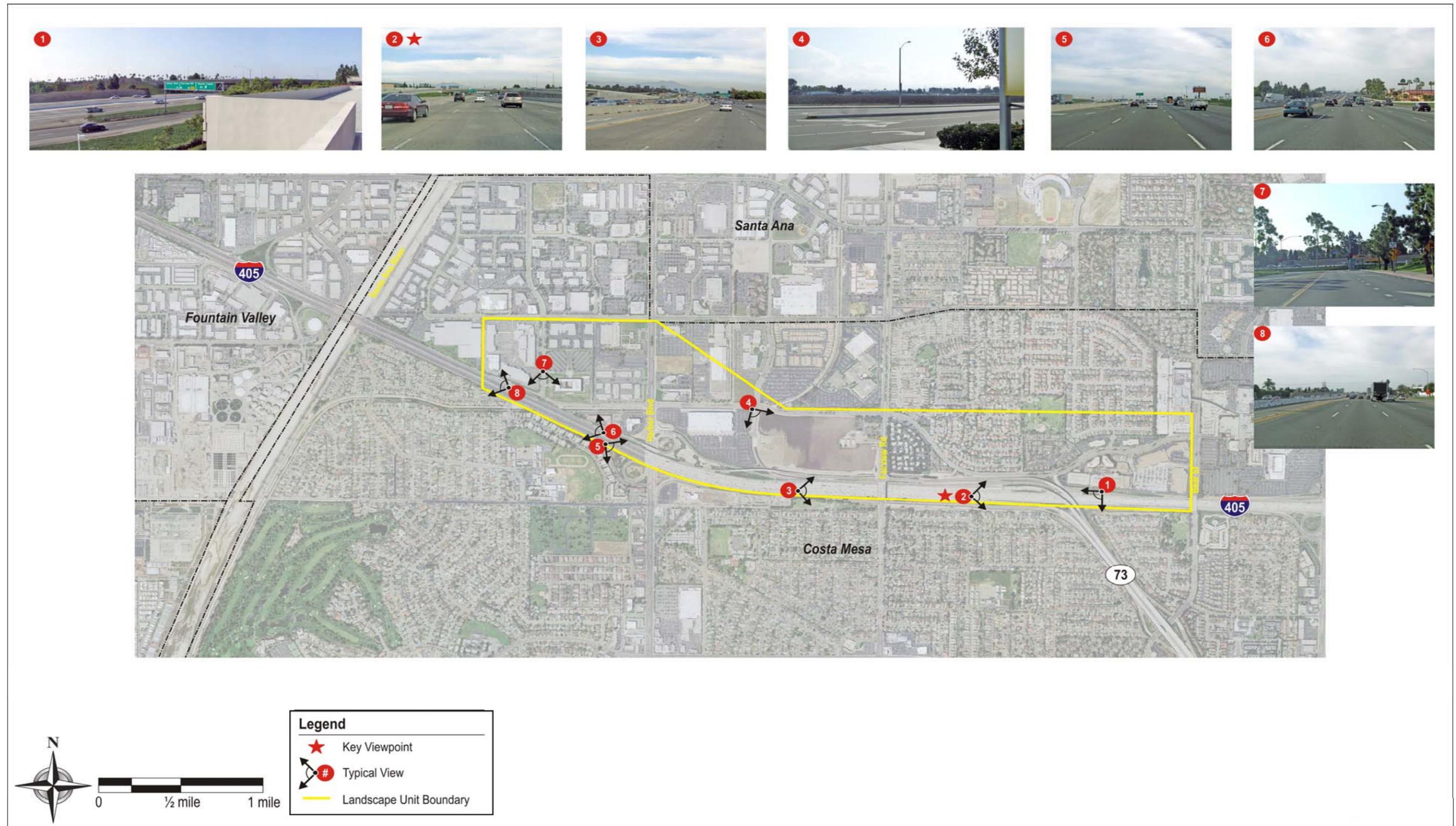


Figure 3.1.7-2: Shopping District Landscape Unit, Typical Views

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Figure 3.1.7-3: South Residential Landscape Unit, Typical Views

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Figure 3.1.7-4: Industrial Landscapes Unit, Typical Views

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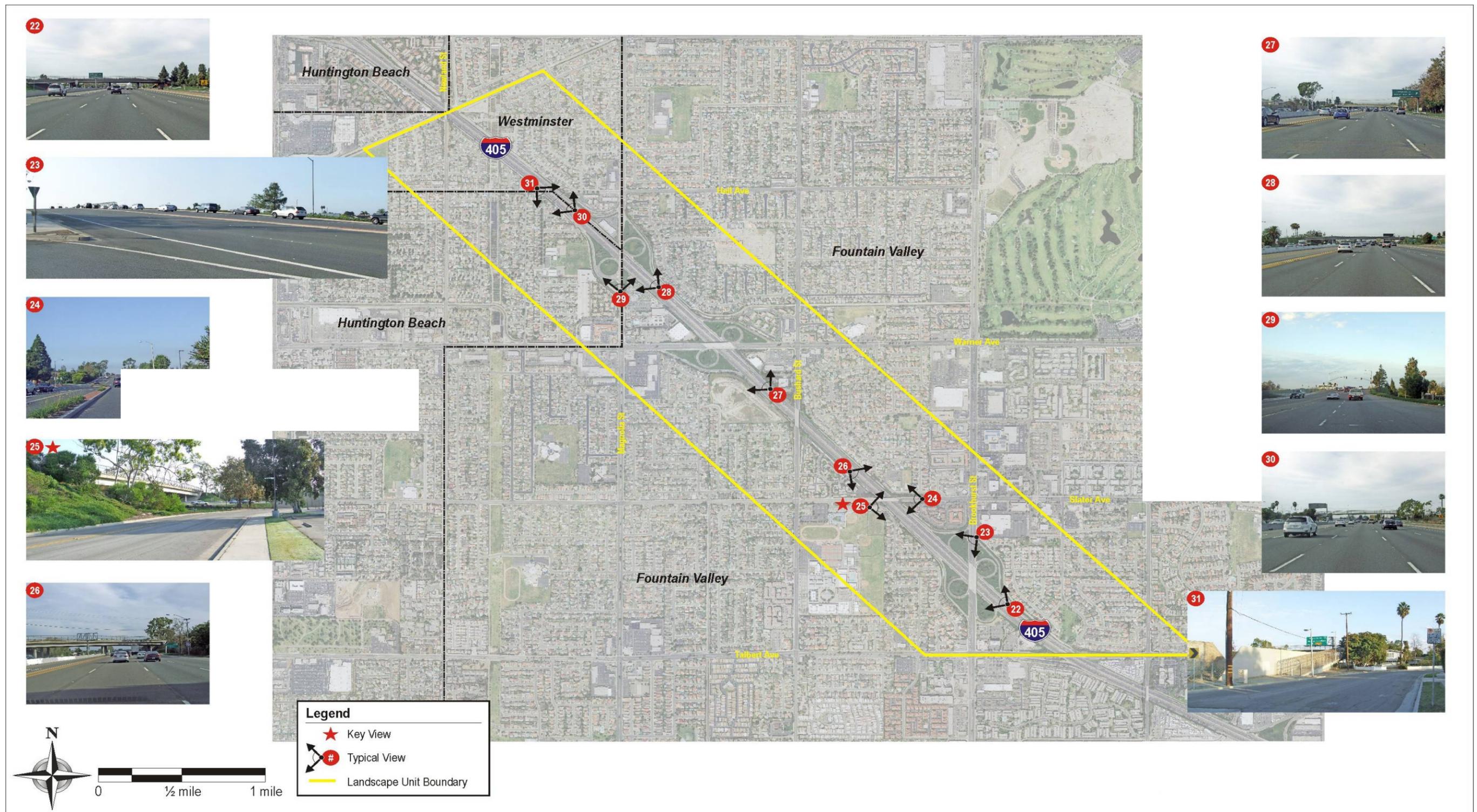


Figure 3.1.7-5: Residential Connections Landscape Unit, Typical Views

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Existing Visual Character: The residential areas within this landscape unit are generally older, single-family homes from the 1960s and 1970s. While the landscape unit is primarily residential in character, there are areas of commercial development, especially at the Magnolia Street and Warner Avenue intersections. Fountain Valley High School is also close to the corridor near the Slater Avenue overcrossing of I-405.

Throughout much of this corridor, soundwalls are in place between the I-405 corridor and the residential areas. These block views into and out of the I-405 corridor. There is a pedestrian bridge at Heil Avenue, which is unique within this unit. The large interchanges at Brookhurst Street, Warner Avenue, and Magnolia Street add substantial green space to this portion of the corridor.

Existing Visual Quality: The overall existing visual quality of this area is moderate with moderate vividness, intactness, and unity. Residential and freeway view areas softened by plantings, such as vines on the walls and interchange plantings, help to increase the visual quality, while other aspects, such as the appearance of soundwall-to-soundwall paving in the I-405 corridor, detract from the visual quality.

Commercial Centers Landscape Unit

The Commercial Centers Landscape Unit consists of a mix of large-scale commercial centers (i.e., Westminster Mall, Bella Terra [Shopping Center]) and residential land uses, both single- and multi-family. Because of the mix of land use types, the placement of soundwalls in this unit is less consistent along the corridor, with large open areas associated with the commercial uses. Buckingham Park and Westminster High School both back up to the I-405 corridor near the Edwards Street overcrossing of I-405. Figure 3.1.7-6 includes typical views for this landscape unit.

Existing Visual Environment: The landscape unit is the most diverse in terms of land uses found within the unit. In addition to the large commercial centers, there are smaller areas of commercial development, single- and multi-family residential, and schools. Where residential development backs up to the I-405 corridor, there are soundwalls that separate the homes from I-405. In these locations, views into or out from the I-405 corridor are limited. Many of the walls include vine plantings that soften the face of the wall to viewers.

In general, the landscaping that might soften the views along I-405 is limited, due to the limited ROW that exists within the corridor. There are two large interchanges within this unit – Beach Boulevard and the Goldenwest Street/Bolsa Avenue interchange. These provide large vegetated areas along the I-405 corridor.

Existing Visual Quality: The existing visual quality for the landscape unit is moderate with moderate vividness, intactness, and unity. Areas of new or renovated development, such as Bella Terra (Shopping Center), generally add to the overall visual quality of the unit. Detracting elements include the wide expanse of freeway paving and the lack of landscaping or other softening elements along I-405.

Northwest Residential Landscape Unit

The Northwest Residential Landscape Unit falls almost exclusively within Westminster. It is near the junction of I-405 and SR-22 East. Portions of SR-22 East within the unit were recently reconstructed as part of another project. The unit is primarily residential, except at its northern and southern ends where commercial uses are included. Indian Village Park backs up to I-405 adjacent to the Springdale Street overcrossing. Typical views for this landscape unit can be seen in Figure 3.1.7-7.

Existing Visual Character: The unit is primarily residential, except for the commercial area around Westminster Avenue and the automobile sales area at Valley View Street. The residences include single- and multi-family, and there is a large mobile home park close to the I-405/SR-22 East interchange. There are soundwalls along much of I-405 and SR-22 East, blocking views into and out of the corridors. The portion of SR-22 East within this unit was recently rebuilt as part of another project, and additional aesthetic elements were added to the soundwalls, along with the inclusion of vine plantings along the walls.

Landscaping in the Westminster Avenue and Valley View Street interchanges provides some softening of the interchange elements from the two freeways.

Existing Visual Quality: The existing overall visual quality of the unit is moderate, with moderate vividness, intactness, and unity. Similar to what is found in other residential areas along I-405, view areas softened by plantings, such as vines on the walls and interchange plantings, help to increase the visual quality, while other aspects, such as the appearance of soundwall-to-soundwall paving in the I-405 corridor, detract from the visual quality.

Open Space-Residential Landscape Unit

The Open Space-Residential Landscape Unit is the northernmost within the study area. The developed residential areas include Leisure World, Rossmoor, and portions of the cities of Seal Beach and Los Alamitos. In addition, there are substantial open spaces within this unit associated with NAVWPNSTA Seal Beach, Los Alamitos Joint Forces Training Base, the San Gabriel River, and the Old Ranch Golf Course. As previously mentioned, the areas of NAVWPNSTA Seal Beach are not designated open space but are visually open based on the lack of development on this portion of the base. Typical views for this landscape unit can be seen in Figure 3.1.7-8.

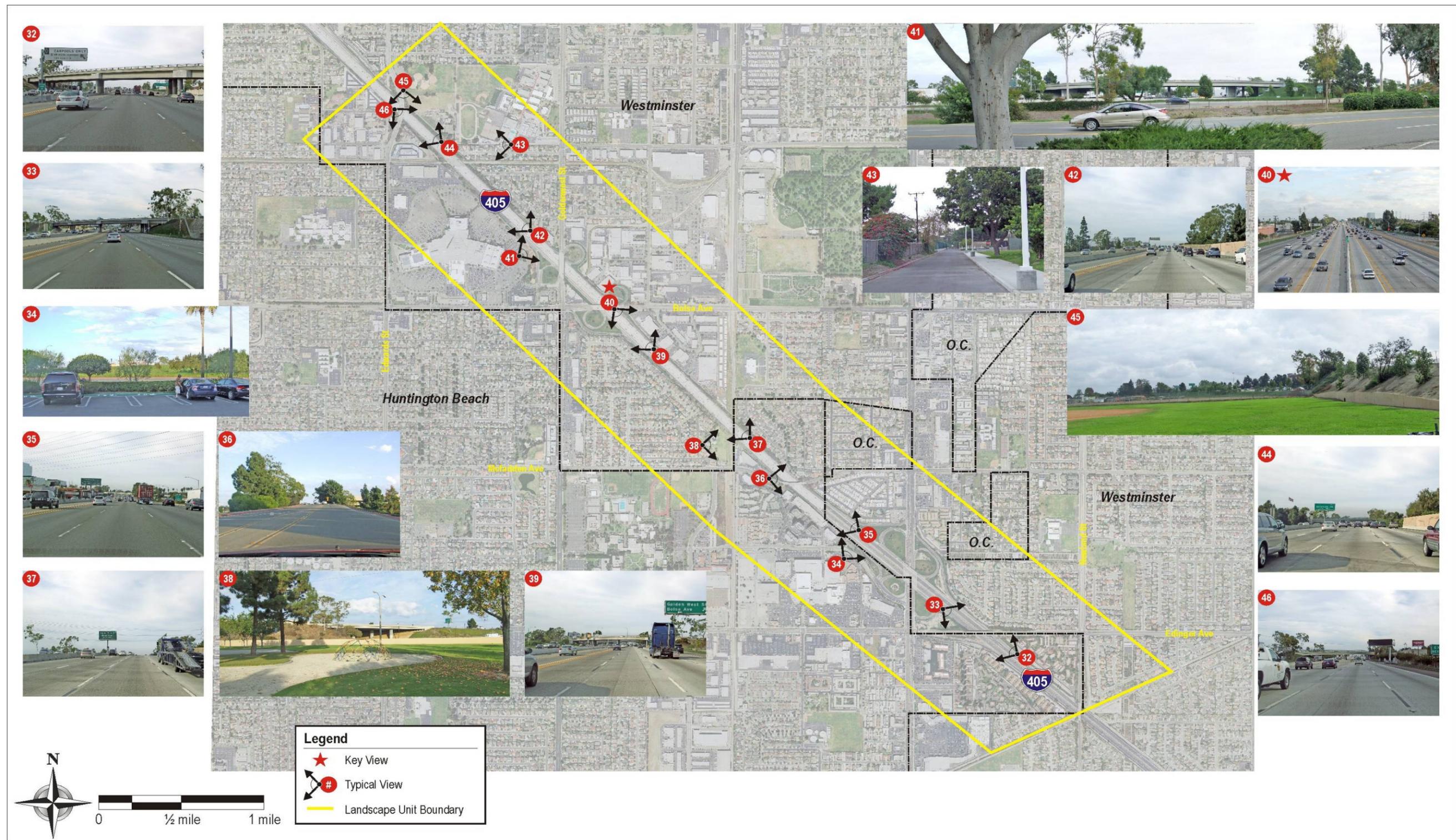


Figure 3.1.7-6: Commercial Centers Landscape Unit, Typical Views

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Figure 3.1.7-7: Northwest Residential Landscape Unit, Typical Views

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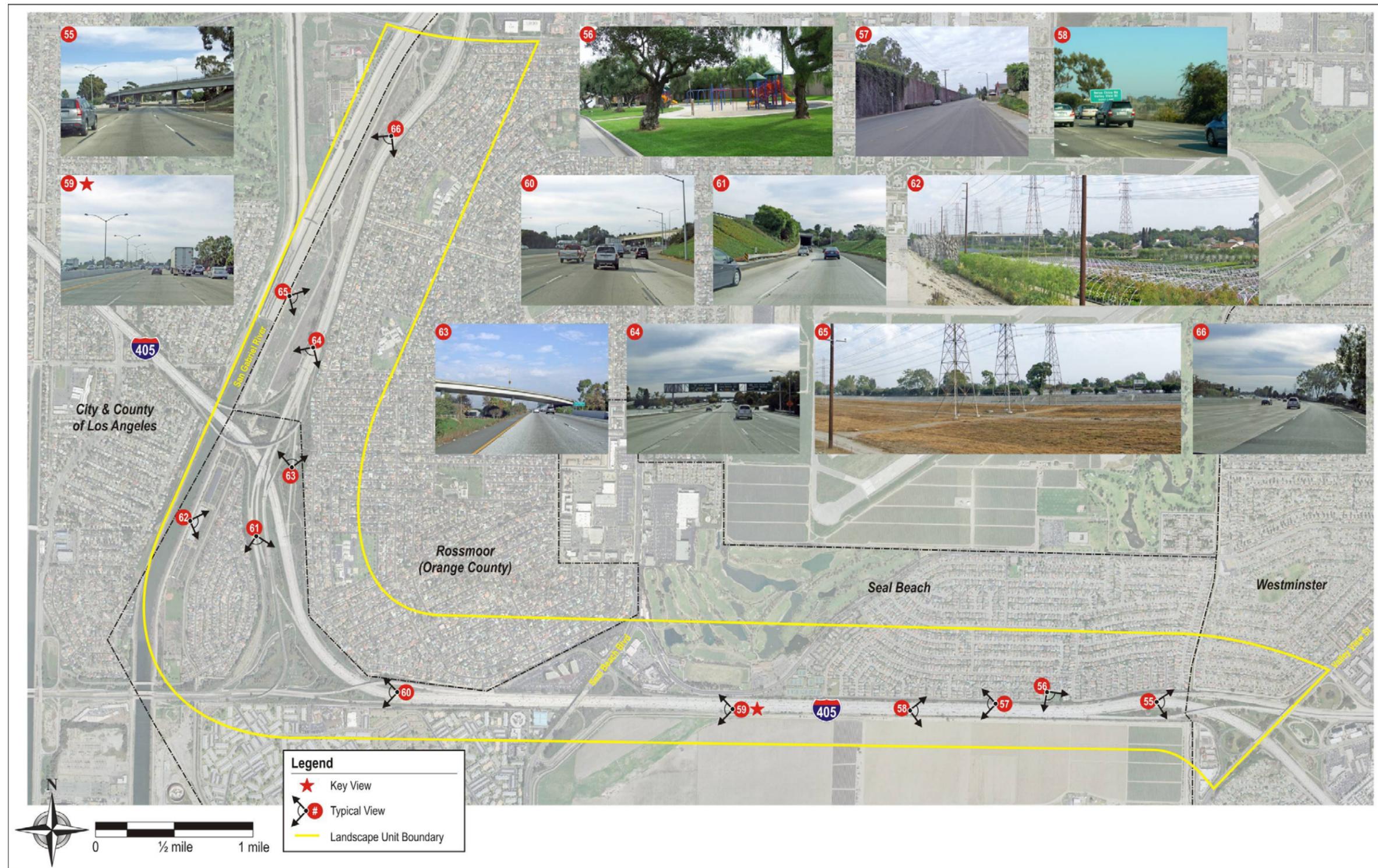


Figure 3.1.7-8: Open Space-Residential Landscape Unit, Typical Views

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Existing Visual Character: Much of the developed area within this unit is residential in nature. A small commercial area is located at the Seal Beach Boulevard interchange. Areas along I-405 with residential development have soundwalls that block views into or out from the freeway. Where open space exists, such as at the NAVWPNSTA Seal Beach, there are no soundwalls, and the views from the corridor into the open field provide an open space landscape.

At the western edge of the unit, there is a large interchange formed by the convergence of I-405 with I-605 and SR-22 West. The areas alongside the numerous ramps create a large landscape area. Additional landscaping is provided with vines on the soundwalls.

Existing Visual Quality: The overall visual quality within the landscape unit is moderate, with moderate vividness and intactness and moderate unity. The northern areas generally have a higher visual quality due to the open space and landscaping. Although the open space adds to the visual quality, the flat nature of land does not add to the vividness of the unit.

Sensitive Viewers

Viewers of the proposed project include motorists traveling I-405 and nearby local roads, surrounding residents, recreational users, and occupants of the commercial areas. The existing viewers are described below:

Freeway Travelers. Along the I-405 corridor, thousands of travelers, including regular commuters, frequent travelers, occasional travelers, and tourists, traverse the project area on a typical day. Of these users, the daily commuter would be expected to have the greatest sensitivity to any changes in the visual environment due in large part to his or her daily exposure to the corridors. Other freeway users would have a decreasing exposure and knowledge of the previous visual environment and would be expected to have a decreasing sensitivity to any changes. With congested traffic, the length of exposure increases; drivers have a longer time to focus their attention on the highway elements, and passengers tend to have more time and a wider range of views than do drivers.

Community Residents. Residents can be expected to have a high concern and a high degree of sensitivity to changes in the visual environment with regard to the project and its effect on views from their homes and neighborhoods. In addition, residents can be expected to have a concern about the views from the highway into their communities. In areas of adjoining cities and communities, there is often a desire to differentiate one community from the next, particularly along freeways, which often serve as the main entry points to a community.

Business Owners, Employees, and Customer. In general, this user group would be expected to have a low sensitivity to the changes in the visual environment. This group is more concerned with maintaining access to the businesses than with change in the visual environment; however, business owners are often concerned with the aesthetics of the project corridor and how that might reflect on the community, as are residents.

Local Street Users. Local street users, including drivers, bicyclists, and pedestrians, have generally short-duration views into the corridor every day, mostly from the many cross streets over and under the corridor. Because the speed of travel of these viewer groups is much slower than that of the highway traveler, they are expected to have a high to moderate sensitivity to changes in the visual environment, depending on their familiarity with the current views. Views into the project area can also be broken by vegetation, buildings, or fencing that limits some views or breaks up the panorama into intermittent views.

Key Viewpoints

The project is assessed from stationary locations, as well as from dynamic viewpoints such as vehicles, pedestrians, and bicyclists; however, because it is not possible to analyze every possible view within the project area, the FHWA analysis methodology recommends selecting many key viewpoints that represent the potential visual effects of the project and the viewers' experience. A key viewpoint is a representative, typical, characteristic, and clear perception of project elements to the primary viewer group. Key viewpoints also need to represent the landscape units and include all of the project elements. Additionally, key viewpoints are areas seen to and from the roadway, viewpoints that clearly display the visual effects of the proposed project. The key viewpoints include a representation of all critical visual elements of the proposed project and viewer group types. Descriptions of the key viewpoints are provided below.

The postconstruction simulations shown for the key viewpoints on the following pages include application of BMPs and avoidance and minimization measures as described in Section 3.1.7.4 for each particular view. The most noticeable measures shown in the simulations are listed below:

- Applying architectural detailing to the retaining walls and soundwalls, including textures, colors, and patterns
- Coloring and staining of bridge elements
- Installing vinyl-coated chain-link fencing along pedestrian areas
- Saving and protecting as much existing vegetation as feasible
- Including new landscaping where feasible

- Using cut-off and shielded light fixtures
- Including skyline trees in the new plantings

Aesthetic treatments shown on structures and specific plant types in the simulations are representative only. Actual types of treatments and landscaping would be based on community input. The numbering of the key viewpoints coincides with the numbers on the typical view photographs found in the Landscape Unit sheets (Figures 3.1.7-2 through 3.1.7-8). Key viewpoints within the project area are described below:

- **Key Viewpoint #2, Shopping District Landscape Unit:** This view is of the southbound lanes of I-405 looking towards the new direct connector bridge from northbound SR-73 to the northbound I-405 Express Lanes (Alternative 3 only). The view was selected to show the effects of the widened pavement section for freeway travelers.
- **Key Viewpoint #15, South Residential Landscape Unit:** The photo is taken from the Santa Ana Trail adjacent to Moon Park, looking to the north. The view was selected to show potential visual changes from the bike/pedestrian user's perspective.
- **Key Viewpoint 17 (#17A and 17B), Industrial Landscape Unit:** These paired panoramic photographs show the new southbound I-405 on-ramp from Ellis Avenue. Viewpoint 17A is oriented nearly to the east, and Viewpoint 17B is oriented nearly to the south, showing the area east and west of the entrance to the OCSF Facility, respectively. These views were selected to show this new ramp structure.
- **Key Viewpoint #20, Industrial Landscape Unit:** This photograph shows I-405 from the perspective of the northbound traveler approaching the Ward Street overcrossing. The photo was selected to demonstrate the changes to the visual environment for northbound travelers.
- **Key Viewpoint #25, Residential Connections Landscape Unit:** Viewpoint #25 is taken looking east along Dolphin Avenue in front of the parking lot for Valley Vista High School. The view is from the perspective of the pedestrian/Valley Vista High School user.
- **Key Viewpoint #40, Commercial Centers Landscape Unit:** This view is looking to the southeast from the Bolsa Avenue overcrossing. The view is from the perspective of the pedestrian on the bridge and provides a perspective as an overlook into the I-405 corridor.
- **Key Viewpoint #50, Northwest Residential Landscape Unit:** Viewpoint #50 is looking to the southwest from the sidewalk along Indian Village Park. The view includes the Springdale Street Bridge. The view was selected to show changes to the visual environment from the perspective of the park user.

- **Key Viewpoint #59, Open Space Residential Landscape Unit:** The photo is taken from the northbound lanes of I-405 at the Seal Beach Boulevard off-ramp. The view was selected to show the freeway perspective in the area where the proposed additional lanes are the greatest.

Methodology

Rendered simulations have been developed for each key viewpoint based on the proposed alternatives. Alternative 1 has a rendering for each key viewpoint, except #2. For Alternative 2, only views #20, #40, and #59 are included because the other views (Key Viewpoints #15, #17, #25, and #50) would be the same in each alternative. For Alternative 3, the key viewpoints simulated are #2, #20, #40, and #59, with all other views the same as shown for Alternative 1.

For each key viewpoint that is rendered, there is descriptive text of the orientation, existing visual character/quality, proposed project features, anticipated changes to the visual environment, anticipated viewer response, and the resulting visual impact anticipated in each view. This is followed by the rendered simulations. Lastly, two tables are provided to summarize the anticipated impacts. The first table quantifies the anticipated impacts by using a numerical analysis that corresponds to the low, moderately low, moderate, moderately high, and high ratings identified below. The second table summarizes the overall anticipated visual impact to the view.

For the impact analysis table, the numeric analysis rating of 1 to 5 corresponds with the following values:

- High = 4.50 to 5.00
- Moderately High = 3.50 to 4.50
- Moderate = 2.50 to 3.50
- Moderately Low = 1.50 to 2.50
- Low = 0 to 1.50

A number was assigned to each of the three visual quality traits (i.e., vividness, intactness, and unity) and each of the four visual character traits (i.e., scale, diversity, continuity, and dominance) for both the existing and proposed views. The ratings in each category were added up and divided by the number of traits in each category. There is no weighting of any category over any other. For example:

$$(\text{Vividness} + \text{Intactness} + \text{Unity})/3 = \text{Visual Quality Rating}$$

$$(\text{Scale} + \text{Diversity} + \text{Continuity} + \text{Dominance})/4 = \text{Visual Character Rating}$$

From these calculations, the percentage of change anticipated in the view was then calculated by finding the difference between existing and proposed view and then dividing that number by the initial rating figure. For example:

$$\frac{(\text{Existing Visual Quality Rating} - \text{Proposed Visual Quality Rating})}{\text{Existing Visual Quality Rating}} = \text{Percent Change}$$

The resulting percent change corresponds to the following:

- 0% to 20% = Low degree of change
- 20% to 40% = Moderately Low degree of change
- 40% to 60% = Moderate degree of change
- 60% to 80% = Moderately High degree of change
- 80% to 100% = High degree of change

For the viewer responses shown in the individual analysis summary tables, the existing and proposed would be the same because the viewers themselves do not change, only the stimulus changes. The anticipated changes to character and quality, along with the anticipated viewer response and sensitivity follow the Low – Moderate – High rating designations from above. These are averaged between each category, with the higher rating prevailing to determine the resource change and overall anticipated visual impact within the key viewpoint.

The last subsection of this section is an overall summary table that pulls the information from the individual tables forward for ease of analysis of the anticipated visual impacts of the project.

Graffiti

Graffiti is frequently an issue on publicly owned structures such as fences, retaining walls, bridge supports/columns, soundwalls, and other similar structures, as well as privately owned buildings, fences, etc. Graffiti may also occur on traffic control devices such as stop signs, stop lights, other traffic directional and safety signs, and posts/poles. Public agencies frequently have dedicated maintenance programs for the control and removal of graffiti. Caltrans has graffiti control and removal programs.

3.1.7.3 Environmental Consequences

The visual impact of project alternatives is determined by assessing the visual resource change resulting from the project and predicting viewer response to that change. Visual resource change is the total change in visual character and visual quality. The first step in determining visual

resource change is to assess the compatibility of the proposed project with the existing visual character of the landscape. The second step is to compare the visual quality of the existing resources with the projected visual quality after the project is constructed. Next, viewer response to the changes is the sum of viewer exposure and viewer sensitivity to the project. The resulting level of visual impact is determined by combining the severity of resource change with the degree to which people are likely to oppose the change.

For projects that do not create a significant impact on existing visual character or quality, a more nuanced approach categorizes impact levels as low, moderately low, moderate, moderately high, and high based on the following descriptions:

- Low (L): Low negative change to existing visual resources, and low viewer response to that change. May or may not require mitigation.
- Moderately Low (ML): Low negative change to the visual resource with a moderate viewer response, or moderate negative change to the resource with a low viewer response. Impact can be mitigated using conventional methods.
- Moderate (M): Moderate negative change to the visual resource with moderate viewer response. Impact can be mitigated within 5 years using conventional practices.
- Moderately High (MH): Moderate negative change in the visual resource with high viewer response or high negative change with a moderate viewer response. Extraordinary mitigation practices may be required. Landscape treatment required will generally take longer than 5 years to mitigate.
- High (H): High level of negative change in character or a high level of viewer response to the change such that extraordinary architectural design and landscape treatments may not mitigate impacts below a high level. An alternative project design may be required to avoid high negative impacts.

For the three I-405 Improvement Project build alternatives, none are anticipated to result in a substantial effect on the existing visual quality or character. There are no scenic roads in the project area, including I-405 and any associated cross streets/state highways, and no designated scenic resources are associated with the I-405 corridor. The general visual character of I-405 would not be greatly altered by the addition of one or two lanes (depending on the alternative and location). Lastly, the addition of lanes is not anticipated to create a new source of lighting or glare than currently exists along I-405. The proposed Euclid Street southbound I-405 on-ramp from Ellis Avenue over the Santa Ana River has the potential to create a spot location within the corridor where there would be new lighting; however, potential ramp lighting spill-over can be

minimized using cut-off fixtures and shielding to block light trespass into the neighborhood and Moon Park.

Based on this analysis, no substantial impact is anticipated by any of the three alternatives under consideration.

Permanent Impacts

No Build Alternative

Activities that would occur under the No Build Alternative include routine maintenance of the project corridor. The roadway would not be expanded for HOV lanes; however, the current SR-22 WCC Project would continue, so the HOV lane from SR-22 to I-605 would be completed, as would the associated bridge replacements. Elsewhere in the corridor, the views would remain essentially the same as the current views.

Build Alternatives

One of the project objectives is to minimize construction outside of existing ROW limits. Differences in visual effects would primarily consist of roadway views pertaining to pavement width and bridge replacements. Given the number of existing soundwalls in the corridor, many of the views into or out of the corridor are restricted to areas with adjacent commercial land uses where there are no soundwalls or to the bridge crossings. As shown in Tables 3.1.7-1 through 3.1.7-22, the construction of the build alternatives would result in changes to the visual quality and/or character associated with vegetation removal, construction activities, and the introduction of new and modified permanent structures. For the build alternatives, the removal of the eucalyptus trees and other vegetation within the interchange areas would likely have the greatest impact on the visual quality; however, this effect would remain until trees grow back to existing conditions. Other elements, such as replacement structures, new retaining walls, and soundwalls, would be a permanent change to the elements within the existing viewsheds along the corridor, including some areas where visual impacts were determined to be Moderately High, as described for Viewpoints 17A and 17B. With the implementation of Measures VIS-1 to VIS-21, the potential adverse effects of the build alternatives on the visual character and quality of the project surroundings would be minimized.

The summary below describes the anticipated changes to the visual environment by each project element.

Vegetation Removal: Since the project would not be acquiring additional ROW, except perhaps in spot locations, it is anticipated that the addition of lanes would cause the removal of most of the vegetation along the I-405 mainline (i.e., areas along the freeway between interchanges). In

these locations, the roadway would extend from ROW to ROW. Much of the vegetation that would be removed in these areas consists of eucalyptus trees and ice plant groundcover.

It is likely that within most interchanges that some existing vegetation could remain, except for the plantings near the bridges because these would be removed by bridge construction activities. It may be possible to add additional plantings within the interchanges to replace some of the vegetation removed from within the corridor. Vegetation along local streets would be replaced if it is disturbed by construction activities.

Freeway Paving: A new GP lane would be added in both directions, and new auxiliary lanes would be added in certain stretches of the corridor. The percentage of pavement within the ROW would increase by approximately 18 percent for Alternatives 1 and 3 and 21 percent for Alternative 2. The result of this overall increase in paving would be especially noticeable to the freeway travelers. User groups outside of I-405 would likely not notice the change due to the presence of existing and proposed soundwalls that stretch along much of the corridor. In addition to the new lanes, the addition of standard shoulders would also increase the paved surface within the corridor.

Overcrossings/Bridges: Construction of the project would require the following improvements to overcrossings/bridges:

- Alternatives 1 and 2
 - 6 new structures
 - 17 structure replacements
 - 5 structure widening/modifications
- Alternative 3
 - 8 new structures
 - 18 structure replacements
 - 6 structure widening/modifications

The bridges would replace existing bridges within the corridor and would be wider to accommodate a widened paving section of I-405. Because the bridges are wider, they would likely have a deeper girder and appear thicker to the freeway traveler; however, they would also be raised slightly from their existing elevation, so it is not anticipated that the thicker depth would be very noticeable. In addition, given that the existing bridges were generally constructed without the design and aesthetics considerations/context-sensitive solutions (CSS) usually

applied to new projects, the new structures should be more aesthetically pleasing than the current structures.

The new bridges within the corridor would be associated with ramp connections and would in general run parallel to the I-405 mainline. This placement would make them less visible to the freeway traveler compared to bridges that cross directly over I-405.

Retaining Walls: Large retaining walls (i.e., those over 5 ft in height) would be located with the Magnolia Street, Euclid Street, and Warner Avenue interchanges. The height of these walls would vary, from nothing to up to 30 ft in some locations. The higher walls would be closest to the associated bridge crossing. Other smaller walls (i.e., less than 5 ft in height) would be found in the corridor, with the exact location to be determined during final design.

Soundwalls: Numerous soundwalls within the corridor would be replaced to accommodate the widened paving. In some instances, retaining walls would be placed below these walls, although these retaining walls are anticipated to be less than 5 ft in height. A new wall would then be constructed on top of the retaining wall section.

- Alternative 1: 20 new soundwalls, 7 existing soundwalls would be replaced at a greater height, 13 existing soundwalls would be replaced in-kind, and 5 soundwalls would be provided for gap closure (i.e., to account for removal of embankment).
- Alternative 2: 18 new soundwalls, 6 existing soundwalls would be replaced at a greater height, 19 existing soundwalls would be replaced in-kind, and 6 soundwalls would be provided for gap closure (i.e., to account for removal of embankment).
- Alternative 3: 20 new soundwalls, 7 existing soundwalls would be replaced at a greater height, 22 existing soundwalls would be replaced in-kind, and 6 soundwalls would be provided for gap closure (i.e., to account for removal of embankment).

Local Streets: For local streets that cross over I-405, an increase in the slope of the local street is anticipated as it approaches the bridge crossing. This would be due to the raised height of the bridge over I-405. The effect of this is anticipated to be minor, and it should not change the overall visual appearance of the local street. Side slopes along the approach may also be longer or steeper than the current.

Light/Glare: All of the existing lighting at the freeway on-ramps, off-ramps, connector ramps, and along local streets and overcrossing structures, including the Heil Avenue pedestrian overcrossing bridge, would be replaced in-kind within the project limits. The existing safety lighting installed in the median and on the outside shoulders of I-405 between Bolsa Chica Road

and I-605 would also be replaced in-kind. Some of the existing lighting facilities throughout the project corridor may be temporarily removed during construction, but they would be reinstalled prior to completion of the project construction.

“New lighting would be provided on the new I-405/SR-73 HOT Connector, Toll Gantries (Alternative 3 only), the new Euclid Street Southbound I-405 on-ramp at Ellis Avenue, and new or widened undercrossing structures to illuminate the roadway or pedestrian paths. Additional lighting would be installed under the existing I-405/SR-39 grade-separated structure to illuminate the sidewalks along Beach Boulevard, where the pedestrian paths would be relocated to exclusive paths behind the bent columns underneath freeway structure. Lighting would be provided at action/decision points at local interchanges, enforcement areas, ingress and egress points, collector distributor roads, intersections, overhead signs and some overcrossing structures in accordance with current Caltrans lighting policies. Additional lighting may be added, to address the infrastructure and operating conditions outlined in the Traffic Manual (Chapter 9) and AASHTO. The type and size of the lighting standards to be installed on the State highways would be in accordance with lighting types shown in the Caltrans Standard Plans. Lighting standards for local facilities may be different depending on local agency standards and requests.”

As discussed above, the existing condition already has substantial lighting. New lighting may be stronger and closer to homes and, as a result, it may have an effect on people and contribute to the urbanization of the area; however, although there would be some new sources of light, they would be consistent with other lighting in the corridor and would not result in a substantial new source of light or glare.

Utility Relocation: Visual impacts related to utility relocations would be minor, and in some areas would improve because some utilities would be relocated within bridge structures or underground; however, relocation of utility lines would have little impact on visual quality because existing views would, for the most part, remain unchanged.

Graffiti: As discussed earlier, public structures are often targets of graffiti. The permanent structures proposed under the build alternatives, including bridges, overcrossings, structural supports, retaining walls and soundwalls, traffic control devices, and signing, may be attractive targets for graffiti. The build alternatives would include treatments on many of the structures and project features that may deter taggers. Those may include anti-graffiti coatings, wall texturing, aesthetic surface treatments, and landscaping/plantings. Nonetheless, the new/modified structures under the build alternatives may be attractive targets for taggers; therefore, the build alternatives could result in increased graffiti within the project corridor, including along local streets at their crossings of the freeway.

As discussed earlier, Caltrans has existing ongoing maintenance programs for the control and removal of graffiti. Those programs would apply to all structures and project features in the build alternatives, on public and private property, as appropriate.

Alternative 1

Shopping District Landscape Unit: Between South Coast Drive/Hyland Avenue and the Euclid Street/Ellis Avenue interchange. freeway widening would run along the current outside edge of the northbound lanes. Vegetation along the northbound lanes would be removed to allow for the additional freeway pavement. Along the southbound lanes, a new auxiliary lane would extend into the landscape unit from the Euclid Street/Ellis Avenue interchange to the existing auxiliary lane exiting to Harbor Boulevard.

South Residential Landscape Unit: The soundwalls along the outside edge of the southbound lanes of I-405 would screen this landscape unit from most of the proposed changes within the corridor. For user groups within this landscape unit, the primary points of interaction would be at the new Fairview Road and Harbor Boulevard bridges and those users along the Santa Ana River Trail, where a new on-ramp bridge from Ellis Avenue would cut across the river. Moon Park, in this same area, is not anticipated to be impacted because it sits below the river embankment and the new ramp would be screened by the embankment.

Industrial Landscape Unit: Within this landscape unit, the new bridge for the Euclid Street southbound I-405 on-ramp from Ellis Avenue on-ramp would be the most noticeable new feature. It would be a very visible element to those on the Santa Ana River Trail. For those traveling on the I-405 corridor, the new auxiliary lanes along the northbound and southbound lanes south of the Euclid Street/Ellis Avenue interchange would add to the visible pavement cross section of the roadway, as would the addition of a GP lane between the Euclid Street/Ellis Avenue and the Brookhurst Street interchanges. The Ward Street Bridge over I-405 would be replaced, and the bridge carrying I-405 over the Santa Ana River/Euclid Street/Ellis Avenue would be widened.

The new Euclid Street southbound I-405 on-ramp from Ellis Avenue would add a new bridge across the Santa Ana River just south of the existing I-405 Bridge, as well as a span over the entrance to the OCSA's wastewater treatment plant entrance. Between these two bridges, the ramp would be elevated by retaining walls. This ramp, and its associated walls and bridge elements, would introduce a new visual element to travelers along the Euclid Street/Ellis Avenue roadways. The number of viewers from the wastewater facility is expected to be few; however, the Euclid Street/Ellis Avenue interchange area has high traffic volumes, so the changes would be a noticeable addition for those travelers.

It is anticipated that the existing vegetation within the Euclid Street/Ellis Avenue interchange could be preserved because the project proposes only minor realignments to the existing ramps. Existing trees and other plantings adjacent to the Ward Street Bridge would likely be impacted by reconstruction of the bridge

Residential Connections Landscape Unit. The interchanges within this landscape unit provide more open green space to I-405 than is found in many of the other landscape units. Alternative 1 would alter the existing ramps by realigning or removing some loop ramps and reconstructing or braiding direct (or tangent) ramps. Reconstruction of some ramps and the shifting of others would likely cause the removal of much of the existing vegetation within the interchange areas. Along the mainline, it is anticipated that vegetation along I-405 would all be removed.

In addition to realigning the ramps, all bridge overcrossings would be replaced throughout this landscape unit, including the Heil Street pedestrian crossing. The new bridges would be longer than the current spans, and the bridges would also sit slightly higher in the view than the current bridges.

One of the larger ROW acquisitions (three business establishments) that was proposed during the Draft EIR/EIS has been removed from further consideration (refer to Section 2.2.1 Common Design Features of the Build Alternatives). A design option has been proposed that his location and would not result in a noticeable change to the corridor.

Commercial Centers Landscape Unit: The changes to the visual environment within this landscape unit are anticipated to be similar to those described under the Residential Connections Landscape Unit. Namely, the existing interchange ramps would be realigned to varying degrees, existing bridges would be replaced, vegetation within the interchanges would be affected by the realignment of the ramps, and vegetation along the corridor mainline would be removed.

Because this stretch has fewer soundwalls, it is anticipated that changes within the I-405 corridor would be more noticeable to those outside of the corridor than in other landscape units.

Northwest Residential Landscape Unit: The anticipated changes to the visual environment caused by Alternative 1 within this landscape unit should be similar to those described in the previous landscape units. Ramp alignments within the Westminster Avenue and the Valley View Street interchanges would be realigned to varying degrees, affecting the landscape within the interchanges. Any planting currently found between the soundwall and the edge of the paving would be removed. New bridges would be constructed over I-405 at Westminster Avenue and Springdale Street. The paving cross section would appear wider due to the addition of lanes and shoulders.

Because of the number of existing soundwalls within this landscape unit, the changes would be most noticeable to the freeway travelers.

Open Space-Residential Landscape Unit: The most noticeable change within this landscape unit under Alternative 1 would be the additional paving within the corridor. Here, the proposed I-405 cross section would be at its widest with nine lanes plus an auxiliary lane. Existing vegetation along the I-405 ROW would be removed. The bridges within this landscape unit would not be replaced or widened because they are currently being reconstructed by the SR-22 WCC Project. The resulting structures would accommodate the required lanes proposed under all alternatives for the I-405 Improvement Project.

Key Viewpoint #15 Analysis

Orientation. Figure 3.1.7-9 shows a location map of Key Viewpoint #15. The photo in Figure 3.1.7-10 is taken from within the South Residential Landscape Unit, from along the Santa Ana River Trail looking to the north. The view is towards I-405. Moon Park can be seen on the right side of the photograph.



Figure 3.1.7-9: Key Viewpoint #15 Location Map

Existing Visual Character/Quality. The concrete expanse of the Santa Ana River dominates this view. The large area of paving, coupled with the chain-link fence, power poles, asphalt paving, and riprapped slope in the foreground give this a very industrial, manmade appearance.



Avoidance and minimization measures shown in the postconstruction view (bottom image) include pilasters and vine plantings on the soundwall in the area of Moon Park. Bridge elements on the ramp bridge across the river include forms and lines to match the existing bridge over the river.

Figure 3.1.7-10: Alternative 1, Key Viewpoint #15, South Residential Landscape Unit

The overall visual quality in this view is moderately low due to the expanse of concrete and the absence of landscaping or other elements to create visual interest. Vividness, intactness, and unity within the view are rated moderately low.

Proposed Project Features. The most visible element of the project associated with this view would be the new Euclid Street southbound I-405 on-ramp from Ellis Avenue that crosses the Santa Ana River at a skew before merging with southbound I-405 near the bikeway undercrossing of I-405. The I-405 bridge over the river would also be widened, but from this view, the widening would be obscured by the new ramp bridge.

Changes to Visual Character. For trail users, the biggest change would be the addition of the on-ramp bridge over the river. This would add a new bridge element into the view and prevent views to the opposite bank of the river. The trail undercrossing of I-405 would be much longer than the current undercrossing due to the proposed bridge widening for the highway bridge and the addition of a ramp bridge. In addition, the new ramp could add a new source of nighttime lighting and glare to the adjacent areas. This summary is shown in Table 3.1.7-1.

Anticipated Viewer Response. Traffic on the bike trail is low and assumed to be less than 100 users per day in this area; however, the addition of the ramp bridge in the mid-ground is visibly prominent to trail users and no screening, which might soften the appearance of the structure, is possible.

Resulting Visual Impact. While the new bridge across the river adds a new element to the viewshed, the existing view has such a high degree of encroachment of unaesthetic elements that the addition of the bridge is unlikely to further degrade the view substantially. The overall visual quality would likely drop slightly but remain within the moderately low category, while the viewer response would be moderate given the exposure time and sensitivity of the bikeway users. The overall visual impact within the view is anticipated to be moderately low. This summary is shown in Table 3.1.7-2.

**Table 3.1.7-1: Alternative 1, Key Viewpoint #15
Anticipated Changes in Visual Character and Quality, and Their Effect on Viewers**

	Attribute	Ratings ⁷		Remarks
		Existing Condition	Proposed Condition ⁵	
Visual Quality ¹	Vividness/Memorability	2.0	1.8	Monolithic appearance paved river channel
	Intactness	1.6	1.3	Large number of intrusive elements
	Unity	2.0	1.7	
	TOTAL⁶	1.87	1.60	Percent change = 14.44% = Low
Visual Character ²	Scale	1.5	1.5	View lacks scaling elements
	Diversity	1.8	1.8	Monolithic appearance of river channel
	Continuity	2.8	2.4	
	Dominance	1.7	1.5	
	TOTAL⁶	1.95	1.80	Percent Change = 0.08% Change = Low
Viewer Exposure ³	Location of Views	3.5		
	Number of Viewers	1.7		
	Duration of Views	2.0		Pace is slower for Bike/Peds equating to longer view time
	TOTAL⁶	2.40		Moderately Low Exposure
Viewer Sensitivity ⁴	Attention of Viewer	2.8		
	Viewer Awareness	2.5		
	Local Values and Goals	3.7		
	TOTAL⁶	3.0		Moderate Sensitivity
<p>1 – Vividness = memorable, striking (5) to plain (1); Intactness = free of encroaching elements (5) to cluttered/lacking integrity (1); and Unity = coherent/harmonious (5) to disjointed/jarring (1)</p> <p>2 – Scale = small (5) to monumental (1); Diversity = complex (5) to monolithic (1); Continuity = harmonious (5) to dissonant (1); and Dominance = balanced (5) to prominent/unbalanced (1)</p> <p>3 – Location = foreground (5) to distant views (1); Number = over 100,000 (5) to 20 or less (1); Duration = over 4 hours (4) to less than 1 minute (1)</p> <p>4 – Activity = attention on views (5) to attention focused away (1); Awareness = High (5) to Low (1); and Values = High (5) to Low expectations (1)</p> <p>5 – Proposed (postconstruction condition) with avoidance and minimization measures in place. Avoidance and minimization measures are described in Section 3.1.7.4.</p> <p>6 – Total = sum of attributes divided by number of attributes – e.g., Overall Visual Quality = (vividness+intactness+unity)/3.</p> <p>7 – Ratings: 1 = Low, 3 = Moderate, 5 = High</p>				

Table 3.1.7-2: Alternative 1, Key Viewpoint #15 Analysis Summary

Visual Resource (Stimulus)	Change to Visual Character	Low	Resource Change Low	Visual Impact
	Change to Visual Quality	Low		
Viewer (Response)	Viewer Exposure	Moderately Low	Viewer Response Moderate	Moderately Low
	Viewer Sensitivity	Moderate		
<p>Ratings for each category were determined by taking the percent change rating from the previous table and averaging these for the Resource Change/Viewer Response columns. These two rating were then averaged again to determine the anticipate Visual Impact. If unable to average, the higher rating was used.</p>				

Key Viewpoints 17 (#17A and B) Analysis

Orientation. Figure 3.1.7-11 shows a location map of Key Viewpoint #17. The photos in Figures 3.1.7-12 and 3.1.7-13 are taken from within the Industrial Landscape Unit, from along the Euclid Street/Ellis Avenue interchange. Viewpoint 17A is oriented nearly to the east and Viewpoint 17B is oriented nearly to the south showing the area east and west of the entrance to the OCSD Facility, respectively. These views were selected to show this new ramp structure.

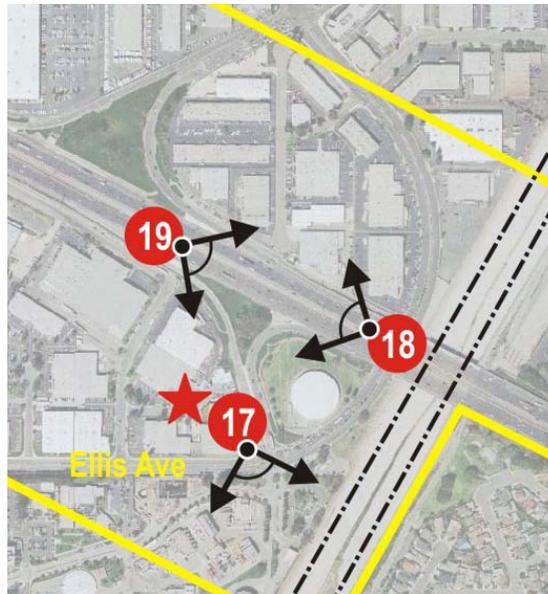


Figure 3.1.7-11: Key Viewpoint #17 Location Map

Existing Visual Character/Quality. The foreground elements of the view include green space associated with the OCSD facility with the rocked embankment of the Santa Ana River in the mid-ground.

The overall visual quality in this view is moderate, with the green spaces adding to the overall quality of the view and the river embankment elements detracting from the view. Vividness in the view is moderate, with moderate intactness and unity.

Proposed Project Features. Elements of the new Euclid Street southbound I-405 on-ramp from Ellis Avenue would become prominent mid-ground elements in this view and would block background views. The visible elements would include the bridge over the river and the retaining walls approaching the bridge. Just to the west of the view, a second bridge would cross over the main entrance to the sanitation facility.



Avoidance and minimization measures shown in the post construction view (bottom image) include pilasters and architectural elements in the new retaining wall, along with tree, vine, and other plantings in front of the wall.

Figure 3.1.7-12: Alternative 1, Key Viewpoint #17A, Industrial Landscape Unit



Avoidance and minimization measures shown in the postconstruction view (bottom image) include pilasters and architectural elements in the new retaining wall, along with tree, vine, and other plantings in front of the wall.

Figure 3.1.7-13: Alternative 1, Key Viewpoint #17B, Industrial Landscape Unit

Changes to Visual Character. Views to the south would essentially be blocked from this vantage point by the proposed project elements. The overall character of the unity would remain industrial; however, in this specific location, the more park-like setting would be removed. This summary is shown in Table 3.1.7-3.

Anticipated Viewer Response. Due to the location of the ramps associated with the Euclid Street/Ellis Avenue interchange, the area would be anticipated to have a high number of viewers, although not as high as the I-405 corridor itself. The addition of a ramp bridge and wall in the fore- to mid- ground is visibly prominent to interchange traffic. No screening, which might soften the appearance of the structure, is possible.

Resulting Visual Impact. The change to the visual environment in this view would be moderate. Existing views would be blocked by the proposed structures and the existing green space lost. The number of viewers in this location is moderately high, as is the viewer exposure, so the net effect of the visual changes is anticipated to be moderately high. This summary is shown in Table 3.1.7-4.

**Table 3.1.7-3: Alternative 1, Key Viewpoints #17A and B
Anticipated Changes in Visual Character and Quality, and Their Effect on Viewers**

	Attribute	Ratings ⁷		Remarks
		Existing Condition	Proposed Condition ⁵	
Visual Quality ¹	Vividness/Memorability	3.5	1.8	Park appearance/green space removed
	Intactness	3.2	1.7	
	Unity	3.4	2.5	
	TOTAL⁶	3.36	2.00	Percent change = 40.47% = Moderate
Visual Character ²	Scale	4.7	3.0	
	Diversity	4.2	2.2	
	Continuity	4.2	2.4	
	Dominance	4.4	2.3	
	TOTAL⁶	4.38	2.47	Percent change = 43.61% = Moderate
Viewer Exposure ³	Location of Views	3.5		
	Number of Viewers	4.0		Interchange area with high numbers of viewers
	Duration of Views	3.0		
	TOTAL⁶	3.67		Moderately High Exposure
Viewer Sensitivity ⁴	Attention of Viewer	4.5		Location opposite freeway off-ramp
	Viewer Awareness	4.5		
	Local Values and Goals	4.0		
	TOTAL⁶	4.33		Moderately High Sensitivity

1 – Vividness = memorable, striking (5) to plain (1); Intactness = free of encroaching elements (5) to cluttered/lacking integrity (1); and Unity = coherent/harmonious (5) to disjointed/jarring (1)
 2 – Scale = small (5) to monumental (1); Diversity = complex (5) to monolithic (1); Continuity = harmonious (5) to dissonant (1); and Dominance = balanced (5) to prominent/unbalanced (1)
 3 – Location = foreground (5) to distant views (1); Number = over 100,000 (5) to 20 or less (1); Duration = over 4 hours (4) to less than 1 minute (1)
 4 – Activity = attention on views (5) to attention focused away (1); Awareness = High (5) to Low (1); and Values = High (5) to Low expectations (1)
 5 – Proposed (postconstruction condition) with avoidance and minimization measures in place. Avoidance and minimization measures are described in Section 3.1.7.4.
 6 – Total = sum of attributes divided by number of attributes – e.g., Overall Visual Quality = (vividness+intactness+unity)/3.
 7 – Ratings: 1 = Low, 3 = Moderate, 5 = High

Table 3.1.7-4: Alternative 1, Key Viewpoint #17A and B Analysis Summary

Visual Resource (Stimulus)	Change to Visual Character	Moderate	Resource Change Moderate	Visual Impact Moderately High
	Change to Visual Quality	Moderate		
Viewer (Response)	Viewer Exposure	Moderately High	Viewer Response Moderately High	
	Viewer Sensitivity	Moderately High		

Ratings for each category were determined by taking the percent change rating from the previous table and averaging these for the Resource Change/Viewer Response columns. These two ratings were then averaged again to determine the anticipated Visual Impact. If unable to average, the higher rating was used.

Key Viewpoint #20 Analysis

Orientation. Figure 3.1.7-14 shows a location map of Key Viewpoint #20. The picture in Figure 3.1.7-15 shows the I-405 corridor from the northbound lanes approaching the Ward Street bridge. The view is oriented to the northwest.

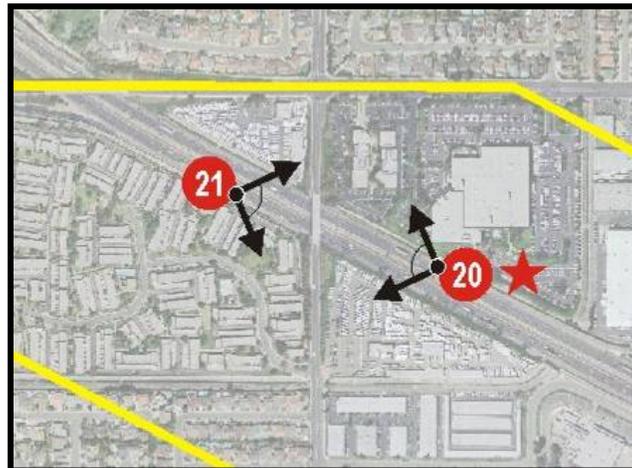


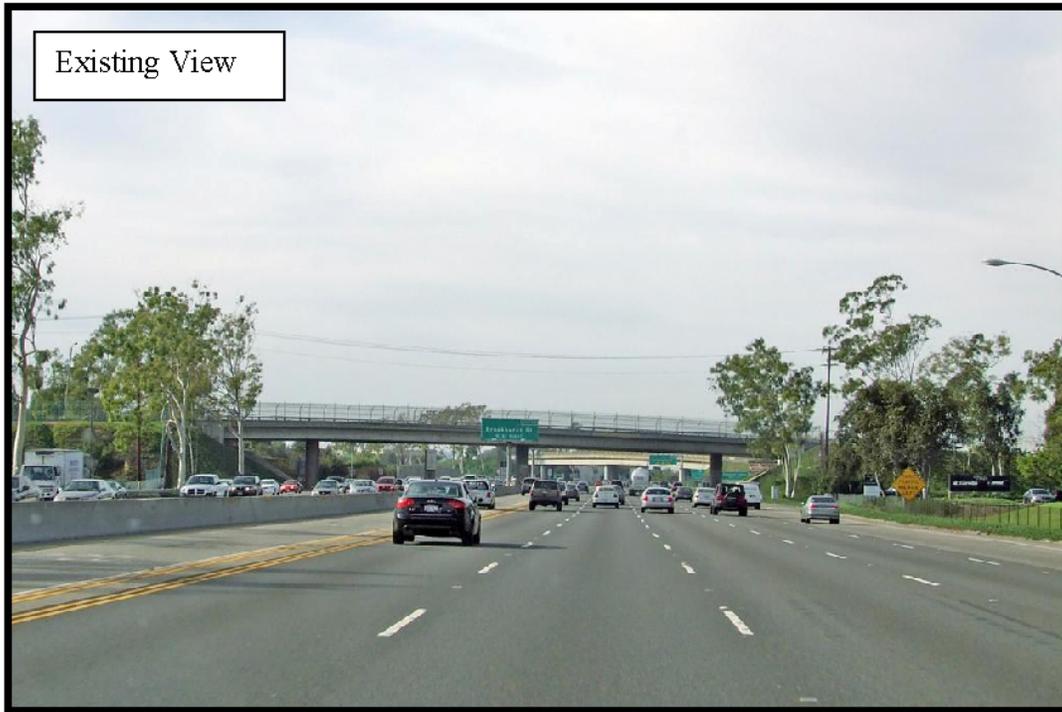
Figure 3.1.7-14: Key Viewpoint #20 Location Map

Existing Visual Character/Quality. Predominant in this view is the expanse of the existing six lanes of pavement combined with the Ward Street bridge. The mature eucalyptus trees along the edge of I-405 and in the surrounding industrial parks provide interest and soften the appearance of the large amounts of paving in the view.

The overall visual quality in this view is moderate, with the plantings softening the hard surfaces. Vividness is moderately low, while intactness and unity within the view are rated moderate.

Proposed Project Features. The most noticeable change in the view would be removal of the existing vegetation and expansion of the freeway paving. The Ward Street Bridge would be replaced, as would the Talbert Avenue bridge in the background.

Changes to Visual Character. For freeway users, I-405 would appear much wider than it appears currently. Removal of the vegetation from the edge of the ROW would greatly reduce these elements in the view, although there would still be opportunities for plantings on the sloped embankments to the Ward Street bridge. In addition, vegetation off of the ROW would remain as part of a borrowed landscape to I-405. The new Ward Street bridge would be longer and higher than the current, but this is anticipated to be less noticeable because it would replace an existing bridge, and the new bridge would appear proportional to the new I-405 cross section. This summary is shown in Table 3.1.7-5.



Avoidance and minimization measures included in the postconstruction image (bottom image) include preserved existing trees, new plantings, and aesthetics elements on the new bridge with fencing.

Figure 3.1.7-15: Alternative 1, Key Viewpoint #20, Industrial Landscape Unit

Anticipated Viewer Response. As with the other freeway views, traffic (and therefore the number of viewers) would easily top 100,000 views per day, although the view time for this group is anticipated to be short. Views from the businesses along this portion of I-405 would be of short duration for the most part due to the industrial nature of the development and the lack of windows facing I-405.

Resulting Visual Impact. Change to the visual character and quality would be low and moderately low, respectively. Potential viewer response is anticipated to be moderate. Therefore, the resulting visual impact is anticipated to be moderate. This summary is shown in Table 3.1.7-6.

**Table 3.1.7-5: Alternative 1, Key Viewpoint #20
Anticipated Changes in Visual Character and Quality, and Their Effect on Viewers**

	Attribute	Ratings ⁷		Remarks
		Existing Condition	Proposed Condition ⁵	
Visual Quality ¹	Vividness/Memorability	2.1	1.8	Removal of skyline trees.
	Intactness	3.2	2.5	
	Unity	3.4	3.1	
	TOTAL⁶	2.90	2.47	Percent Change = 14.83% = Low
Visual Character ²	Scale	2.1	1.8	
	Diversity	2.9	2.2	
	Continuity	2.9	2.4	
	Dominance	3.1	2.3	
	TOTAL⁶	2.75	2.18	Percent Change = 20.73% = Moderately Low
Viewer Exposure ³	Location of Views	3.5		
	Number of Viewers	1.5		
	Duration of Views	2.0		
	TOTAL⁶	2.33		Moderately Low Exposure
Viewer Sensitivity ⁴	Attention of Viewer	4.5		
	Viewer Awareness	4.5		
	Local Values and Goals	4.0		
	TOTAL⁶	4.33		Moderate Sensitivity
<p>1 – Vividness = memorable, striking (5) to plain (1); Intactness = free of encroaching elements (5) to cluttered/lacking integrity (1); and Unity = coherent/harmonious (5) to disjointed/jarring (1)</p> <p>2 – Scale = small (5) to monumental (1); Diversity = complex (5) to monolithic (1); Continuity = harmonious (5) to dissonant (1); and Dominance = balanced (5) to prominent/unbalanced (1)</p> <p>3 – Location = foreground (5) to distant views (1); Number = over 100,000 (5) to 20 or less (1); Duration = over 4 hours (4) to less than 1 minute (1)</p> <p>4 – Activity = attention on views (5) to attention focused away (1); Awareness = High (5) to Low (1); and Values = High (5) to Low expectations (1)</p> <p>5 – Proposed (postconstruction condition) with avoidance and minimization measures in place. Avoidance and minimization measures are described in Section 3.1.7.4.</p> <p>6 – Total = sum of attributes divided by number of attributes – e.g., Overall Visual Quality = (vividness+intactness+unity)/3.</p> <p>7 – Ratings: 1 = Low, 3 = Moderate, 5 = High</p>				

Table 3.1.7-6: Alternative 1, Key Viewpoint #20 Analysis Summary

Visual Resource (Stimulus)	Change to Visual Character	Low	Resource Change Moderately Low	Visual Impact
	Change to Visual Quality	Moderately Low		
Viewer (Response)	Viewer Exposure	Moderately Low	Viewer Response Moderate	Moderate
	Viewer Sensitivity	Moderate		
<p>Ratings for each category were determined by taking the percent change rating from the previous table and averaging these for the Resource Change/Viewer Response columns. These two rating were then averaged again to determine the anticipate Visual Impact. If unable to average, the higher rating was used.</p>				

Key Viewpoint #25 Analysis

Orientation. Figure 3.1.7-16 shows a location map of Key Viewpoint #25. This key viewpoint is within the Residential Connections Landscape Unit. The view in the photograph in Figure 3.1.7-17 is looking to the east along Dolphin Avenue at the existing Slater Avenue overcrossing.



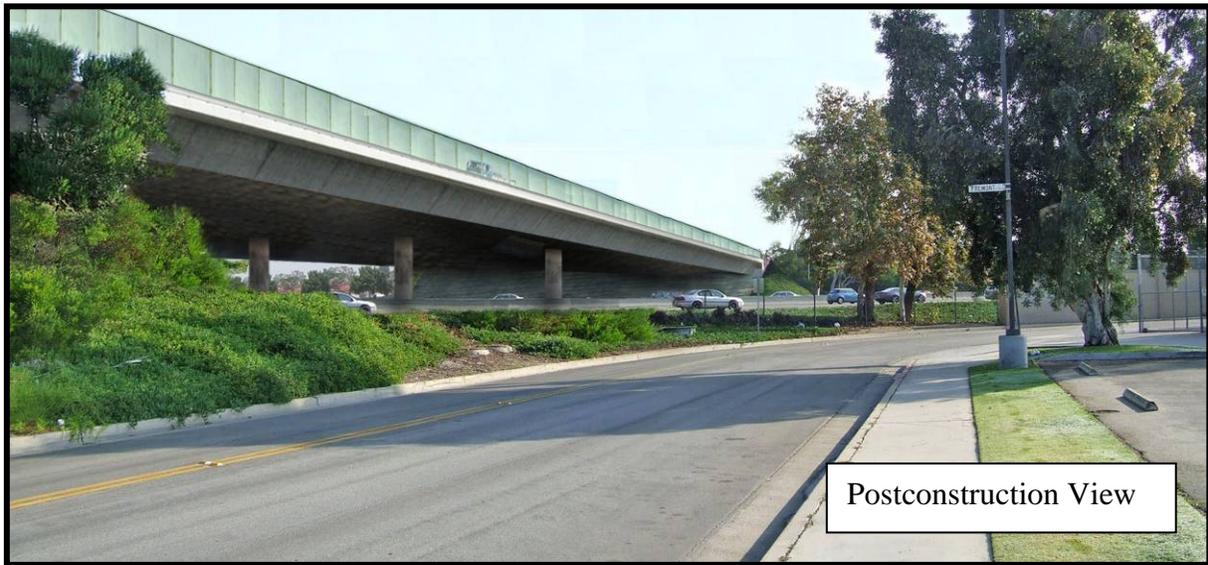
Figure 3.1.7-16: Key Viewpoint #25 Location Map

Existing Visual Character/Quality. The existing overcrossing is the predominant image in this view. The bridge and its embankment form the mid-ground views. The existing vegetation found along the bridge embankment softens the structure in the landscape and visually anchors it into the view.

The overall visual quality of the view is moderately high, with moderate vividness, moderate intactness, and moderately high unity. Although the bridge could be viewed as an encroaching element, the addition of the mature vegetation helps anchor it into the landscape and softens the encroaching aspects of the bridge.

Proposed Project Features. The project would replace the existing Slater Avenue overcrossing and extend the bridge. In addition, the bridge would shift slightly closer to the viewer and would sit higher in the landscape than the existing bridge. The existing vegetation around the existing bridge would be removed by construction activities. New trees and plantings would be included in the project, but it would be years before they reach the size and stature of the existing.

Changes to Visual Character. It is unlikely that the addition of a lane on I-405 would be noticeable from this vantage point; however, the new bridge and the associated removal of the



Avoidance and minimization measures included in the postconstruction image (bottom image) include preserved existing trees, replacement plantings at on the slope, and mesh fencing on the new replacement bridge.

**Figure 3.1.7-17: Alternative 1, Key Viewpoint #25,
Residential Connections Landscape Unit**

existing vegetation would be very noticeable. Because the bridge is replacing an existing bridge, it would not likely create a large change to the character; but the associated removal of the vegetation, if left unmitigated, would adversely affect the existing visual quality. This summary is shown in Table 3.1.7-7.

Anticipated Viewer Response. Because Fountain Valley High School and Vista Valley Continuation High School are located adjacent to this view point, the number of anticipated views is several hundred per day. Both student parking and school bus drop-off/pick-up occur on Dolphin Avenue. The school buildings are set back from this view, so it is not anticipated that there would be substantial viewers from the school itself. The duration of views for those on Dolphin Avenue would vary, but they are not anticipated to be lengthy, ranging from 1 to 5 minutes. It is anticipated that the viewers would have a moderate sensitivity to changes in the visual environment.

Resulting Visual Impact. Change to the visual character and quality would be moderately low. Viewer response is anticipated to be moderately high. Therefore, the resulting visual impact is anticipated to be moderate. This summary is shown in Table 3.1.7-8.

**Table 3.1.7-7: Alternative 1, Key Viewpoint #25
Anticipated Changes in Visual Character and Quality, and Their Effect on Viewers**

	Attribute	Ratings ⁷		Remarks
		Existing Condition	Proposed Condition ⁵	
Visual Quality ¹	Vividness/Memorability	3.5	2.7	Vegetation removal
	Intactness	3.3	2.5	
	Unity	3.8	3.1	
	TOTAL⁶	3.53	2.76	Percent Change = 21.81% = Moderately Low
Visual Character ²	Scale	3.2	2.9	Vegetation Removal
	Diversity	3.4	2.5	
	Continuity	3.2	2.4	
	Dominance	3.1	2.3	
	TOTAL⁶	3.23	2.53	Percent Change = 21.67% = Moderately Low
Viewer Exposure ³	Location of Views	3.9		
	Number of Viewers	2.5		
	Duration of Views	2.0		
	TOTAL⁶	2.80		Moderate Exposure
Viewer Sensitivity ⁴	Attention of Viewer	2.5		
	Viewer Awareness	3.5		
	Local Values and Goals	3.0		
	TOTAL⁶	3.00		Moderate Sensitivity

1 – Vividness = memorable, striking (5) to plain (1); Intactness = free of encroaching elements (5) to cluttered/lacking integrity (1); and Unity = coherent/harmonious (5) to disjointed/jarring (1)
 2 – Scale = small (5) to monumental (1); Diversity = complex (5) to monolithic (1); Continuity = harmonious (5) to dissonant (1); and Dominance = balanced (5) to prominent/unbalanced (1)
 3 – Location = foreground (5) to distant views (1); Number = over 100,000 (5) to 20 or less (1); Duration = over 4 hours (4) to less than 1 minute (1)
 4 – Activity = attention on views (5) to attention focused away (1); Awareness = High (5) to Low (1); and Values = High (5) to Low expectations (1)
 5 – Proposed (postconstruction condition) with avoidance and minimization measures in place. Avoidance and minimization measures are described in Section 3.1.7.4.
 6 – Total = sum of attributes divided by number of attributes – e.g., Overall Visual Quality = (vividness+intactness+unity)/3.
 7 – Ratings: 1 = Low, 3 = Moderate, 5 = High

Table 3.1.7-8: Alternative 1, Key Viewpoint #25 Analysis Summary

Visual Resource (Stimulus)	Change to Visual Character	Moderately Low	Resource Change Moderately Low	Visual Impact Moderate
	Change to Visual Quality	Moderately Low		
Viewer (Response)	Viewer Exposure	Moderate	Viewer Response Moderately High	
	Viewer Sensitivity	Moderate		

Ratings for each category were determined by taking the percent change rating from the previous table and averaging these for the Resource Change/Viewer Response columns. These two rating were then averaged again to determine the anticipate Visual Impact. If unable to average, the higher rating was used.

Key Viewpoint #40 Analysis

Orientation. Figure 3.1.7-18 shows a location map of Key Viewpoint #40. The view in the photo in Figure 3.1.7-19 is within the Commercial Center Landscape Unit. The view is from the Bolsa Avenue Bridge looking southeast and shows an overview of I-405 from the bridge. The view is from the perspective of the pedestrian on the bridge.

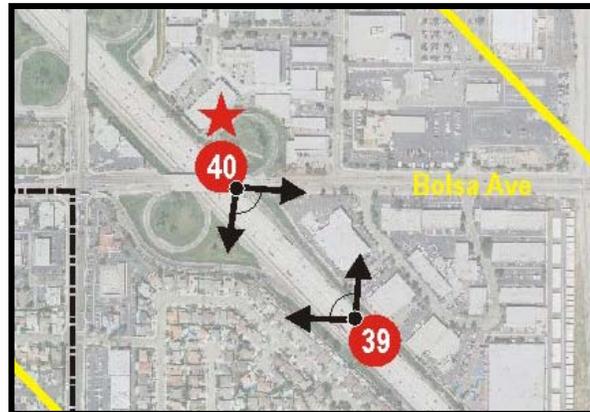
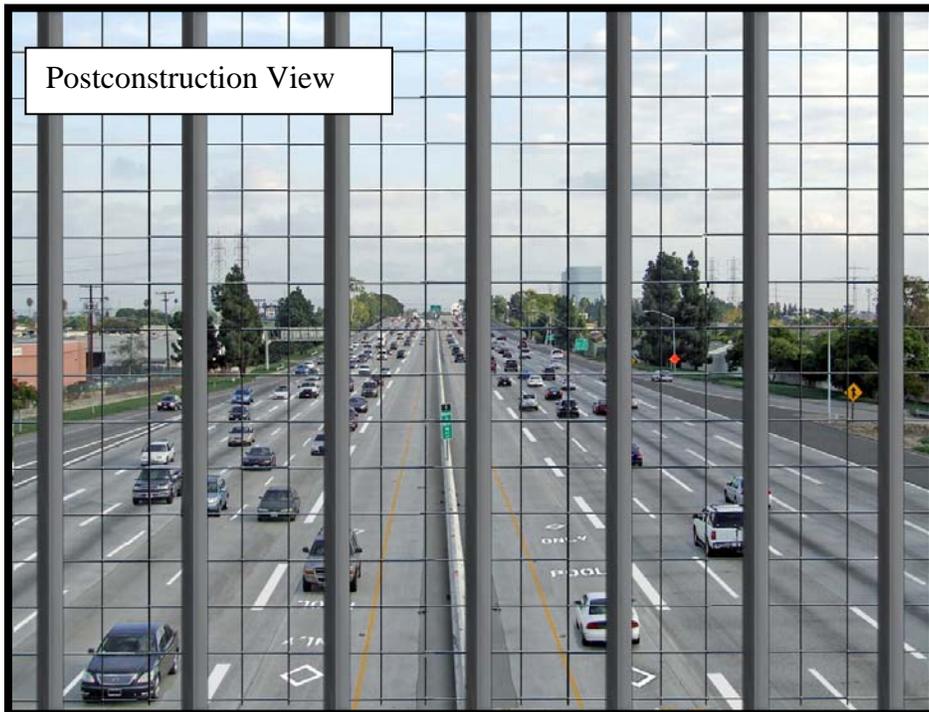


Figure 3.1.7-18: Key Viewpoint #40 Location Map

Existing Visual Character/Quality. From this bridge vantage point above I-405, the full extent of the paving is visible to the pedestrians with fore- and mid-ground views. The freeway elements dominate the view, and what plantings there are in the corridor are found near the edge of the ROW. The existing railing on the bridge is low without a fence that would interfere with the view into the corridor. The overall visual quality of the view is moderate with moderate vividness, intactness, and unity.

Proposed Project Features. In this view, the dominating presence would remain the roadway, which would appear wider to the pedestrian on the bridge. One additional lane in each direction is proposed in this area and the shoulders would be widened and brought up to standard. This would widen the paving by approximately 40 ft. Vegetation along the edge of I-405 would be affected and some of it would be removed; however, it may be possible to preserve some existing vegetation depending on the placement of barriers in the corridor. A fence or mesh would be required on the bridge and would create a new visual element to viewers from the bridge.



Avoidance and minimization measures included in the postconstruction image (bottom image) include preserved existing trees, replacement plantings at the interchange ramps, and mesh fencing on the new replacement bridge.

**Figure 3.1.7-19: Alternative 1, Key Viewpoint #40,
Commercial Center Landscape Unit**

Changes to Visual Character. The wider appearance of I-405 would be a noticeable change to the view; however, given that the widened area is approximately 35 percent wider than the existing, it is likely to be a small change to the view. The removal of any vegetation along the edges of the ROW would have a noticeable impact because the existing vegetation helps soften the edges of the freeway. This summary is shown in Table 3.1.7-9.

Anticipated Viewer Response. Even though Westminster Mall is located adjacent to this view location, the number of pedestrians on the bridge, which is anticipated to be approximately 20 to 30 per day, including bicyclists, is low. Duration of the views would be several minutes or less for viewers to cross the bridge. Given the streetscape requirements within the city of Westminster, it is likely that travelers on the bridge, including pedestrians, place a high value on the aesthetics, and their sensitivity would be moderately high.

Resulting Visual Impact. Because the amount of additional pavement in this view is a small addition to the existing paving, the change to the visual character and quality would be low. Viewer response is anticipated to be moderately high. Therefore, the resulting visual impact is anticipated to be moderate. This summary is shown in Table 3.1.7-10.

**Table 3.1.7-9: Alternative 1, Key Viewpoint #40
Anticipated Changes in Visual Character and Quality, and Their Effect on Viewers**

	Attribute	Ratings ⁷		Remarks
		Existing Condition	Proposed Condition ⁵	
Visual Quality ¹	Vividness/Memorability	2.8	2.7	
	Intactness	3.0	2.5	
	Unity	3.4	3.2	
	TOTAL⁶	3.06	2.80	Percent Change = 8.49% = Low
Visual Character ²	Scale	3.2	3.0	
	Diversity	3.4	2.4	
	Continuity	2.8	2.8	
	Dominance	2.3	2.3	
	TOTAL⁶	2.93	2.63	Percent Change = 10.24% = Low
Viewer Exposure ³	Location of Views	3.9		
	Number of Viewers	2.0		
	Duration of Views	2.2		
	TOTAL⁶	2.70		Moderate Exposure
Viewer Sensitivity ⁴	Attention of Viewer	3.5		
	Viewer Awareness	4.0		
	Local Values and Goals	3.2		
	TOTAL⁶	3.57		Moderately High Sensitivity

1 – Vividness = memorable, striking (5) to plain (1); Intactness = free of encroaching elements (5) to cluttered/lacking integrity (1); and Unity = coherent/harmonious (5) to disjointed/jarring (1)
 2 – Scale = small (5) to monumental (1); Diversity = complex (5) to monolithic (1); Continuity = harmonious (5) to dissonant (1); and Dominance = balanced (5) to prominent/unbalanced (1)
 3 – Location = foreground (5) to distant views (1); Number = over 100,000 (5) to 20 or less (1); Duration = over 4 hours (4) to less than 1 minute (1)
 4 – Activity = attention on views (5) to attention focused away (1); Awareness = High (5) to Low (1); and Values = High (5) to Low expectations (1)
 5 – Proposed (postconstruction condition) with avoidance and minimization measures in place. Avoidance and minimization measures are described in Section 3.1.7.4.
 6 – Total = sum of attributes divided by number of attributes – e.g., Overall Visual Quality = (vividness+intactness+unity)/3.
 7 – Ratings: 1 = Low, 3 = Moderate, 5 = High

Table 3.1.7-10: Alternative 1, Key Viewpoint #40 Analysis Summary

Visual Resource (Stimulus)	Change to Visual Character	Low	Resource Change Low	Visual Impact Moderate
	Change to Visual Quality	Low		
Viewer (Response)	Viewer Exposure	Moderate	Viewer Response Moderately High	
	Viewer Sensitivity	Moderately High		

Ratings for each category were determined by taking the percent change rating from the previous table and averaging these for the Resource Change/Viewer Response columns. These two rating were then averaged again to determine the anticipate Visual Impact. If unable to average, the higher rating was used.

Key Viewpoint #50 Analysis

Orientation. Figure 3.1.7-20 shows a location map of Key Viewpoint #50. The photo in Figure 3.1.7-21, from within the Northwest Residential Landscape Unit, is taken from the sidewalk within Indian Village Park. The view is oriented to the west.



Figure 3.1.7-20: Key Viewpoint #50 Location Map

Existing Visual Character/Quality. Of the elements associated with I-405 found within this view, the Springdale Street Bridge and the soundwall are prominent elements. The trees within the park, combined with vegetation on the roadway embankment approach to the bridge, act to soften the hard elements of I-405. Vines along the top of the soundwall do the same for that element. Within this view, the overall visual quality is moderate with moderately high vividness, and moderate intactness and moderately high unity.

Proposed Project Features. The Springdale Street Bridge would be replaced in this view. The new bridge would be slightly higher and longer in proportion to the current bridge. A soundwall would continue to be provided and would block the views to any of the other changes to the corridor.

Changes to Visual Character. The general visual appearance in the park should remain very similar to the existing. Replacement of the bridge with a slightly longer and higher span would likely appear very similar to the existing. This summary is shown in Table 3.1.7-11.

Anticipated Viewer Response. Indian Village Park, being a neighborhood park, generally has low use. It is anticipated that on any given day, there might be approximately 20 visitors to the park. Viewers could be expected to be present for a while, assuming 20 to 30 minutes on average. Given that this is a park setting, visual quality could be assumed to be an important factor for park users, which would equate to a moderately high sensitivity to change.



Avoidance and minimization measures shown in the postconstruction view (bottom image) include pilasters within the new soundwall and vine plantings on the wall. The new bridge can be seen in this view. The new bridge aesthetic elements would include new fencing.

Figure 3.1.7-21: Alternative 1, Key Viewpoint #50, Northwest Residential Landscape Unit

Resulting Visual Impact. Because the new bridge would replace an existing bridge in approximately the same location, the change to the visual character and quality would be low. Viewer response is anticipated to be moderately high. Therefore, the resulting visual impact is anticipated to be moderate. This summary is shown in Table 3.1.7-12.

**Table 3.1.7-11: Alternative 1, Key Viewpoint #50
Anticipated Changes in Visual Character and Quality, and Their Effect on Viewers**

	Attribute	Ratings ⁷		Remarks
		Existing Condition	Proposed Condition ⁵	
Visual Quality ¹	Vividness/Memorability	4.1	4.1	
	Intactness	3.4	3.4	
	Unity	3.8	3.8	
	TOTAL⁶	3.06	2.80	Percent Change = 8.49% = Low
Visual Character ²	Scale	4.1	4.1	
	Diversity	3.4	3.4	
	Continuity	3.7	3.7	
	Dominance	3.7	3.7	
	TOTAL⁶	2.93	2.63	Percent Change = 10.24% = Low
Viewer Exposure ³	Location of Views	3.0		
	Number of Viewers	2.5		
	Duration of Views	4.1		
	TOTAL⁶	3.20		Moderate Exposure
Viewer Sensitivity ⁴	Attention of Viewer	3.2		
	Viewer Awareness	4.2		
	Local Values and Goals	4.1		
	TOTAL⁶	3.83		Moderately High Sensitivity

1 – Vividness = memorable, striking (5) to plain (1); Intactness = free of encroaching elements (5) to cluttered/lacking integrity (1); and Unity = coherent/harmonious (5) to disjointed/jarring (1)
 2 – Scale = small (5) to monumental (1); Diversity = complex (5) to monolithic (1); Continuity = harmonious (5) to dissonant (1); and Dominance = balanced (5) to prominent/unbalanced (1)
 3 – Location = foreground (5) to distant views (1); Number = over 100,000 (5) to 20 or less (1); Duration = over 4 hours (4) to less than 1 minute (1)
 4 – Activity = attention on views (5) to attention focused away (1); Awareness = High (5) to Low (1); and Values = High (5) to Low expectations (1)
 5 – Proposed (postconstruction condition) with avoidance and minimization measures in place. Avoidance and minimization measures are described in Section 3.1.7.4.
 6 – Total = sum of attributes divided by number of attributes – e.g., Overall Visual Quality = (vividness+intactness+unity)/3.
 7 – Ratings: 1 = Low, 3 = Moderate, 5 = High

Table 3.1.7-12: Alternative 1, Key Viewpoint #50 Analysis Summary

Visual Resource (Stimulus)	Change to Visual Character	Low	Resource Change Low	Visual Impact Moderate
	Change to Visual Quality	Low		
Viewer (Response)	Viewer Exposure	Moderate	Viewer Response Moderately High	
	Viewer Sensitivity	Moderately High		

Ratings for each category were determined by taking the percent change rating from the previous table and averaging these for the Resource Change/Viewer Response columns. These two rating were then averaged again to determine the anticipate Visual Impact. If unable to average, the higher rating was used.

Key Viewpoint #59 Analysis

Orientation. Figure 3.1.7-22 shows a location map of Key Viewpoint #59. The photograph in Figure 3.1.7-23 was taken from the northbound lanes of I-405 looking to the west toward the Seal Beach Boulevard overcrossing. The view is within the Open Space-Residential Landscape Unit.



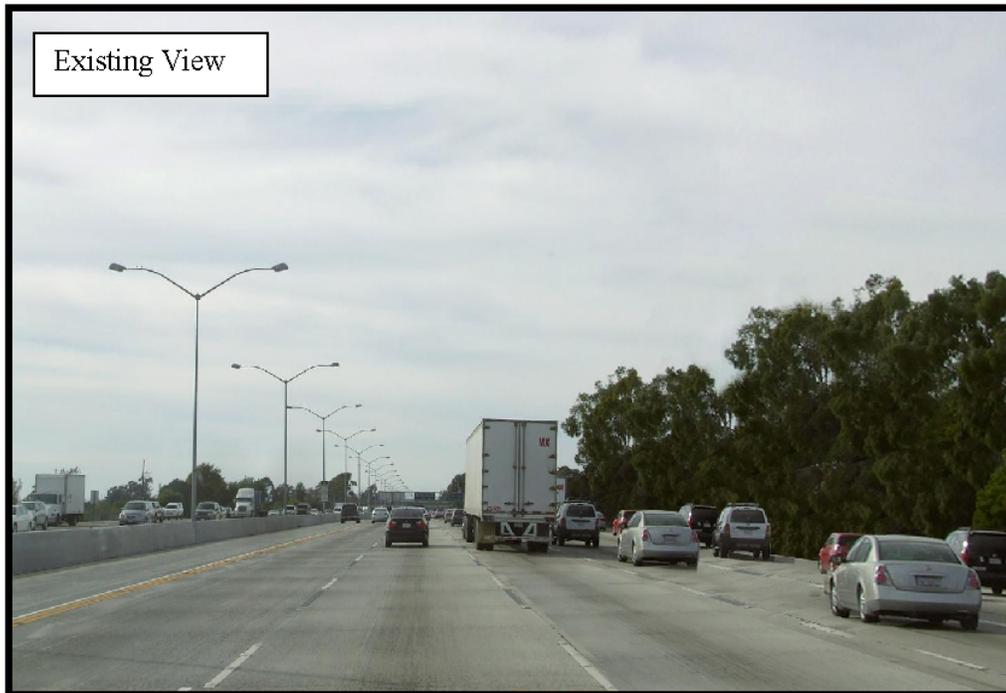
Figure 3.1.7-22: Key Viewpoint #59 Location Map

Existing Visual Character/Quality. The highway paving, combined with the roadway light fixtures in the median, are the dominant fore- and mid-ground elements within this view. The Seal Beach Boulevard overcrossing can be seen in the background. Vegetation in the view is limited to areas adjacent to the ROW. While limited, the vegetation does help soften the view slightly and add scale to the large paved area in the foreground. The overall visual quality for the view is rated to be moderately low, with moderately low vividness, intactness, and unity.

Proposed Project Features. In Alternative 1, the number of lanes in this portion of the project would increase by one GP lane. The vegetation along the edge of the ROW would be removed to accommodate the added paving. The Seal Beach Boulevard overcrossing is being replaced as part of the SR-22 WCC Project.

Changes to Visual Character. The wider pavement surface of I-405 would be a noticeable change to the view. Removal of any vegetation along the edges of the ROW would have a noticeable impact because the existing vegetation helps soften the edges of I-405. This summary is shown in Table 3.1.7-13.

Anticipated Viewer Response. As with the other freeway views, traffic (and therefore the number of viewers) would easily top 100,000 views per day, although the view time for this group is anticipated to be short. Sensitivity to the changes is anticipated to be moderately high given the number of viewers in the corridor and the general high expectations of the viewers.



Existing View



Postconstruction View

Avoidance and minimization measures shown in the bottom (postconstruction) image include pilasters within the new soundwall and vine plantings on the wall. The inset view includes the West County Connectors HOV lane currently under construction to be completed in 2014; this represents the No Build Alternative in this area.

**Figure 3.1.7-23: Alternative 1, Key Viewpoint #59,
Open Space-Residential Landscape Unit**

Resulting Visual Impact. Change to the visual character and quality would be low. Viewer response is anticipated to be moderately high, due mostly to the very large number of travelers on I-405. Therefore, the resulting visual impact is anticipated to be moderate. This summary is shown in Table 3.1.7-14.

**Table 3.1.7-13: Alternative 1, Key Viewpoint #59
Anticipated Changes in Visual Character and Quality, and Their Effect on Viewers**

	Attribute	Ratings ⁷		Remarks
		Existing Condition	Proposed Condition ⁵	
Visual Quality ¹	Vividness/Memorability	2.3	1.8	
	Intactness	1.8	1.7	
	Unity	2.1	1.6	
	TOTAL⁶	2.06	1.70	Percent Change = 17.48% = Low
Visual Character ²	Scale	2.0	1.8	
	Diversity	2.1	1.7	
	Continuity	1.8	1.5	
	Dominance	1.8	1.6	
	TOTAL⁶	1.93	1.65	Percent Change = 14.51% = Low
Viewer Exposure ³	Location of Views	3.5		
	Number of Viewers	5.0		
	Duration of Views	2.1		
	TOTAL⁶	3.53		Moderately High Exposure
Viewer Sensitivity ⁴	Attention of Viewer	3.2		
	Viewer Awareness	4.2		
	Local Values and Goals	4.1		
	TOTAL⁶	3.83		Moderately High Sensitivity

1 – Vividness = memorable, striking (5) to plain (1); Intactness = free of encroaching elements (5) to cluttered/lacking integrity (1); and Unity = coherent/harmonious (5) to disjointed/jarring (1)
 2 – Scale = small (5) to monumental (1); Diversity = complex (5) to monolithic (1); Continuity = harmonious (5) to dissonant (1); and Dominance = balanced (5) to prominent/unbalanced (1)
 3 – Location = foreground (5) to distant views (1); Number = over 100,000 (5) to 20 or less (1); Duration = over 4 hours (4) to less than 1 minute (1)
 4 – Activity = attention on views (5) to attention focused away (1); Awareness = High (5) to Low (1); and Values = High (5) to Low expectations (1)
 5 – Proposed (postconstruction condition) with avoidance and minimization measures in place. Avoidance and minimization measures are described in Section 3.1.7.4.
 6 – Total = sum of attributes divided by number of attributes – e.g., Overall Visual Quality = (vividness+intactness+unity)/3.
 7 – Ratings: 1 = Low, 3 = Moderate, 5 = High

Table 3.1.7-14: Alternative 1, Key Viewpoint #59 Analysis Summary

Visual Resource (Stimulus)	Change to Visual Character	Low	Resource Change Low	Visual Impact Moderate
	Change to Visual Quality	Low		
Viewer (Response)	Viewer Exposure	Moderately High	Viewer Response Moderately High	
	Viewer Sensitivity	Moderately High		

Ratings for each category were determined by taking the percent change rating from the previous table and averaging these for the Resource Change/Viewer Response columns. These two rating were then averaged again to determine the anticipate Visual Impact. If unable to average, the higher rating was used.

Alternative 2

Alternative 2 would construct two GP lanes in each direction, rather than the single lane in Alternative 1. In general, the two lanes would fall between the Euclid Street/Ellis Avenue and the SR-22/7th Street interchanges. The effect of this would be similar to that proposed in Alternative 1, although the pavement cross section would appear wider to the freeway traveler.

The proposed bridge replacements would be the same length as in Alternative 1 because they are being built to the ultimate expansion capability. The amount of paved area within the ROW would increase by approximately 21 percent in this alternative. The effects to the visual environment for the vegetation removals, retaining and soundwalls, and local streets would be similar to Alternative 1.

For Alternative 2, simulations were created for Key Viewpoint #20, #40, and #59. All other Key Viewpoints (#15, #17, #25, and #50) are similar to those simulations shown under Alternative 1.

Key Viewpoint #20 Analysis

Orientation. Figure 3.1.7-24 shows a location map of Key Viewpoint #20. The picture in Figure 3.1.7-25 shows the I-405 corridor from the northbound lanes approaching the Ward Street bridge. The view is oriented to the northwest.

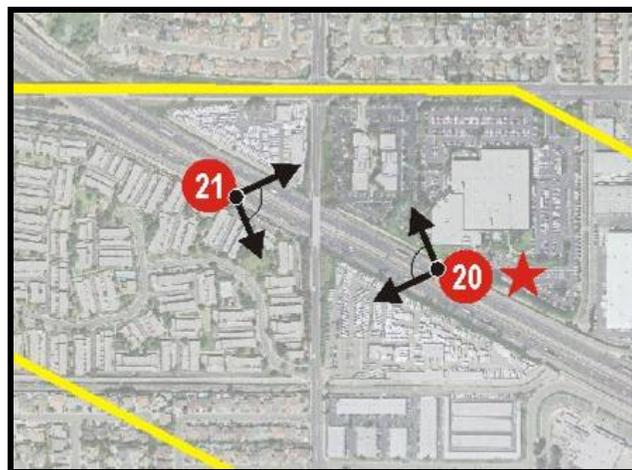
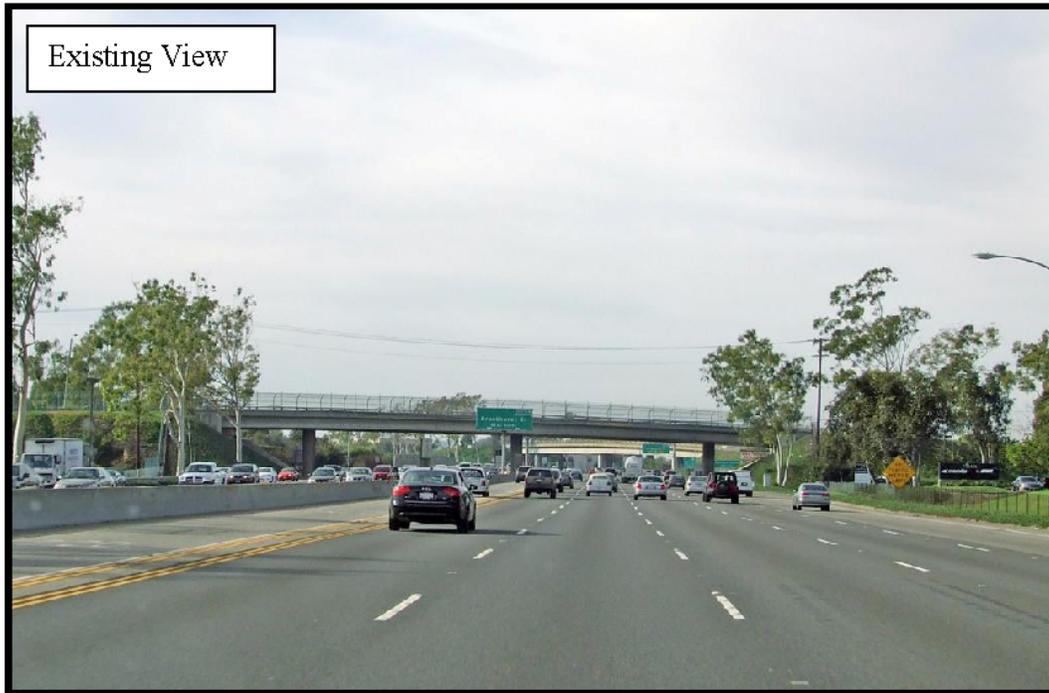


Figure 3.1.7-24: Key Viewpoint #20 Location Map

Existing Visual Character/Quality. Predominant in this view is the expanse of the existing six lanes of pavement combined with the Ward Street bridge. The mature eucalyptus trees along the edge of I-405 and in the surrounding industrial parks provide interest and soften the appearance of the large amounts of paving in the view.



Avoidance and minimization measures included in the postconstruction image (bottom image) include preserved existing trees, new plantings, and aesthetics elements on the new bridge.

Figure 3.1.7-25: Alternative 2, Key Viewpoint #20, Industrial Landscape Unit

The overall visual quality in this view is moderate, with the plantings softening the hard surfaces. Vividness is moderately low, while intactness and unity within the view are rated moderate.

Proposed Project Features. Similar to Alternative 1, the most noticeable change in the view would be removal of the existing vegetation and expansion of the freeway paving. The Ward Street bridge would be replaced, as would the Talbert Avenue bridge in the background.

Changes to Visual Character. Similar to Alternative 1, for freeway users, I-405 would appear much wider than it currently appears. Similar to Alternative 1, removal of the vegetation from the edge of the ROW would greatly reduce these elements in the view, although there would still be opportunities for plantings on the sloped embankments to the Ward Street bridge. In addition, vegetation off of the ROW would remain as part of a borrowed landscape to I-405. The new Ward Street bridge would be longer and higher than the current, but this is anticipated to be less noticeable because it is replacing an existing bridge, and the new bridge would appear proportional to the new I-405 cross section. This summary is shown in Table 3.1.7-15.

Anticipated Viewer Response. As with the other freeway views, traffic (and therefore the number of viewers) would easily top 100,000 views per day, although the view time for this group is anticipated to be short. Views from the businesses along this portion of I-405 would be of short duration for the most part due to the industrial nature of the development and the lack of windows facing I-405.

Resulting Visual Impact. As with Alternative 1, change to the visual character and quality would be low and moderately low, respectively, and viewer response is anticipated to be moderate. Therefore, like Alternative 1, the resulting visual impact is anticipated to be moderate. This summary is shown in Table 3.1.7-16.

**Table 3.1.7-15: Alternative 2, Key Viewpoint #20
Anticipated Changes in Visual Character and Quality, and Their Effect on Viewers**

	Attribute	Ratings ⁷		Remarks
		Existing Condition	Proposed Condition ⁵	
Visual Quality ¹	Vividness/Memorability	2.1	1.8	Removal of skyline trees.
	Intactness	3.2	2.5	
	Unity	3.4	3.1	
	TOTAL⁶	2.90	2.47	Percent Change = 14.83% = Low
Visual Character ²	Scale	2.1	1.8	
	Diversity	2.9	2.2	
	Continuity	2.9	2.4	
	Dominance	3.1	2.3	
	TOTAL⁶	2.75	2.18	Percent Change = 20.73% = Moderately Low
Viewer Exposure ³	Location of Views	3.5		
	Number of Viewers	1.5		
	Duration of Views	2.0		
	TOTAL⁶	2.33		Moderately Low Exposure
Viewer Sensitivity ⁴	Attention of Viewer	4.5		
	Viewer Awareness	4.5		
	Local Values and Goals	4.0		
	TOTAL⁶	4.33		Moderate Sensitivity

1 – Vividness = memorable, striking (5) to plain (1); Intactness = free of encroaching elements (5) to cluttered/lacking integrity (1); and Unity = coherent/harmonious (5) to disjointed/jarring (1)
 2 – Scale = small (5) to monumental (1); Diversity = complex (5) to monolithic (1); Continuity = harmonious (5) to dissonant (1); and Dominance = balanced (5) to prominent/unbalanced (1)
 3 – Location = foreground (5) to distant views (1); Number = over 100,000 (5) to 20 or less (1); Duration = over 4 hours (4) to less than 1 minute (1)
 4 – Activity = attention on views (5) to attention focused away (1); Awareness = High (5) to Low (1); and Values = High (5) to Low expectations (1)
 5 – Proposed (postconstruction condition) with avoidance and minimization measures in place. Avoidance and minimization measures are described in Section 3.1.7.4.
 6 – Total = sum of attributes divided by number of attributes – e.g., Overall Visual Quality = (vividness+intactness+unity)/3.
 7 – Ratings: 1 = Low, 3 = Moderate, 5 = High

Table 3.1.7-16: Alternative 2, Key Viewpoint #20 Analysis Summary

Visual Resource (Stimulus)	Change to Visual Character	Low	Resource Change Moderately Low	Visual Impact Moderate
	Change to Visual Quality	Moderately Low		
Viewer (Response)	Viewer Exposure	Moderately Low	Viewer Response Moderate	
	Viewer Sensitivity	Moderate		

Ratings for each category were determined by taking the percent change rating from the previous table and averaging these for the Resource Change/Viewer Response columns. These two rating were then averaged again to determine the anticipate Visual Impact. If unable to average, the higher rating was used.

Key Viewpoint #40 Analysis

Orientation. Figure 3.1.7-26 shows a location map of Key Viewpoint #40. The view in the photo in Figure 3.1.7-27 is within the Commercial Center Landscape Unit. The view is from the Bolsa Avenue Bridge looking southeast and shows an overview of I-405 from the bridge. The view is from the perspective of the pedestrian on the bridge.

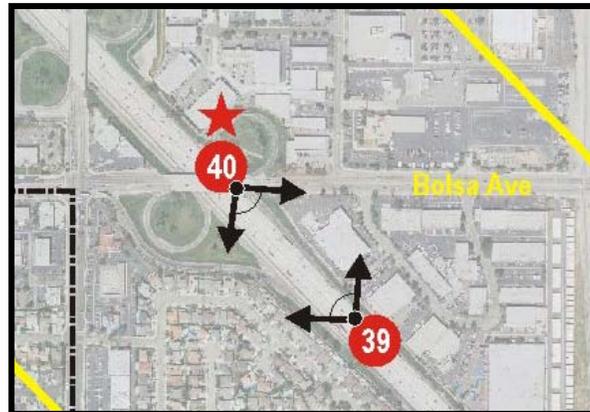
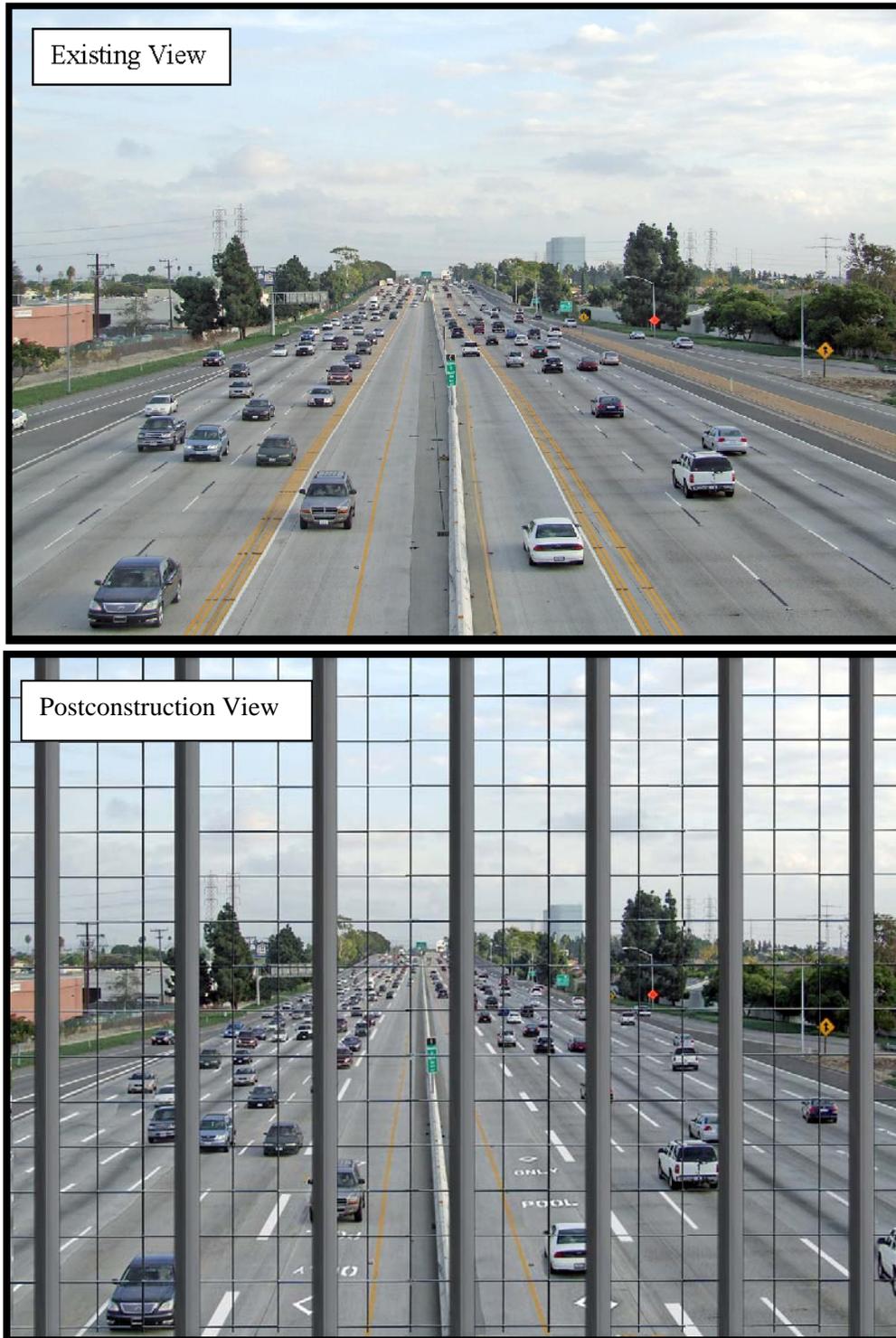


Figure 3.1.7-26: Key Viewpoint #40 Location Map

Existing Visual Character/Quality. From this bridge vantage point above I-405, the full extent of the paving is visible to the pedestrians with fore- and mid-ground views. The freeway elements dominate the view, and what plantings there are in the corridor are found near the edge of the ROW. The existing railing on the bridge is low without a fence that would interfere with the view into the corridor. The overall visual quality of the view is moderate with moderate vividness, intactness, and unity.

Proposed Project Features. In this view, the dominating presence would remain the roadway, which like Alternative 1, would appear wider, with two additional lanes added instead of one. Similar to Alternative 1, most of the existing vegetation along the edge of I-405 would be removed; however, it may be possible to preserve some existing vegetation depending on the placement of barriers in the corridor. A fence or mesh would be required on the bridge and would create a new visual element to viewers from the bridge.

Changes to Visual Character. Similar to Alternative 1, the wider appearance of I-405 would be a noticeable change to the view. Similar to Alternative 1, the removal of existing vegetation along the edges of the ROW would have a noticeable impact because it helps soften the edges of I-405. This summary is shown in Table 3.1.7-17.



Avoidance and minimization measures included in the postconstruction image (bottom image) include preserved existing trees, replacement plantings at the interchange ramps, and mesh fencing on the new replacement bridge.

**Figure 3.1.7-27: Alternative 2, Key Viewpoint #40,
Commercial Center Landscape Unit**

Anticipated Viewer Response. Even though Westminster Mall is located adjacent to this view location, the number of pedestrians on the bridge, which is anticipated to be approximately 20 to 30 per day, including bicyclists, is low. The duration of the views would be several minutes or less for viewers to cross the bridge. Given the streetscape requirements within the city of Westminster, it is likely that travelers on the bridge, including pedestrians, place a high value on the aesthetics and their sensitivity would be moderately high.

Resulting Visual Impact. As with Alternative 1, the overall change to the visual character and quality of the environment is anticipated to be low. Similar to Alternative 1, viewer response is anticipated to be moderately high. Therefore, like Alternative 1, the resulting visual impact is anticipated to be moderate. This summary is shown in Table 3.1.7-18.

**Table 3.1.7-17: Alternative 2, Key Viewpoint #40
Anticipated Changes in Visual Character and Quality, and Their Effect on Viewers**

	Attribute	Ratings ⁷		Remarks
		Existing Condition	Proposed Condition ⁵	
Visual Quality ¹	Vividness/Memorability	2.8	2.5	
	Intactness	3.0	2.5	
	Unity	3.4	3.1	
	TOTAL⁶	3.06	2.70	Percent Change = 11.76% = Low
Visual Character ²	Scale	3.2	3.0	
	Diversity	3.4	2.4	
	Continuity	2.8	2.8	
	Dominance	2.3	2.3	
	TOTAL⁶	2.93	2.63	Percent Change = 10.24% = Low
Viewer Exposure ³	Location of Views	3.9		
	Number of Viewers	2.0		
	Duration of Views	2.2		
	TOTAL⁶	2.70		Moderate Exposure
Viewer Sensitivity ⁴	Attention of Viewer	3.5		
	Viewer Awareness	4.0		
	Local Values and Goals	3.2		
	TOTAL⁶	3.57		Moderately High Sensitivity

1 – Vividness = memorable, striking (5) to plain (1); Intactness = free of encroaching elements (5) to cluttered/lacking integrity (1); and Unity = coherent/harmonious (5) to disjointed/jarring (1)
 2 – Scale = small (5) to monumental (1); Diversity = complex (5) to monolithic (1); Continuity = harmonious (5) to dissonant (1); and Dominance = balanced (5) to prominent/unbalanced (1)
 3 – Location = foreground (5) to distant views (1); Number = over 100,000 (5) to 20 or less (1); Duration = over 4 hours (4) to less than 1 minute (1)
 4 – Activity = attention on views (5) to attention focused away (1); Awareness = High (5) to Low (1); and Values = High (5) to Low expectations (1)
 5 – Proposed (postconstruction condition) with avoidance and minimization measures in place. Avoidance and minimization measures are described in Section 3.1.7.4.
 6 – Total = sum of attributes divided by number of attributes – e.g., Overall Visual Quality = (vividness+intactness+unity)/3.
 7 – Ratings: 1 = Low, 3 = Moderate, 5 = High

Table 3.1.7-18: Alternative 2, Key Viewpoint #40 Analysis Summary

Visual Resource (Stimulus)	Change to Visual Character	Low	Resource Change Low	Visual Impact Moderate
	Change to Visual Quality	Low		
Viewer (Response)	Viewer Exposure	Moderate	Viewer Response Moderately High	
	Viewer Sensitivity	Moderately High		

Ratings for each category were determined by taking the percent change rating from the previous table and averaging these for the Resource Change/Viewer Response columns. These two rating were then averaged again to determine the anticipate Visual Impact. If unable to average, the higher rating was used.

Key Viewpoint #59 Analysis

Orientation. Figure 3.1.7-28 shows a location map of Key Viewpoint #59. The photograph in Figure 3.1.7-29 was taken from the northbound lanes of I-405 looking to the west toward the Seal Beach Boulevard overcrossing. The view is within the Open Space-Residential Landscape Unit.



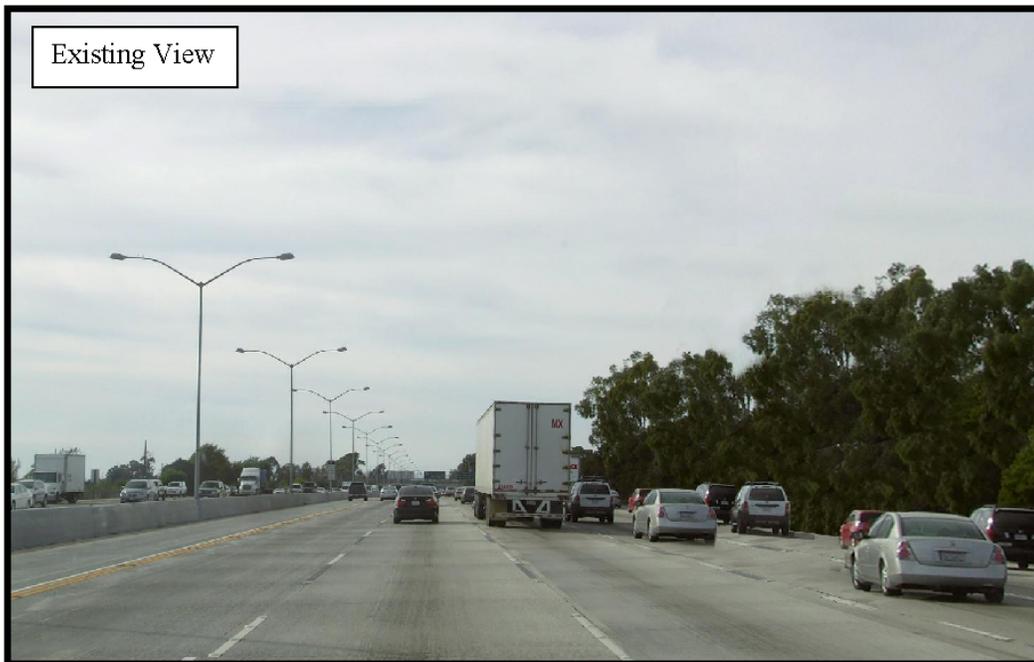
Figure 3.1.7-28: Key Viewpoint #59 Location Map

Existing Visual Character/Quality. The highway paving, combined with the roadway light fixtures in the median, are the dominant fore- and mid-ground elements within this view. The Seal Beach Boulevard overcrossing can be seen in the background. Vegetation in the view is limited to areas adjacent to the ROW. While limited, the vegetation does help soften the view slightly and add scale to the large paved area in the foreground. The overall visual quality for the view is rated to be moderately low, with moderately low vividness, intactness, and unity.

Proposed Project Features. Two additional lanes would be added to the pavement width in this area, creating a pavement section with 10 lanes. Similar to Alternative 1, all vegetation within the ROW would have to be removed to accommodate the paving section. The Seal Beach Boulevard overcrossing is being replaced as part of the SR-22 WCC Project.

Changes to Visual Character. Similar to Alternative 1, the wider pavement surface of I-405 would be a very noticeable change to the view. Similar to Alternative 1, removal of all vegetation along the edges of the ROW would have a noticeable impact because the existing vegetation helps soften the edges of I-405. This summary is shown in Table 3.1.7-19.

Anticipated Viewer Response. As with the other freeway views, traffic (and therefore the number of viewers) would easily top 100,000 views per day, although the view time for this group is anticipated to be short. Sensitivity to the changes is anticipated to be moderately high given the number of viewers in the corridor and the generally high expectations of the viewers.



Avoidance and minimization measures shown in the bottom (postconstruction) image include pilasters within the new soundwall and vine plantings on the wall. The inset view includes the West County Connectors HOV lane currently under construction to be completed in 2014; this represents the No Build Alternative in this area.

**Figure 3.1.7-29: Alternative 2, Key Viewpoint #59,
Open Space-Residential Landscape Unit**

Resulting Visual Impact. As with Alternative 1, change to the visual character and quality would be low. Similar to Alternative 1, viewer response is anticipated to be moderately high. Therefore, like Alternative 1, the resulting visual impact is anticipated to be moderate. This summary is shown in Table 3.1.7-20.

**Table 3.1.7-19: Alternative 2, Key Viewpoint #59
Anticipated Changes in Visual Character and Quality, and Their Effect on Viewers**

	Attribute	Ratings ⁷		Remarks
		Existing Condition	Proposed Condition ⁵	
Visual Quality ¹	Vividness/Memorability	2.3	1.8	
	Intactness	1.8	1.7	
	Unity	2.1	1.6	
	TOTAL⁶	2.06	1.70	Percent Change = 17.48% = Low
Visual Character ²	Scale	2.0	1.8	
	Diversity	2.1	1.7	
	Continuity	1.8	1.5	
	Dominance	1.8	1.6	
	TOTAL⁶	1.93	1.65	Percent Change = 14.51% = Low
Viewer Exposure ³	Location of Views	3.5		
	Number of Viewers	5.0		
	Duration of Views	2.1		
	TOTAL⁶	3.53		Moderately High Exposure
Viewer Sensitivity ⁴	Attention of Viewer	3.2		
	Viewer Awareness	4.2		
	Local Values and Goals	4.1		
	TOTAL⁶	3.83		Moderately High Sensitivity
<p>1 – Vividness = memorable, striking (5) to plain (1); Intactness = free of encroaching elements (5) to cluttered/lacking integrity (1); and Unity = coherent/harmonious (5) to disjointed/jarring (1)</p> <p>2 – Scale = small (5) to monumental (1); Diversity = complex (5) to monolithic (1); Continuity = harmonious (5) to dissonant (1); and Dominance = balanced (5) to prominent/unbalanced (1)</p> <p>3 – Location = foreground (5) to distant views (1); Number = over 100,000 (5) to 20 or less (1); Duration = over 4 hours (4) to less than 1 minute (1)</p> <p>4 – Activity = attention on views (5) to attention focused away (1); Awareness = High (5) to Low (1); and Values = High (5) to Low expectations (1)</p> <p>5 – Proposed (postconstruction condition) with avoidance and minimization measures in place. Avoidance and minimization measures are described in Section 3.1.7.4.</p> <p>6 – Total = sum of attributes divided by number of attributes – e.g., Overall Visual Quality = (vividness+intactness+unity)/3.</p> <p>7 – Ratings: 1 = Low, 3 = Moderate, 5 = High</p>				

Table 3.1.7-20: Alternative 2, Key Viewpoint #59 Analysis Summary

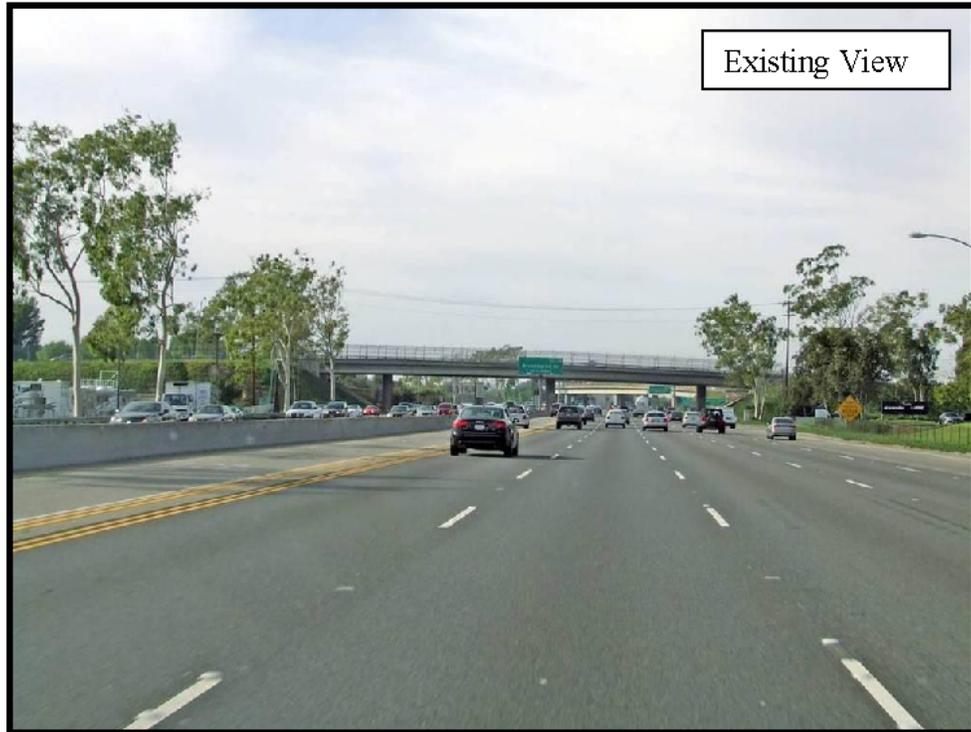
Visual Resource (Stimulus)	Change to Visual Character	Low	Resource Change Low	Visual Impact Moderate
	Change to Visual Quality	Low		
Viewer (Response)	Viewer Exposure	Moderately High	Viewer Response Moderately High	
	Viewer Sensitivity	Moderately High		
<p>Ratings for each category were determined by taking the percent change rating from the previous table and averaging these for the Resource Change/Viewer Response columns. These two rating were then averaged again to determine the anticipate Visual Impact. If unable to average, the higher rating was used.</p>				

Alternative 3 (Preferred Alternative)

In terms of pavement width, Alternative 3 has similarities to Alternatives 1 and 2 north of the Santa Ana River. By adding an Express Lane and a GP lane, the overall width of the proposed paving most closely matches that proposed for Alternative 2 for most of the corridor, except for the area north of SR-22/Valley View Street, where it resembles Alternative 1. From a visual perspective, the differences are seen exclusively in the pavement markings. South of the Santa Ana River, Alternative 3 does not resemble either of the other alternatives.

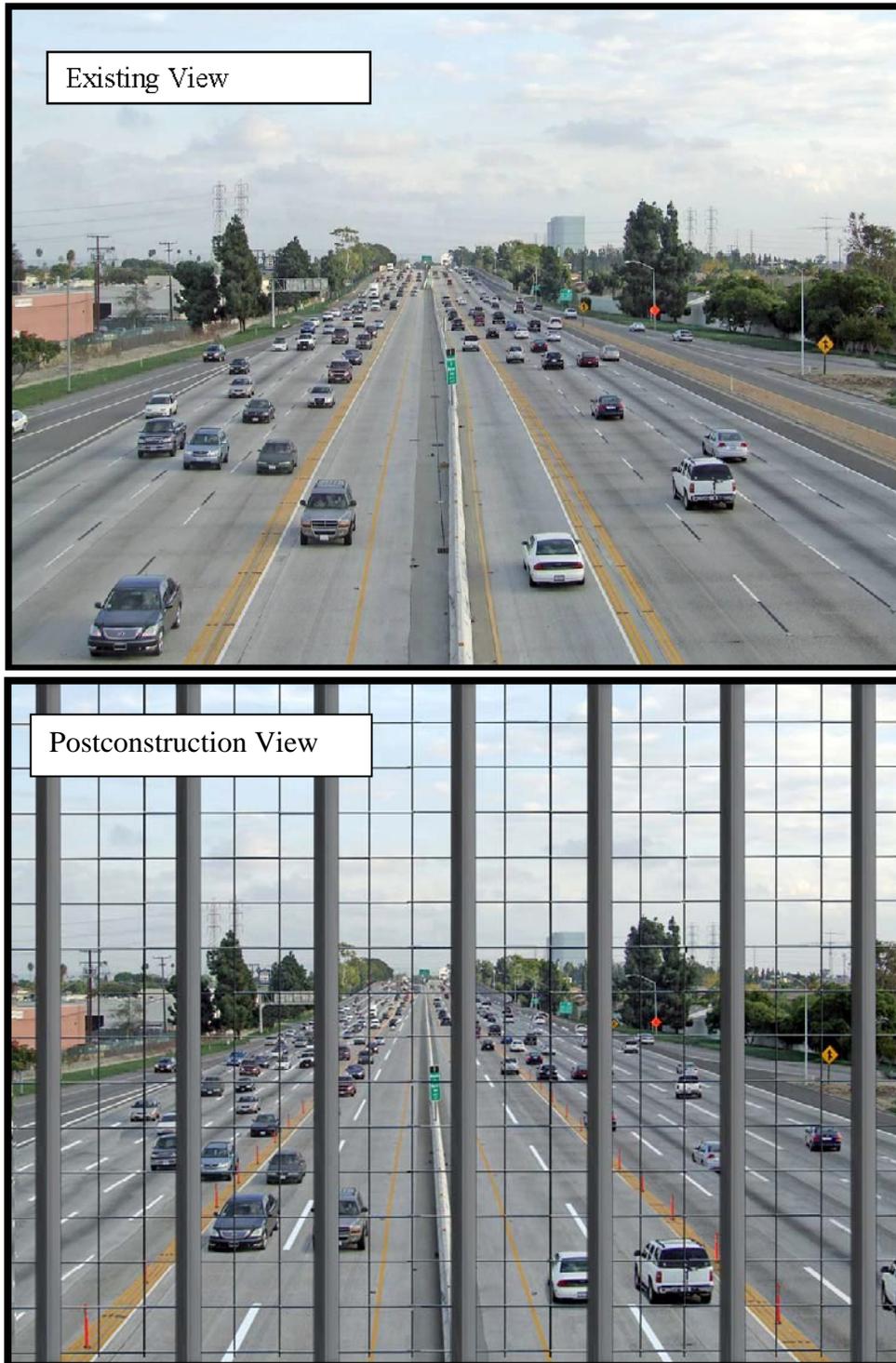
The major difference in Alternative 3, as shown in Key Viewpoint #2, is the addition of the I-405/SR-73 direct connector ramp. This would be a new bridge structure placed between the two existing ramp bridges already found within the interchange. The new bridge would be at approximately the same elevation as the two existing bridges, but it would still have the effect of increasing the urban nature of the interchange farther into the I-405 corridor. The bridge would include a large straddle bent across the northbound and southbound lanes of I-405. The bridge and straddle bents would be additional elements to the freeway, but they are not anticipated to greatly change the visual character of the landscape unit due to the number of existing structures (i.e., ramps, bridges, and walls) currently found within the I-405 corridor within this unit. In addition, the Fairview Road bridge would be replaced, and the Harbor Boulevard undercrossing would be widened.

For Alternative 3, a simulation was created for Key Viewpoint #2. Key Viewpoints #15, #17, #25, #50, and #59 are similar to those simulations shown under Alternative 1. Key Viewpoints #20 and #40 are similar to those shown under Alternative 2. Therefore, the analysis and results described under Alternative 2 for Key Viewpoints #20, #40, and #59 are the same as what would occur under Alternative 3, and the discussion is not repeated here; however, the simulations are shown in Figures 3.1.7-30, 3.1.7-31, and 3.1.7-32 for these key viewpoints, respectively.



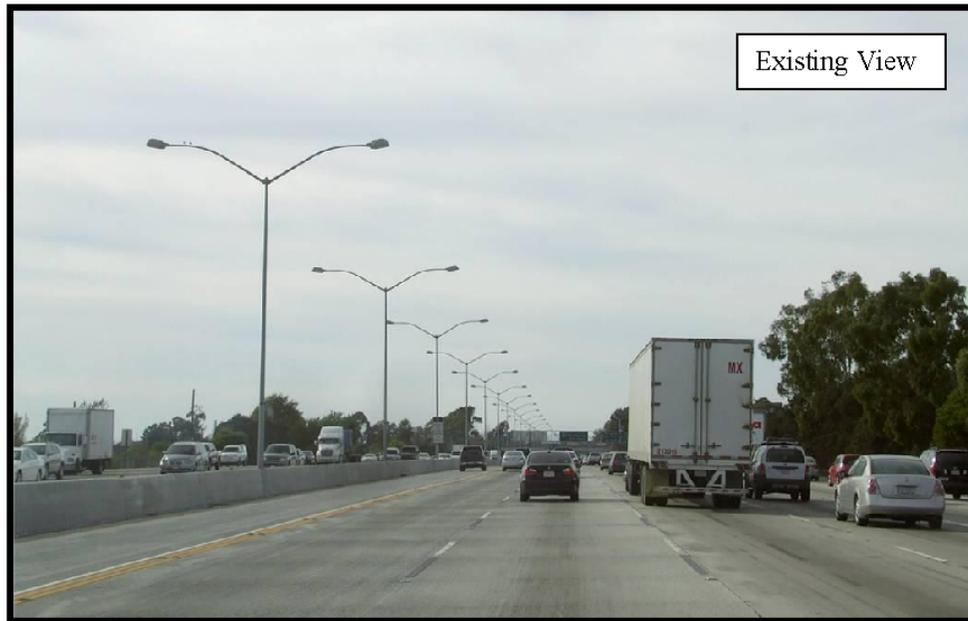
Avoidance and minimization measures included in the postconstruction image (bottom image) include preserved existing trees, new plantings, and aesthetics elements on the new bridge.

Figure 3.1.7-30: Alternative 3 (Preferred Alternative), Key Viewpoint #20, Industrial Landscape Unit



Avoidance and minimization measures included in the postconstruction image (bottom image) include preserved existing trees, replacement plantings at the interchange ramps, and mesh fencing on the new replacement bridge.

Figure 3.1.7-31: Alternative 3 (Preferred Alternative), Key Viewpoint #40, Commercial Centers Landscape Unit



Avoidance and minimization measures shown in the bottom (postconstruction) image include pilasters within the new soundwall and vine plantings on the wall. The inset view includes the West County Connectors HOV lane currently under construction to be completed in 2014; this represents the No Build Alternative in this area.

**Figure 3.1.7-32: Alternative 3 (Preferred Alternative), Key Viewpoint #59,
Open Space-Residential Landscape Unit**

Key Viewpoint #2 Analysis

Orientation. Figure 3.1.7-33 shows a location map of Key Viewpoint #2. The photo in Figure 3.1.7-34 is taken from within the Shopping District Landscape Unit, southbound I-405 looking to the southeast towards the Fairview Road Bridge. The view is from the perspective of the freeway traveler.



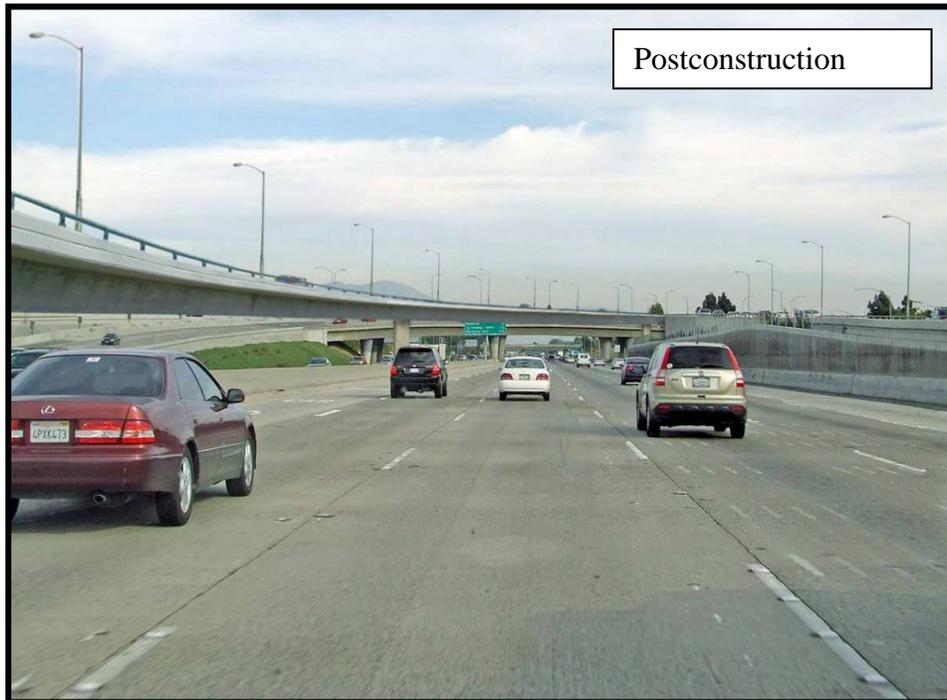
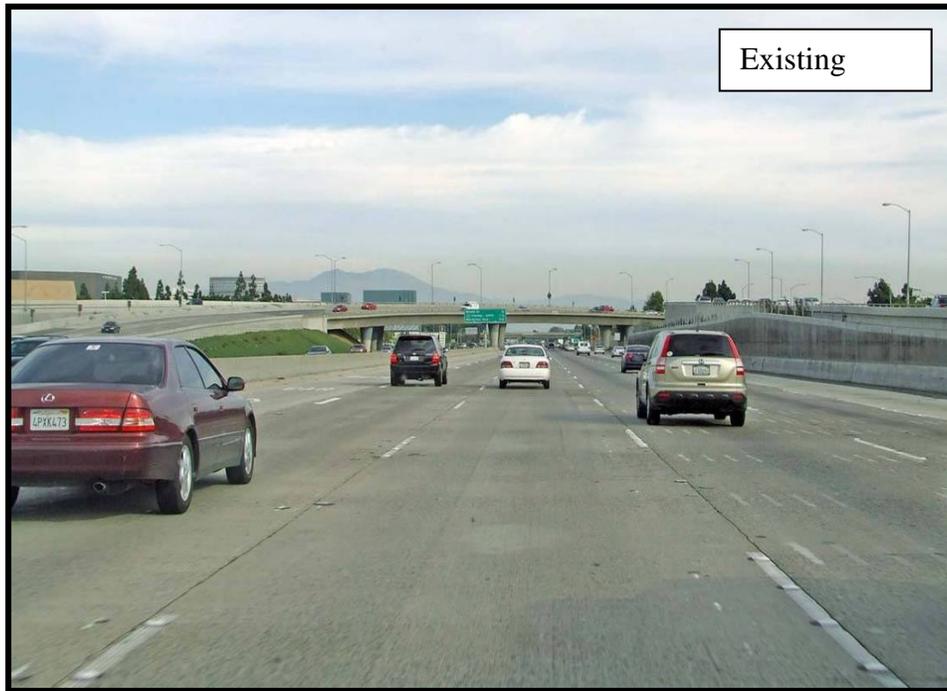
Figure 3.1.7-33: Key Viewpoint #2 Location Map

Existing Visual Character/Quality. The paving and wall forms are found in the fore- to mid-ground of the view. These reinforce the roadway’s flat planes and linear forms. The Santa Ana Mountains form the backdrop to the view. There is very little vegetation present within the I-405 corridor view, with the only green space coming from the “borrowed” landscape trees found outside of the freeway.

The overall visual quality in this view is moderately low due to the expanse of concrete and the absence of landscaping or other elements to create visual interest. The vividness and intactness of the view is rated moderately low, while unity is rated as moderate.

Proposed Project Features. Within this view, the proposed width of the roadway paving would increase from the existing. The new ramp connector bridge would be prominent in the fore to mid-ground of the view.

Changes to Visual Character. For this alternative, the amount of paving would increase compared to what currently exists. The new connector bridge would add an additional bridge element in front of the existing connector bridges from SR-73; however, this new bridge would be of the same approximate height visually as the existing bridges. It would, however, be closer in the mid- to foreground of the view. This summary is shown in Table 3.1.7-21.



Avoidance and minimization measures included in the postconstruction image (bottom image) include setting the elevation of the new bridge to match the existing bridges in the interchange. In addition, the new bridge forms lines to match those of the existing.

**Figure 3.1.7-34: Alternative 3 (Preferred Alternative), Key Viewpoint #2,
Shopping District Landscape Unit**

Anticipated Viewer Response. I-405 would serve more than 100,000 views per day with mid-to foreground views of the changes; however, because the new bridge is similar in location and height to the existing bridges, it is not anticipated to create a large change to the visual environment of the corridor. Duration of the views would vary from less than one minute to several minutes. Views from outside areas into the corridor are somewhat limited by the existing ramps and walls along I-405; however, the commercial areas do not have soundwalls, so there are views by employees and shoppers from parking areas. These views should have a limited duration based on the time to and from the building.

Resulting Visual Impact. For Key Viewpoint #2, the overall change to the visual resource is anticipated to be low; however, because the number of viewers is high due to the high traffic volumes on I-405, coupled with the overall moderate sensitivity of the viewers, the overall visual impact for this view is slightly greater and is anticipated to be in the moderately low level. The summary is shown in Table 3.1.7-22.

**Table 3.1.7-21: Alternative 3 (Preferred Alternative), Key Viewpoint #2
Anticipated Changes in Visual Character and Quality, and Their Effect on Viewers**

	Attribute	Ratings ⁷		Remarks
		Existing Condition	Proposed Condition ⁵	
Visual Quality ¹	Vividness/Memorability	2.0	2.0	Monolithic appearance of highway corridor
	Intactness	1.7	1.7	
	Unity	3.1	3.0	
	TOTAL⁶	2.27	2.23	Percent Change = 1.76% = Low
Visual Character ²	Scale	1.5	1.5	View lacks scaling elements
	Diversity	1.8	1.8	Monolithic appearance of highway corridor
	Continuity	2.8	2.8	
	Dominance	1.7	1.7	
	TOTAL⁶	1.95	1.95	Percent Change = 0% = Low
Viewer Exposure ³	Location of Views	3.25		
	Number of Viewers	5.0		Freeway travelers over 100,000/day
	Duration of Views	1.0		Under free flow of traffic
	TOTAL⁶	3.08		Moderate exposure
Viewer Sensitivity ⁴	Attention of Viewer	4.0		
	Viewer Awareness	1.2		Views are very quick due to short duration
	Local Values and Goals	4.2		
	TOTAL⁶	3.13		Moderate sensitivity

1 – Vividness = memorable, striking (5) to plain (1); Intactness = free of encroaching elements (5) to cluttered/lacking integrity (1); and Unity = coherent/harmonious (5) to disjointed/jarring (1)
 2 – Scale = small (5) to monumental (1); Diversity = complex (5) to monolithic (1); Continuity = harmonious (5) to dissonant (1); and Dominance = balanced (5) to prominent/unbalanced (1)
 3 – Location = foreground (5) to distant views (1); Number = over 100,000 (7) to 20 or less (1); Duration = over 4 hours (4) to less than 1 minute (1)
 4 – Activity = attention on views (5) to attention focused away (1); Awareness = High (5) to Low (1); and Values = High (5) to Low expectations (1)
 5 – Proposed (postconstruction condition) with avoidance and minimization measures in place. Avoidance and minimization measures are described in Section 3.1.7.4.
 6 – Total = sum of attributes divided by number of attributes – e.g., Overall Visual Quality = (vividness+intactness+unity)/3.
 7 – Ratings: 1 = Very Low, 4 = Moderate, 5 = Very High

Table 3.1.7-22: Alternative 3 (Preferred Alternative), Key Viewpoint #2 Analysis Summary

Visual Resource (Stimulus)	Change to Visual Character	Low	Resource Change Low	Visual Impact
	Change to Visual Quality	Low		
Viewer (Response)	Viewer Exposure	Moderate	Viewer Response Moderate	Moderately Low
	Viewer Sensitivity	Moderate		

Ratings for each category were determined by taking the percent change rating from the previous table and averaging these for the Resource Change/Viewer Response columns. These two ratings were then averaged again to determine the anticipate Visual Impact. If unable to average, the higher rating was used.

Temporary Impacts

No Build Alternative

Under the no-build conditions, there would be no improvements to the corridor or alterations to lane configurations; besides routine maintenance of the project corridor, there would be no actions that would impact the visual quality of the project corridor in the short-term. Therefore, there would be no temporary impacts.

Build Alternatives

Temporary or short-term impacts are of relatively short duration (e.g., the visual presence of construction equipment or the time for establishment of new plants). For the I-405 project area, removal of the eucalyptus trees and other vegetation within the interchange areas would likely have the greatest impact on the visual quality; however, this would be a temporary effect because, as the replacement vegetation grows, the overall impact would be expected to diminish.

Graffiti is not expected to be an issue during construction of the build alternatives because all of the construction, staging, and equipment storage areas would be fenced. As a result, structures, walls, and other features in the fenced areas would be protected from graffiti during the construction period; therefore, construction of any of the build alternatives is not expected to result in temporary impacts related to graffiti.

3.1.7.4 Avoidance, Minimization, and/or Mitigation Measures

The anticipated impacts to the visual environment range from moderately low to moderately high. This indicates that the proposed improvements planned in each of the alternatives will adversely affect the visual environment to a degree. To account for and alleviate these impacts, a series of minimization measures have been developed. The application of these measures would help re-establish the existing level of visual quality and character within the project corridor.

The application of the visual minimization and avoidance measures should be incorporated into the project through a CSS approach as identified in Caltrans policies, under the direction of the Caltrans District Landscape Architect. In addition, the aesthetics and appearance of the measures will need to use the aesthetics and landscape master plan as a guiding document.

VIS-1: Beginning with preliminary design and continuing through final design and construction, plan, save, and protect as much existing vegetation in the corridor, especially eucalyptus and other skyline trees, as feasible.

VIS-2: Survey exact locations for existing trees and include in plans.

- VIS-3:** Protect with temporary fencing large infield areas of existing plantings to be preserved.
- VIS-4:** Transplant, relocate, protect, and maintain existing trees that are in conflict with the proposed improvements, replacement vegetation, and mesh fencing per Caltrans' District 12 Landscape Architect approval.
- VIS-5:** Beginning with preliminary design and continuing through final design and construction, develop construction plans that apply architectural detailing to the proposed soundwalls, retaining walls, and bridges, including textures, colors, and patterns. Include elements such as caps, columns, pier caps, parapets, fencing, and abutment and wing walls as shown in the Aesthetics and Landscape Master Plan. In addition, bridge or architectural elements on ramps, bridges, and soundwalls will include forms and lines to match the existing built-environment features.
- VIS-6:** Beginning with preliminary design and continuing through final design and construction, landscape and revegetate disturbed areas to the greatest extent feasible.
- VIS-7:** Include skyline trees in the planting palette to bring down the scale of the new freeway elements.
- VIS-8:** Fund from this parent project and accomplish by separate contract a 3-year extended plant establishment project to assure a well-established highway planting. This separate contract must begin as soon as possible upon completion of the 1-year plant establishment period that may be accomplished with the roadway contract.
- VIS-9:** Design basins so that they appear to be a natural landscape feature, such as a dry streambed or a riparian pool. They shall be shaped in an informal, curvilinear manner.
- VIS-10:** Basin slope grading will incorporate slope rounding, variable gradients, and be similar to the surrounding topography to de-emphasize the edge. If a wall or hard feature is necessary, it shall be worked into the overall design concept.
- VIS-11:** Employ grading design of any ponds or swales, wherever possible, to be sympathetic to the Aesthetic and Landscape Master Plan.
- VIS-12:** Locate maintenance access drives in unobtrusive areas away from local streets. Such drives must consist of inert materials or herbaceous groundcover that is visually compatible with the surrounding landscape.
- VIS-13:** Design all basins so that chain-link perimeter fencing is not required.

- VIS-14:** Design all visible concrete structures and surfaces to adhere to the Aesthetic and Landscape Master Plan when developed.
- VIS-15:** Design rock slope protection to consist of aesthetically pleasing material with a variety of sizes.
- VIS-16:** Limit the use of bioswales within corridor landscape areas. If they must be used, locate them in nonobtrusive areas and design to appear as natural features.
- VIS-17:** Caltrans has existing ongoing maintenance programs for the control and removal of graffiti, which would apply to all new and modified structures on public and private property, as appropriate. Key components of those programs are:
- Chapter D1, Litter, Debris, and Graffiti (July 2006), in the Caltrans Maintenance Manual (Volume I, January 2011) describes Caltrans maintenance program for the control and removal of graffiti. Key program components applicable to the project features are:
 - Use of recycled paint for various structures and matching paint used to cover graffiti with the original paint color on the structure.
 - Use of physical devices, such as rat guards, sign hoods, razor wire, and glare screen patches, to limit access to facilities targeted by taggers.
 - Replacement of ground-mounted signs with signs that have protective coatings or application of protective coatings to signs.
- VIS-18:** Provide vine planting on soundwalls and retaining walls where feasible and appropriate. Per Highway Design Manual, Index 902.3(5), vine planting should be included with all sound barrier projects to reduce the potential for graffiti and to soften the appearance of the wall.
- VIS-19:** Protect with temporary fencing the drip line of existing isolated trees identified on plans as to remain.
- VIS-20:** Plant biostrips and bioswales with vegetative cover that includes a combination of low-growing shrubs and groundcover per the NPDES Construction General Permit, A.9 Definitions: 1) Vegetative Cover.
- VIS-21:** Glare shields shall be used wherever possible to reduce lighting impacts, and to redirect light onto the facility and away from adjacent homes and areas of wildlife habitat.