

# Federal Way Link Extension

## Final Environmental Impact Statement

### VISUAL TECHNICAL REPORT

Appendix G5







Federal Way Link Extension

Visual and Aesthetic Resources  
Technical Report

*Prepared for:*  
Sound Transit

*Prepared by:*  
HDR Engineering, Inc.  
CH2M HILL

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# Acronyms and Abbreviations

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EIS	environmental impact statement
FHWA	Federal Highway Administration
FWLE	Federal Way Link Extension
HC	Highline College
I-5	Interstate 5
KOP	key observation point
OCS	overhead catenary system
RCA	Resource Conservation Area
SR	State Route
TPSS	traction power substation
WSDOT	Washington State Department of Transportation

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# Summary

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This section provides a summary of potential impacts on visual and aesthetic resources that from the Federal Way Link Extension (FWLE). Table S-1 lists the number of residences where visual quality would be affected, by alternative.

TABLE S-1

Number of Residences Where the Visual Quality of the Viewed Landscape Would be Reduced (Range with Options)

Alternative	Residences
Preferred	290 (290 to 290)
SR 99	260 (245 to 315)
SR 99 to I-5	175 (160 to 175)
I-5 to SR 99	375 (375 to 415)

Potential impacts include the following:

- The Preferred Alternative would impact the second most sensitive residential viewers. There are approximately 5 lineal miles of mature vegetation along I-5 (between approximately S 212th Street and S 317th Street) that effectively screens views of the freeway from adjacent residential areas, serves as a backdrop to some residential areas, and contributes to the character of the I-5 corridor enjoyed by some roadway users. The Preferred Alternative would remove substantial amounts of this vegetation along approximately 2.2 lineal miles of this area. The vegetation removal would impact sensitive viewers adjacent to I-5 and views from I-5 until revegetation associated with proposed mitigation measures matured enough to provide effective screening. As the vegetation matures, it would begin to return the visual quality of views towards the Preferred Alternative from residential areas back to pre-project visual quality categories (generally average).
- The I-5 to SR 99 Alternative would impact the most sensitive viewers because of tree removal near residences west of, and adjacent to, I-5 north of Kent-Des Moines Road and along the portion of the SR 99 with the most sensitive viewers. Sensitive viewers would also be affected by the presence of the elevated guideway in the median of SR 99 adjacent to residences south of S 240th Street, which from some residential areas would also intrude upon views of Puget Sound and the Olympic Mountains. The SR 99 to I-5 Alternative would impact the fewest sensitive viewers from residences along the SR 99 corridor north of Kent-Des Moines Road as well as from residences west of, and adjacent to, I-5 south of S 240th Street.
- The SR 99 Alternative would impact the third most residential sensitive viewers on both sides of SR 99. The loss of vegetation along parts of the route (landscaping within medians and trees west of SR 99) would impact sensitive (residential) viewers, and in some areas elevated structures would intrude on views that residents have of Puget Sound and the Olympic Mountains. Because much of the alignment would be in the median of SR 99, mitigation measures would not screen views of the

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elevated alignment and would not be as effective in reducing the visual impacts as they would be for the Preferred Alternative.

- As evaluated, none of the station or alignment options would greatly reduce the number of impacted residences. The S 272nd Star Lake Elevated Station Option would be more clearly seen in the Greenfield Park neighborhood than the Preferred Alternative, but the option would not impact views from more residences. After crossing over S 272nd Street, it would pass through the Mark Twain Elementary School playfield on an elevated structure and would continue south next to a residential area. This option would also be more visible from nearby residences south of Mark Twain Elementary School than the Preferred Alternative, but would likely not impact additional residences. The Kent/Des Moines Highline College (HC) Campus Station Option would impact sensitive viewers in residences along the west side of 28th Avenue S south of Kent-Des Moines Road, whereas the segment of the SR 99 Alternative it would replace would have no impacts. The S 272nd Redondo Trench Station Option would impact views from 40 more residences between S 279th Street and S 302nd Street than the SR 99 Alternative. These residences are in a series of west-facing multi-story buildings that “back up” to the west side of SR 99. The west-facing buildings would screen views of the S 272nd Redondo Trench Station Option from some residences on the east side of SR 99 that the SR 99 Alternative would impact. The remaining station and alignment options would not have additional impacts on views from residences.

# 1.0 Introduction

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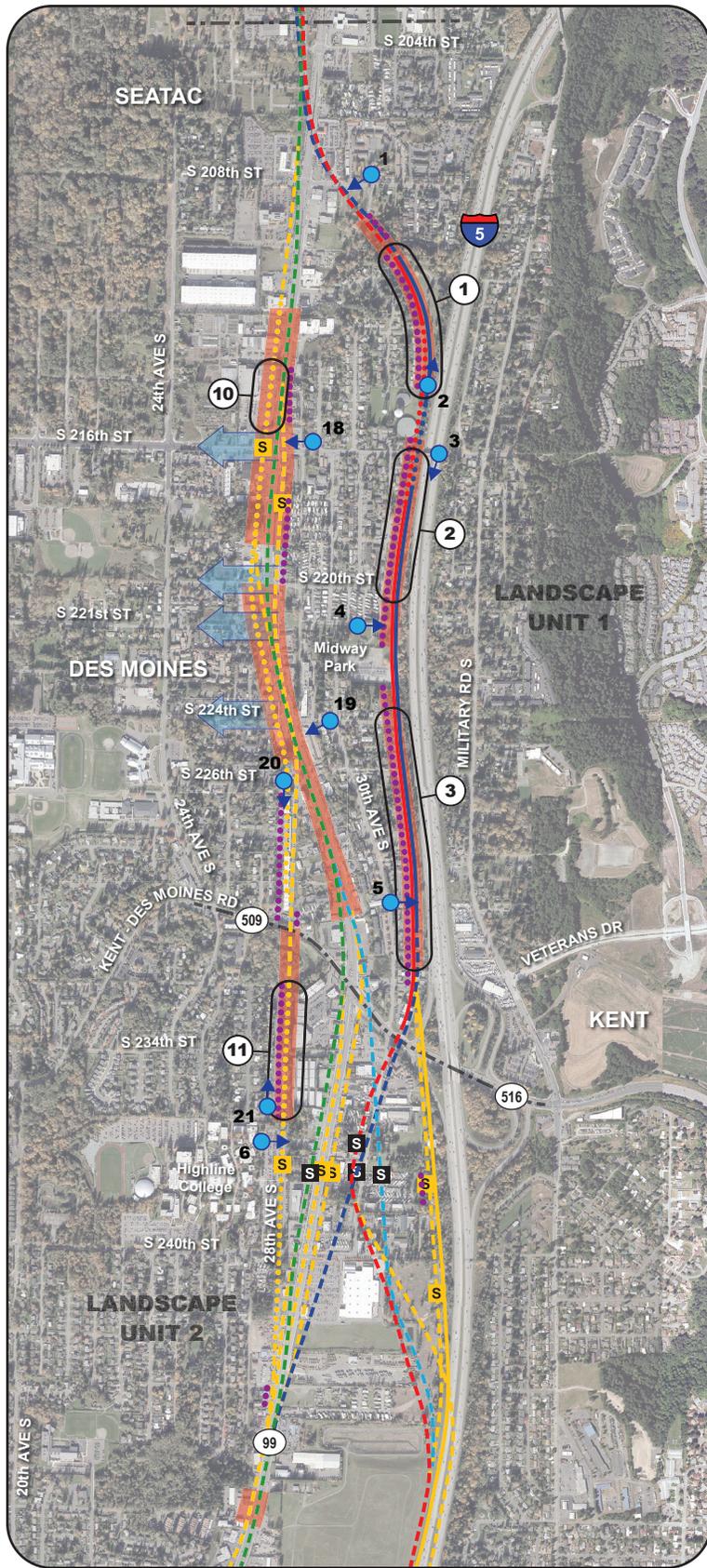
Visual and aesthetic environments are the landscape's natural and cultural features that can be seen and that contribute to the public's appreciation and enjoyment of their surroundings. The visual environment encompasses elements from both the built and natural environments. They can include solitary built and natural landmarks (such as buildings, trees, and bodies of water) or entire landscapes. Impacts on the visual and aesthetic environment are defined in terms of the extent to which the project's presence would change the visual character and quality of the environment.

The description of existing visual and aesthetic conditions in the corridor and the assessment of changes that would be associated with the FWLE are based upon, but do not strictly follow, the visual assessment methodology developed by the Federal Highway Administration (FHWA) for assessing impacts related to transportation projects (FHWA, 1988). The FHWA system and recent FHWA guidelines (FHWA, 2015) are described in Appendix A of this report. Each of the following factors were used to determine if the alternatives would result in impacts on visual and aesthetic resources:

- Change to visual quality near areas with concentrations of sensitive viewers (such as residents and park users who are very familiar with a viewed landscape and would notice changes to it)
- Potential blockage of or intrusion on existing views of Puget Sound, the Olympic Mountains, and Mt. Rainier
- Impacts associated with light and glare related to light rail stations, parking areas, and trains

Of these three, the primary factor for this assessment was determining locations along the corridors where the existing visual quality category would be lowered near areas containing sensitive viewers (primarily residential areas). The residential areas scattered along the corridors contain multi-story residential buildings (apartments and condominiums), mobile homes (usually in mobile home parks), and single-family residences, which are collectively referred to as residences in this report. Estimating the approximate number of residences near the alternatives and options where visual quality would be lowered allowed comparisons to be made between the alternatives and options. The other factors (view blockage of Puget Sound, the Olympic Mountains, and Mt. Rainier, and impacts associated with light and glare) are discussed in qualitative terms.

In accordance with the FHWA methodology, the FWLE corridor was divided into three landscape units to organize the description of the affected environment and impact assessment. Landscape units are identifiable and distinct geographic areas within a linear project corridor from which there are views (the viewshed) of a proposed action (see Exhibits 1-1, 1-2, and 1-3).



### Legend

#### Preferred Alternative

- Elevated
- At-Grade
- ⋯ Trench

#### SR 99 Alternative

- Elevated

#### SR 99 to I-5 Alternative

- Elevated
- At-Grade
- ⋯ Trench

#### I-5 to SR 99 Alternative

- Elevated
- At-Grade

#### Options

- Elevated
- At-Grade
- ⋯ Trench

#### Stations

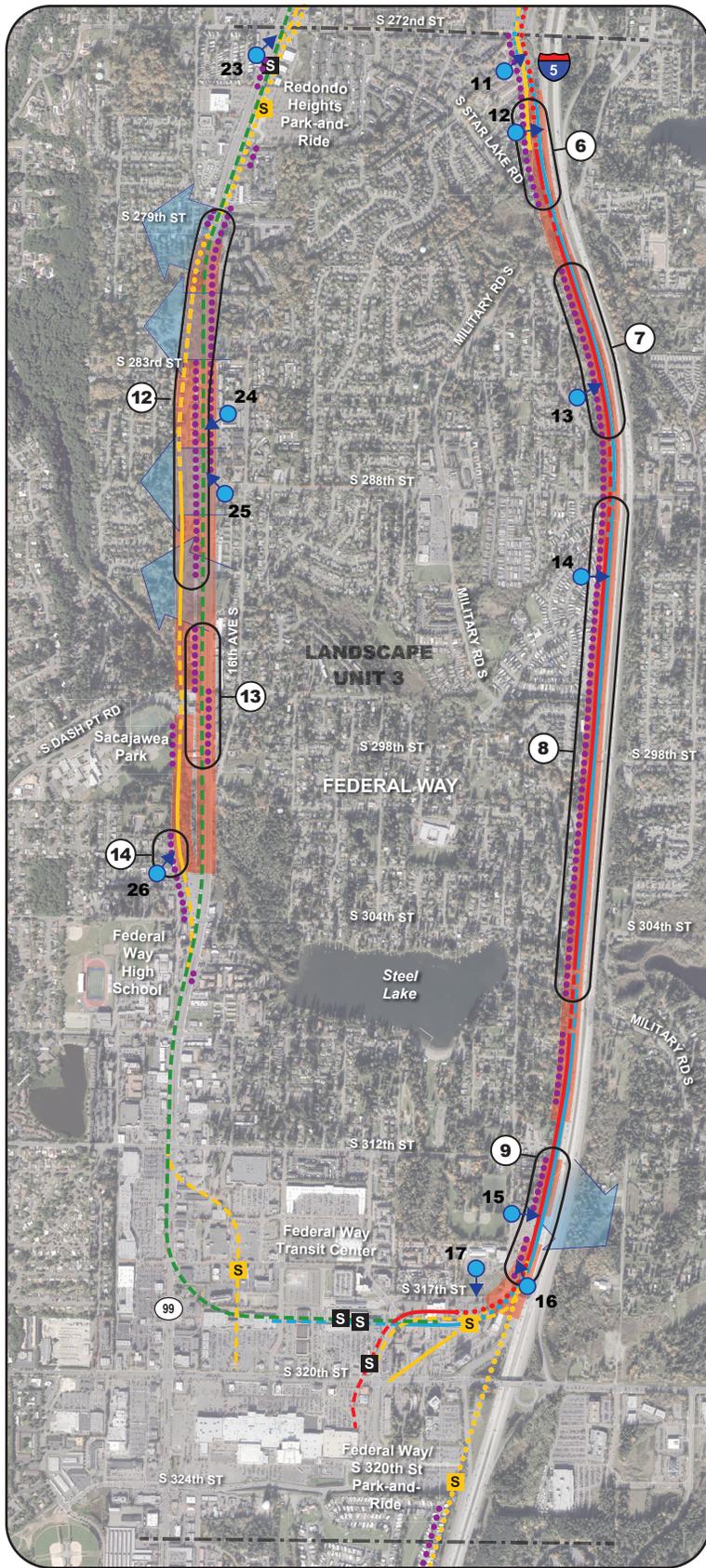
- S Station for Alternatives
  - s Station for Options
  - Landscape Unit Boundary
  - ← Area with Views of Puget Sound, the Olympic Mountains, or Mt. Rainier
  - ⋯ Area with Concentration of Sensitive Viewers
  - 5 → Key Observation Point and View Direction
  - Average Visual Quality
- Note: The portions of alternative corridors not categorized as average visual quality are categorized as low. No areas along the alternative corridors were categorized as high visual quality.*
- 5 General Location Where Visual Quality Would Be Lowered Adjacent to Areas with Concentration of Sensitive Viewers

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac, AeroMetric (2015).



**EXHIBIT 1-1**  
**Visual Conditions in Landscape Unit 1**  
*Federal Way Link Extension*





### Legend

#### Preferred Alternative

- Elevated
- At-Grade
- ... Trench

#### SR 99 Alternative

- Elevated

#### SR 99 to I-5 Alternative

- Elevated
- At-Grade
- ... Trench

#### I-5 to SR 99 Alternative

- Elevated

#### Options

- Elevated
- At-Grade
- ... Trench

#### Stations

- S Station for Alternatives
- S Station for Options

--- Landscape Unit Boundary

Area with Views of Puget Sound, the Olympic Mountains, or Mt. Rainier

Area with Concentration of Sensitive Viewers

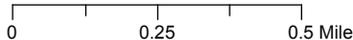
Key Observation Point and View Direction

Average Visual Quality

*Note: The portions of alternative corridors not categorized as average visual quality are categorized as low. No areas along the alternative corridors were categorized as high visual quality.*

General Location Where Visual Quality Would Be Lowered Adjacent to Areas with Concentration of Sensitive Viewers

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac, AeroMetric (2015).



**EXHIBIT 1-3**  
Visual Conditions in Landscape Unit 3  
Federal Way Link Extension

Consistency of the FWLE with the plans, policies, and ordinances of WSDOT and the cities of SeaTac, Des Moines, Kent, and Federal Way regarding visual or aesthetic resources and/or scenic views was evaluated. Where the FWLE is within WSDOT right-of-way, Sound Transit would comply with the *Roadside Policy Manual* (WSDOT, 2015). None of the documents reviewed from the four cities identified protected views from specific locations, linear features (such as highways), or view corridors that were applicable to the alternatives being evaluated. Although no protected views were identified in policies, plans, and ordinances, views of Puget Sound, the Olympic Mountains, and Mt. Rainier were mentioned in several plans as positive elements within the respective jurisdictions. Therefore, areas containing general views to the west of the Olympics and Puget Sound and southeast to Mt. Rainier are depicted in Exhibits 1-1 through 1-3. The potential loss of views from the FWLE was one of the three factors used to determine if the FWLE would impact visual and aesthetic resources.

To determine if any state scenic highways are present in the vicinity of the FWLE, Sound Transit consulted the Washington Department of Transportation (WSDOT) website that identifies highways designated as scenic or recreational highways. Neither SR 99 nor I-5 have been designated by the state as scenic or recreational highways in or near the vicinity of the FWLE (WSDOT, 2014).

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## 2.0 Affected Environment

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The study area for visual and aesthetic resources is the viewshed of the FWLE alternatives (generally approximately 200 to 500 feet from the alternatives). In many locations, views of the elements of the alternatives (such as guideways, stations, and trains) would be interrupted by vegetation, terrain, and buildings. The description of the affected environment focuses on landscape character, visual quality, viewer sensitivity, and views of Puget Sound, the Olympic Mountains, and Mt. Rainier.

### FWLE Terms

**Alternative:** A combination of guideway and stations

**Alignment:** The horizontal location of the guideway (e.g., in the median, on the west side, or on the east side of a roadway)

**Profile:** The vertical location of the guideway (e.g., elevated, at-grade, or in a trench)

Landscape character is an objective description of a viewed landscape that considers and describes the various natural and human-built elements that can be seen. Visual quality is an assessment of the composition of character-defining features of selected views. Under the FHWA visual quality analysis methodology, the visual quality of viewed landscapes is determined and evaluated in terms of vividness, intactness, and unity, which are defined as follows:

- **Vividness** is the degree of drama, memorability, or distinctiveness of the landscape components. Vividness is composed of four elements—*landform, vegetation, water features, and human-made elements*—that usually influence the degree of vividness.
- **Intactness** is a measure of the visual integrity of the natural and human-built landscape and its freedom from encroaching elements. This factor can be present in well-kept urban and rural landscapes, as well as in natural settings. High intactness means that the landscape is free of visual intrusions and is not broken up by features that appear to be out of place. Intactness is composed of two primary elements—*development and encroachment*—that influence the degree of intactness.
- **Unity** is the degree of visual coherence and compositional harmony of the landscape when it is considered as a whole. High unity frequently attests to the careful design of individual components and their relationship in the landscape.

Establishing visual quality categories assists in assessing changes in the visual environment from the various alternatives and options. The following three visual quality categories are used to describe existing visual quality and to assist in evaluating potential changes to visual quality; Appendix A, FHWA Visual Impact Methodology Used for FWLE, Existing Visual Quality, and Impacts of Alternatives on Visual Quality, describes how these three categories were determined:

- **Low Visual Quality:** These areas have low visual quality with some combination of features that seem visually out of place, lack drama or memorability, do not have visual coherence, do not have compositional harmony, and/or might contain encroaching elements.

- **Average Visual Quality:** These areas are commonly occurring or average-appearing landscapes that have a generally pleasant appearance but might lack enough distinctiveness, memorability, drama, and compositional harmony to place them in the high visual quality category. This is generally the most frequent category.
- **High Visual Quality:** These areas must be outstanding in terms of being very memorable, distinctive, unique (in a positive way), and/or intact. The areas can be natural, park-like, or urban (with urban areas displaying distinctive and consistent architectural and urban design features).

Exhibits 1-1, 1-2, and 1-3 depict (in orange) areas along the FWLE alternatives and options with average visual quality. Areas adjacent to the corridors that are not marked in orange were categorized as having low visual quality. No areas in the study area were categorized as having high visual quality.

Sound Transit, in consultation with local jurisdictions, selected 26 site-specific locations for key observation points (KOPs) to take photographs showing existing visual conditions. Those photographs were used to develop photographic simulations to:

- Illustrate how existing visual characteristics would change with FWLE alternatives and options
- Assist in evaluating changes to visual quality
- Depict areas where FWLE components could potentially intrude upon, or block, views of Puget Sound, the Olympic Mountains, and Mt. Rainier

The KOPs are shown in Exhibits 1-1, 1-2, and 1-3, as are areas along the FWLE corridor that have views of Puget Sound, the Olympic Mountains, and Mt. Rainier. Appendix B, Key Observation Point Analysis, describes the existing conditions of each KOP (including visual quality). It also describes how the alternatives would affect existing conditions and provides information on the types of viewers from each KOP who would see potential changes. Existing condition photographs from each KOP and simulations of the alternatives are included in Appendix C, Simulations.

People who view and experience a landscape (viewers) have low, medium, or high sensitivity to changes in the viewed environment. Viewer sensitivity is strongly influenced by a viewer's awareness of his or her surroundings, the activities they are engaged in, and the amount of time spent looking at a view (viewer duration). People such as residents and park users who see a landscape multiple times for long periods of time and are familiar with it would be aware of changes in the landscape and have high viewer sensitivity. Viewers with medium viewer sensitivity include workers and customers who might expect a somewhat pleasant visual setting for the establishments they work in or visit, but are in the locations for purposes other than enjoying its scenery or visual quality. Students, faculty, and members of religious congregations would also be expected to have medium viewer sensitivity. People who view a landscape infrequently, view it for short periods of time, or are not attentive to it because they are focusing on other activities (such as working in settings where a pleasant view would not be expected) are often less sensitive to changes and are assumed to have low viewer sensitivity. People sightseeing on highways or driving through their neighborhood are considered to have high to medium viewer sensitivity. Commuters and other drivers primarily passing through an area are considered to have low

viewer sensitivity because they often become accustomed (and indifferent) to the views along their travel routes because of repetition and short viewing duration.

Areas adjacent to the FWLE alternatives that contain residences, parks, or community centers (such as the Woodmont Library) where people with high viewer sensitivity are located were identified and labeled as “areas with concentrations of visually sensitive viewers” (see Exhibits 1-1 to 1-3). These areas are the focal point for identifying where the FWLE alternatives could potentially impact visual and aesthetic resources.

The FWLE alternatives would travel through two distinct transportation corridors, I-5 and SR 99, or a combination of both (see Exhibits 1-1, 1-2, and 1-3). The following sections describe the existing conditions found along these two corridors.

## 2.1 I-5 Corridor

I-5 is fairly consistent in terms of character and visual quality as it passes through Landscape Units 1, 2, and 3. There is a distinctive visual connection within the freeway corridor because of its generally north-south orientation, fairly straight alignment, and the presence of trees in or adjacent to much of the corridor that tend to screen views of adjacent areas. For this technical report, the term “I-5 corridor” refers to areas along I-5 that contribute to the character of I-5. It includes property in and outside of the I-5 right-of-way. The corridor’s character and average visual quality is fairly consistent through the three landscape units (see Exhibits 1-1 through 1-3).

I-5’s eight travel lanes, center divider, shoulder, cleared area adjacent to the shoulder, and vegetated areas beyond are typical of major interstate highways. Many motorists drive through the FWLE corridor on I-5 each day. The western view from I-5 in the FWLE corridor contains mature vegetation beyond the cleared portion of the right-of-way, some of which is in the I-5 right-of-way and some of which is on adjacent lands outside of the right-of-way. The view to the west from I-5 is typical of the highway. Most of the vegetation is mature conifer trees, which provide a visual barrier between the freeway and adjacent land uses. These types of vegetated areas are not uncommon in the greater Seattle metropolitan area, but do offer a visual contrast to areas adjacent to I-5 that do not have such vegetation and allow views of adjacent urban land uses. One noticeable exception is the Midway Landfill in Landscape Unit 2, where vegetation is limited to maintained grass, and no trees are present.

Approximately 5 lineal miles of the west side of the I-5 corridor between approximately S 212th Street and S 317th Street contain enough vegetation to effectively screen views from I-5 of adjacent areas, while also screening views of the freeway from residential areas immediately west of I-5. Most of the residences adjacent to I-5 in all three landscape units are visually screened from the freeway by vegetation in the I-5 right-of-way, and/or sound walls and/or by vegetation on private property outside of the I-5 right-of-way. Many of the residences adjacent to and west of I-5 are oriented away from the freeway, with the backyards of some abutting the right-of-way. Residences beyond those adjacent to I-5 are more likely to face I-5, but views of the freeway from these areas are frequently screened by the buildings on the properties adjacent to I-5, vegetation in the yards of the properties adjacent to I-5, and vegetation in the I-5 right-of-way. Where I-5 can be seen from adjacent areas, its presence

influences the character of adjacent land uses and the visual quality of the surrounding area. Several units in multi-story buildings near the south end of Landscape Unit 3 have balconies that face east toward I-5, with views of Mt. Rainier beyond I-5.

**Landscape Unit 1:** Landscape Unit 1 begins where the Preferred Alternative and I-5 to SR 99 Alternative would exit the Angle Lake Station, head southeast to merge with the I-5 right-of-way north of S 216th Street, and continue south along I-5 through Des Moines to Kent-Des Moines Road. Areas in Landscape Unit 1 that are adjacent to I-5 are generally residential (single- and multi-family buildings), but also include the Highline Water District water storage facility (with large water storage tanks and towers), an electrical substation, one overpass (S 216th Street). There is approximately 0.8 lineal mile of vegetation along the west side of the I-5 corridor in this Landscape Unit that screens views to and from I-5. Most of the land uses along the east side of I-5 in SeaTac and Kent are also generally residential with commercial uses (warehouses and vehicle storage) adjacent to the south end of this section of I-5. The visual quality in Landscape Unit 1 is mostly average.

**Landscape Unit 2:** Landscape Unit 2 is in Des Moines and Kent. It begins at Kent-Des Moines Road and extends south to S 272nd Street. After passing over Kent-Des Moines Road, I-5 travels east of a series of undeveloped areas (behind commercial buildings that front SR 99) that are screened from view by vegetation. It then passes the Midway Landfill (which is very visible) and residential and undeveloped areas (screened by vegetation) to the end of the landscape unit and the Star Lake Park-and-Ride. The west side of the I-5 corridor in Landscape Unit 2 contains approximately 1.5 lineal miles of vegetation that screen views to and from I-5. The land uses and landscape character along the east side of this portion of I-5 in Kent are very similar to the west side. The visual quality in Landscape Unit 2 is low from the Midway Landfill north to the Landscape Unit 1 boundary and average from the south end of the landfill to the Landscape Unit 3 boundary.

**Landscape Unit 3:** Landscape Unit 3 is in Federal Way. It begins at S 272nd Street and leaves the I-5 corridor at S 317th Street. The land uses and landscape character along the east and west side of this portion of I-5 are very similar. Most of the adjacent land is residential (a mix of single-family, mobile home, and multi-family) and views into these areas from I-5 are generally screened by vegetation. The west side of the I-5 corridor in Landscape Unit 3 contains approximately 2.6 lineal miles of vegetation that screen views to and from I-5. Views of Mt. Rainier are possible from some locations of the freeway. The visual quality in Landscape Unit 3 is mostly average.

## 2.2 SR 99 Corridor

The SR 99 corridor is much more complex from a visual resource perspective than the I-5 corridor. The character of the six-lane SR 99 corridor is typical of major arterial transportation corridors where automobile-oriented commercial development has evolved over the last several decades (see Section 4.2, Land Use, of the Final Environmental Impact Statement [EIS] for a more detailed description of land uses along SR 99). A wide variety of land uses along the SR 99 corridor influence visual character and include many large-scale, low-rise commercial, manufacturing, and storage buildings with extensive paved areas for parking or storage. These land uses do not generally support

visual order, intactness, or unity. As a result, large parts of the SR 99 corridor have a utilitarian appearance and low visual quality. As areas along the SR 99 corridor develop, redevelop, or receive additional streetscape improvements, the character of the corridor has evolved and will continue to evolve from large-scale commercial, “strip mall” commercial, and undeveloped, to residential and/or office and smaller commercial. Visual quality in these areas is expected to improve. Areas that in past years would have been considered to have low visual quality have improved in recent years, and large swaths of the SR 99 corridor have been categorized as having average visual quality (see Exhibits 1-1 to 1-3). Although there are no specific protected views along the FWLE corridors, westward views of Puget Sound and the Olympic Mountains from parts of SR 99 and adjacent areas and Mt. Rainier from the I-5 corridor were identified as important features to these communities based on site visits and conversations with staff from these cities.

#### **Future Development along SR 99**

As properties along the west side of SR 99 redevelop over time, views of Puget Sound and the Olympic Mountains from SR 99 and areas east of SR 99 could be impacted. For example, areas on the west side of SR 99 in the vicinity of S 216th Street have been zoned Pacific Ridge Commercial 2. This zone allows a maximum height of 75 feet, except for 1-acre parcels where buildings as tall as 200 feet can be built if a floor area ratio height bonus is approved. As these properties redevelop over time, there is a good chance that views of Puget Sound and the Olympic Mountains from SR 99 and areas east of it could be restricted to road corridors like those near S 216th Street and S 224th Street.

The following subsections provide a brief description of the affected environment of Landscape Units 1 through 3. For more information on how the existing visual quality was determined, see Table A-1 in Appendix A.

**Landscape Unit 1:** Landscape Unit 1 begins at the northern end of the FWLE corridor and continues south through SeaTac and Des Moines to Kent-Des Moines Road. The cities of SeaTac and Des Moines have made efforts to improve the appearance of the SR 99 corridor by establishing landscaped medians, planting street trees near sidewalks, and encouraging or requiring landscaping on adjacent properties. The northern part of this landscape unit contains a number of large-scale, commercial developments surrounded by extensive areas of parking, and smaller developments that are sometimes termed strip developments. Although areas along this section of SR 99 are generally neat and well maintained, the presence of large-scale parking areas and strip developments creates a lack of intactness and unity and, as a result, the visual quality is low along parts of the northern section of the SR 99 corridor in Landscape Unit 1.

Newer developments, such as the multi-family residential development north of S 216th Street, streetscape improvements, and landscaped medians, have begun to change the character of parts of this landscape unit and its visual quality. As seen in Exhibit 1-1, the visual quality of much of the SR 99 corridor in Landscape Unit 1 is average. Areas with concentrations of sensitive viewers in Landscape Unit 1 include an area with multi-story residential buildings east of SR 99 and north of S 216th Street and a mobile home park east of SR 99 between S 216th Street and S 220th Street. Views from SR 99 toward Puget Sound and the Olympic Mountains are generally restricted by topography, buildings, and/or vegetation, but are possible from areas along the east side of the SR 99 corridor such as the multi-family building described above. Views from SR 99 and roadways east of SR 99 such as S 216th,

220th, 221st, and 224th streets are limited, but possible (see KOP 18, Exhibit 18a, and KOP 19, Exhibit 19a, in Appendix C). Light and glare from vehicles traveling on SR 99 can be observed from within the corridor and on adjacent properties.

**Landscape Unit 2:** Landscape Unit 2 travels through Kent and Des Moines. It is similar in character to Landscape Unit 1, with fewer landscaping features along the street and median. The portion of SR 99 in Landscape Unit 2 has less visual unity than in most of Landscape Unit 1 and has more areas of low visual quality (see Exhibit 1-2). Areas along SR 99 with concentrations of visually sensitive viewers include a mobile home park north of S 260th Street and east of SR 99, and two small subdivisions north of S 268th Street and west of SR 99. In the vicinity of the SR 99 and S 252nd Street intersection, there are limited views of Puget Sound and the Olympic Mountains. SR 99 Alternative options would pass near neighborhoods west of, but not adjacent to, SR 99 that have concentrations of sensitive viewers. As is the case in Landscape Unit 1, light and glare from vehicles traveling on SR 99 can be observed from within the corridor and on adjacent properties.

**Landscape Unit 3:** Landscape Unit 3 is in Federal Way where SR 99 contains a number of raised landscaped medians, landscaped parking strips, and street trees. Newer developments on adjacent lands, particularly residential developments, tend to have landscaping, which helps to unify the character of this part of SR 99. The visual quality of most of Landscape Unit 3 is average, except for commercial areas with parking lots that are categorized as low visual quality. As shown in Exhibit 1-3, there are a number of areas with concentrations of visually sensitive viewers along this part of the SR 99 corridor with a mix of single-family residential neighborhoods and multi-story residential buildings immediately adjacent to SR 99. A number of the multi-story residential complexes on the east side of the corridor are elevated above SR 99 and have views to the west of Puget Sound and the Olympic Mountains. Street level views of Puget Sound and beyond are possible from some parts of SR 99 in Landscape Unit 3.

## 3.0 Environmental Impacts

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The following three factors were used to determine whether the FWLE would impact visual and aesthetic resources:

- Change to the visual quality of the FWLE corridors near areas with concentrations of visually sensitive viewers (mostly residents)
- Potential blockage or intrusion on existing views of Puget Sound, the Olympic Mountains, or Mt. Rainier
- Impacts from light and glare related to stations, parking areas, and trains

This section discusses the relationships between these three factors and the FWLE alternatives.

### 3.1 No Build Alternative

With the No Build Alternative, visual quality would remain similar to that described in Section 2, Affected Environment, except for areas in Landscape Unit 1 and the north portion of Landscape Unit 2 where the WSDOT would build the SR 509 Extension Project (SR 509 Extension). In these areas, the SR 509 Extension would remove existing residential buildings and vegetation adjacent to and in the I-5 right-of-way. This would change the landscape character of adjacent areas and potentially reduce visual quality. Within the portion of Landscape Unit 1 south of the SR 509 Extension and Landscape Units 2 and 3, changes to the landscape would be limited to minor improvements of existing roadways and private development along the corridor. As individual properties redevelop over time, changes to the visual environment would occur incrementally. Westward views of Puget Sound and the Olympic Mountains from SR 99 might change over time if properties on the west side of SR 99 are redeveloped to their currently allowed zoning heights (between 35 and 200 feet, depending upon location-specific zoning).

### 3.2 Build Alternatives

The FWLE alternatives and options were developed with consideration given to minimizing potential visual impacts. The following measures were included during conceptual design to avoid and minimize impacts:

- Modifying alternatives to avoid or reduce acquisition and clearing of new right-of-way. This includes using existing transportation corridors (arterial streets and highways, limited-access highways) and a utility corridor.
- Minimizing the height of elevated structures and stations to the extent allowed by required vertical clearances.
- Minimizing total area disturbed for construction and operation.
- Maintaining surplus property for redevelopment by other parties.

### 3.2.1 Direct Impacts

Sound Transit developed visual simulations of the conceptual design of FWLE alternatives and options as seen from 26 KOPs to assist in determining direct impacts. Exhibits 1-1 to 1-3 include the locations of the KOPs for which visual simulations were developed, and Appendix C contains simulations of the conceptual designs from the KOPs. The simulations provide an idea of the expected scale and general appearance of elements associated with the alternatives when seen from adjacent areas. The simulations that were developed do not always include the potential mitigation measures described in Section 4, Potential Mitigation Measures, such as revegetation with native vegetated areas, landscape screening, sound wall treatments, station design, and art. To provide a general indication of the scale of these potential mitigation measures, some simulations in Appendix C depict conceptual areas where landscaping might be appropriate, noise barriers might be present on elevated guideways, and sound walls might be built. Sound Transit would incorporate specific measures to mitigate visual impacts as it develops the detailed design for the FWLE.

The FHWA methodology refers to “views of the road” from nearby areas and “views from the road” that would be seen by people traveling on roads or highways. Both types of views are depicted in the simulations in Appendix C to show views of alternatives and options that might be seen by pedestrians, motorists, and people from adjacent properties. Light rail passengers would also have views of the surrounding corridor except where the guideway would be in a trench or adjacent to sound walls. Simulations depicting views from the trains were not developed because it would not be possible to compare “before” project photographs with simulations of the potential views from the trains.

#### 3.2.1.1 Impacts Common to All Build Alternatives

All of the FWLE alternatives and options would change the visual environments in which they would be constructed. Exhibits 1-1 to 1-3 depict the FWLE alternative and option alignments and proposed profile (at-grade, elevated, or trench). The construction and operation of the alternatives and options would remove a variety of existing visual features such as buildings and vegetation (including trees) in landscaped areas, on slopes, and within parking lots. Some streets would require minor widening, which could require the removal of street trees, and others would require bridging structures where the alternative would pass beneath them in a trench. Table 3-1 identifies the main components of the FWLE and describes their visual characteristics.

Given the developed nature of the potential station areas and the mitigation measures described in Section 4, Potential Mitigation Measures, the presence of the lights at the stations and parking areas would not be expected to disturb sensitive viewers (primarily residents). Some nearby residents could see lights from passing trains (some of which may be elevated), although sound walls (which would often be on the guideway adjacent to residential areas) would tend to block views of train headlights and interior lights depending upon the height and placement of the sound wall.

**TABLE 3-1**  
Visual Characteristics of FWLE Components

Project Component	Visual Characteristics and Notes
Elevated Guideways or Structures (piers, straddlebents) <sup>a</sup>	These are often the most visible project elements. The bottom parts of elevated guideways would in some areas range between approximately 10 feet and 60 feet above grade. Noise barriers near sensitive receptors could add several additional feet to the height of the elevated guideways. In some locations, elevated guideways (and their associated overhead catenary system [OCS]) could intrude on views of the Puget Sound and/or Olympic Mountains, although they might not block them altogether. Elevated stations (and guideways to a lesser extent) could create shadows that could have negative impacts. However, stations and associated structures such as elevators, escalators, and walkways would be designed to be attractive architectural elements or features in the areas where they would be built and would add visual interest to the nearby area.
Overhead Catenary System	The OCS is a highly visible element from close viewing distances. OCS elements (wires and poles) become less visible as viewing distances increase. The structures may intrude on views of the Puget Sound and/or Olympic Mountains but would not block views of the Puget Sound and/or Olympic Mountains because of their thin, cable-like profile and appearance.
Stations	The boarding platforms would be approximately 380 feet long. Depending on size, bulk, and whether they would be elevated, trenched, or at-grade, stations could block views of the Puget Sound and/or Olympic Mountains, intrude on views, cast shadows, or add built elements to the landscape. Elevated stations would generally be more visible than at-grade stations and would contain features such as escalators, elevators, and stairs. The stations would employ context-sensitive design to help these structures reflect the surrounding areas. Examples include using material colors that help the structures blend in, installing landscaping around the perimeter of the structures, incorporating islands of landscaping in areas of pavement, and placing art near stations.
Parking Structures	Depending on size and bulk, parking structures could block existing views of the Puget Sound and/or Olympic Mountains. Parking structures can be designed or assigned criteria to match surrounding architecture types to help them aesthetically fit with their surroundings. Local landscape regulations would be followed to help parking structures visually and aesthetically better blend into the areas where they would be located. Parking structures would use the same design approaches described above for stations.
Parking Lots	Parking lots result in additional hard surface, which is low in visual interest. Some jurisdictions require landscaping that can reduce the visual impact. Local parking lot and relevant landscape regulations would be followed to help parking lots visually and aesthetically better blend into the areas where they would be located.
Lighting and Glare Associated with Structures and Parking Lots	Project-related lighting for operation and construction could create light impacts, glare impacts, increase the level of ambient light in nearby areas, and increase skyglow, which can adversely affect nighttime views of the stars. Sound Transit would use design-related measures such as shielding and altering light direction in stations, parking structures, and parking lots where appropriate to reduce potential impacts. Glare impacts would be unlikely. "Glare" is defined by the online Merriam-Webster Dictionary as "a harsh uncomfortably bright light" (Merriam-Webster, 2013); given this definition, potential reflection from stations might be seen under certain conditions and at certain times of the day, but would not produce harsh, uncomfortable bright light.
Lighting Associated with Trains	Lights from the interior of FWLE light rail trains and train headlights would be seen at night in some locations as the light rail passes viewers, although sound walls on elevated structures would block train headlights and interior lights from many nearby sensitive viewers. Briefly seeing light associated with light rail trains passing would not be expected to create visual disturbances, given the existing level of traffic found along the SR 99 and I-5 corridors at night. Some sensitive viewers living in units that would be adjacent to elevated structures might find passing nighttime light rail visually disturbing.
Building Removal	Removal of existing buildings can improve or detract from visual settings, depending on building condition, style, scale, and color. Areas where buildings would be removed would contain project elements and/or be revegetated to better blend in with nearby areas.
Vegetation Removal	Removal of vegetation can open up views that are nonexistent or, conversely, expose other unsightly views, such as parking areas or other generally unattractive elements. When possible, Sound Transit would preserve existing vegetation, replant vegetation, replace trees, and screen to minimize effects of vegetation removal.
Retaining Walls	Retaining walls often replace vegetated hillsides with hard materials such as concrete that might require surface design treatments to reduce impacts. Where appropriate, retaining walls would be treated with surface design enhancements.
Sound Walls	Sound walls or noise barriers are built of solid materials and placed adjacent to or attached to the light rail guideway. When these measures are not effective, sound walls might be constructed along property lines, sometimes replacing existing fences. Sound walls would be installed on elevated structures near sensitive noise receivers. The height and location of sound walls are not final in this EIS, and when depicted in visual simulations, are not intended to depict final height and location.
Trenches	Trenches would only be visible from nearby areas. Fencing or walls along the top of a trench would be the most visible elements. Design of these features would be informed by Sound Transit and/or local jurisdiction design guidelines.
Traction Power Substations	The traction power substation would be in enclosed buildings, about 20 feet by 60 feet in size, with an additional 10 to 20 feet required around each unit. Where appropriate, they would be screened from public view with a wall or fence. The exterior walls or fences would be landscaped in accordance with the landscape regulations of the jurisdictions.

<sup>a</sup> Piers are columns holding up the elevated guideway. Straddlebents are supports made of two columns that support a beam on which the guideway sits.

The presence of passing trains at night would be brief, but might disturb some sensitive viewers, although similar lights from vehicles passing by along SR 99, I-5, or other arterials are currently seen along many of the alternative corridors.

### 3.2.1.2 Impacts by Alternative

The following subsections describe visual impacts from the FWLE alternatives in terms of the three factors evaluated for this EIS: reductions in visual quality in locations adjacent to concentrations of sensitive viewers (residents); potential blockage or intrusion on existing views of Puget Sound, the Olympic Mountains, or Mt. Rainier; and potential impacts associated with light and glare. Table 3-2 provides a summary by FWLE alternative of the estimated number of residences along the I-5 corridor where visual quality would be lowered. Mitigation measures that would reduce or minimize the impacts identified below are described in Section 4, Proposed Mitigation Measures, along with a description of the measure's success in reducing or minimizing impacts.

TABLE 3-2

Reduction in Visual Quality Category by FWLE Alternative Near Areas along I-5 with Concentrations of Sensitive Viewers (by Approximate Number of Residences)

Analysis Area <sup>a</sup>	Approximate Number of Residences with Reduction in Visual Quality		
	Preferred Alternative	SR 99 to I-5 Alternative	I-5 to SR 99 Alternative
<b>Landscape Unit 1</b>			
S 211th St. to S 216th St.	Not Applicable	Not Applicable	Not Applicable
S 216th St. to Kent-Des Moines Rd.	130	Not Applicable	130
<b>Landscape Unit 2</b>			
S 252nd to S 259th St.	20	20	Not applicable
S 259th St. to Star Lake Park-and-Ride	10	10	
<b>Landscape Unit 3</b>			
S 272nd St. to Military Rd.	15	15	Not applicable
Military Rd. S to S 288th St.	15	15	
S 288th St. to S 298th St.	40	40	
S 298th St. to S Military Rd.	10	10	
S Military Rd. to S 317th St.	50	50	
<b>Total Residences</b>	<b>290</b>	<b>160</b>	<b>130</b>

<sup>a</sup> Segments of the landscape units along I-5 with average visual quality categories near areas with concentrations of sensitive viewers.

Table 3-3 provides an estimate by FWLE alternative of the number of residences along the SR 99 corridor where visual quality would be lowered.

TABLE 3-3

Reduction in Visual Quality Category by FWLE Alternative Near Areas along SR 99 with Concentrations of Sensitive Viewers (by Approximate Number of Residences)

Analysis Area <sup>a</sup>	Approximate Number of Residences Near Areas with Reduction in Visual Quality		
	SR 99 Alternative	SR 99 to I-5 Alternative	I-5 to SR 99 Alternative
<b>Landscape Unit 1</b>			
S 211th St. to S 216th St.	15	15	Not Applicable
<b>Landscape Unit 2</b>			
North of S 260th St.	None	None	None
<b>Landscape Unit 3</b>			
S 279th St. to S 283rd St.	40	Not Applicable	40
S 283rd St. to S 288th St.	70		70
S 288th St. to Dash Point Rd.	40		40
Dash Point Rd. to S 303rd St.	95		95
<b>Total Residences</b>	<b>260</b>	<b>15</b>	<b>245</b>

<sup>a</sup> Segments of the landscape units along SR 99 with average visual quality categories near areas with concentrations of sensitive viewers.

### Preferred Alternative

The greatest potential impact from the Preferred Alternative would be tree removal and in some cases building removal (primarily multi-family residential buildings and single-family residences) along the west side of the I-5 corridor (see Exhibit D-1 in Appendix D). It would remove approximately 33 acres of forested area in the I-5 corridor. This consists of approximately 2.2 lineal miles (of an existing 5 lineal miles) of vegetated areas. Most vegetation removal would be in the construction footprint, but some trees that could fall on the guideway from outside the footprint (potentially on private property) would also be removed.

There are four WSDOT Resource Conservation Areas (RCAs) along the Preferred Alternative totaling approximately 0.8 acres. The Preferred Alternative would permanently impact approximately 0.6 acre of these areas by removing vegetation. The WSDOT *Roadside Policy Manual* (WSDOT, 2015) provides policy requirements regarding tree removal and replacement within and adjacent to a highway right-of-way, including RCAs. They are described in Section 4, Potential Mitigation Measures.

Trees next to I-5 areas generally screen views of the freeway from adjacent areas and views of adjacent areas from I-5. Tree and vegetation removal in the I-5 corridor would change the character of the corridor to that of a more urbanized environment with less tree canopy.

The removal of trees that screen views of I-5 would make elements of the Preferred Alternative and I-5 more visible to adjacent properties. Although there are several areas with concentrations of multi-family residential buildings and a large mobile home community that have a greater density of sensitive viewers, most adjacent uses are single-family neighborhoods with a lower density of sensitive viewers. For many adjacent residences, sound walls (along at-grade and trenched alignments),

elevated guideways, and replanted vegetation would replace current views of mature vegetation. In some locations higher than I-5, parts of the freeway would be seen over the sound walls until replanted vegetation matured to a large enough size to screen or soften views (in approximately 5 to 8 years). In many places, remaining mature vegetation and existing buildings would screen or block views toward the Preferred Alternative from more distant residences. However, residences that are more distant would notice the removal of large trees along I-5 that are important background elements.

Tree removal would also allow I-5 motorists to see some areas west of I-5 that are currently screened from their view. Where vegetation and building removal would make properties west of I-5 more visible, views of urbanized uses (primarily residential) or sound walls would replace views of forested areas. Although non-sightseeing motorists are considered to have moderate to low viewer sensitivity, motorists' experience would change and they could have decreased driving pleasure. The current amount and type of vegetation along this part of I-5 is not uncommon along other sections of I-5, but offers a contrast to areas with views of adjacent urban land uses instead of vegetation.

After construction, Sound Transit would revegetate areas west of the guideway where trees currently screen views of I-5 from some adjacent residences and serve as a backdrop to people travelling on I-5. Vegetation would include large shrubs or small to medium-sized trees. This would have some effectiveness in screening views of I-5 from areas to the west of it, particularly where I-5 is lower in elevation than the adjacent western terrain. It would also somewhat reestablish the vegetated backdrop to I-5 that the trees that would be removed currently provide. The screening and effectiveness as a backdrop would be low until the replanted vegetation matured (5 to 8 years). Landscaping east of the alignment between it and I-5 would generally be low growing. This vegetation would provide some viewing interest, but would generally not be large enough to screen views of the Preferred Alternative.

Where properties west of I-5 would become more visible from tree removal and where there would be fewer opportunities to employ vegetation to screen views, new views of urbanized uses (primarily residential) would replace current forested views. Areas underneath elevated portions of the guideway that would pass over wetlands or other sensitive areas would be revegetated per local requirements. Other areas under elevated sections of the alignment would be covered with gravel. Where seen, these graveled areas would contrast with adjacent planted areas. Areas between the east side of the alignment and I-5 would be planted with native grasses and low-growing vegetation. The vegetation would help soften views of the Preferred Alternative, but would not screen views of it. With the Preferred Alternative, the character of the I-5 right-of-way west of the travel lanes would change from largely natural appearing to transportation-oriented.

## **Visual Quality**

### ***Landscape Unit 1***

Most of the Preferred Alternative in Landscape Unit 1 adjacent to areas with concentrations of sensitive viewers would be at-grade or in a trench and would not be as visible as an elevated profile (see KOP 1, Exhibit 1b, in Appendix C). Some parts of the at-grade guideway near sensitive viewers

would require retained fill, such as near Midway Park (see KOP 4, Exhibit 4b, in Appendix C). The Preferred Alternative would remove a number of single-family residences and multi-story residential buildings at the southern end of Landscape Unit 1 (see KOP 5, Exhibit 5b, in Appendix C). The removed single-family residences would generally be on the east side of north-south oriented streets such as 31st and 32nd Avenues S (see KOP 2, Exhibit 2b in Appendix C), or at the east ends of roads such as S 224th Place that dead-end against I-5.

The Preferred Alternative would remove approximately 0.3 lineal mile of the current 0.8 lineal mile of vegetative screening in Landscape Unit 1. The removal of vegetation and buildings would expose many residents west of this part of the I-5 corridor to largely uninterrupted views of the generally at-grade light rail alignment and its sound walls. Between approximately S 211th Street and the Highline Water District property north of S 216th Street, the Preferred Alternative would remove several single-family and multi-family residential buildings as well as mature vegetation, which could result in views of the light rail and parts of I-5 from residences (seen over sound walls). The presence of the light rail would not be consistent with the residential character of this area, and visual quality would be reduced from average to moderately low in some places.

The Preferred Alternative would displace a Highline Water District water tank north of S 216th Street that is adjacent to I-5. The District's planning work to date also calls for removing one of the elevated water towers on the property. A new tank on the southwest corner of the property would replace the function of the ground-level tank displaced by the Preferred Alternative as well as the elevated tank and would not be any taller than the existing tanks. The changes associated with the Preferred Alternative would not substantially reduce the existing low visual quality of this area.

Between approximately S 216th Street and Kent-Des Moines Road, the trenched and at-grade profile would remove multi-family residential buildings and vegetative screening along parts of I-5. The building and vegetation removal would open up views of I-5 from some units in the remaining multi-family buildings. These changes would reduce the average visual quality of much of this area to moderately low. A stormwater detention basin lined with vegetation west of the guideway between S 219th and S 220th streets adjacent to a multi-family complex, and a traction power substation (TPSS) lined with vegetation between S 220th and S 221st streets would contribute to a lowering of visual quality.

The portion of the Preferred Alternative in Landscape Unit 1 would remove trees and vegetation in the I-5 right-of-way (see KOP 3, Exhibit 3b, in Appendix C). The vegetation removal and presence of the Preferred Alternative would expand the large-scale transportation-dominated character of I-5 to the west. It would change the character of the western edge of I-5 right-of-way from fairly natural to transportation-dominated.

### ***Landscape Unit 2***

The Kent/Des Moines Station would add architectural interest to SR 99 (see KOP 6, Exhibit 6b, in Appendix C), but would introduce a large-scale element into the views of some residents in the nearby mobile home park. The area near the station currently contains a mixture of land uses and has low

visual quality. The elevated station would introduce new visual elements that would improve the vividness, intactness, and unity of the area. The station, along with improvements near Highline College's entrance from SR 99, would improve visual quality along this portion of the SR 99 corridor.

After heading south from the Kent/Des Moines Station, the elevated guideway would enter the I-5 right-of-way north of the Midway Landfill and continue elevated south along the I-5 on the eastern edge of the landfill. At approximately S 252nd Street, it would transition to at-grade along a residential area (see KOP 7, Exhibit 7b, in Appendix C) until becoming elevated to cross over S 259th Place (see KOP 9, Exhibit 9b, Appendix C). Noise barriers would be on the elevated portion of the guideway near residences, and sound walls would be used on the at-grade portions. The Preferred Alternative would remove approximately 0.5 lineal mile of the 1.5 lineal miles of mature vegetation in Landscape Unit 2, removing the established trees that form a backdrop to this neighborhood (see KOP 10, Exhibit 10b, in Appendix C). The presence of the guideway, sound walls, and passing trains would not be consistent with the residential character of this area and would reduce visual quality from average to moderately low.

A stormwater detention basin would be built south of S 259th Street between a multi-family residential complex and west of I-5. The detention basin would remove established vegetation that currently screens views of I-5 from some buildings in the complex.

The Preferred Alternative would be in a trench as it passes the second residential area in Landscape Unit 2, the Greenfield Park neighborhood north of the Star Lake Park-and-Ride. It would continue in a trench to the S 272nd Star Lake Station, which would be in the current park-and-ride. Residences on the east side of 28th Avenue S and almost all of the vegetation between 28th Avenue S and I-5 would be removed. Approximately 250 feet of 28th Avenue S would be shifted west into a neighborhood open space, removing vegetation between the neighborhood and the station. Views from the backyards of residences along 28th Avenue S (that face 27th Place S) and views from some residences on S 269th Street would not include the light rail or station, but the removal of trees would be very noticeable (see KOP 10, Exhibit 10b, in Appendix C). Views from some residences might include the top of the station's parking garage, which would be 5 stories. The Preferred Alternative would change the appearance of the east side of 28th Avenue S and reduce the visual quality of the portions of the Greenfield Park neighborhood west of 28th Avenue S that have views to the east and southeast. The average visual quality would be reduced to moderately low.

In Landscape Unit 2 the Preferred Alternative would remove trees and vegetation on the western edge of the I-5 right-of-way (see KOP 8, Exhibit 8b, in Appendix C). The removal of the vegetation and presence of the Preferred Alternative would expand the existing large-scale transportation character of I-5 to the west.

### ***Landscape Unit 3***

In Landscape Unit 3, the Preferred Alternative would remove much of the tree cover found along the western edge of I-5 next to residential areas. These changes to areas seen from I-5 would be similar to those depicted for Landscape Units 1 and 2. The Preferred Alternative would remove approximately

1.6 lineal miles of the existing 2.6 lineal miles of mature vegetation that provides screening along this portion of I-5. After passing under S 272nd Street, the Preferred Alternative would pass through the eastern edge of the Mark Twain Elementary School playfield (in a lidded trench). Although viewers using schools are not considered sensitive viewers according to this technical report's methodology, changes in views from Mark Twain Elementary School were assessed. The lidded trench next to the playfield and area near it would be vegetated (see KOP 11, Exhibit 11b, in Appendix C). In less than approximately 5 years, the vegetation would screen views of the lidded trench and restore the visual quality of eastern views from the playfield and main part of the school. South of the school, the Preferred Alternative would pass through a residential area in an open trench until it reached Military Road S, where it would return to at-grade. The removal of the mature trees that line much of this part of I-5 and form a backdrop for many of the residences adjacent to the corridor, along with the addition of sound walls and passing trains, would alter the character of this area and reduce the average visual quality to low. KOPs 11 through 13 (Exhibits 11b, 12b, and 13b in Appendix C) depict the Preferred Alternative passing through this part of Landscape Unit 3. Note that although students and staff at Mark Twain Elementary School are not considered sensitive viewers in this technical report, simulations of the Preferred Alternative and the S 272nd Star Lake Elevated Station Option passing through the school playfield were developed so that differences between the two alignments in a very visible part of Landscape Unit 3 could be displayed.

Between Military Road S and S 288th Street, the Preferred Alternative would be at-grade. It would remove most of the mature vegetation west of I-5 in the WSDOT right-of-way. This area contains vegetation on properties west of the I-5 right-of-way that would help screen views of the alignment from more distant residences. However, tree removal would change the character of areas immediately adjacent to I-5 and would reduce the average visual quality to moderately low. North of S 288th Street, currently undeveloped property would be partially cleared for the realignment of Bingaman Creek, an emergency access road, a TPSS, and a stormwater detention pond. Some existing vegetation would be preserved between this area and residences to the west along 30th Avenue S.

South of S 288th Street, tree removal and replacement of the existing sound wall along I-5 would be noticed by residents adjacent to I-5, particularly at the Camelot Square Mobile Home Park (see KOP 14, Exhibit 14b, in Appendix C). Tree removal, a retained-fill wall next to parts of the mobile home community, and sound walls on top of the retained fill wall would reduce the visual quality of this area from average to moderately low. South of the mobile home community, the Preferred Alternative would continue south to Military Road S at-grade past residential areas where it would remove most of the vegetation screening I-5. This would reduce visual quality from average to moderately low. The Preferred Alternative includes a stormwater detention pond at the triangle formed by Military Road S, I-5, and S 304th Street, which would remove additional vegetation.

From Military Road S to approximately north of S 317th Street, the Preferred Alternative would be at-grade. It would remove vegetation and several buildings along I-5 near residential areas that contain scattered single-family residences and several multi-family residential complexes (see KOP 15, Exhibit 15b, in Appendix C). The loss of the vegetation would reduce the average visual quality of views from

adjacent residences to moderately low. Remaining vegetation and buildings would tend to screen views of the alignment from residents not immediately adjacent to it. Sound walls would not intrude on views of Mt. Rainier.

From S 317th Street, the alignment would continue west in a trench and then elevate to a station near the Federal Way Transit Center. Even though viewers from KOPs 16 (317th direct-access ramp from I-5) and 17 (Truman High School) are not considered sensitive viewers, simulations for them (see KOP 16, Exhibit 16b, and KOP 17, Exhibit 17b, in Appendix C) depict how the Preferred Alternative would transition from the I-5 to the Federal Way Transit Center. This part of the Preferred Alternative would pass a mixture of land uses that contain extensive areas for parking and buildings set within the parking areas. The visual quality in this area is low and the nearest sensitive viewers are in multi-story residential buildings north of S 317th Street. The Preferred Alternative would be consistent with the character of this area, and despite the elevated nature of the alignment and station, would not further reduce the low visual quality of this area.

### **Views**

In Landscape Unit 3, the residences north of S 317th Street that have views of Mt. Rainier would not have those views intruded upon or blocked because this part of the Preferred Alternative would be in a trench or at-grade. Removal of mature vegetation in this area would open up views of Mt. Rainier for some residences.

### **Light and Glare**

Light associated with several of the stations would be potentially visible to nearby residents. Source shielding on lights at the stations and parking structures would prevent luminaires (bulbs) from being directly visible from adjacent residences. Light from the elevated Kent/Des Moines Station might be seen by some residents in the nearby mobile home park. Light associated with the S 272nd Star Lake Station (which would be located in a trench) would likely not be seen from nearby residences, but light from the top of the station's five-story parking garage might be seen. Lights associated with the elevated Federal Way Transit Center station would potentially be seen by some residents north of S 317th Street. However, there are tall evergreen trees along the southern edge of the multi-family buildings north of S 317th that currently screen views to the south and would also likely screen views of light from the elevated station.

For all landscape units, the residents that were identified as having uninterrupted views of the elevated and at-grade portions of the Preferred Alternative would also have uninterrupted views of trains passing at night. Although noise barriers on the elevated portions of the alignment would likely block the headlights from trains next to residences, interior lights from passing trains could be seen over the barriers. Lights from trains in trenched sections would not be seen. Where seen, lights from stations, parking structures, and/or passing trains could be disturbing to viewers to varying degrees.

### **Preferred Alternative Station and Alignment Options**

The following subsections discuss the Preferred Alternative options that would lower visual quality next to areas with concentrations of sensitive viewers, would have impacts to views, or would have impacts from light and glare.

## ***Kent/Des Moines Station Options***

### *Visual Quality*

The Kent/Des Moines I-5 Station Option would be on partially undeveloped land between I-5 and 30th Avenue S. The area contains a mixture of land uses that include a church conference center, scattered residences, mobile home parks, small office buildings, and commercial properties. This mixture of uses has resulted in an area that has moderately low to low vividness, intactness, unity, and overall visual quality. Two mobile home parks would be removed, but some sensitive viewers in apartment buildings and other mobile home parks approximately 400 feet away would remain. Some of these residents might see parts of the elevated Kent/Des Moines I-5 Station Option, but intervening trees and buildings would likely block views of much of the station. The presence of the station option would improve vividness, intactness, and unity enough to improve visual quality to between moderately low and average. The Kent/Des Moines At-Grade Station Option would likely not be seen by sensitive viewers in the apartment buildings or mobile home parks mentioned above. The presence of the at-grade station would also improve vividness, intactness, and unity enough to improve visual quality to between moderately low and average.

### *Views*

Neither of the station options would intrude on views of Mt. Rainier by residents.

### *Light and Glare*

Light from the elevated Kent/Des Moines I-5 Station Option station and passing trains might be seen by some residents in the apartment buildings described above (although they would be approximately 400 feet from it and screened by other buildings and trees). Source shielding on the lights at the station would prevent luminaires (bulbs) from being directly visible from adjacent residences. The presence of light in this area could disturb some residents to varying degrees. It is doubtful that light from passing trains would be seen by the residents.

## ***Landfill Median Alignment Option***

### *Visual Quality*

The north end of this alignment option would pass through an area with low visual quality and would remove some trees lining the west side of the I-5 before transitioning to the I-5 median to avoid the Midway Landfill. It would be in the median along a section of the I-5 with low visual quality. The edge of the I-5 corridor near the landfill is not lined with trees, and views of the landfill and methane collection equipment can be seen from I-5. There are no areas with concentrations of sensitive viewers along the west side of this alignment option. There are residences along the east side of I-5, but views of I-5 and the landfill are generally screened by trees except for south of the landfill where gaps in the trees permit views of the Midway Landfill and the guideway by residents. The presence of the guideway would be consistent with the transportation character of this section of the I-5 and would not further reduce the low visual quality.

### Views

Southbound I-5 motorists have views of Mt. Rainier along this section of I-5. Their views of Mt. Rainier could be briefly blocked where the guideway would cross over the southbound lanes of I-5 to get to and from the median.

### Light and Glare

Light from passing trains could be seen by some residents on the east side of I-5 in several places and could disturb some of residents to varying degrees.

## ***S 272nd Star Lake Elevated Station Option***

### Visual Quality

From the north, this station option would be on the east side of the Greenfield Park neighborhood as the guideway rises to meet the elevated station. The removal of mature trees and residences on the east side of 28th Avenue S that currently screen views of I-5 would be noticeable from nearby residences (see KOP 10, Exhibit 10c, in Appendix C). The north end of the station would be midway between the north end of the Star Lake Park-and-Ride lot and the south end of the neighborhood, and would be seen from some residences. Approximately 150 feet of 28th Avenue S would be shifted west into a neighborhood open space, removing some vegetation between the neighborhood and the station. Views from the backyards of residences along 28th Avenue S (that face 27th Place S) and views from some residences on S 269th Street would include the elevated guideway passing to the east. From some locations, the north end of the elevated station and the top of the elevated parking garage would be seen. The S 272nd Star Lake Elevated Station Option would change the appearance of the east side of 28th Avenue S and reduce the visual quality of the portions of the Greenfield Park neighborhood west of 28th Avenue S that have views to the east and southeast from average to low.

After the elevated structure passes over S 272nd Street, it would continue past the east side of the Mark Twain Elementary School playfield as a retained-fill structure (see KOP 11, Exhibit 11c, in Appendix C). The retained wall and other components of the alignment would be clearly seen and would introduce large-scale transportation elements to the view. The average visual quality of the view would be reduced to low, although it would not be seen by viewers that meet the definition of sensitive in this technical report. Vegetation and wall treatments would reduce the impacts of the retained-fill structure and sound wall and would provide a pleasant vegetated backdrop. The visual quality would not be restored to average, however, for up to approximately 10 to 15 years, at which time it would screen views of much of the structure and passing trains.

After leaving Mark Twain Elementary School, the alignment would transition as a retained-fill structure past residences to an at-grade alignment. Construction would remove many large trees along its route, which would change the character of areas near it. The elevated alignment and passing trains would be seen by adjacent residents and from some areas beyond the residences (see KOP 12, Exhibit 12c, in Appendix C). The visual quality of views towards the alignment would be reduced from average to low. Mitigation measures would restore visual quality in some locations, but in some areas a lack of room

between the residences and alignment for planting and screening would not allow visual quality to be restored.

#### Views

There are no views in this area to be impacted.

#### Light and Glare

Lights from the elevated station would likely be noticeable from some residences. Although source shielding on the lights at the station would prevent luminaires (bulbs) from being directly visible from residences, the presence of these light sources could disturb some residents to varying degrees. Light from trains passing on elevated guideways would be seen from the backyards of some residents whose property backs up against the west side of 28th Avenue S and from some residences south of Mark Twain Elementary School. Although noise barriers on the elevated portions of the alignment would likely block the headlights from trains next to residences, interior lights from passing trains could be seen over the barriers. The presence of these trains passing at night could disturb some residents to varying degrees.

### ***S 317th Elevated Alignment Option***

#### Visual Quality

This alignment option would be elevated along I-5 and over the S 317th Street roundabout (see KOP 16, Exhibit 16b, in Appendix C). It would span the roundabout before heading west toward the Preferred Federal Way Transit Center Station. It would be seen by sensitive viewers in the multi-family housing development on 28th Avenue S (see KOP 15, Exhibit 15c, in Appendix C). The loss of the vegetation would reduce the average visual quality of residences adjacent to the S 317th Elevated Option to low. Although viewers using schools are not considered sensitive viewers according to this technical report's methodology, changes in views from Truman High School were assessed. The elevated guideway would be seen from Truman High School in the distance (see KOP 17, Exhibit 17c, in Appendix C), across S 317th Street and next to commercial buildings such as a tall hotel. Even though KOPs 16 and 17 do not affect sensitive viewers (according to this technical report's methodology), these locations are quite visible from areas near them.

#### Views

This option would intrude upon views of Mt. Rainier from some areas north of S 317th Street.

#### Light and Glare

This option would result in light from passing trains being seen from some residential units along 28th Avenue S and other multi-family developments north of S 317th Street. Although noise barriers on the elevated portions of the alignment associated with the option would likely block the headlights from trains passing next to residences, interior lights from passing trains could be seen over the barriers. The presence of these trains passing at night could disturb some residents in residences along 28th Avenue S and north of S 317th to varying degrees.

### ***Federal Way I-5 Station Option***

#### *Visual Quality*

The Federal Way I-5 Station Option in Landscape Unit 3 would pass through areas with average and low visual quality and would not be near areas with concentrations of sensitive viewers. The station would be partially at-grade and partially in a trench. The presence of the station option would add some vividness to views in this area, but not enough to improve the visual quality of the area near it from low to average. The presence of a parking structure at the station would be consistent with transportation character of this area and would not further lower the existing low visual quality.

#### *Views*

There would be no view blockage with this option.

#### *Light and Glare*

There would be no impacts from light and glare with this option. Light from the parking garage might be seen by residents. Source shielding, however, would prevent luminaires (bulbs) from being directly visible from nearby residences. In addition, surface lighting from this station would be screened from residences to the north by existing vegetation on the north side of S 317th Street.

### ***Federal Way S 320th Park-and-Ride Station Option***

#### *Visual Quality*

The Federal Way S 320th Park-and-Ride Station Option would be adjacent to I-5 and at an existing park-and-ride lot. Tail tracks would extend southeast within a trench into the northeast corner of a mobile home park (which contains sensitive viewers). The station and associated park-and-ride lot (and possibly parking garage) would be in an area currently used for parking that has low visual quality. This station option would not further lower the already low visual quality of views towards I-5 from nearby areas. It would replace residences along the east side of the mobile home park with a fenced trench. The presence of the project would not be consistent with the residential character of the mobile home park, although the eastern portion of the mobile home park is adjacent to I-5. The option would not further reduce the low visual quality of this portion of the corridor.

#### *Views*

There would be no view blockage of Mt. Rainier with this option.

#### *Light and Glare*

Light from the parking garage might be seen by residents. Source shielding, however, would prevent luminaires (bulbs) from being directly visible from nearby residences. The presence of light associated with the parking garage and operation of the tail tracks could disturb some residents to varying degrees.

### **SR 99 Alternative**

The SR 99 Alternative elevated guideway would be taller than most adjacent structures. However, it would be consistent with the utilitarian character of portions of the corridor that are adjacent to large-

scale, low-rise commercial and industrial buildings that are surrounded by expansive paved areas for vehicle parking or storage. Many of these areas have low visual quality and do not contain sensitive viewers; the SR 99 Alternative would not reduce visual quality in these areas. In residential areas (primarily containing multi-story residential buildings) of the SR 99 corridor that have average visual quality, the SR 99 Alternative elevated guideway would be generally out of scale and would reduce the visual quality of the SR 99 corridor to low. Areas where the visual quality of the corridor would be lowered near areas with concentrations of sensitive viewers are indicated in Exhibit D-2 in Appendix D. Table A-1 in Appendix A provides a detailed description of how the SR 99 Alternative would, or would not, change visual quality along segments of corridor.

Many areas along the SR 99 corridor that have been categorized as having average visual quality contain landscaped medians, street trees, and sidewalk/adjacent property planting areas. The SR 99 Alternative would remove portions of these landscaped medians for guideway support columns and/or turn lanes. Where the SR 99 Alternative would affect currently landscaped medians, existing vegetation would be maintained to the extent possible. However, existing trees that might grow too tall to fit under the elevated guideway would likely be replaced with smaller trees or shrubs.

The following subsections describe where the SR 99 Alternative would have impacts on visual quality near areas with concentrations of sensitive viewers and describes potential impacts related to view blockage of Puget Sound and the Olympic Mountains, and impacts from light and glare. Although the elevated guideways could intrude upon or block views of Puget Sound and the Olympic Mountains from SR 99 and adjacent areas, it would offer passengers expansive elevated views in some locations that would include views of Puget Sound and the Olympic Mountains.

## **Visual Quality**

### ***Landscape Unit 1***

In Landscape Unit 1, the presence of the elevated guideway along the median of SR 99 would not be consistent with the residential character of the area east of SR 99 and north of S 216th Street (see KOP 18, Exhibit 18b, in Appendix C). Its scale adjacent to the multi-story residential buildings would encroach on views up and down the SR 99 corridor from west-facing units in the buildings. The elevated guideway and replacement of the existing median would lower the existing average intactness and unity of the corridor. Visual quality would be reduced from almost average to moderately low in this area.

The SR 99 Alternative would pass west of a mobile home park south of S 216th Street on the east side of SR 99 (see KOP 19, Exhibit 19b, in Appendix C). Part of the mobile home park is adjacent to a segment of SR 99 that has almost average visual quality. Views to the west from the residences within the mobile home park are currently restricted by the presence of trees, other residences, and a perimeter wall and fence next to SR 99 that block views from within the mobile home park. The presence of the elevated guideway would add a large-scale element to the corridor and would somewhat encroach on views between trees and structures and over the wall and fence of the SR 99

corridor. The presence of the elevated structure would lower visual quality along the corridor, from almost average to moderately low.

### ***Landscape Unit 2***

The southern end of Landscape Unit 2 contains sensitive viewing areas (a small subdivision and the Woodmont Library) that are adjacent to a part of the corridor with average visual quality. The elevated guideway of the SR 99 Alternative would pass this area and others (see KOP 22, Exhibit 22b, in Appendix C) in the SR 99 median. It would be clearly seen in front of the forested area on the east side of SR 99 from the library and partially seen through trees from the subdivision. The presence of the elevated guideway along the median would reduce the vividness and intactness of the SR 99 corridor, but it would not lower the visually quality enough to reduce it from average to low in this section.

### ***Landscape Unit 3***

In Landscape Unit 3, the elevated guideway would pass a series of residential areas adjacent to parts of the SR 99 corridor that have average visual quality. Most of the residential areas are found along the east side of SR 99 and consist of multi-story buildings that have been constructed on terrain higher than SR 99 and have views down to it (see KOP 24, Exhibit 24b, in Appendix C). Some isolated areas in Landscape Unit 3 contain single-family residences and mobile homes that are generally at the same elevation as SR 99. The scale and presence of the elevated guideway above the median in these residential areas would not be consistent with the residential character and would reduce the average and above average visual quality to moderately low in several areas.

### **Views**

A number of the west-facing residences in Landscape Unit 1 north of S 216th Street and east of SR 99 have elevated views that include Puget Sound and the Olympic Mountains. The SR 99 elevated guideway could intrude upon, or block, residents' views of Puget Sound and the Olympic Mountains. In Landscape Unit 3, the SR 99 Alternative elevated guideway would also intrude upon or block views of Puget Sound and the Olympic Mountains from residences along the east side of SR 99, as well as from parts of SR 99 (see KOP 25, Exhibit 17b in Appendix C). The elevated guideway would also partially block views of and from some public facilities, including the Woodmont Public Library and Federal Way High School.

### **Light and Glare**

Interior lights from trains passing on elevated guideways would be visible from some nearby residences and could disturb residents to varying degrees. Headlights from trains could also be

#### **Building Heights**

Current zoning would allow buildings to be built along much of the SR 99 corridor in Landscape Unit 1 that would be taller than current buildings and would potentially intrude upon or block views of Puget Sound and the Olympic Mountains. Exhibit 11a in Appendix C depicts what the SR 99 corridor would look like when viewed from S 216th Street under the current conditions, without considering what current zoning would allow to be built. If buildings on these properties were built to the heights allowed in current zoning, views of Puget Sound and the Olympic Mountains could be blocked regardless of FWLE construction. Properties along the west side of SR 99 south of S 216th have been zoned as Pacific Ridge Commercial 1 and could be developed to as high as 55 feet; areas on the west side of SR 99 that are north of S 216th Street have been zoned as Pacific Ridge Commercial 2 and could be developed even higher. The maximum height of areas zoned Pacific Ridge Commercial 2 is 75 feet; however, for 1-acre parcels where a floor area ratio height bonus is granted, buildings can be built as tall as 200 feet.

visible from some (but not most) residences near the elevated guideways, although sound walls would limit the visibility of the headlights. Although lights from vehicles traveling on SR 99 are currently visible from some residences, interior lights from trains passing on elevated guideways at night may be more visible from residences on upper floors of buildings than are lights from the vehicles currently traveling on SR 99.

### **SR 99 Alternative Station Options**

The following subsections discuss the SR 99 Alternative station options. Options that would lower the visual quality of areas next to concentrations of sensitive viewers are identified as are options that would have impacts from view interruption or blockage and/or impacts from light and glare.

#### ***S 216th West Station Option***

##### Visual Quality

The guideway for the S 216th West Station Option would be elevated from its starting point to approximately S 211th Street. It would then travel in a trench west of SR 99 from near S 211th Street to south of S 220th Street. From just south of S 220th Street, the guideway would transition to elevated on its way back to the SR 99 median. The S 216th West Station Option would remove commercial buildings and parking areas along the west side of SR 99 in a portion of the corridor with average visual quality. The station would be in a trench and have a low profile (see KOP 18, Exhibit 18c, in Appendix C). Trains and OCS in the trench would not be noticeable (or be seen at all) from most units in the residential buildings on the east side of SR 99 north of S 216th Street or from the mobile home park south of S 216th Street. The S 216th West Station Option would not lower the visual quality near the station that has average to low visual quality. It would avoid the SR 99 Alternative impacts on the sensitive viewers on the east side of SR 99 that are north of S 216th Street, reducing impacts by 15.

##### Views

Because portions of the S 216th West Station Option alignment would be in a trench, they would not intrude on views of Puget Sound and the Olympic Mountains from areas east of SR 99 (see KOP 18, Exhibit 18c and KOP 19, Exhibit 19d, in Appendix C).

##### Light and Glare

Because the trench portion of the alignment would be directly west of the residences on the east side of SR 99 that are north of S 216th Street, residents would only see the lights from trains if they could look down into the trench.

#### ***S 216th East Station Option***

##### Visual Quality

The elevated guideway leading into the station would pass within approximately 40 feet of the southernmost of the multi-story residential buildings north of S 216th Street and east of SR 99. It would introduce a large-scale element that would be out of character with a residential area. This would reduce the average visual quality of this part of the SR 99 corridor to low. These impacts would

also occur with the SR 99 Alternative; however, the guideway would be closer to residences with this option which would intensify impacts.

The elevated station would remove a number of residences in a mobile home park south of S 216th Street. It would be immediately west of and highly visible to the remaining mobile home park residences. The elevated station would change the character of western views from the mobile home park from residential to transportation. For the remaining residences, the elevated station would be much larger in scale than nearby objects, but would slightly improve the visual quality of areas near the station and mobile home park. The average visual quality of this part of the SR 99 corridor would be maintained. Although this option would not lower visual quality, the presence of the elevated station would be much more noticeable to residents in the mobile home park than the SR 99 Alternative elevated guideway would be.

#### Views

The elevated guideway leading to the station would intrude upon, or block, views of Puget Sound and the Olympic Mountains from the residences east of SR 99 and north of S 216th Street, as well as from streets such as S 216th Street (see KOP 18, Exhibit 18d, in Appendix C). Because the guideway would be closer to the residences east of SR 99 and north of S 216th Street than the SR 99 Alternative, more of the views of Puget Sound and the Olympic Mountains from these residences would potentially be intruded upon or blocked by this station option.

#### Light and Glare

With the S 216th East Station Option, lights from trains would be seen at eye level from some residences north of S 216th Street and from below (but less visibly) from residences such as those in the mobile home park that would remain east of the elevated station. The light could disturb residents to varying degrees. Because the guideway would be closer to the residences east of SR 99 and north of S 216th Street than the SR 99 Alternative would be, lights from trains could disturb residents to a greater degree than the SR 99 Alternative would.

### ***Kent/Des Moines HC Campus Station Option***

#### Visual Quality

The Kent/Des Moines HC Campus Station Option would begin in the southern part of Landscape Unit 1 between S 216th Street and S 220th Street and pass over the SR 99 median as would the SR 99 Alternative to approximately S 224th. Like the SR 99 Alternative, it would reduce the visual quality of the SR 99 corridor adjacent to residences north of S 216th Street on the east side of SR 99 from average to low. After departing the median, the elevated guideway would be sited immediately east of a series of parking areas and travel next to parking areas behind five multi-story residential buildings on the east side of 28th Avenue S between S 226th Street to the north and Kent-Des Moines Road to the south (see KOP 20, Exhibit 20b, in Appendix C). The elevated guideway would be constructed on what are currently back areas and storage yards of businesses that front SR 99 or are accessed from SR 99 via driveways and an electrical transmission line corridor. This option would remove several large

trees that provide some visual relief for residents in this utilitarian area. The presence of the elevated guideway would not be inconsistent with the character of the area it would pass through. The large-scale elevated guideway, trains, other features, and removal of trees would be very noticeable from the backs of the multi-story buildings (including walkways), but not from the west sides of the buildings, where large windows and decks from these units face west. The presence of the elevated guideway would somewhat further reduce the existing low visual quality of the area it would pass through.

The Kent/Des Moines HC Campus Station Option from S 216th West Station Option would depart the west side of SR 99 and pass in a trench behind the parking areas of five multi-story residential buildings that face 28th Avenue S. This part of the alignment would require a wall next to the parking areas associated with the five residential buildings (see KOP 20, Exhibit 20c, in Appendix C), but would not be inconsistent with the character of the area. Although the removal of trees and the presence of the wall would be noticed by residents, the option would not further reduce the low visual quality of areas near it. Compared to the elevated guideway associated with the Kent/Des Moines HC Campus Station Option, the Kent/Des Moines HC Campus Station Option from S 216th West Station Option trench would create less visual change.

South of the five multi-family residential buildings, the guideway would pass over Kent-Des Moines Road and the wetland to the south before transitioning into a trench north of S 234th Street with both of the options described in the previous paragraph. It would pass along the edge of a residential neighborhood and remove all residences on the east side of 28th Avenue S (see KOP 21, Exhibit 21b, in Appendix C). The removal of residences and their associated vegetation, along with the presence of the sound wall, OCS, and tops of trains, would not be consistent with the residential character of this area. These features would decrease the intactness and unity of 28th Avenue S and would decrease the visual quality of this part of the corridor to low for 15 residences.

From 28th Avenue S, the alignment would continue south in a trench to the HC Campus Station and transition to an elevated structure along the SR 99 median. It would not pass sensitive viewers along these areas.

#### Views

The Kent/Des Moines HC Campus Station Option would intrude on the same views of Puget Sound and the Olympic Mountains seen from residences north of S 216th Street on the east side of SR 99 as the SR 99 Alternative would. Along the section of 28th Avenue S south of Kent-Des Moines Road and north of the Highline College campus where the station option would pass east of residences, the Kent/Des Moines HC Campus Station Option would not intrude on existing eastern views from the residences because they are blocked by vegetation and other residences. Removing the vegetation on the east side of 28th Avenue S could open up distant views to the northeast.

#### Light and Glare

As with the SR 99 Alternative, lights from trains associated with the Kent/Des Moines HC Campus Station Option would be seen at eye level from some residences north of S 216th Street and from

below (but less visibly) from residences such as those in the mobile home park that would remain east of the elevated station. The light could disturb residents to varying degrees. Most light associated with the Kent/Des Moines HC Campus Station Option from S 216th West Station Option would not disturb residents because the guideway would be mostly in a trench. Where the station option's elevated guideway would pass above the parking area of the five multi-story residential buildings on the east side of 28th Avenue S, headlights from trains would likely be blocked from view by sound walls. Interior lights from passing trains would likely be seen over the sound walls from the backs of some of the residences and some residents could find lights in passing trains disturbing to varying degrees. Residents' views of the headlights and interior lights of trains from along 28th Avenue S would likely be blocked by sound walls and, eventually, new landscaping plants.

### ***Kent/Des Moines SR 99 Median Station Option***

#### *Visual Quality*

The Kent/Des Moines SR 99 Median Station Option would start in Landscape Unit 1 and end in Landscape Unit 2. The elevated guideway would transition from the median to the west side of SR 99 as it would pass over Kent-Des Moines Road and then back to the median as it approached the elevated station. The elevated station would be approximately 400 feet west of an area containing sensitive viewers (a mobile home park). The presence of the elevated guideway, station, and associated parking area would be consistent with the arterial and utilitarian character of this part of the SR 99 corridor. The elevated station could add an interesting architectural element, but would not improve the low visual quality of the area enough to reclassify it as average.

#### *Views*

The Kent/Des Moines SR 99 Median Station Option would not intrude on views of Puget Sound or the Olympic Mountains.

#### *Light and Glare*

Light from passing trains would likely be seen from some residences and might disturb some residents to varying degrees.

### ***Kent/Des Moines SR 99 East Station Option***

#### *Visual Quality*

The elevated Kent/Des Moines SR 99 East Station Option would begin in Landscape Unit 1 and transition from the median to the east side of SR 99 as it passes over Kent-Des Moines Road into Landscape Unit 2. It would remain on the east side of SR 99 until transitioning back to the median to approach the elevated station. The closest sensitive viewers would be residents in a mobile home park on 30th Avenue S, approximately 300 feet east of the station. The addition of the elevated guideway, station, and adjacent parking area would be consistent with the arterial and utilitarian character of the nearby areas. The elevated station would add a large-scale architectural element to the SR 99 corridor

that would be seen by residents to the east, but would not improve the low visual quality of the area enough to reclassify it as average.

#### Views

The Kent/Des Moines SR 99 East Station Option would not intrude on views of Puget Sound or the Olympic Mountains.

#### Light and Glare

Light associated with passing trains would likely be seen by some residents and could disturb some of them to varying degrees.

### ***S 260th West Station Option***

#### Visual Quality

The elevated S 260th West Station Option would be in Landscape Unit 2. After traveling along the west side of SR 99 through areas of the corridor that have low visual quality, the elevated guideway would reach the station (which would be north of S 260th Street) in an area of low visual quality. The station option would be consistent with the arterial corridor character of this section of SR 99 (see KOP 22, Exhibit 22c, in Appendix C).

There is a mobile home park across SR 99 east of the station. Views of the elevated guideway and station for residents in the mobile home park would be largely screened by trees and vegetation, but it could be seen by some residents. The presence of the elevated guideway would not reduce the visual quality of this part of the SR 99 corridor, and the presence of the elevated station would slightly improve visual quality, but not enough to improve the low visual quality near the station to average.

From the station, the elevated guideway would head south along the west side of SR 99 through an area with average visual quality. The elevated guideway would remove trees along the west side of SR 99, some of which would be near a stormwater detention pond. South of the stormwater detention pond, the elevated alignment would transition back to the SR 99 median. After converging with the median, the elevated guideway would be seen by residents in small subdivisions west of SR 99 and from the Woodmont Library. The presence of the elevated guideway along the median would reduce the vividness and intactness of the forested portion of the SR 99 corridor east of SR 99, but not of the portions of SR 99 where small businesses have been built and no forest remains. The presence of the elevated guideway in the vicinity of the small residential subdivisions and library would lower visual quality, but not enough to reduce the average visual quality to low.

#### Views

The S 260th West Station Option would not intrude on views of Puget Sound or the Olympic Mountains.

#### Light and Glare

Lights associated with passing trains would be seen by some residents and may disturb them some to varying degrees.

### ***S 260th East Station Option***

#### *Visual Quality*

The elevated guideway of the S 260th East Station Option would travel along the east side of SR 99 near two areas with concentrations of sensitive viewers—the mobile home park on the east side of SR 99 that is north of S 260th Street and a subdivision on the west side of SR 99 and the Woodmont Library. Both areas are south of S 260th Street. The mobile home park, which would be adjacent to the elevated guideway and station, is in a portion of the SR 99 corridor that has low visual quality. The elevated guideway and station would be clearly visible from adjacent residences, areas along SR 99, and S 260th Street (see KOP 22, Exhibit 22d, in Appendix C). The S 260th East Station would be closer to these residences than the S 260<sup>th</sup> West Station Option on the west side of SR 99. The scale of the guideway and S 260th East Station Option would be larger than structures near it but would not be inconsistent with the utilitarian and arterial character of this section of SR 99. The presence of the guideway would further reduce the low visual quality of areas near it. The elevated station crossing over S 260th Street would improve visual quality, but not enough to increase the current low visual quality to average.

South of S 260th Street, the elevated guideway would continue on the east side of SR 99 and pass across SR 99 from the residential subdivision and the Woodmont Library described previously for the S 260th West Station Option (which would cross on the west side of SR 99 closer to the residences and library). The elevated guideway would remove a strip of trees from a heavily forested area along the east side of SR 99 opposite the subdivision and library, as well as several businesses. Although the elevated guideway would be clearly seen in front of the forested area on the east side of SR 99 from the library and partially seen through trees from the subdivision, it would not lower visually quality enough to reduce the average visual quality of this section of the SR 99 corridor to low.

#### *Views*

The S 260th East Station Option would not intrude on views of Puget Sound or the Olympic Mountains.

#### *Light and Glare*

Lights from the elevated passing trains would be seen by nearby residents in the mobile home park and from the residential subdivision at the south end of Landscape Unit 2 and the Woodmont Library. Interior lights from moving trains could disturb some viewers.

### ***S 272nd Redondo Trench Station Option***

#### *Visual Quality*

The S 272nd Redondo Trench Station Option, which would be in Landscape Units 2 and 3, would pass next to several residential areas (see Exhibits 1-1 to 1-3). South of S 260th Street (see KOP 23, Exhibit 23c, in Appendix C), the elevated guideway would pass from the SR 99 median to the east side of SR 99 and then transition to an at-grade profile across from the residential subdivision and the Woodmont Library, as described previously under the S 260th West and East Station Options. As with the S 260th East Station Option, the presence of the alignment on the east side of SR 99 would not change visual

quality enough to reduce the average visual quality of this part of the SR 99 corridor near sensitive viewers to low.

South of the Woodmont Library, this station option would enter a trench and cross under S 272nd Street to the trench station. It would continue under SR 99 and past S 279th Street near a multi-story building east of SR 99 and single-family residences farther south on the west side. The alignment would then follow an existing utility corridor via an elevated guideway to a location west of S 288th Street. From north of S 284th to S 288th Street, the elevated guideway would pass west of (and downhill from) a series of multi-story residential buildings (containing approximately 90 west-facing units) on the west side of SR 99. It would also pass east of (and uphill from) a group of single-family residences. The presence of the cleared right-of-way and elevated guideway would be inconsistent with the residential character of this portion of the S 272nd Redondo Trench Station Option. The elevated guideway would also be seen west of SR 99 from multi-story residential buildings east of SR 99 and would not be consistent with the residential character of this portion of the corridor. It would reduce the existing average visual quality to low.

South of S 288th Street, the alignment would remain elevated and cross over Dash Point Road. It would travel below and in front of another series of multi-story residential buildings (with approximately 95 west-facing units) adjacent to the west side of SR 99 and east of and uphill from additional single-family residences. The vegetation cleared for the alignment would be noticeable from these residences, as would the guideway and passing trains, which would not be consistent with the residential character of this area and would reduce the average visual quality of the corridor to low.

After passing over Dash Point Road, the elevated guideway would continue south as it parallels SR 99. It would pass the eastern edge of the Sacajawea Middle School athletic field and the Sacajawea Park softball and baseball fields (behind trees planted to screen views of SR 99) and would transition to an at-grade profile east of 16th Avenue S. The presence of the guideway from Dash Point Road as it passes the middle school and ball fields would be consistent with the character of the adjacent SR 99 corridor and would not lower the visual quality of the corridor.

The station option would continue south at-grade along the east side of 16th Avenue S across the street from single-family residences (see KOP 26, Exhibit 26b, in Appendix C). The alignment would be inconsistent with the residential character of this area. The removal of vegetation along the east side of 16th Avenue S would be noticed, as would passing trains and a sound wall, which would reduce the average visual quality to low. North of S 304th Street, the option would become elevated and re-enter the SR 99 median. This portion of the S 272nd Redondo Trench Station Option would not be inconsistent with the character of nearby areas, and would not lower the visual quality of them.

Compared to the section of the SR 99 Alternative it would replace, the S 272nd Redondo Trench Station Option would pass near slightly more residences and lower the visual quality of more areas near these residences, increasing the impacts by 40. The main difference between the S 272nd Redondo Trench Station Option and the SR 99 Alternative is that the option would impact residences

along the west side of SR 99 or on streets below and west of SR 99, whereas the SR 99 Alternative would impact residences along SR 99, most of which would be on the east side of SR 99.

#### Views

The S 272nd Redondo Trench Station Option would intrude on views of Puget Sound and the Olympic Mountains from some of the multi-story residential buildings along the west side of SR 99, although views to the west from these residences may already be blocked by trees in some areas. The removal of trees along this option may open up views to the Puget Sound and the Olympic Mountains for some residents, although the cleared right-of-way and elevated guideway of the station option would also be seen.

#### Light and Glare

Although headlights from trains on the portions of the station option next to residences with adjacent sound walls would be blocked by the walls, interior lights from passing trains would likely be seen over the sound walls from some of the residences and some residents could find them disturbing, to varying degrees.

### **Federal Way SR 99 Station Option**

#### Visual Quality

The portion of the Federal Way SR 99 Station Option alignment that differs from the SR 99 Alternative would pass through an area of the SR 99 corridor with low visual quality and would not pass areas with concentrations of sensitive viewers. This station option would not be inconsistent with the existing character of areas nearby and would not lower visual quality along parts of the corridor near sensitive viewers.

#### Views

The portion of the Federal Way SR 99 Station Option alignment that differs from the SR 99 Alternative would not intrude on views of Puget Sound and the Olympic Mountains.

#### Light and Glare

The portion of the Federal Way SR 99 Station Option alignment that differs from the SR 99 Alternative would not have light and glare impacts on sensitive viewers.

### **SR 99 to I-5 Alternative**

From the Angle Lake Station to just north of Kent-Des Moines Road, the SR 99 to I-5 Alternative would follow the same alignment through Landscape Unit 1 as the SR 99 Alternative and would have the same impacts as the SR 99 Alternative. From south of Kent-Des Moines Road to approximately S 240th Street in Landscape Unit 2, this alternative would pass through areas that currently contain parking lots, residential areas (several scattered single-family residences, a mobile home park, and a small multi-story residential complex of several building), a low-rise office building complex, the backside of a big box retail building, vacant land, and outdoor storage. These area do not have a consistent character and have low visual quality. One area containing sensitive viewers (the multi-story residential

buildings near S 240th Street and 30th Avenue S) would remain after construction. The presence of the elevated guideway would be larger in scale than surrounding structures except the big box retail store, but would not be inconsistent with the mixed character of this area and would not further decrease the low visual quality. South of S 240th Street, this alternative would continue through Landscape Unit 2 to I-5 and have similar impacts as the Preferred Alternative.

Visual impacts from options associated with the SR 99 to I-5 Alternative (the S 216th West and East station options, the Landfill Median Alignment Option, the Federal Way I-5 Station Option, and the Federal Way S 320th Park-and Ride Station Option) would be the same as described under the SR 99 Alternative and Preferred Alternative.

### **I-5 to SR 99 Alternative**

The I-5 to SR 99 Alternative would follow the route of the Preferred Alternative from the Angle Lake Station to just north of Kent-Des Moines Road, and would have similar impacts as the Preferred Alternative in this area. The portion of the alignment between Kent-Des Moines Road south to approximately S 240th Street would pass through and by a mixture of land uses, such as outdoor storage, parking lots, residential areas (including several scattered single-family residences, a mobile home park, and a small multi-story residential complex of several buildings), the parking lot of a big box retail building, and vacant land. These areas have low visual quality. Several of the scattered single-family residences and the multi-story residential buildings would remain after construction.

The presence of the elevated guideway would be larger in scale than surrounding structures except the big box retail store, but would not be inconsistent with the mixed character of this area and would not further decrease the low visual quality. After reaching the SR 99 median south of S 240th Street, the I-5 to SR 99 Alternative would follow the same route as the SR 99 Alternative. Impacts in this area would be the same as the SR 99 Alternative.

Visual impacts from options associated with the I-5 to SR 99 Alternative (the S 260th West and East station options, S 272nd Redondo Trench Station Option, and Federal Way SR 99 Station Option) would be the same as described under the SR 99 Alternative.

### **3.2.2 Indirect Impacts**

The FWLE could support changes to nearby land uses, as allowed in adopted plans, and increases in the density of development could occur. This may result in additional changes to the visual and aesthetic setting. These changes could include the construction of multi-story buildings that would replace current low-density land uses and be built on what are now storage areas or parking lots, the potential blockage of views from new development, and the addition of landscaping within the developed properties and along adjacent sidewalks to meet new standards.

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# 4.0 Potential Mitigation Measures

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This section provides an introduction to the mitigation strategies used for FWLE and a discussion of the mitigation measures proposed for the FWLE Preferred Alternative and SR 99 Alternative. Mitigation for the SR 99 to I-5 and I-5 to SR 99 alternatives would be similar and is not discussed.

During final design, all impacts and potential mitigation measures would be reevaluated to verify impact levels and inform the mitigation design. If it is discovered that the mitigation can be achieved by less costly means, or if refined detailed analysis shows reduced or no impact, the mitigation measure may be changed or eliminated. Conversely, if any additional visual impacts were identified during final design, then Sound Transit would provide mitigation that is consistent with Sound Transit and WSDOT (where applicable) policy.

## 4.1 Potential Visual Mitigation

In addition to the avoidance and minimization measures included during conceptual design described in Section 3.2, Build Alternatives, mitigation measures would reduce visual impacts. Areas near residences where visual quality would be lowered are places where some of the potential mitigation measures would be appropriate and successful in reducing impacts. Specific mitigation details would be determined in consultation with WSDOT and local jurisdictions during final design. Landscaping would also be provided in other locations not specified below as required by local codes or permits.

Most of the following potential mitigation measures are related to placement and design of the light rail facilities, or use of landscaping or other features to help screen or soften views of facilities. Below are general descriptions of what the mitigation measures would attempt to achieve. Note that Exhibits 1-1 to 1-3 indicate the general locations where visual quality would be lowered, and specific locations for mitigation will be determined during final design.

### 4.1.1 Mitigation Measure 1

Remaining vegetation outside of WSDOT I-5 rights-of-way could screen some views of the FWLE along I-5 from adjacent and nearby residences. As appropriate, Sound Transit will provide landscaping beyond code requirements (i.e., greater widths of planting strips or plant materials) to provide effective visual mitigation. Where appropriate and agreed upon with property owners, Sound Transit will add landscaping on private property (i.e., within the yards of adjacent residences) to help screen views of FWLE components. Mitigation Measure 1 would employ the following four general types of landscape planting treatments:

- Tall tree mix = a mix of evergreen and deciduous trees that would reach a mature height of 30 to 40 feet.
- Medium tree mix = a mix of evergreen and deciduous trees that would reach a mature height of 15 to 25 feet.

- Low shrub mix = evergreen and deciduous shrubs that would reach a mature height of 3 to 10 feet.
- Low grow seed mix = perennial and annual mix of native plants.
- Street tree and street landscaping mix = deciduous trees that would reach a mature height of 15 to 40 feet, evergreen and deciduous shrubs that would reach a mature height of 3 feet, along with groundcovers. Mix would depend upon city requirements.

Major criteria for which mix would be used include the distance to the guideway and height of vegetation, width of available planting area, and appropriateness of planting type to adjacent areas. The actual composition of the mixes (percentages of evergreen vs. deciduous trees and shrubs, etc.) would vary by jurisdiction and will be developed in consultation with the jurisdictions.

#### 4.1.2 Mitigation Measure 2

In areas next to residences where there would not be enough room to add landscaping that would screen views of the FWLE sound walls, the walls would be treated with visually interesting elements such as design treatments that incorporate textures, patterns, and/or color. Where appropriate, Sound Transit would consider adding lower-growing and smaller-scale landscaping (low shrub and low grow seeding mixes) along the base of sound walls adjacent to residences to “soften” the walls’ appearance.

#### 4.1.3 Mitigation Measure 3

Vegetation removal along the I-5 corridor in the WSDOT right-of-way as well as within RCAs would be minimized to the extent practicable. When mitigation is required, Sound Transit will consult with WSDOT staff to develop appropriate site-specific measures and offsite mitigation to provide effective visual mitigation, consistent with the WSDOT *Roadside Policy Manual* (WSDOT, 2015). The manual describes the extent of the mitigation that would be required for lost vegetation, vegetation types and replacement ratios, and where replacement can occur. The manual requires that “mitigation for lost or damaged RCAs must consist of an equal value exchange that provides appropriate performance values identified in the manual.” This includes replacing RCA land impacted by the project, as well as replanting that land. The manual also includes specific plant establishment criteria (such as a minimum 3-year plant establishment period). Sound Transit will also restore or replace impacted vegetation in the highway right-of-way outside of RCAs in accordance with the manual. Specific types, amounts, and locations for replanting will be identified in consultation with WSDOT and through development of a roadside master plan.

Mitigation Measure 3 would use the four general types of landscape planting treatments that are briefly described below. Note that xeric conditions are dry conditions, mesic conditions are environments having a balanced supply of moisture, and hydric conditions are wet or moist environments.

- Tall tree mix (xeric, mesic, and hydric conditions) = a mix of evergreen and deciduous trees that would reach a mature height of 30 to 40 feet.
- Medium tree/shrub mix (xeric, mesic, and hydric conditions) = a mix of evergreen and deciduous trees that would reach a mature height of 15 to 25 feet.

- Low shrub mix (xeric, mesic, and hydric conditions, and also used for wetland and stormwater facilities) = a mix of groundcovers and shrubs that would reach mature heights of 3 to 10 feet.

#### 4.1.4 Mitigation Measure 4

Where elevated guideway construction would remove existing landscaped medians for guideway columns, Sound Transit would replace landscaping, as appropriate, between the guideway columns. For alternatives in the SR 99 median, shorter tree species may be planted because the existing species of trees in the median would grow too tall to fit underneath the elevated structure. The specific mix type would be selected in consultation with appropriate agencies and jurisdictions.

## 4.2 Preferred Alternative

The WSDOT *Roadside Policy Manual* (2015) provides policy requirements regarding tree removal and replacement within and adjacent to a highway right-of-way, including RCAs. The manual emphasizes the importance of avoiding or minimizing impacts on RCAs. When impacts do occur, the manual describes criteria that will be used to establish appropriate mitigation. For example, “mitigation for lost or damaged RCAs must consist of an equal value exchange that provides appropriate performance values identified in the manual.” The manual also provides plant establishment criteria (such as a minimum 3-year plant establishment period). Sound Transit would determine mitigation for loss of forested areas along I-5, both within the I-5 right-of-way and RCAs, based on the manual and in consultation with WSDOT staff.

The six mitigation measures discussed above would help reduce the visual impacts of the Preferred Alternative on nearby residential areas. Near many of the at-grade sections of the Preferred Alternative that have room for landscaping between sound walls and the alignment, mitigation measures could restore visual quality to average after approximately 5 to 8 years as plants mature. In areas with less room for revegetation, sound walls treated with visually interesting elements and limited landscaping could screen views of the Preferred Alternative and improve visual quality.

Where seen, lights from passing trains could be disturbing to viewers to varying degrees. Mitigation measures related to landscaping that are described below would also be effective in screening views of passing trains at night from at-grade locations.

Table 4-1 identifies which of the mitigation measures would be appropriate for areas along the Preferred Alternative where visual quality would be lowered (identified in Exhibits 1-1 to 1-3).

TABLE 4-1

Mitigation Measures for Locations Adjacent to I-5 Areas with Sensitive Viewers where Visual Quality Would be Lowered

Landscape Unit and Location Number (see Exhibits 1-1 to 1-3)	Potential Mitigation Measure(s)	Notes
<b>Landscape Unit 1</b>		
Location 1	Mitigation Measure 1 Mitigation Measure 2	These measures would address the loss of vegetation and buildings in the I-5 corridor between S 211th Street and the Highline Water District property. Most of the revegetation from Mitigation Measure 1 would consist of medium tree mix. A strip of tall tree mix would be planted west of the right-of-way between S 211th and S 212th Streets to provide screening for residences to the west. In areas adjacent to sound walls where there would be limited room for vegetation, Mitigation Measure 2 would be implemented.
Location 2	Mitigation Measure 1 Mitigation Measure 2 Mitigation Measure 3	These measures would address the loss of vegetation and buildings as well as the introduction of noise walls adjacent to residential areas in the I-5 corridor between the Highline Water District property and approximately S 221st Street. Mitigation Measure 3 would be used to minimize tree removal to the extent practicable within the WSDOT right-of-way. Mitigation Measure 1 would plant a tall tree mix west of the right-of-way. Mitigation Measure 2 would be used in areas with less planting width adjacent residences where sound walls would not be screened by new vegetation. A detention basin just north of S 220th Street would be lined with a tall tree mix to screen or soften views from residential areas to the west.
Location 3	Mitigation Measure 1 Mitigation Measure 2 Mitigation Measure 3	These measures would address the loss of vegetation along the I-5 corridor between (and near) approximately S 224th Street and S 232nd Place, the loss of buildings and vegetation outside of the I-5 corridor in this area, and the introduction of sound walls adjacent to residential areas where there would be limited area for vegetation between the walls and residences. Mitigation Measure 3 would be used on WSDOT right-of-way to minimize tree removal where practicable. Most of Location 3 would have limited area available for plantings, Mitigation Measure 1 would use a shrub mix along areas west of the Preferred Alternative adjacent to residences which would necessitate the use Mitigation Measure 2 for most sound walls in this area.
<b>Landscape Unit 2</b>		
Location 4	Mitigation Measure 1 Mitigation Measure 2 Mitigation Measure 3	These measures would address the loss of vegetation in the I-5 corridor south of S 252nd Street to approximately S 259th Place, the loss of buildings and vegetation outside of the I-5 corridor in this area, and the introduction of sound walls adjacent to residential areas. Mitigation Measure 3 would be used on WSDOT right-of-way to minimize tree removal where practicable. Between S 253rd Street and S 256th Street, Mitigation Measure 1 would use a tall tree mix in the revegetated part of the right-of-way. South of S 259th Place, where the detention basin would be constructed east of a multi-family development, a wider buffer of taller tree mix would be used between the development, the detention basin, and an area south of the detention basin cleared for construction. When mature, the vegetation would screen views of the basin from adjacent viewers. Measure 2 would be used for areas with limited room for landscaping near sound walls adjacent to residences.
Location 5	Mitigation Measure 1 Mitigation Measure 3	These measures would address the loss of vegetation along the I-5 corridor and adjacent areas. They would also address the removal of buildings and the introduction of sound walls and a TPPS. Mitigation Measure 3 would be used on WSDOT right-of-way to minimize tree removal where practicable. Along the east side of 28th Avenue S, Mitigation Measure 1 would use a tall tree mix for the replanted areas between the Preferred Alternative and the residential area west of it and a medium tree/shrub mix for the area east of the trenched alignment and I-5.
<b>Landscape Unit 3</b>		
Location 6	Mitigation Measure 1 Mitigation Measure 2 Mitigation Measure 3	These measures would address the loss of vegetation in the I-5 corridor and buildings in an area south of Mark Twain Elementary School and just north of Military Road S. Mitigation Measure 1 would use a tall tree mix to replace removed vegetation for much of the area west of the Preferred Alternative and Measure 2 would be used for areas with limited room for landscaping near sound walls adjacent to residences. Vegetation removal within the WSDOT would be minimized where possible (Mitigation Measure 3).
Location 7	Mitigation Measure 1 Mitigation Measure 2 Mitigation Measure 3	These measures would address the loss of vegetation in the I-5 corridor and areas west of it in an area between (south of) Military Road S and approximately S 284th Street. Mitigation Measure 1 would use a tall tree mix to replace removed vegetation for much of the area west of the Preferred Alternative. A strip of medium tree mix would line the west side of the tall tree mix facing residential areas. The measures

TABLE 4-1

Mitigation Measures for Locations Adjacent to I-5 Areas with Sensitive Viewers where Visual Quality Would be Lowered

Landscape Unit and Location Number (see Exhibits 1-1 to 1-3)	Potential Mitigation Measure(s)	Notes
		would introduce sound walls adjacent to residences and where there would not be enough room to add landscaping between the sound walls and residences, Mitigation Measure 2 (wall design treatments) would be implemented. Vegetation removal within the WSDOT would be minimized where possible (Mitigation Measure 3).
Location 8	Mitigation Measure 1 Mitigation Measure 2 Mitigation Measure 3	These measures would address the loss of vegetation in the I-5 corridor, the removal of buildings, and the introduction of sound walls adjacent to residences. Location 8 begins at the Camelot Square Mobile Home Park and extends south to approximately Military Road S. Mitigation Measure 1 would plant areas within, or adjacent to, the WSDOT right-of-way with either a taller tree or shrub mix. Where there would not be enough room to add landscaping between the sound walls and residences, Mitigation Measure 2 (wall design treatments) would be implemented. Vegetation removal within the WSDOT would be minimized where possible (Mitigation Measure 3).
Location 9	Mitigation Measure 1 Mitigation Measure 2 Mitigation Measure 3	These measures would address the loss of vegetation in the I-5 corridor, the removal of buildings, and the introduction of sound walls adjacent to residences. Location 9 begins south of Military Road S and extends to north of S 317th Street. Mitigation Measure 1 measures (a combination of medium and low tree and shrub mix) would be used west of the alignment. In areas where room for vegetation would be limited to screen sound walls, Mitigation Measure 2 would be used to treat the walls. Where possible, vegetation removal within the WSDOT would be minimized (Mitigation Measure 3).

### 4.3 SR 99 Alternative

Table 4-2 identifies which of the mitigation measures would be appropriate for the locations adjacent to SR 99 with sensitive viewers where visual quality would be lowered, as identified in Exhibits 1-1 to 1-3. Landscaped medians on SR 99 would be replanted in consultation with local jurisdictions and would be expected to obtain the current degree of attractiveness within approximately 5 to 8 years. It should be noted that landscaping medians (some of which are not currently landscaped) would not screen views of the elevated SR 99 Alternative or otherwise restore visual quality, but would add attractive elements to the streetscape seen by pedestrians and motorists and would help visually unify the SR 99 corridor.

### 4.4 Effectiveness of Mitigation Measures

The implementation of the mitigation measures described above would, over time, restore the visual quality of the view from some residences towards the build alternatives. The mitigation measures related to revegetating areas where existing large trees would be removed would not replicate the size and species distribution of the removed trees. Safety and operational concerns related to taller trees falling on the FWLE would require limiting tree heights. The newly planted vegetation would provide a vegetated backdrop for many residences that, after approximately 5 to 8 years, would partially screen or screen views of the Preferred Alternative and I-5 from many residences and restore the average visual quality of the viewed area. Landscaping adjacent to sound walls would also restore visual quality in some areas.

TABLE 4-2

Mitigation Measures for Locations Adjacent to SR 99 Areas with Sensitive Viewers where Visual Quality Would be Lowered

Landscape Unit and Location Number (see Exhibits 1-1 to 1-3)	Potential Mitigation Measure(s)	Notes
<b>Landscape Unit 1</b>		
Location 10	Mitigation Measure 4	This measure would replace the loss of median landscaping along the SR 99 alignment north of S 216th Street.
<b>Landscape Unit 2</b>		
Location 11	No measures suggested	The SR 99 Alternative would not pass through Location 11.
<b>Landscape Unit 3</b>		
Location 12	Mitigation Measure 1 Mitigation Measure 4	Location 12 begins at S 279th Street and continues south to a location approximately 0.4 mile north of S Dash Point Road. These measures would provide landscaping to assist in screening uphill views from most adjacent residences downhill (west of) the elevated structure where vegetative screening would be effective and would replace the loss of currently landscaped medians along SR 99.
Location 13	Mitigation Measure 1 Mitigation Measure 4	Location 13 includes an area north of S Dash Point Road. Measures would provide landscaping to assist in screening views of the SR 99 Alternative from some residences located west of SR 99 where vegetative screening would be effective. Mitigation Measure 4 would replace the loss of currently landscaped medians along this portion of SR 99.
Location 14	No measures suggested	The SR 99 Alternative would not pass through Location 14.

Table 4-3 identifies the number of residences where there would be a reduction in visual quality category and the number of residences where mitigation measures would restore visual quality. In the areas where the visual quality of views towards the alternatives would not be restored, the most common reason would be that the vegetative or other screening would not be effective in blocking or screening views.

TABLE 4-3

Effectiveness of Mitigation Measures for Locations Adjacent to Areas with Sensitive Viewers where Visual Quality would be Lowered

Landscape Unit	Approximate Number of Residences with Reduction in Visual Quality and Where Visual Quality Would Be Restored after 5 to 8 Years with Mitigation			
	Preferred Alternative	SR 99 Alternative	SR 99 to I-5 Alternative	I-5 to SR 99 Alternative
<b>Landscape Unit 1</b>				
Impacted	130	15	15	130
<i>Successfully Mitigated</i>	105	0	0	105
<b>Landscape Unit 2</b>				
Impacted	30	0	30	0
<i>Successfully Mitigated</i>	25	<i>Not Applicable</i>	25	<i>Not Applicable</i>
<b>Landscape Unit 3</b>				
Impacted	130	245	130	245
<i>Successfully Mitigated</i>	110	0	110	0
<b>Total Residences Impacted</b>	<b>290</b>	<b>260</b>	<b>175</b>	<b>375</b>
<b>Approximate Total Residences where Mitigation Measures Would Be Applied</b>	<b>240</b>	<b>0</b>	<b>135</b>	<b>105</b>

Replanting to mitigate the loss of mature vegetation in WSDOT right-of-way would not replicate the size and species distribution of the lost vegetation. Mitigation measures would follow the WSDOT *Roadside Policy Manual* and would include replanting vegetation in areas along I-5 outside of the project footprint. The presence of new vegetation in these areas would likely improve the visual setting of those portions of I-5.

Mitigation measures for areas adjacent to, or in the medians of SR 99, would improve the appearance of areas near the SR 99 Alternative. However, the elevated structures and lack of large enough adjacent areas near sensitive viewers to effectively screen views of it with landscaping, the measures would not restore the visual quality of areas impacted by the SR 99 Alternative.

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## 5.0 References

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Federal Highway Administration (FHWA). 1988. *Visual Impact Assessment for Highway Projects*. FHWA-HI-88-054. [www.dot.ca.gov/ser/downloads/visual/FHWAVisualImpactAssmt.pdf](http://www.dot.ca.gov/ser/downloads/visual/FHWAVisualImpactAssmt.pdf).

Federal Highway Administration (FHWA). 2015. *Guidelines for the Visual Impact Assessment for Highway Projects*.  
[https://www.environment.fhwa.dot.gov/guidebook/documents/VIA\\_Guidelines\\_for\\_Highway\\_Projects.asp](https://www.environment.fhwa.dot.gov/guidebook/documents/VIA_Guidelines_for_Highway_Projects.asp). January.

Merriam-Webster Online Dictionary. 2013. <http://www.merriam-webster.com>.

Washington State Department of Transportation (WSDOT). 2015. *Roadside Policy Manual*. M3110. <http://www.wsdot.wa.gov/Publications/Manuals/M3110.htm>. August 2015.

### GIS

AeroMetric. 2013. Aerial imagery.

City of Des Moines. 2015. GIS data for city boundaries, zoning, comprehensive plan, impervious surface, storm sewer, and related infrastructure. Data obtained from the city GIS department. <http://www.desmoineswa.gov/index.aspx?nid=142>. September 2015.

City of Federal Way. 2015. GIS data for city boundaries, zoning, comprehensive plan, impervious surface, storm sewer, and related infrastructure. Data obtained from the city GIS department. [http://gis.cityoffederalway.com/disclaimer/GIS\\_DATA\\_DISCLAIMER.htm](http://gis.cityoffederalway.com/disclaimer/GIS_DATA_DISCLAIMER.htm). September 2015.

City of Kent. 2015. GIS data for city boundaries, zoning, comprehensive plan, impervious surface, storm sewer, and related infrastructure, sanitary sewer, and related infrastructure. Data obtained from the city GIS department. GIS Coordinator: [Hayley Bonsteel hbonsteel@kentwa.gov](mailto:hbonsteel@kentwa.gov). <http://kentwa.gov/maps/>. September 2015.

City of SeaTac. 2015. Zoning, comprehensive plan, and impervious surface. Data obtained from the city GIS department. <http://www.ci.seatac.wa.us/index.aspx?recordid=203&page=182>. September 2015.

King County. 2015. GIS data for streets, tax parcels, building footprint, zoning, census data, city boundaries, parks and open spaces, transit facilities, 2002 Lidar bare earth data, slopes, wetlands, wellhead protection areas, and streams. Data obtained from the county GIS data portal. <http://www5.kingcounty.gov/gisdataportal/>.

Washington State Department of Transportation, 2015. Resource Conservation Area Deeds. Data acquired from WSDOT by Sound Transit Nov 2015.

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*Appendix A*  
*FHWA Visual Impact Methodology Used for*  
*FWLE Existing Visual Quality and*  
*Impacts of Alternatives on Visual Quality*

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# **FHWA Visual Impact Methodology Used for FWLE, Existing Visual Quality, and Impacts of Alternatives on Visual Quality**

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## **A.1 Introduction**

The purpose of this appendix is to document how the visual and aesthetic resource analysis was conducted. The description of existing visual and aesthetic conditions in the corridor and the assessment of changes that would be associated with the FWLE is based on, but does not strictly follow, the visual assessment methodology developed by the Federal Highway Administration (FHWA). This methodology has been used for a number of years to assess potential impacts associated with transportation projects (FHWA, 1988). It should be noted that the FHWA recently published new guidelines for visual impact assessment of highway projects (FHWA, 2015) that suggested some changes to the previous methodology. Because the Draft EIS methods for assessing impacts met the intent and purpose for characterizing visual quality, identifying potential impacts on visual quality, and comparing alternatives, they are also used in this Final EIS.

Visual quality assessments examine the composition of character-defining features for specific, selected views, or key observation points (KOPs), and determine how a project might affect the features of the view and thus visual quality. The FHWA methodology can also be used to characterize the general visual quality of segments of a linear project such as the FWLE. A segment is defined as a unit of similar context, such as an area containing a commercial boulevard with similar building setbacks and streetscape or a residential neighborhood with similar housing types. Although characterizing the existing visual quality of segments of a proposed project and determining if/how a project would change the visual quality is not as precise as doing so for a KOP (with a photograph of a specific view), characterization of segments can be very useful for determining potential impacts along segments of a proposed project.

Existing visual quality for the FWLE was determined through multiple site visits that involved driving the alignments of the alternatives, referring to photographs that were taken during the site visits, examining aerial photographs of the alignments and nearby areas, and consulting GoogleEarth images (which also assisted at times in determining what can be viewed and what may be changed or blocked by the FWLE). Potential impacts on visual quality were determined by reviewing simulations of the various alternatives and extrapolating where those impacts would have similar or different impacts from each other.

## A.2 Visual Quality

Visual quality is an assessment of the composition of the character-defining features for selected views of landscapes. A visual quality assessment asks: Is this particular view common or dramatic? Is it a pleasing composition (with a mixture of elements that seem to belong together) or not (with a mixture of elements that either do not belong together or are eyesores and contrast with the other elements in the surroundings)? Visual quality is evaluated in terms of vividness, intactness, and unity. These three characteristics are described below:

- **Vividness** is the degree of drama, memorability, or distinctiveness of the landscape components. Vividness is composed of the following four elements that usually influence the degree of vividness:
  - Landform
  - Vegetation
  - Water-features
  - Human-made elements
- **Intactness** is a measure of the visual integrity of the natural and human-built landscape and its freedom from encroaching elements. This factor can be present in well-kept urban and rural landscapes, as well as in natural settings. High intactness means that the landscape is free of eyesores and is not broken up by features that appear to be out of place. Intactness is composed of the following two primary elements that influence the degree of intactness:
  - Development
  - Encroachment
- **Unity** is the degree of visual coherence and compositional harmony of the landscape considered as a whole. High unity frequently attests to the careful design of individual components and their relationship in the landscape.

The FHWA's Visual Impact Assessment methodology assigns numeric ratings to the three characteristics that determine visual quality and then averages the ratings to establish an overall visual quality score. The characteristics discussed above are rated between 1 (low) and 7 (high). The visual quality ratings and their descriptors are as follows:

1. Very Low
2. Low
3. Moderately Low
4. Average
5. Moderately High
6. High
7. Very High

The ratings of the three characteristics (vividness, intactness, and unity) are then averaged to determine a total visual quality rating, which is also between 1 (very low) and 7 (very high). For example, if a view had a vividness rating of 6, an intactness rating of 7, and a unity rating of 5, the three

ratings would be added and divided by 3, which would produce an average total visual quality rating of 6.

The concepts of rating vividness, intactness, and unity numerically from 1 to 7 may be somewhat esoteric for the general reader, and therefore they are not referred to in Section 4.5, Visual and Aesthetic Resources, of the FWLE Final Environmental Impact Statement (Final EIS). The seven-point scale is used in Table A-1 of this appendix to determine the existing visual quality categories of segments of the alternatives and how (or if) the visual quality categories would change in these segments if the alternatives were constructed. The seven-point visual quality scale used in Table A-1 was simplified to low, average, and high for all other text references to visual quality in this technical report, in the graphic representation of existing visual quality in Exhibits 1-1 to 1-3, and in Section 4.5 of the Final EIS.

The three summarized visual quality categories are described below:

- **Low Visual Quality:** Areas with low visual quality have some combination of features that seem visually out of place, lack drama or memorability, do not have visual coherence, do not have compositional harmony, and/or might contain encroaching elements. For this assessment, an FHWA visual quality rating of between 1 and 3.5 is considered low.
- **Average Visual Quality:** Areas with average visual quality are commonly occurring or average-appearing landscapes that have a generally pleasant appearance but might lack enough distinctiveness, memorability, drama, and compositional harmony to place them in the high visual quality category. This is generally the most frequent category. For this assessment, an FHWA visual quality rating of between 3.6 and 5 is considered average.
- **High Visual Quality:** Areas with high visual quality must be outstanding in terms of being very memorable, distinctive, unique (in a positive way), and/or intact—they can be natural, park-like, or urban (with urban areas displaying distinctive, outstanding, and consistent architectural and urban design features). There were no areas of high visual quality along the corridors of the alternatives and options.

### A.3 Terminology

The following terminology from the FHWA methodology is used in this technical report and in the Final Environmental Impact Statement.

**Key Observation Points.** KOPs are selected from within a project viewshed to provide representative views of a proposed project from various locations or to depict sensitive views (views that may be affected) of a project. KOPs are also used to describe existing visual conditions and to evaluate changes to the viewed landscape (usually from simulations) that would occur if a proposed project were built.

**Views.** Note that in this technical report, general areas with views of Puget Sound, the Olympic Mountains, and Mt. Rainier are also identified, and potential intrusion on or blockage of views of these features is one of the three factors used to evaluate impacts.

**Viewers.** These are people who would have views of a proposed project. Viewers are usually discussed in terms of general categories of activities (such as residents, workers, recreationists, motorists [both commuters and leisure travelers]). Viewers may have views “of” a proposed transportation project from adjacent areas or views “from” a project (after it would be constructed).

**Viewer Sensitivity.** People who view a landscape (viewers) can be categorized as having low, medium, or high sensitivity to changes in the viewed environment. Viewer sensitivity is strongly influenced by a viewer’s awareness of his or her surroundings, the activities they are engaged in, and the amount of time spent looking at a view (viewer duration). People such as residents and park users who see a landscape multiple times for long periods of time and are familiar with it would be aware of changes in the landscape and are assumed to have high viewer sensitivity.

Viewers with medium viewer sensitivity include workers and customers who might expect a somewhat pleasant visual setting for the establishments they work in or visit, but they are in the locations for purposes other than enjoying its scenery or visual quality. Students, faculty, and members of religious congregations would also be expected to have medium viewer sensitivity. People who view a landscape infrequently, view it for short periods of time, or are not attentive to it because they are focused on other activities (such as working) are often less sensitive to changes and are assumed to have low viewer sensitivity. People sightseeing on highways or driving through their neighborhood are considered to have high to medium viewer sensitivity. Commuters and other drivers are considered to have low viewer sensitivity because they often become accustomed to and indifferent to the views along their travel routes due to repetition and short viewing duration.

**Visual Character.** Visual character is an impartial description of what the viewed landscape consists of and is defined by the relationships between the existing visible natural and built landscape features. These relationships are considered in terms of dominance, scale, diversity, and continuity. Visual character-defining resources and features include the following:

- Landforms – types, gradients, and scale
- Vegetation – types, size, maturity, and continuity
- Land uses – height, bulk, scale, and architectural detail of associated buildings and ancillary site uses
- Transportation facilities – types, sizes, scale, and directional orientation
- Overhead utility structures and lighting – types, sizes, and scale
- Open space – type (e.g., parks, reserves, greenbelts, and undeveloped land), extent, and continuity
- Water bodies, historic structures, and downtown skylines
- Apparent “grain” or texture, such as the size and distribution of structures and unbuilt properties or open spaces of the landscape
- Apparent upkeep and maintenance

**Simulations.** Digitally enhanced images or simulations of visible components of a proposed project that are created based on photographs taken of existing conditions. Simulations are developed to illustrate

probable visible changes associated with the project compared to existing visual conditions and allow visual specialists to rate changes to the viewed landscape.

#### **A.4 Existing Visual Quality and Changes in Visual Quality near Areas with Concentrations of Sensitive Viewers by Alternative**

Table A-1 describes the existing visual quality of segments of the FWLE alternatives that are adjacent to areas with concentrations of sensitive viewers. Areas that do not contain concentrations of sensitive viewers were not assessed because the emphasis of this evaluation was on how alternatives would potentially affect viewers with high visual sensitivity. The segments are subcategories of landscape units that are smaller in size than landscape units and similar in character. Table A-1 briefly explains why and if project alternatives would change the existing visual quality enough to lower the category of the portion of the alternative described. In many cases, an alternative would change the visual quality of an area but would not change it enough to lower the visual quality category.

#### **A.5 References**

Federal Highway Administration (FHWA). 1988. *Visual Impact Assessment for Highway Projects*. FHWA-HI-88-054. [www.dot.ca.gov/ser/downloads/visual/FHWAVisualImpactAssmt.pdf](http://www.dot.ca.gov/ser/downloads/visual/FHWAVisualImpactAssmt.pdf).

FHWA. 2015. *Guidelines for the Visual Impact Assessment for Highway Projects*. January. [https://www.environment.fhwa.dot.gov/guidebook/documents/VIA\\_Guidelines\\_for\\_Highway\\_Projects.asp](https://www.environment.fhwa.dot.gov/guidebook/documents/VIA_Guidelines_for_Highway_Projects.asp).

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
<b>Preferred Alternative</b>								
<b>Landscape Unit 1</b>								
S 204th Street to S 208th Street								
<b>Existing</b>	No areas with sensitive viewers.	Would pass through vacant properties, areas containing commercial complexes and parking. Moderately low vividness.	2	Variety of land uses and appearances result in low intactness rating.	2	Low unit ratings along this part of the alignment.	2	2
<b>With Preferred Alternative</b>	Elevated structure would not be seen by sensitive viewers and would slightly improve visual quality.	Elevated guideway would somewhat improve vividness.	3	No improvement to intactness.	2	Elevated guideway passing though this area would add some unity to this area.	3	2.7
S 208th Street to Highline Water District Property								
<b>Existing</b>	Sensitive viewers (in single-family residences).	Heavily vegetated areas, along with cleared areas for SR 509 behind residences. Further work on SR 509 will result in additional clearing of vegetation along this route that is anticipated in this assessment.	3	Consistent residential – open space character along this portion of alignment, large water storage facilities detract from intactness.	3	Average degree of unity along most of this part of alignment.	4	3.3
<b>With Preferred Alternative</b>	Would be seen to varying degrees by sensitive viewers from residences.	Portions of alignments that are elevated and at-grade would add a somewhat vivid element to area, but would not increase rating, and loss of vegetation would decrease average vividness from some adjacent residences.	3	Elevated and at-grade alignments along with removal of vegetation would detract from intactness.	3	Unity would somewhat decrease with presence of elevated guideway and loss of mature vegetation adjacent to the I-5 right-of-way.	3	3

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
From Highline Water District Property to South of S 225th Place								
<b>Existing</b>	Sensitive viewers (in single-family residences, mobile home park, multi-family residential building, and a park).	Numerous trees in these neighborhoods and many small roads that end against I-5 in cul-de-sacs or dead ends. A pleasant neighborhood, but not memorable.	4	Areas along the alignment have a strong single-family residential character that is interrupted by the presence of a major water storage facility with several different types of large-scale tanks and a substation. Average intactness.	5	An average degree of unity given the extensive single-family residents found on the many side streets in this area. Views from I-5 are of consistent tree cover along west side of I-5 with a moderately high degree of unity.	4	4.3
<b>With Preferred Alternative</b>	Would be seen to the east by sensitive residential viewers and park users.	The removal of most trees next to the I-5 right-of-way near residences, and presence of the at-grade alignment and trains passing by would be seen from some nearby areas, and would lower vividness.	3	The removal of vegetation and some residences would lower intactness along the alignment when viewed from some areas west of I-5 and from I-5.	3	From part of I-5, visual unity would remain average or lower than average, but from adjacent residential areas unity would decrease.	3	3
S 225th Place to Kent-Des Moines Road								
<b>Existing</b>	Sensitive viewers (in multi-family residential buildings and complexes).	A series of well-maintained multi-family residential complexes located between 30th Avenue S and I-5 are organized around parking areas and have average vividness.	4	Views of I-5 and the extensive parking areas decrease the intactness to average.	4	The area has moderate, fairly strong unity because of the similarity of building types and organization around parking lots.	4	4
<b>With Preferred Alternative</b>	Would be seen to the east by sensitive residential viewers.	Removal of residences and most trees next to the I-5 right-of-way would lower vividness.	3	Removal of buildings and trees along with presence of at-grade and trenched alignments and passing trains would not be consistent with residential character and would lower intactness when viewed from west and also when viewed from I-5.	3	Unity would be decreased with loss of trees along the I-5 right-of-way and buildings from areas to the west. In addition, the detention pond and traction power substation would somewhat reduce unity.	3	3

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
<b>Landscape Unit 2</b>								
Kent-Des Moines Road to Kent/Des Moines Station and on to I-5 near Midway Landfill								
<b>Existing</b>	Sensitive viewers (in mobile home park and multi-family residential building).	Alignment would pass through areas containing light industrial uses, commercial, outside storage, a mobile home park, a multi-family residential building, and vacant land. Little vividness along this section of the alignment.	3	Utilitarian and vacant appearance of much of the segment produces low degree of intactness.	2	Mix of uses, appearance, and scale of properties results in areas with low visual unity when viewed from the west.	3	2.7
<b>With Preferred Alternative</b>	Elevated guideway would pass near sensitive viewers (in a mobile home park and a multi-family residential building) - the Kent/Des Moines Station and parking area would be located in an area that currently includes commercial, light industrial, a motel, a multi-family residential building, and a mobile home park, and would be seen by sensitive residential viewers.	Removal of trees would be noticed from I-5 and would somewhat lower vividness. The Kent/Des Moines Station would add vividness to the visually unremarkable area near it.	3	Intactness would not change with the presence of the Preferred Alternative.	2	The low unity of most of this section of the alignment would somewhat improve with the presence of the elevated Kent/Des Moines 30th Avenue East Station, but not enough to raise it to average.	3	2.7
I-5 near Midway Landfill to S 252nd Street								
<b>Existing</b>	This segment is adjacent to the Midway Landfill. No sensitive viewers.	The landfill is somewhat vivid in that its openness and lack of adjacent trees near I-5 is quite different in appearance than other	4	Has the appearance of a large vacant industrial lot with a low degree of intactness,	3	Mix of features (pipes, graded areas, rolling terrain) does not unify the lot.	3	3.3

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
		properties along the I-5 corridor.						
<b>With Preferred Alternative</b>	Would follow I-5 adjacent to Midway Landfill.	Would not interrupt views of landfill or reduce vividness.	4	Landfill would be visible under elevated guideway, which would not lower intactness.	3	Would not lower unity.	3	3.3
S 252nd Street to S 259th Place								
<b>Existing</b>	Sensitive viewers (in single- family residential and multi-family residential building).	Has the appearance of an older, established, single-family neighborhood with large, mature trees lining the I-5 right-of-way and forming a backdrop.	4	Average degree of development and design in this area.	4	Strong residential character with many trees within the neighborhood and along the I-5 right-of-way that create above average visual unity. The somewhat disconnected street grid decreases visual unity.	5	4.3
<b>With Preferred Alternative</b>	Would be elevated or on retained fill as it passes residences next to I-5 on S 253rd, 256th, 259th streets and 31st Avenue and would be seen by sensitive residential viewers.	Many residences in this area would have views of changes screened by remaining vegetation, but the visual unity from some adjacent residences would be lowered.	3	Removal of vegetation along I-5 and presence of elevated and at-grade alignment would lower intactness.	3	Visual unity would be reduced for single-family residences that would remain next to areas where other single-family residences and mature trees lining I-5 would be removed.	3	3
S 259th Place to S 272nd Street								
<b>Existing</b>	Sensitive viewers (in multi-family residential buildings just south of S 259th Place and single-family subdivision north of the Star Lake Park-and-Ride [Greenfield Park]).	The two residential areas along this section of the alignment are typical of similar types of development in the assessment area, and have average vividness.	4	The two residential areas along this section of the alignment are isolated from other developments, well-maintained, and produce an average degree of intactness.	4	The residential areas along this section of the alignment are composed of similar-appearing buildings and are surrounded by heavy vegetation. This results in a moderately high degree of unity.	5	4.3

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
<b>With Preferred Alternative</b>	Would be seen to the east by sensitive viewers (in multi-family residential buildings and the single-family residences on the west side of 28th Avenue S in the Greenfield Park neighborhood that would not be removed).	Removal of trees and residences, construction of a traction power substation, a detention pond, the trenched alignment along east side of 28th Avenue S (adjacent to I-5), and a parking structure up to 4 stories high in the current park-and-ride parking lot would lower vividness of this area. The presence of S 272nd Station and parking garage would not improve vividness at the park-and-ride facility.	3	The presence of the alignment (elevated, at-grade, and trenched and up to 5-story-high parking garage in the current park-and-ride parking lot) would reduce intactness when viewed from residences and I-5.	3	Unity would be lowered next to residences that would be adjacent to the alignments and when viewed from I-5.	3	3
<b>Landscape Unit 3</b>								
S 272nd Street to S 288th Street								
<b>Existing</b>	Sensitive viewers (in multi-family residential buildings and single-family residential areas) are adjacent to most of this part of the alignment.	Views toward I-5 from residential areas to the west are generally blocked by vegetation (including many large trees) that lines the I-5 right-of-way and private lands adjacent to it. There are many trees in these residential areas, so the presence of trees adjacent to I-5 does not contribute to the overall average vividness of these areas.	4	Areas along the alignment have the character of a subdivision built in a forested area, with numerous trees remaining within and adjacent to residences.	5	The uniform building types, street layouts, and presence of numerous trees produces a setting of moderately high visual unity.	5	4.7

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
<b>With Preferred Alternative</b>	At-grade (much with retained fill) along much of alignment behind single-family residences would be seen to the east by sensitive viewers in remaining nearby residences. Removal of most mature trees in portion of I-5 right-of-way adjacent to residential areas.	Vividness would be reduced for adjacent residences.	3	The presence of the alignment and passing trains would lower intactness when viewed from residences to the west of I-5.	3	Unity would be reduced with the removal of trees and views of I-5 and alignment.	3	3
S 288th Street to S 298th Street								
<b>Existing</b>	Sensitive viewers (in mobile home park and single-family residential areas). Mobile home park backs up against I-5 corridor and is screened from it by a sound wall and vegetation.	Mobile home park backs up against I-5 and is screened from it by a sound wall and vegetation. Well-maintained mobile home park is not particularly memorable. I-5 corridor vegetation forms a more effective screen to views of I-5 from single-family residences.	4	No exceptionally positive or negative structures or objects within the area or seen from it, average degree of intactness.	4	Mobile home park is screened from areas beyond its boundary and has fairly high visual unity.	4	4
<b>With Preferred Alternative</b>	Removal of vegetation in I-5 corridor would be very noticeable and would be clearly seen by nearby sensitive residential viewers.	Changes along alignment, particularly loss of vegetation, would reduce vividness for adjacent residences.	3	Presence of retained fill wall supporting at-grade alignment and trains passing by would reduce intactness.	3	Removal of trees along I-5 corridor and alignment would reduce unity for adjacent mobile homes.	3	3
S 298th Street to S 317th Street								
<b>Existing</b>	Sensitive viewers (in single-family dwellings and multi-	Areas have appearance of suburban or semi-rural neighborhoods with a variety of lot sizes and	4	Some variety of land uses and building sizes and property maintenance.	4	Consistency of uses, scale, character, and presence of many trees produces	5	4.3

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category  7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
	family dwellings).	single-family residences. Many trees are present in neighborhoods as well as along the I-5 right-of-way and on adjacent property. Multi-story residences with views toward Mt. Rainier (over I-5) at south end of this segment. The area is not memorable and has average vividness.		Average intactness.		moderately high unity.		
<b>With Preferred Alternative</b>	Would be seen to the east by sensitive residential viewers.	Mostly at-grade alignment near sensitive viewers would not reduce vividness, but in conjunction with the removal of trees along I-5 corridor would reduce vividness. Views of Mt. Rainier would not be blocked and the removal of trees might open up views of it from some adjacent residences.	3	The intactness of eastern views from some adjacent residences would be lowered.	3	For adjacent residents the current degree of unity of views to the east would be reduced by removal of trees and presence of at-grade alignment.	3	3
South of S 317th Street to Federal Way Transit Center Station								
<b>Existing</b>	Would pass south of Truman High School and areas containing a mix of parking lots and commercial buildings with no adjacent sensitive viewers.	The alignment would pass through an unremarkable area composed of scattered large-scale buildings and parking areas.	3	The mixture of extensive parking areas and scattered buildings produces below average degrees of intactness.	3	Unity in this area is below average.	3	3

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
<b>With Preferred Alternative</b>	Alignment would pass south of Truman High School in a trench and transition to elevated as it would travel through parking areas (and would require removal of a building) to the elevated Federal Way Transit Center Station.	Vividness is low and would stay low, despite the elevated station.	3	The station south of the Federal Way Transit Center would be elevated. Its presence would not reduce the existing intactness lower than it currently is.	3	The Preferred Alternative would not improve unity along the alignment.	3	3
<b>Kent/Des Moines Station Options – At-Grade Station Option (Landscape Units 1 and 2)</b>								
<b>Existing</b>	Undeveloped area between I-5 to the east and Lowes to the west, S 240th Street to north and Midway Landfill to south.	Flat, gently sloping lot with scattered trees, surrounded by industrial-commercial uses, low vividness.	3	Average intactness in center of parcel, low intactness around rest because of mix of uses seen on nearby properties	4	Mix of uses surrounding undeveloped parcel.	3	3.3
<b>With At-Grade Option</b>	At-grade station.	Station location would be west of trees lining I-5, parking area would be on a vacant lot, which would not improve vividness.	3	Station would be a positive element for intactness, while parking area would decrease it. No change to rating.	4	Visual characteristics of station and parking area would slightly improve unity, but not enough to increase rating.	3	3.3
<b>Kent/Des Moines Station Options-I-5 Station Option (Landscape Units 1 and 2)</b>								
<b>Existing</b>	Sensitive viewers (in multi-family and single family buildings and mobile home park) .	Views of undeveloped area, back of big box retail buildings, and I-5 do not produce vivid images.	3	Moderately low degree of intactness.	3	Scattered buildings, parking areas, undeveloped area, and freeway produce moderately low unity.	3	3
<b>With Kent/Des Moines I-5 Station Option</b>	Elevated on property west of I-5. Would be seen by sensitive residential viewers.	Elevated station and approach would somewhat improve vividness in this area but could introduce a large-scale object into the views of apartment building	4	Slight improvement in intactness because of station.	3	With consolidated development unity would improve.	4	3.7

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
		residents (whose views to the east are partially screened by trees that would remain in place).						
<b>Landfill Median Alignment Option (Landscape Unit 2)</b>								
<b>Existing</b>	The alignment along the I-5 median that this option would follow parallels the Midway Landfill.	Vividness along this section of I-5 is low except for the unusual and somewhat memorable view of the landfill, which provides a large engineered clearing along this generally tree-lined section of the I-5 corridor.	4	Gas capture equipment in the landfill provides a somewhat industrial character to the landfill, and lowers intactness.	3	The landfill has an engineered appearance and low visual unity with its surroundings.	3	3.3
<b>With Landfill Median Alignment Option</b>	Would not be seen by sensitive viewers and would not lower visual quality.	The elevated guideway in the median would be the only part of the project in the median and would not lower vividness.	4	The option would not lower further the intactness of the view of the landfill.	3	The option would not further reduce the unity of the view.	3	3.3
<b>S 272nd Star Lake Elevated Station Option (Landscape Units 2 and 3)</b>								
<b>Existing</b>	Alignment passes east of I-5 and west of a series of residential areas with sensitive viewers.	The residential areas have single-family homes typical of similar types of development in the assessment area and have average vividness.	4	The two residential areas that the alignment would pass near are well maintained, and have an average degree of intactness.	4	The residential areas along this section of the alignment are composed of similar-appearing buildings and are surrounded by heavy vegetation. This results in a moderately high degree of unity.	5	4.3
<b>With S 272nd Star Lake Elevated Station Option</b>	Elevated alignment would be seen to the east by sensitive viewers from single-family residences along the alignment	Removal of trees and residences, the elevated FWLE structure along west side of I-5, and a new parking structure up to 5 stories high in the current	3	The presence of the FWLE (elevated structure and at-grade guideway, and an up to 5-story-high parking garage in the current park-and-ride parking lot) would reduce	3	Unity would be lowered next to residences that would be adjacent to the alignments and when viewed from I-5.	3	3

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
	and at Mark Twain Elementary School.	park-and-ride parking lot would lower vividness of this area. The presence of S 272nd Star Lake Station and parking garage would not improve vividness at the park-and-ride facility.		intactness when viewed from residences and I-5.				
<b>S 317th Elevated Alignment Option (Landscape Unit 3)</b>								
North of S 317th Street								
<b>Existing</b>	The area north of S 317th adjacent to the option contains sensitive viewers (in multi-family dwellings).	Areas along 28th Avenue S west of the alignment have the appearance of suburban multi-family developments with a variety of development sizes and styles. A number of trees are present in areas adjacent to and in the I-5 right-of-way. Some residences within multi-family developments have views toward Mt. Rainier (over I-5). The area is not memorable and has average vividness.	4	Some variety of land uses building sizes, and property maintenance. Average intactness.	4	Development patterns produce an average degree of unity along most of alignment.	4	4
<b>With S 317th Elevated Alignment Option</b>	The elevated structure would require the removal of the same trees and buildings adjacent to I-5 required for the Preferred Alternative and would be seen to the east from some residences.	The average vividness of this area would be slightly reduced due to the removal of trees and buildings. The elevated structure would intrude on some views of Mt. Rainier from some multi-family units. The clearing of trees would open up views of Mt. Rainier from some residences that currently do not have views of it.	3.5	The presence of the elevated structure would lower intactness of views to the east.	3	The removal of buildings and vegetation would reduce the average unity of eastern views from residences.	3	3.2

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
<b>From S 317th Street to Federal Way City Center</b>								
<b>Existing</b>	The alignment would pass south of Truman High School and continue west through areas containing a mix of parking lots and commercial buildings.	This portion of the alignment passes a variety of land uses with scattered large-scale buildings and parking areas. The area has a below average degree of vividness. Mt. Rainier can be seen from parts of Truman High School.	3	Below average degree of intactness due to the mix of land uses and buildings of different sizes and scales.	3	Below average unity along alignment with little to visually tie the area together.	3	3
<b>With S 317th Elevated Alignment Option</b>	The elevated structure would pass south of Truman High School and be seen from parts of it.	Would not further reduce the below average vividness of this view and might actually increase the memorability of the view to some degree. The elevated structure would intrude on views of Mt. Rainier from some locations.	3	The elevated structure would add another structure to the mix of structures seen in this area.	3	The elevated structure would potentially provide a unifying element in this area, but would not increase the unity of views along the alignment above low.	3	3
<b>Federal Way City Center Options – Federal Way I-5 Station Option (Landscape Unit 3)</b>								
<b>Existing</b>	No areas with concentrations of sensitive viewers.	The location of this option is largely a parking area (with buildings that would be removed).	3	Low intactness with this mix of parking lots, access roads, and buildings.	3	Low degree of visual unity in this area.	3	3
<b>With Federal Way I-5 Station Option</b>	Would be partially in a trench at-grade.	Removal of buildings and replacement with a station would not change vividness.	3	Removal of buildings and replacement with a station would not change low intactness.	3	Removal of buildings and replacement with a station would not change unity.	3	3
<b>Federal Way City Center Options – Federal Way S 320th Park-and-Ride Station Option (Landscape Unit 3)</b>								
<b>Existing</b>	Visually sensitive area (the tail tracks would be within a mobile home park and require the removal of	This option parallels I-5 to an existing park-and-ride. The alignment has low vividness. The portion of the tail tracks that would extend	3	Low intactness with this area adjacent to I-5 with parking lots and access roads.	3	Low degree of visual unity in this area.	3	3

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
	units).	into the east edge of the mobile home park is adjacent to I-5 and also has a low degree of vividness.						
<b>With Federal Way S 320th Park-and-Ride Station Option</b>	Would be seen by visually sensitive residential viewers.	The at-grade station and parking structure would not improve vividness of this area.	3	Intactness would not improve with the presence of the station and parking structure.	3	The parking structure would be similar to other structures in the general area and would not improve unity.	3	3
<b>SR 99 Alternative (Landscape Units 1, 2, and 3)</b>								
<b>Landscape Unit 1</b>								
S 204th Street to approximately 1,000 feet north of S 216th Street								
<b>Existing</b>	No areas with sensitive viewers.	Large buildings with extensive parking areas interspersed with vacant parcels. Low vividness.	3	Mix of building types with large parking-storage areas, some vehicle storage.	2	The landscaped median and street side plantings are the most unifying elements.	3	2.7
<b>With SR 99 Alternative</b>	Elevated structure would not be seen by sensitive viewers and would slightly reduce visual quality.	Elevated structure would not reduce vividness along this part of SR 99 corridor.	3	Large scale of elevated structure would not be out of scale with nearby large-scale elements.	2	Would replace some vegetation in landscaped medians.	2	2.3
Approximately 1,000 feet north of S 216th Street to S 216th Street								
<b>Existing</b>	Sensitive viewers (in multi-family residential buildings).	Multi-story residential development on east side of SR 99 north of S 216th Street produces average vividness.	4	Moderate degree of intactness, primarily due to multi-story residential building complex on east side of SR 99.	4	Variety of land uses results in low unity.	3	3.7
<b>With SR 99 Alternative</b>	Would be seen by visually sensitive residential viewers.	Presence of elevated structure over the median would somewhat reduce vividness.	3	Would add a large-scale transportation element to section of the corridor that has large-scale elements such as buildings and parking lots, so would not decrease	2	Would eliminate all or parts of existing landscaped medians, which contribute to this part of the corridor's unity. When replacement landscaping would become reestablished	2	2.3

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
				intactness enough to change the rating.		it would help reinforce unity.		
S 216th Street to S 220th Street								
<b>Existing</b>	Sensitive viewers (in mobile-home park).	Similar to previous section, but fewer large-scale developments and large parking areas.	3	Fairly consistent appearance along sides of SR 99 and average intactness.	3.5	Wall on east side of SR 99, landscaping and large undeveloped area with trees help with unity.	4	3.5
<b>With SR 99 Alternative</b>	Would be seen by visually sensitive residential viewers.	The elevated structure would not detract much from the degree of vividness seen by nearby residents because views of structure from within the mobile home park blocked by a wall and/or vegetation and other mobile homes.	3	The elevated structure would add an object in the view over the wall that surrounds the mobile home park.	3	Would eliminate all or parts of existing landscaped medians, which contribute to this part of the corridor's unity. When replacement landscaping would become reestablished it would help reinforce unity.	3	3
S 220th Street to Kent-Des Moines Road								
<b>Existing</b>	No areas with concentrations of sensitive viewers.	Fewer large-scale parking lots than other areas along SR 99 and more smaller, well- maintained properties with landscaping, etc.	3	Average degree of intactness along this section.	4	The landscaped median and street side plantings provide some visual unity in this area.	3.5	3.5
<b>With SR 99 Alternative</b>		Presence of elevated structure would not change the degree of vividness.	3	Would slightly lower intactness.	3	Would eliminate all or parts of existing landscaped medians, which contribute to this part of the corridor's unity. When replacement landscaping would become reestablished it would help reinforce unity.	3	3

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
<b>Landscape Unit 2</b>								
Kent-Des Moines Road to S 260th Street								
<b>Existing</b>	Sensitive viewers (in mobile home park).	Mix of large-scale developments with extensive parking areas for customers, storage units, vehicle storage and sales.	2	Wide variety of properties and vacant lots with little intactness.	2	Few unifying elements, little in the way of streetscape improvements to bolster unity.	2	2
<b>With SR 99 Alternative</b>	Would be seen by visually sensitive residential viewers.	Elevated guideway and Kent/Des Moines West Station along west side of SR 99 would not change the vividness rating. Trees and vegetation on west side of mobile home park (located on east of SR 99) would partially screen views of elevated structure.	2	Would not change intactness rating.	2	Would somewhat improve unity (but not enough to increase rating) by providing a consistent element along this section of SR 99.	2	2
S 260th Street to S 268th Street								
<b>Existing</b>	Sensitive viewers (in single- family residences and library).	This segment is relatively vivid compared to areas near it and contains a large swath of undeveloped land (and also some commercial properties) on east side of SR 99, and residential subdivisions and the Woodmont Library on the west side.	4	Similarity of quality of buildings (except for commercial buildings surrounded by the undeveloped area) produces moderately high degree of intactness.	5	Average unity because of similar developments and presence of vegetation along this section of SR 99.	4	4.3
<b>With SR 99 Alternative</b>	Would be seen by visually sensitive viewers.	The elevated structure would be seen from nearby sensitive viewers and have a slightly lower vividness rating.	3	The elevated structure would add a larger-scale element to the viewed landscape.	4	Unity would decrease slightly, but not enough to lower the rating.	4	3.7

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
S 268th Street to S 272nd Street								
<b>Existing</b>	No areas with concentrations of sensitive viewers.	Extensive parking areas for customers and variety of commercial businesses and buildings.	2	Wide variety of properties and vacant lots with little intactness.	2	Few unifying elements, little in the way of vegetation or other streetscape improvements to improve unity.	3	2.3
<b>With SR 99 Alternative</b>	Elevated structure would not be seen by sensitive viewers and would not lower visual quality.	Presence of elevated structure would not lower vividness.	2	Would not change intactness rating.	2	Would somewhat improve unity (but not enough to increase rating) by providing a consistent element along this section of SR 99.	3	2.3
<b>Landscape Unit 3</b>								
S 272nd Street to Intersection with S 279th Street								
<b>Existing</b>	Sensitive viewers (in mobile home park and multi-family residential buildings).	The mixture of land uses (large box retail, park-and-ride parking lot, mobile home park, vehicle storage, vacant lot) do not create a memorable area.	3	Intactness of this area with its wide variety of development types is low.	3	Median and streetscape improvements (particularly in north half of this segment) help promote average degree of unity.	4	3.3
<b>With SR 99 Alternative</b>	Would be seen by visually sensitive residential viewers.	Elevated S 272nd Redondo Station (on east side of SR 99) would introduce interesting architectural element, which would slightly improve vividness in this area.	4	Intactness would improve somewhat, but not enough to increase rating.	3	Would keep existing unity rating.	4	3.7

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Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

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		Vividness	Rating	Intactness	Rating	Unity	Rating	
S 279th Street to S 283rd Street								
<b>Existing</b>	Sensitive viewers (in multi-family residential buildings).	Trees are adjacent to west side of SR 99 for most of this part of the corridor. Moderately high vividness.	4	Moderately high attention paid to street side improvements, landscaping, and entries to multi-story residential developments. Trees on either side create a visually contained "canyon."	5	The presence of vegetation and landscaped areas adjacent to SR 99 along much of this section of SR 99 provides moderately high unity.	5	4.7
With SR 99 Alternative	Would be seen by visually sensitive residential viewers.	Having alignment in median would avoid removing existing vegetation on either side but would intrude on some views along corridor.	4	Presence of elevated structure within this contained "canyon" would intrude and decrease intactness.	3	The elevated structure can be visually unifying presence, but in this setting it would reduce the existing visual unity with its scale and form.	3	3.3
S 283rd Street to S 288th Street								
<b>Existing</b>	Sensitive viewers (in multi-family residential buildings).	Fewer trees on west side of street compared to segment above. Roofs of multi-story residential developments and roofs of garages below the grade of SR 99 seen from SR 99. Some multi-story residential units on east side of SR 99 are elevated above it and have views down on SR 99. Average vividness along this section of SR 99.	4	The roofs of buildings to west block street views. Much of east side is lined with retaining walls and/or steep slopes with parking areas at top of grade above SR 99. Average intactness.	4	Area has a multi-story residential character that is fairly unified.	5	4.3

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Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
<b>With SR 99 Alternative</b>	Would be seen by visually sensitive residential viewers.	Elevated guideway would be a large-scale feature that would be even with, or lower than, the viewing elevation from residences to the east and may be seen (from the backs) of residences to the west. Presence of structure would not lower the vividness of the view greatly.	3.5	Elevated structure would encroach on north and south views along this section of the SR 99 corridor that has residential character, as well as potentially encroaching on west views from the east side of SR 99, and would lower intactness.	3	The elevated structure would add a large-scale transportation element, which would be consistent to a certain degree with the character of SR 99 but would not be a unifying element in a residential area.	3	3.2
S 288th Street to Dash Point Road								
<b>Existing</b>	Sensitive viewers (in multi-family residential buildings).	Residential areas to east of SR 99 and residential area to west (below grade of SR 99 west of parking area) produce average vividness.	4	Despite presence of street side parking, this section of SR 99 has an average degree of intactness.	4	Streetscape and median landscaping, along with the presence of nearby trees and similarly scaled developments, contribute to the unity of this segment of SR 99.	4	4
<b>With SR 99 Alternative</b>	Would be seen by visually sensitive residential viewers.	Elevated guideway along the median would intrude on some views by residents to the east, which would lower vividness.	3	The scale and presence of elevated guideway would not be consistent with nearby residential areas.	3	Unity along this part of the SR 99 corridor would be lowered with the presence of the elevated guideway in the median of SR 99.	3	3
Dash Point Road to S 303rd Street								
<b>Existing</b>	Sensitive viewers (in multi-family residential buildings) near Dash Point Road.	Sacajawea Park, undeveloped and heavily vegetated areas, and Federal Way High School are moderately high vivid elements in this area.	5	Average degree of intactness along this section of SR 99.	4	This section has average unity; relatively recent streetscape (medians and along sidewalks) has improved unity.	4	4.3
<b>With SR 99 Alternative</b>	Would be seen by visually sensitive residential viewers.	Elevated guideway along east side of SR 99 and lower vividness.	3	Elevated guideway would add large-scale element to this area.	3	Elevated guideway would somewhat add to unity, but not enough to raise rating.	4	<b>3.3</b>

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		Vividness	Rating	Intactness	Rating	Unity	Rating	
<b>S 303rd Street to Federal Way Transit Center</b>								
<b>Existing</b>	Sensitive viewers (in multi-family residential buildings).	The area the alignment would pass through a mix of building types and scales and extensive parking lots. Low vividness.	3	Low degree of intactness along the alignment.	2	Variety of building and parking lot sizes and design reduce visual unity.	2	2
<b>With SR 99 Alternative</b>	Would be seen by visually sensitive residential viewers.	The presence of the elevated guideway would have a neutral effect on vividness. The elevated Federal Way Transit Center Station would slightly improve vividness in this area. The overall vividness rating would not change.	3	Little change to degree of intactness.	2	Presence of elevated guideway would add some unity to areas along its alignment, as would the station. Replacement of existing buildings with parking areas would have a negative influence on unity.	2	2
<b>S 216th Station Options – West Station Option (Landscape Unit 1)</b>								
<b>S 204th Street to Approximately 1,000 Feet North of S 216th Street</b>								
<b>Existing</b>	No areas with concentrations of sensitive viewers.	Large buildings with extensive parking areas interspersed with vacant parcels. Low vividness.	3	Mix of building types with large parking-storage areas, some vehicle storage.	2	The landscaped median and street side plantings are the most unifying elements.	3	2.7
<b>With SR 99 Alternative</b>	Elevated structure would not be seen by sensitive viewers and would slightly lower visual quality.	Elevated alignment and alignment in trench would not alter vividness along this part of SR 99 corridor.	3	Large scale of elevated structure portion of alignment would not be out of scale with nearby large-scale elements.	2	Would replace some vegetation in landscaped medians.	2	2.3
<b>1,000 Feet North of S 216th Street to S 216th Street</b>								
<b>Existing</b>	Sensitive viewers (in multi-family residential buildings).	Multi-story development on east side of SR 99 north of S 216th Street produces average vividness.	4	Moderate degree of intactness, primarily due to multi-story building complex on east side of SR 99.	4	Variety of land uses results in low unity.	3	3.7

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		Vividness	Rating	Intactness	Rating	Unity	Rating	
<b>With SR 99 Alternative</b>	Would be seen by visually sensitive residential viewers.	Presence of alignment and station in trench would not lower vividness.	4	Intactness would not decrease enough to lower the rating.	4	Would remove some buildings that somewhat provide unity to this part of SR 99, but would not lower existing unity rating.	3	3.7
End of Station to Connection with SR 99 Median (South of S 220th Street)								
<b>Existing</b>	No areas with concentrations of sensitive viewers.	Similar to previous section, but fewer large-scale developments and large parking areas.	3	Fairly consistent appearance along sides of SR 99 and average intactness.	3	Wall on east side of SR 99, landscaping, and large undeveloped area with trees help with unity.	4	3.3
<b>With S 216th West Station Option</b>	Station in trench on west side of SR 99.	Station would not improve vividness enough to increase rating.	3	Station and trenched alignment along west side of SR 99 would not change the intactness along alignment.	3	Unity would remain very similar to existing.	4	3.3
<b>S 216th Station Options – East Station Option (Landscape Unit 1)</b>								
From Where Alignment Leaves SR 99 (South of S 211th Street) to Cross to East Side of SR 99 to North End of Station								
<b>Existing</b>	Sensitive viewers (in multi-family residential buildings).	Multi-story development on east side of SR 99 north of S 216th Street produces average vividness.	4	Moderate degree of intactness, primarily due to multi-story building complex on east side of SR 99.	4	Variety of land uses results in low unity.	3	3.7
<b>With S 216th East Station Option</b>	Would be seen by visually sensitive residential viewers.	Where transitions to east side the alignment would be closer to some units in multi-story residential buildings than SR 99 Alternative and lower vividness.	3	Elevated guideway would be decrease the intactness of the view of the SR 99 corridor from residences.	2	Would add another use along this section of SR 99.	2	2.3
End of Station to Connection with SR 99 Median (South of S 220th Street)								
<b>Existing</b>	Sensitive viewers (in mobile home park).	Similar to previous section, but fewer large-scale developments and large parking areas.	3	Fairly consistent appearance along sides of SR 99 and average intactness.	3	Wall on east side of SR 99, landscaping, and large undeveloped area with trees help with unity.	4	3.3

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		Vividness	Rating	Intactness	Rating	Unity	Rating	
<b>With S 216th East Station Option</b>	Would transition to east side of SR 99 and station would be built on part of a mobile home park and seen by visually sensitive residential viewers.	Elevated station would be visible from mobile home park and would somewhat improve vividness.	4	Scale and closeness of station to mobile home park would reduce intactness.	2	Unity along this section of SR 99 and in the view from the mobile home park would improve, but not enough to increase rating to 5.	4	3.3
<b>Kent/Des Moines Station Options – Kent/Des Moines Highline College (HC) Campus Station Option (Landscape Units 1 and 2)</b>								
S 224th Street to Kent-Des Moines Road								
<b>Existing</b>	Sensitive viewers (from backs of multi-family residential buildings and parking areas)	Alignment would pass through utilitarian areas (parking and storage) with low vividness.	2	The mix of properties and development has low intactness.	2	The area the alignment would pass through has a fairly consistent utilitarian appearance.	3	2.3
<b>With Kent/Des Moines HC Campus Station Option</b>	Would be seen by visually sensitive residential viewers.	Vividness along the alignment would remain the same.	2	The elevated guideway would add a large-scale overhead object to this area, but would not further reduce intactness.	2	The addition of the guideway in trench (and where elevates over Kent/Des Moines Road) would slightly decrease unity.	2	2
Kent-Des Moines Road to North Boundary of Highline College								
<b>Existing</b>	Sensitive viewers (in single-family residences).	Average degree of vividness near Kent-Des Moines Road, wetland area, and 28th Avenue S.	4	The backs of some commercial properties that front SR 99 can be seen behind residences along the east side of 28th Avenue S, which lowers intactness.	3	The portion of the alignment along 28th Avenue S is fairly unified.	4	3.7
With Kent/Des Moines HC Campus Station Option	Would be seen by visually sensitive residential viewers.	Would pass over Kent-Des Moines Road and wetland area and reach grade, and pass at-grade and in a trench along the east side of 28th Avenue S (and remove single-story residences) and	3	Would lower intactness along this section of the alignment.	2	The alignment would remove single-story residences and vegetation and expose more of the backs of commercial properties that line SR 99. Unity would be reduced.	3	2.7

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		Vividness	Rating	Intactness	Rating	Unity	Rating	
		lower vividness.						
Highline College Campus Parking Lot								
<b>Existing</b>	No areas with concentrations of sensitive viewers.	Unremarkable area – parking lot with some vegetation.	3	No contributing features in parking lot.	3	Parking lot adjacent to entry to campus has average degree of unity.	4	3.3
With Kent/Des Moines HC Campus Station Option	Station located in this segment.	Would enter parking lot at-grade and enter a trench to the station.	3	Presence would not further lower intactness.	3	Trench would somewhat decrease unity in this part of parking lot.	3	3
<b>Kent/Des Moines HC Campus Station Option from the S 216th West Station Option (Landscape Units 1 and 2)</b>								
S 204th Street to Approximately 1,000 Feet North of S 216th Street								
<b>Existing</b>	No areas with concentrations of sensitive viewers.	Large buildings with extensive parking areas interspersed with vacant parcels. Low vividness.	3	Mix of building types with large parking-storage areas, some vehicle storage.	2	The landscaped median and street side plantings are the most unifying elements.	3	2.7
With Kent/Des Moines HC Campus Station Option from the S 216th West Station Option	Elevated structure would not be seen by sensitive viewers and would slightly lower visual quality.	Elevated alignment and alignment in trench would not alter vividness along this part of SR 99 corridor.	3	Large scale of elevated structure portion of alignment would not be out of scale with nearby large-scale elements.	2	Would replace some vegetation in landscaped medians.	2	2.3
1,000 Feet North of S 216th Street to S 216th Street								
<b>Existing</b>	Sensitive viewers (in multi-family residential buildings).	Multi-story development on east side of SR 99 north of S 216th Street produces average vividness.	4	Moderate degree of intactness, primarily due to multi-story building complex on east side of SR 99.	4	Variety of land uses results in low unity.	3	3.7

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		Vividness	Rating	Intactness	Rating	Unity	Rating	
With Kent/Des Moines HC Campus Station Option from the S 216th West Station Option	Would be seen by visually sensitive residential viewers.	Presence of alignment and station in trench would not lower average vividness.	4	Intactness would not decrease enough to lower the rating.	4	Would remove some buildings that somewhat provide unity to this part of SR 99, but would not lower existing unity rating.	3	3.7
End of Station to S 224th Street								
<b>Existing</b>	No areas with concentrations of sensitive viewers along alignment (are some multi-family buildings facing west and downhill of alignment that are west of buildings along SR 99).	Similar to previous section.	3	Fairly consistent appearance along sides of SR 99 and average intactness.	3	Wall on east side of SR 99, landscaping, and large undeveloped area with trees help with unity.	4	3.3
With Kent/Des Moines HC Campus Station Option from the S 216th West Station Option	From south of station would continue south in trench on west side of SR 99.	Removal of buildings on west side of SR 99 would change commercial appearance of some areas.	3	Trenched alignment along west side of SR 99 would not change intactness along alignment.	3	Removal of buildings and presence of alignment trench would somewhat lower existing unity.	3	3
S 224th Street								
<b>Existing</b>	Sensitive viewers (backs of multi-family residential buildings).	Alignment would pass through utilitarian areas (parking and storage) with low vividness.	2	The mix of properties and development has low intactness.	2	The area the alignment would pass through has a fairly consistent utilitarian appearance.	3	2.3
With Kent/Des Moines HC Campus Station Option from the S 216th West Station Option	Would be seen by visually sensitive residential viewers.	Trench would not change vividness along the alignment.	2	Would not further reduce intactness.	2	Would not decrease unity.	3	2.3

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		Vividness	Rating	Intactness	Rating	Unity	Rating	
<b>Kent-Des Moines Road to North Boundary of Highline College</b>								
<b>Existing</b>	Sensitive viewers (in single-family residences).	Average degree of vividness near Kent-Des Moines Road, wetland area, and 28th Avenue S.	4	The backs of some commercial properties that front SR 99 can be seen behind residences along the east side of 28th Avenue S, which lowers intactness.	3	The portion of the alignment along 28th Avenue S is fairly unified.	4	3.7
With Kent/Des Moines HC Campus Station Option from the S 216th West Station Option	Would be seen by visually sensitive residential viewers.	Would pass over Kent-Des Moines Road, reach grade, and pass over (elevated) a wetland area and transition to a trench along the east side of 28th Avenue S (and remove single-story residences) and lower vividness.	3	Would lower intactness along this section of the alignment.	2	The alignment would remove single-story residences and vegetation and expose more of the backs of commercial properties that line SR 99. Unity would be reduced.	3	2.7
<b>North End of Highline College Campus Parking Lot</b>								
<b>Existing</b>	No areas with concentrations of sensitive viewers.	Unremarkable area – parking lot with some vegetation.	3	No contributing features in parking lot.	3	Parking lot adjacent to entry to campus has average degree of unity.	4	3.3
With Kent/Des Moines HC Campus Station Option from the S 216th West Station Option	Would enter parking area in a trench.	Presence of trench would have little influence on visual quality.	3	Presence would not further lower intactness.	3	Trench would somewhat decrease unity in this part of parking lot.	3	3
<b>Kent/Des Moines Station Options – Kent/Des Moines SR 99 Median Station Option (Landscape Units 1 and 2)</b>								
<b>From Where Leaves SR 99 Median (North of Kent-Des Moines Road) to Station (North of S 240th Street) to South of Station</b>								
<b>Existing</b>	Sensitive viewers (in mobile homes, multi-family residences).	The area the alignment would pass through consists of parking areas, scattered commercial buildings, and is not memorable.	3	Mix of land uses and building types and sizes, abandoned properties, along with extensive areas for parking results in low degree of	3	Lack of visual cohesion results in low unity.	3	3

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		Vividness	Rating	Intactness	Rating	Unity	Rating	
				intactness.				
<b>With SR 99 Median Station Option</b>	Would potentially partially be seen from mobile home park and multi-family buildings to east (sensitive viewers).	Elevated station and guideway would improve the vividness of areas near them, but not enough to raise the rating to 4.	3	Development of station and associated parking would not change degree of intactness.	3	Unity would improve somewhat but not enough to increase rating.	3	3
<b>Kent/Des Moines Station Options – Kent/Des Moines SR 99 East Station Option (Landscape Units 1 and 2)</b>								
From Where Transitions from SR 99 Median to East Side of SR 99 to Kent-Des Moines Road								
<b>Existing</b>	Sensitive viewers east of 30th Avenue S; mobile home park and multi-family residential buildings.	Area alignment would pass through consists of parking areas, scattered commercial buildings, a mobile home park, and small multi-story buildings and is not memorable.	3	Mix of land uses and building types and sizes, abandoned properties, along with extensive areas for parking results in low degree of intactness.	3	Lack of visual cohesion results in low unity.	3	3
<b>With SR 99 East Station Option</b>	Would be seen from sensitive viewers east of 30th Avenue S - mobile home park and multi-family residential building (views from which, with other options, would be screened by trees in lot west of it that would be removed with this option).	Elevated station and guideway would increase the vividness of areas near them, but not enough to raise the rating to 4.	3	Development of station and associated parking along east side of SR 99 would remove a variety of land use types, but would not change degree of intactness.	3	Unity would improve because the variety of land uses would be consolidated.	4	3.3
<b>S 260th Station Options – S 260th West Station (Landscape Unit 2)</b>								
From S 240th Street to S 260th (and Station)								
<b>Existing</b>	Sensitive viewers (in mobile home park) north of S 260th Street. Vacant lot,	Mix of buildings and vacant lots along this section of SR 99, many set back behind large parking areas. Low	2	Variety of land uses and large numbers of utilitarian buildings and properties result in a low degree of	2	With variety of land uses, scales of development, the unity along most of this section of SR 99 is low.	2	2

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		Vividness	Rating	Intactness	Rating	Unity	Rating	
	storage areas, vegetation somewhat screen views of SR 99.	degree of memorability.		intactness for most of this section of SR 99.				
<b>With S 260th West Station Option</b>	Would be seen by visually sensitive residential viewers.	The presence of the elevated guideway and station would provide more visual interest to this section of SR 99 and slightly improve vividness.	3	Would not improve intactness enough to raise rating.	2	Would help unity this section of SR 99 and increase unity rating.	3	2.7
<b>S 260th Street to Where Joins SR 99 Median</b>								
<b>Existing</b>	Sensitive viewers west of SR 99 (in subdivision and Woodmont Library).	Segment has more vivid elements compared to areas near it and contains a large swath of undeveloped land side (and also some commercial properties) on east side of SR 99, with two areas of residential subdivisions and the Woodmont Library on the west side of SR 99.	4	Similarity of quality of buildings (except for commercial buildings surrounded by the undeveloped area) produces moderately high degree of intactness.	4	Average unity because of similar developments and presence of vegetation along this section of SR 99.	5	4.3
<b>With S 260th West Station Option</b>	Would be seen by visually sensitive residential viewers.	Elevated guideway would remove trees along west side of SR 99 that screen views to east.	4	Elevated guideway would cross from west to median near the subdivision and require two straddle bents over southbound lanes of SR 99.	3	Unity rating would be lowered from views from subdivision and library of SR 99 corridor.	4	3.7
<b>S 260th Station Options – S 260th East Station (Landscape Unit 2)</b>								
<b>From Where Leaves SR 99 Median (South of S 252nd Street to Station (over S 260th Street)</b>								
<b>Existing</b>	Sensitive viewers (in mobile home park) north of S 260th Street, east of SR 99.	Mix of commercial buildings and parking areas along east side of SR 99.	2	Variety of land uses and large numbers of utilitarian buildings and properties result in a low degree of intactness for most of this	2	With variety of land uses, scales of development, the unity along most of this section of SR 99 is low.	2	2

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		Vividness	Rating	Intactness	Rating	Unity	Rating	
				section of SR 99.				
<b>With S 260th East Station Option</b>	Would be seen by visually sensitive residential viewers.	Elevated guideway and Kent/Des Moines West Station along east side of SR 99 would not change vividness rating.	2	Elevated guideway and station would be clearly seen from adjacent mobile home park. Would not change intactness rating.	2	Would somewhat improve unity (but not enough to increase rating) by providing a consistent element along this section of SR 99.	2	2
From Station to S 268th Street								
<b>Existing</b>	Sensitive viewers (in residential subdivision and Woodmont Library).	Segment has more vivid elements compared to areas near it and contains a large swath of undeveloped land side (and also some commercial properties) on east side of SR 99, with two areas of residential subdivisions and the Woodmont Library on the west side.	4	Similarity of quality of buildings (except for commercial buildings surrounded by the undeveloped area) produces moderately high degree of intactness.	4	Average unity because of similar developments and presence of vegetation along this section of SR 99.	5	4.3
<b>With S 260th East Station Option</b>	Would be seen by visually sensitive residential viewers.	The elevated structure along east side of SR 99 would be seen from sensitive viewers on west side of SR 99 and have slightly lower vividness rating, but not enough to lower it from to 3.	4	The elevated structure would add a larger-scale element to the viewed landscape that would somewhat intrude on views of the SR 99 corridor.	3	Unity would decrease slightly, but not enough to lower the rating.	4	3.7
S 268th Street to S 272nd Street								
<b>Existing</b>	No areas with concentrations of sensitive viewers.	Extensive parking areas for customers and variety of commercial businesses and buildings.	2	Wide variety of properties and vacant lots with little intactness.	2	Few unifying elements, little in the way of vegetation or other streetscape improvements to improve unity.	3	2.3
<b>With S 260th East Station Option</b>	Elevated structure would not be seen by sensitive viewers and	Presence of elevated structure on east side of SR 99 would not further lower	2	Would not change intactness rating.	2	Would not change unity rating.	3	2.3

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
	would not lower visual quality.	vividness.						
<b>S 272nd Redondo Trench Station Option (Landscape Unit 3)</b>								
S 279th Street to S 288th Street								
<b>Existing</b>	Sensitive viewers (in multi-family residential buildings east of SR 99 and single-family residences further to the south on the west side).	Multi-story developments on west side are lower than SR 99 and are higher than SR 99 on the east side. Small-scale commercial developments at south end of this segment.	4	The segment of SR 99 has a strong, fairly new multi-story development character that creates a moderately high degree of intactness.	5	Up to S 284th Street, trees are present on slope west of SR 99 and are a unifying element. In addition, the slope to the east of this section creates a somewhat enclosed "valley" through which SR 99 travels.	5	4.7
<b>With S 272nd Redondo Trench Station Option</b>	Would be seen by visually sensitive residential viewers.	Trees along the west side of SR 99 would be removed but many would remain behind the elevated structure. The elevated structure would be seen by residents where trees have been removed and would lower the area's vividness.	4	The presence of the elevated structure would add a large-scale element to a residential-scaled and designed section of SR 99, and would decrease the area's intactness.	3	The elevated structure would introduce a large-scale element into the "valley" and distract from the area's unity.	3	3.3

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
<b>S 288th to Dash Point Road</b>								
<b>Existing</b>	Sensitive viewers. Most of the existing utility corridor passes through heavily vegetated areas past the "backside" of residences to the west (generally screened by trees) and the west side of a multi-family residential development with views to the west of the utility lines.	The corridor contains utility support structures, lines, a cleared right-of-way, and an unpaved access road, and has a low degree of vividness. Most of the areas on either side of it are lined with vegetation so residents to the west (15th Place S) would have uphill views of vegetation.	4	The utility corridor, areas leading to it, and areas adjacent to it have average degrees of visual intactness.	4	Most of the areas on either side of the corridor are heavily vegetated and have a moderately high degree of unity.	5	4.3
<b>With S 272nd Redondo Trench Station Option</b>	Would be seen by visually sensitive residential viewers.	Residents to the east would have elevated views of the S 272nd Redondo Trench Station Option components. The removal of vegetation along the utility corridor and presence of the elevated structure would reduce vividness.	3	The removal of vegetation along the utility corridor and the presence of the elevated structure seen from the multi-story development on SR 99 and the single-story dwellings along 15th Place S would detract from the current intactness of views toward the utility corridor.	3	The moderately high degree of visual unity would be reduced.	3	3
<b>Dash Point Road to S 304th Street</b>								
<b>Existing</b>	Sensitive viewers (in residences along 16th Avenue S).	Part of alignment would pass along east side of 16th Avenue S through a heavily vegetated area that is the backdrop of residences to the west. Current degree of vividness along 16th Avenue S is average.	4	16th Avenue S has a single-story residential character with an average degree of intactness.	4	The line of vegetation provides a moderately high degree of visual unity.	5	4.3

TABLE A-1  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
<b>With S 272nd Redondo Trench Station Option</b>	Would be seen by visually sensitive residential viewers.	The at-grade alignment would require the removal of some existing vegetation on the east side of 16th Avenue S and replace the somewhat natural appearing area with a linear transportation feature. These changes would reduce views somewhat, but not enough to reduce lower than the existing average rating.	4	The presence of the sound wall along the alignment, overhead catenary system, and trains would reduce intactness.	3	The unity of this residential area would be lowered with the presence of the at-grade alignment.	4	3.7
<b>Federal Way SR 99 Station Option (Landscape Unit 3)</b>								
S 312th Street to End (North of S 320th Street)								
<b>Existing</b>	No areas with sensitive viewers.	Alignment would pass through areas with extensive parking lots with low vividness.	2	Intactness is low as a result of extensive parking lots.	2	Little unity along the alignment.	2	2
<b>With Federal Way SR 99 Station Option</b>	Elevated station would straddle S 316th Street and have 400 structured parking spaces.	Elevated station would introduce interesting architectural element, which would slightly improve vividness in this area.	3	Intactness would improve somewhat, but not enough to increase rating.	2	Presence of elevated guideway and station would slightly improve unity, but not enough to increase rating.	2	2.3
<b>SR 99 to I-5 Alternative (transition area from SR 99 to I-5 Between Kent-Des Moines Road and approximately S 240th Street)</b>								
<b>Existing</b>	Sensitive viewers in mobile home park would be removed, but residents in multi-family residences would remain.	Mix of land uses and character including areas of commercial (buildings and extensive parking areas), industrial, storage, residential, and vacant land. These areas are not memorable.	2	Low degree of intactness along this alignment.	3	Unity is low given the mix of uses, scales, etc.	2	2.3

**TABLE A-1**  
Existing Visual Quality and Changes in Visual Quality Near Areas with Concentrations of Sensitive Viewers by Alternative

Segment	Notes	Elements of Visual Quality						Visual Quality Category 7 = very high 6 = high 5 = moderately High 4 = average 3 = moderately low 2 = low 1 = very low
		Vividness	Rating	Intactness	Rating	Unity	Rating	
<b>With SR 99 to I-5 Alternative</b>	Would cross from northwest to southeast through this area.	The elevated guideway and station, along with the parking areas, would slightly improve the low degree of vividness along this alignment.	3	The elevated station in particular would improve intactness to areas near it, but overall intactness would remain low.	3	The development associated with this option would somewhat improve visual unity.	3	3
<b>I-5 to SR 99 Alternative (transition area from I-5 to SR 99 Between Kent-Des Moines Road and approximately S 240th Street)</b>								
<b>Existing</b>	Sensitive viewers ((in mobile home park).	Mix of land uses and character including areas of commercial (buildings and extensive parking areas), industrial, storage, residential, and vacant land. These areas are not memorable.	2	Low degree of intactness along this alignment.	3	Unity is low given the mix of uses, scales, etc.	2	2.3
<b>With I-5 to SR 99 Alternative</b>	Would cross from northeast to southwest through this area and avoid mobile home park.	The elevated guideway and station, along with the parking areas, would slightly improve vividness along this alignment and from the mobile home park.	3	The elevated station in particular would improve intactness to areas near it, but not enough to change rating.	3	The development associated with this option would somewhat improve visual unity.	3	3

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*Appendix B*

*Key Observation Point Analysis*

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# Key Observation Point Analysis

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This appendix depicts and explains how the Federal Way Link Extension (FWLE) alternatives would affect the visual quality of the corridors the alternatives would pass through as seen from selected locations, or key observation points (KOPs), found along the alternatives' alignments. The Key Map on the next page shows the locations of the 26 KOPs. Areas where the visual quality (see text box) of the view from the KOPs would change are noted, as are KOPs where views of Puget Sound or the Olympic Mountains might be blocked or intruded upon by FWLE alternative components such as elevated guideways.

This analysis is based upon, but does not strictly follow, the visual assessment methodology developed by the Federal Highway Administration (FHWA), which is described in Appendix A, FHWA Visual Impact Methodology, Existing Visual Quality, and Impacts of Alternatives on Visual Quality, of Appendix G5, Visual and Aesthetic Resources Technical Report (Technical Report). As described in Appendix A, visual quality is an assessment of the composition of the character-defining features for selected views of landscapes. A visual quality assessment asks: Is this particular view common or dramatic? Is it a pleasing composition (with a mixture of elements that seem to belong together) or not (with a mixture of elements that either do not belong together or are visual intrusions that contrast with the other elements in the surroundings)? Visual quality is evaluated in terms of vividness, intactness, and unity. Note that in this assessment, views of Puget Sound and the Olympic Mountains are considered to contribute to vividness, and as a result, are contributors to visual quality. The consideration of a "view" (of Puget Sound, the Olympic Mountains, or Mt. Rainer) is considered to be a stand-alone factor used to assist in evaluating impacts to visual and aesthetic resources. Changes to visual quality; intrusion upon or blockage of views Puget Sound, the Olympic Mountains, or Mt. Rainer; and impacts associated with light and glare are the three factors used to assess impacts on visual and aesthetic resources in this technical report.

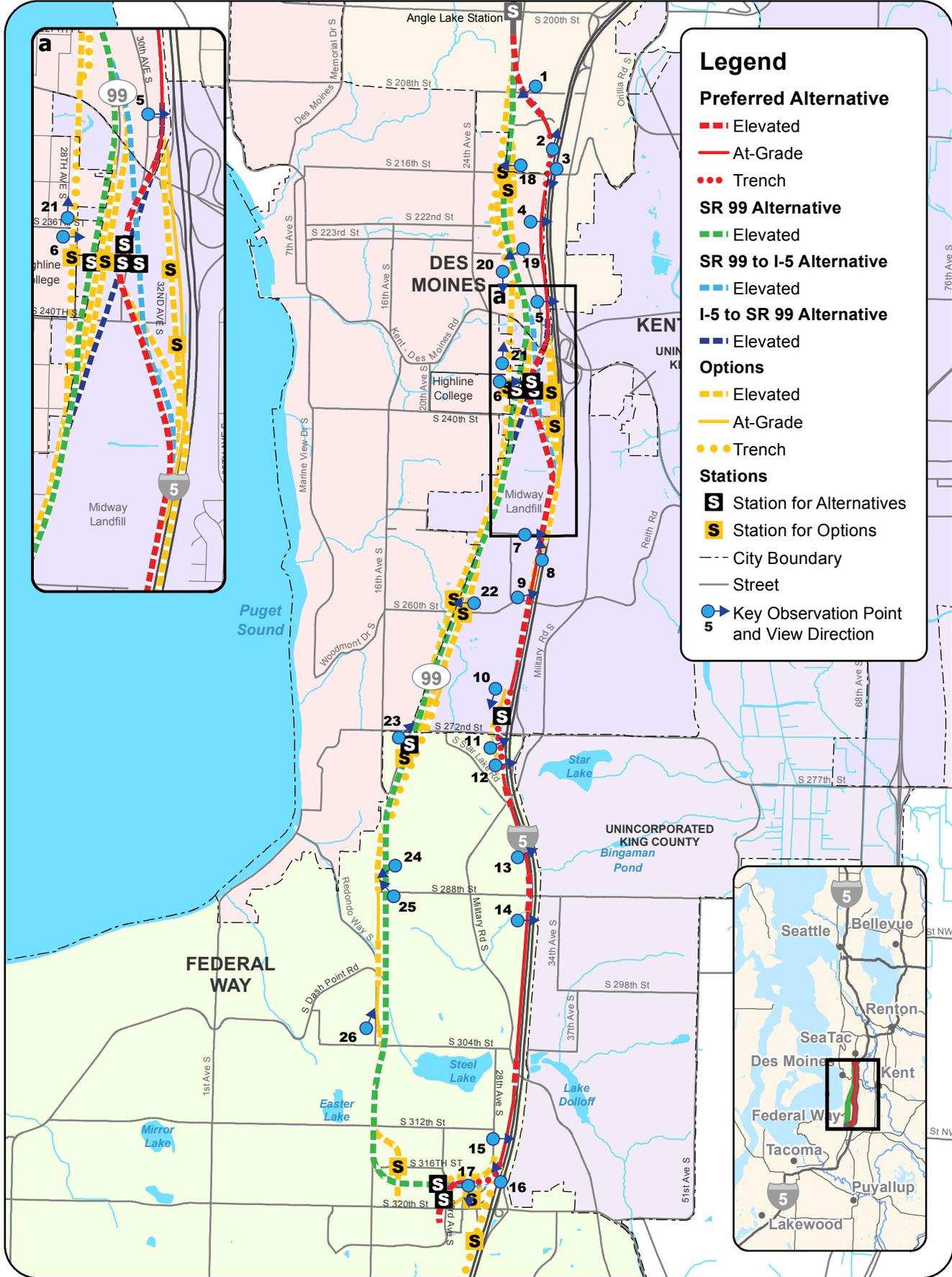
The visual quality category of the sections of the alternative corridors seen from the KOPs is generally the same as for that of segments of the corridors described in Table A-1 of Appendix A. However, because the KOPs represent one view along the corridor, there may be a difference in visual quality category between the KOP view and the section of the corridor as whole.

## Visual Quality Components

**Vividness** is the degree of drama, memorability, or distinctiveness of the landscape. Vividness is composed of four elements—landform, vegetation, water features, and human-made elements—that usually influence the degree of vividness.

**Intactness** is a measure of the visual integrity of the natural and human-built landscape and its freedom from encroaching elements. Intactness is composed of two primary elements—development and encroachment—that influence the degree of intactness.

**Unity** is the degree of visual coherence and compositional harmony of the landscape when it is considered as a whole. High unity frequently attests to the careful design of individual components and their relationship in the landscape.



### Legend

**Preferred Alternative**

- Elevated
- At-Grade
- Trench

**SR 99 Alternative**

- Elevated

**SR 99 to I-5 Alternative**

- Elevated

**I-5 to SR 99 Alternative**

- Elevated

**Options**

- Elevated
- At-Grade
- Trench

**Stations**

- S** Station for Alternatives
- S** Station for Options

--- City Boundary

— Street

● Key Observation Point and View Direction

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2015).



Key Map and View Direction  
Location of Key Observation Points  
Federal Way Link Extension

## B.1 Components of Visual Quality

As described in Appendix A, the three components of visual quality are considered together to determine overall visual quality. The seven-point scale used in the FHWA system was simplified to three levels of visual quality for this assessment: low, average, and high (see text box on page B-3).

The 26 KOPs described in this appendix were selected in consultation with jurisdictions along the alignments. They depict a range of locations and types of views such as views looking perpendicular toward alternatives to represent views from adjacent areas, and in some locations where potential view blockage of Puget Sound and the Olympic Mountains would occur, views looking along the lengths of the I-5 and SR 99 corridors, views seen by nearby residents, and views seen from the street representing what pedestrians or motorists would see. Both types of views can represent the views that residents, pedestrians, and motorists would have of the alternatives. KOPs from areas with concentrations of sensitive viewers such as residents or people recreating in parks were selected, as well as from areas that do not contain sensitive viewers but were chosen by local jurisdictions as important. Exhibits 1-1 through 1-3 in the Visual and Aesthetic Resources Technical Report identify areas with concentrations of sensitive viewers along the alignments of the alternatives.

The following sections describe the KOPs that were selected for each alternative and option. This organization provides a way of depicting how the alternatives and options would appear from locations along their alignments and assists in evaluating potential impacts associated with the alternatives and options.

## B.2 Preferred Alternative

Seventeen KOPs were selected to assist in evaluating impacts from the Preferred Alternative. Five KOPs (1 through 5) were selected in Landscape Unit 1, five KOPs (6 through 10) in Landscape Unit 2, and seven KOPs (KOPs 11 through 17) in Landscape Unit 3. Note that 10 new KOPs (6, 7, 8, 11, 12, 13, 15, 16, and 17) have been added to the Final EIS to assist in the assessment of the Preferred Alternative and are described below. To provide a logical numbering of the KOPs, many of the KOPs numbers in the Draft EIS were changed. Table B-1 shows the old Draft EIS KOP numbers and the new Final EIS KOP numbers.

### Visual Quality

**Low Visual Quality:** Areas with low visual quality have some combination of features that seem visually out of place, lack visual coherence, do not have compositional harmony, and/or might contain unsightly elements.

**Average Visual Quality:** Areas with average visual quality are commonly occurring or average-appearing landscapes that have a generally pleasant appearance but might lack enough distinctiveness, memorability, drama, and compositional harmony to place them in the high visual quality category. This is generally the most frequent category.

**High Visual Quality:** Areas with high visual quality must be outstanding in terms of being very memorable, distinctive, unique (in a positive way), and/or intact—they can be natural, park-like, or urban, with urban areas displaying strong and consistent architectural and urban design features.

TABLE B-1

KOP Conversion Table from Draft EIS to Final EIS

Final EIS KOP No.	Location Description	Draft EIS KOP No.	Alternatives/Options Simulated
1	Looking southwest from S 208th Street toward SR 99 and SR 509 right-of-way	10	Preferred Alternative
2	Looking north along 32nd Avenue S	NA	Preferred Alternative
3	Looking south from S 216th Street overpass at I-5	11	Preferred Alternative
4	Looking east from Midway Park toward I-5	12	Preferred Alternative
5	Looking east from 30th Avenue S toward I-5	13	Preferred Alternative
6	Looking east from Highline College parking lot at SR 99	NA	Preferred Alternative
7	S 254th Street looking east	NA	Preferred Alternative
8	Looking northwest from I-5	NA	Preferred Alternative
9	Looking east at I-5 and S 259th Place underpass	14	Preferred Alternative
10	Looking south on 28th Avenue S	15	Preferred Alternative
11	Mark Twain Elementary School looking east	NA	Preferred Alternative, S 272nd Star Lake Elevated Station Option
12	S 275th Street looking east	NA	Preferred Alternative, S 272nd Star Lake Elevated Station Option
13	S 285th Street looking east	NA	Preferred Alternative
14	Looking east between S 288th Street and S 304th Street toward I-5 (Camelot Square Mobile Home Park)	16	Preferred Alternative
15	28th Avenue looking east	NA	Preferred Alternative, S 317th Elevated Alignment Option
16	S 317th Street direct access ramp from I-5 looking northwest	NA	Preferred Alternative, S 317th Elevated Alignment Option
17	Truman High School looking south	NA	Preferred Alternative, S 317th Elevated Alignment Option
18	Looking west from S 216th Street toward SR 99	1	SR 99 Alternative, S 216th West Station Option, S 216th East Station Option
19	Looking west from S 224th Street toward SR 99	2	SR 99 Alternative, Kent/Des Moines HC Campus Station Option, Kent/Des Moines HC Campus Station Option from S 216th West Station Option
20	Looking south from S 226th Street at area between 28th Avenue S and SR 99	3	Kent/Des Moines HC Campus Station Option, Kent/Des Moines HC Campus Station Option from S 216th West Station Option
21	Looking north along 28th Avenue S	4	Kent/Des Moines HC Campus Station Option
22	Looking west from S 260th Street toward SR 99	5	SR 99 Alternative, S 260th West Station Option, S 260th East Station Option
23	Looking northeast at S 272nd Street from SR 99	6	SR 99 Alternative, S 272nd Redondo Trench Station Option
24	Looking southwest toward S 288th Street from SR 99	7	SR 99 Alternative, S 272nd Redondo Trench Station Option
25	Looking northwest toward S 288th Street from SR 99	8	SR 99 Alternative, S 272nd Redondo Trench Station Option
26	Looking northeast along 16th Avenue S	9	S 272nd Redondo Trench Station Option

NA = not applicable

## Landscape Unit 1

### KOP 1, Looking Southwest from S 208th Street toward SR 99 and Future SR 509 Right-of-Way

#### Existing Condition (see Appendix C, Exhibit 1a)

KOP 1 provides a view of the future SR 509 right-of-way alignment and the Preferred Alternative corridor that would be seen by motorists (mostly residents of areas between this location and I-5). The SR 509 right-of-way to the south of S 208th Street has been cleared of buildings and most vegetation (although vegetation remains along the edge of the cleared lot and S 208th Street) and has the appearance and character of a vacant lot. The view is unremarkable with low intactness. The presence of vegetation lining both sides of S 208th produces an average degree of visual unity. The visual quality of the view from KOP 1 is low.

#### With the Preferred Alternative (see Appendix C, Exhibit 1b)

The elevated guideway passing over S 208th Street and part of the adjacent vacant lot would add a large-scale elevated horizontal element to the portion of the Preferred Alternative corridor seen from this location by motorists, but would not change the vacant lot character of the property to the left of S 208th Street. The low vividness of the view would be increased to average. The presence of the elevated guideway would not alter the existing low visual quality of the portion of the corridor seen from KOP 1.

#### Visual Quality Rating – Existing (with Preferred Alternative)

- Vividness = low (average)
- Intactness = low (low)
- Unity = average (low)
- Visual Quality = Low (Low)

### KOP 2, Looking North along 32nd Avenue S

#### Existing Condition (see Appendix C, Exhibit 2a)

KOP 2 is located on 32nd Avenue S and was selected to illustrate a view of a residential neighborhood adjacent to I-5 that would be close to the Preferred Alternative alignment. The character of views from this location is residential, and views of I-5 are screened by vegetation. Portions of the right-of-way are viewed along the east side of 32<sup>nd</sup> Avenue S and have the appearance of unmaintained open space. The view is not memorable. Visual unity and intactness are average, as is overall visual quality.

#### With the Preferred Alternative (see Appendix C, Exhibit 2b)

The alignment would pass through the area east of 32nd Avenue S, transitioning from retained fill to a trench, and require the removal of vegetation that currently partially screens views of I-5. The presence of the Preferred Alternative components would reduce all three of the elements that contribute to visual quality from average to low and would lower overall visual quality to low. Mitigation measures such as sound walls would somewhat screen views of Preferred Alternative components. Landscaping would soften the appearance of the walls to some degree. Within approximately 8 to 10 years, the visual quality of the view could be restored to average.

### Visual Quality Rating - Existing (with Preferred Alternative)

- Vividness = average (low)
- Intactness = average (low)
- Unity = average (low)
- Visual Quality = Average (Low)

### KOP 3, Looking South from the S 216th Avenue Overpass at I-5

#### Existing Condition (see Appendix C, Exhibit 3a)

KOP 3 is located on the S 216th Street I-5 overpass and was selected to depict a view of a section of the I-5 corridor with largely intact vegetation lining the freeway that would be seen by motorists and pedestrians from an overpass. The view from this KOP is typical of views of sections of the I-5 right-of-way that are lined with well established vegetation including tall trees. The character of this view is that of a major highway adjacent to what (from this viewing angle) appears to be forest. The degree of vividness, intactness, and unity is average, as is overall visual quality.

#### With the Preferred Alternative (see Appendix C, Exhibit 3b)

Construction of the at-grade Preferred Alternative along this section of the Preferred Alternative corridor would require the removal of vegetation within the I-5 right-of-way and on some areas next to it as well as excavation into the slope west of I-5 and construction of a retaining wall. The removal of trees within the I-5 right-of-way would be very noticeable from KOP 3, as would the at-grade profile of the alignment and retaining wall. The character of the west side of the I-5 right-of-way would change from forested to a major transportation corridor containing a freeway and light rail alignment with a fringe of vegetation along its edge. The vividness of the view of the west side of I-5 would remain average. The alignment would reduce intactness and unity to low. Visual quality would be reduced from average to low. When landscaping planted as mitigation matured (likely longer than 8 to 10 years), it would improve the visual quality of the view to average.

### Visual Quality Rating - Existing (with Preferred Alternative)

- Vividness = average (average)
- Intactness = average (low)
- Unity = average (low)
- Visual Quality = Average (Low)

### KOP 4, Looking East from Midway Park toward I-5

#### Existing Condition (see Appendix C, Exhibit 4a)

The eastern portion of Midway Park is about 500 feet west of I-5 and north of an electrical substation (to the right of the photograph in Exhibit 4a). The substation property directly adjacent to the park is vacant with maintained grass. From KOP 4, views of I-5 are screened by vegetation within the park and along the freeway right-of-way. Park users (primarily local residents) using playground equipment or walking by this location are the viewers from KOP 4 and are considered sensitive viewers. The portion of Midway Park that can be seen from this location has a park-like character that is not particularly memorable but does have average intactness and unity. The presence of utility poles and lines detract

from intactness and unity. The visual quality of the portion of the Preferred Alternative corridor seen from KOP 4 is average.

**With the Preferred Alternative (see Appendix C, Exhibits 4b and 4c)**

A short retained-fill wall associated with the Preferred Alternative and the overhead catenary system (OCS) would be seen beyond the far end of the park, as would passing trains behind a sound wall. The presence of the walls, train, and OCS (which would not be that much different in appearance than the existing utility lines that are quite visible) and the removal of mature trees within the edge of the park and within and adjacent to the I-5 right-of-way would be somewhat inconsistent with the character of a park (as is the adjacent substation) to some park users. These elements would slightly lower visual unity but not enough to lower it from average to low. The presence of the sound walls and passing light rail trains would lower intactness from average to low and would somewhat lower unity, but not enough to lower it from average to low. Vividness would remain average. The average visual quality of the view of the Preferred Alternative corridor from KOP 4 would be reduced but not enough to lower it from average to low. Landscaping planted as mitigation would soften the appearance of the Preferred Alternative and within approximately 8 to 10 years, the visual quality of the view could be restored to average.

**Visual Quality Rating – Existing (with Preferred Alternative)**

- Vividness = average (average)
- Intactness = average (low)
- Unity = average (average)
- Visual Quality = Average (Average)

**KOP 5, Looking East from 30th Avenue S toward I-5**

**Existing Condition (see Appendix C, Exhibit 5a)**

KOP 5 is located along a section of the Preferred Alternative corridor that is east of 30th Avenue S. This section of the corridor contains a number of multi-story residential developments of varying sizes. Many of the developments abut the I-5 right-of-way. KOP 5 is located adjacent to one of the developments, and its view toward the corridor is along the development's driveway that leads to its parking area. Viewers from KOP 5 include residents arriving at the parking area depicted in Exhibit 6a and passing motorists (consisting largely of nearby residents). Two residential buildings can be seen from this location as well as a parking area and an existing fence adjacent to I-5 that screens ground-level views of the freeway. Vividness is average (primarily due to the mature trees lining the entrance), as is unity. The presence of the driveway, parking areas, buildings, and sound wall decrease visual unity to low. The visual quality of the portion of the Preferred Alternative corridor that can be seen from KOP 5 is average.

**With the Preferred Alternative (see Appendix C, Exhibits 5b and 5c)**

The portion of the Preferred Alternative seen by residents or passing motorists from this location would be the area where the building closest to I-5 would be removed to construct a new retaining wall to support the at-grade guideway and new sound walls. These changes would add a transportation component to the parking lot character of the area, which would not be consistent with the existing

character of this portion of the corridor. The removal of a building and the presence of the retaining wall, sound walls, OCS, and passing of trains would reduce the average vividness and unity but not the intactness of this view. Visual quality would be reduced from average to low. Mitigation measures, such as treating the sound wall and landscaping, could restore visual quality to average in approximately 8 to 10 years.

#### **Visual Quality Rating – Existing (with Preferred Alternative)**

- Vividness = average (low)
- Intactness = low (low)
- Unity = average (low)
- Visual Quality = Average (Low)

## **Landscape Unit 2**

### **KOP 6, Looking East from Highline College to Preferred Kent/Des Moines Station**

#### **Existing Condition (see Appendix C, Exhibit 6a)**

The view to the east from this location on SR 99 and areas on either side is unremarkable and utilitarian in character. Trees on the properties east of SR 99 are the vivid visual element. The vacant property on the left side of the entry drive (which has an appearance more like a driveway than an entry/drive into a parking area of a college) and the entry drive appear unmaintained. The vividness, intactness, unity, and overall visual quality of the view from KOP 6 is low.

#### **With the Preferred Alternative (see Appendix C, Exhibit 6b)**

The redevelopment of the entry and properties near it along with the development of the Preferred Kent/Des Moines Station would change the undefined, utilitarian character of the area seen from KOP 6 to a more developed urban character. The elevated station would add a vivid element to the view and, along with the other improvements, would improve intactness and unity enough to increase visual quality to average or higher.

#### **Visual Quality Rating – Existing (with Preferred Alternative)**

- Vividness = low (average)
- Intactness = low (average)
- Unity = low (average)
- Visual Quality = Low (Average)

### **KOP 7, Looking East Along S 254th Street**

#### **Existing Condition (see Appendix C, Exhibit 7a)**

KOP 7 is located on S 254th Street west and downhill from its intersection with 30th Avenue S. It was selected to depict a view towards I-5 and the alignment of the Preferred Alternative from a residential area west of the Preferred Alternative alignment. This location is one block west of the properties that are adjacent to I-5 and provides a view that is similar to that which other areas at similar distances to I-5 have. The character of the area seen from this location is residential. Although vegetation is the most vivid component of the viewed landscape, the view's vividness, unity, and intactness are average, as is overall visual quality.

**With the Preferred Alternative (see Appendix C, Exhibit 7b)**

The alignment of the Preferred Alternative would be at-grade behind the single-family residences seen at the terminus of S 254th Street. The removal of tall trees associated with the construction of the Preferred Alternative would be noticed from this location. The trees east and west of the alignment that would remain would still be an important component of the view, but would not be as tall. The removal of the trees would somewhat lower the average vividness and unity of the view, but not enough to reduce the categories to low. The overall visual quality of the view would be lowered with the Preferred Alternative, but not enough to reduce the average visual quality category to low. Landscaping and sound wall treatments that would be planted to mitigate impacts to adjacent residences would not be seen from this location.

**Visual Quality Rating - Existing (with Preferred Alternative)**

- Vividness = average (average)
- Intactness = average (average)
- Unity = average (low)
- *Visual Quality = Average (Average)*

**KOP 8, Looking Northwest along I-5 from I-5****Existing Condition (see Appendix C, Exhibit 8a)**

The view to the northwest from KOP 8 on northbound I-5 south of S 252nd Street is fairly typical of this portion of I-5. The vegetated slope of the I-5 right-of-way and area next to it can be clearly seen by northbound drivers. The mixed composition of evergreen conifers and deciduous trees and shrubs along the right-of-way is very apparent from I-5 and has a forested appearance. The presence of the vegetation improves the visual quality of this view of a freeway by contributing to the view's vividness and unity. The presence of the wide, paved multi-lane freeway with a guardrail and no landscaped center divider results in a low degree of intactness.

**With the Preferred Alternative (see Appendix C, Exhibit 8b)**

The Preferred Alternative would be transitioning from within a trench to at-grade along this section of the I-5 corridor. Constructing it would remove most of the vegetation on the slope of the I-5 right-of-way and require the construction of trench retaining walls. The removal of vegetation within the right-of-way would be very noticeable from this location, as would some of the trench retaining walls, OCS, and trains. The character of the west side of the I-5 right-of-way would change from forested to that of a major transportation corridor containing a freeway and light rail alignment. Remaining vegetation west of the light rail alignment would be seen from this location but would not replicate the existing vegetation in terms of its size, mass, and forested appearance. The vividness of the view would be reduced from average to low. Intactness would remain low. The presence of light rail within a transportation corridor would not reduce unity enough to recategorize it from average to low. The vividness of the view would remain average. Visual quality would be reduced from average to low. Vegetation planted as mitigation would mature enough after approximately 8 to 10 years to restore visual quality to average.

### Visual Quality Rating – Existing (with Preferred Alternative)

- Vividness = average (low)
- Intactness = low (low)
- Unity = average (average)
- Visual Quality = Average (Low)

### KOP 9, Looking East at I-5 and S 259th Place Underpass

#### Existing Condition (see Appendix C, Exhibit 9a)

From the KOP 9 location on S 259th Place, the existing I-5 overpass can be seen. This portion of the Preferred Alternative corridor is residential in use and character. Viewers from KOP 9 include local motorists and nearby residents. The I-5 overpass is a somewhat vivid feature in an area that has a rural or suburban character. The visual quality of this portion of the I-5 Alternative corridor is average.

#### With the Preferred Alternative (see Appendix C, Exhibit 9b)

The elevated guideway would add a second overpass to the view from KOP 9. The Preferred Alternative would require removing some vegetation, which would not greatly change the appearance of this view to motorists or its character. The impact of the Preferred Alternative would be the addition of a second, large-scale transportation element, which would somewhat lower intactness. The visual quality of the portion of the Preferred Alternative corridor seen from KOP 9 would be somewhat reduced, but not enough to lower the existing average visual quality to low.

### Visual Quality Rating – Existing (with Preferred Alternative)

- Vividness = average (average)
- Intactness = average (low)
- Unity = average (average)
- Visual Quality = Average (Average)

### Landscape Unit 3

#### KOP 10, Looking South along 28th Avenue S

#### Existing Condition (see Appendix C, Exhibit 10a)

KOP 10 is adjacent to a portion of the Preferred Alternative corridor that is near a residential area north of the Star Lake Park-and-Ride. Single-family residences line the east side of 28th Avenue S (most of which would be removed with the Preferred Alternative), and a number of residences within a subdivision west of 28th Avenue S back up to 28th Avenue S and have glimpses of the east side of 28th Avenue S and the trees that line I-5. The view from this KOP to the south along the corridor is seen by local residents driving south on 28th Avenue S. The view includes the location where 28th Avenue S begins to curve to the west around the north end of the Star Lake Park-and-Ride. Fences along the back of residences in the subdivision can be seen on the west side of the street (right side of Exhibit 10a), and residential vegetation as well as the I-5 corridor can be seen. This pleasant, heavily vegetated section of 28th Avenue S with its mature trees is somewhat memorable and has moderately high vividness. The intactness and unity of the area is average, as is the overall visual quality.

**With the Preferred Alternative (see Appendix C, Exhibit 10b)**

With the Preferred Alternative, the residences and most of the mature vegetation along the east side of 28th Avenue S and within the I-5 right-of-way would be removed along this section of 28th Avenue S. The top of the trench retaining wall would be seen, but the OCS and trains would not be seen. The low profile of the alignment would not be visually dominant, but the removal of vegetation would reduce the existing high vividness to average. Intactness and unity would remain average because so little of the Preferred Alternative would be seen. Although the removal of trees and buildings would be very obvious (and replaced with a landscaped area), the average visual quality of this portion of the corridor would be maintained. Mitigation measures such as landscaping and sound wall treatments would improve visual quality as landscaping matured, likely within 8 to 10 years.

**Visual Quality Rating – Existing (with Preferred Alternative)**

- Vividness = high (low)
- Intactness = average (average)
- Unity = average (average)
- Visual Quality = Average (Average)

**With the S 272nd Star Lake Elevated Station Option (see Appendix C, Exhibit 10c)**

With this station option, residences and most of the mature vegetation along the east side of 28th Avenue S and within the I-5 right-of-way would be removed. The retained fill portion of the structure would replace residences and vegetation along the east side of 28th Avenue S as the guideway rose in its approach to the station. The structure would be visually dominant, and along with the removal of vegetation and residences, would reduce the existing high vividness of the view to low. Intactness and unity would also be reduced to low, as would overall visual quality. Mitigation measures related to landscaping would eventually produce effective screening that would screen much of the view of retained fill structure. It would take approximately 10 to 15 years to begin to effectively screen the view and return the visual quality of the view from this location to average.

**Visual Quality Rating – Existing (with Preferred Alternative)**

- Vividness = high (low)
- Intactness = average (low)
- Unity = average (low)
- Visual Quality = Average (Low)

**KOP 11, Looking East from Mark Twain Elementary School****Existing Condition (see Appendix C, Exhibit 11a)**

KOP 11 is located at Mark Twain Elementary and consists of a view to the east across the playground of the school towards I-5. The view is of the athletic field, the berm separating I-5 from the school, and trees (most of which are on the east side of I-5). Although the athletic field offers an open, green space from the edge of the field (school buildings are west of the field and lower than its level by approximately 4 to 5 feet), the view is unremarkable. Vividness is average, intactness is average, visual unity is high, and overall visual quality is average.

**With the Preferred Alternative (see Appendix C, Exhibit 11b)**

The Preferred Alternative would pass through the athletic field in a covered trench that would be revegetated with grass. Portions of the alignment to the north of the athletic field that would not be covered would be difficult to see from this location. The existing berm would be replaced, but the appearance of views to the east would remain similar to what they are now. The tall trees east of the school that can be seen from this location would remain. The visual quality of the view to the east from this KOP would continue to be average.

**Visual Quality Rating - Existing (with Preferred Alternative)**

- Vividness = average (average)
- Intactness = average (average)
- Unity = high (average)
- Visual Quality = Average (Average)

**With the 272nd Star Lake Elevated Station Option (see Appendix C, Exhibit 11c)**

The elevated structure of this option would connect to a retained-fill structure shortly after entering the view from the north at this KOP. The retained wall and other components of the alignment would be clearly seen and would introduce large-scale transportation elements to the view. The average vividness of the view would remain, but the structure would lower the average intactness and reduce the average unity of the view to low. Overall visual quality would be reduced to low, although this reduction would not be seen by viewers that meet the definition of sensitive in this technical report. Vegetation and wall treatments would reduce the impacts of the retained-fill structure and provide a pleasant vegetated backdrop, but would not restore visual quality to average for up to approximately 10 to 15 years due to the closeness and size of the retained fill structure and elevation of passing trains. As the newly established trees approached maturity, they would screen views of much of the structure and passing trains.

**Visual Quality Rating - Existing (with Preferred Alternative)**

- Vividness = average (average)
- Intactness = average (low)
- Unity = high (low)
- Visual Quality = Average (Low)

**KOP 12, Looking East along S 275th Street****Existing Condition (see Appendix C, Exhibit 12a)**

KOP 12 is located near the end of the S 275th Street cul-de-sac and was selected to depict a relatively close view towards I-5 where both a section of the Preferred Alternative that would be in a trench and the elevated S 272nd Star Lake Elevated Station Option would be viewed. The character of the view from KOP 12 is residential, and the single-family residences are well maintained, attractive, and typical of relatively new residential subdivisions. Newly planted street trees as well as well established trees in the I-5 right-of-way behind the residences from this viewing distance produce a slightly higher than average (but not high) degree of vividness and intactness. The unity of this view is high, due in large

part to the considerable amount of vegetation seen behind and around the residences. The overall visual quality of this view is higher than average, but not outstanding enough to classify it as high.

#### **With the Preferred Alternative (see Appendix C, Exhibit 12b)**

Trees in the I-5 right-of-way and Resource Conservation Areas behind the residences at the end of the cul-de-sac would be removed with the Preferred Alternative. The alignment would be in a trench behind the houses, and elements associated with it would not be seen from this view (they would be seen from the backyards of these residences). Trees west of the alignment would be retained and tall trees on the east side of I-5 that are currently not visible would be seen and would form a “shorter” vegetated backdrop to this view compared to the existing backdrop. The removal of the trees associated with the Preferred Alternative would reduce the average vividness and intactness of this view to low. The Preferred Alternative would also reduce the high degree of intactness to low. The viewed area would still have a strong and appealing residential character and unity would remain average. The Preferred Alternative would reduce the slightly above average visual quality of the view to low. The landscaping and sound wall treatments that would be implemented to mitigate impacts to adjacent residences would not be seen from this location.

#### **Visual Quality Rating - Existing (with Preferred Alternative)**

- Vividness = average (low)
- Intactness = average (average)
- Unity = high (low)
- Visual Quality = Average (Low)

#### **With the 272nd Star Lake Elevated Station Option (see Appendix C, Exhibit 12c)**

The portion of this option seen from KOP 12 would have reached, or would be approaching, an at-grade profile. This option would remove many of the larger trees that form part of the backdrop of this view. Portions of passing trains would be seen from this location in the middle of S 275th Street, although landscaping planted as mitigation would somewhat screen views of the passing trains. Its impact on visual quality would be the same as that described previously in the Preferred Alternative.

#### **Visual Quality Rating - Existing (with Preferred Alternative)**

- Vividness = average (low)
- Intactness = average (average)
- Unity = high (low)
- Visual Quality = Average (Low)

#### **KOP 13, Looking East along S 285th Street**

##### **Existing Condition (see Appendix C, Exhibit 13a)**

KOP 13 is located on S 285th Street and was selected to illustrate a view of a residential neighborhood adjacent to I-5 where there would be less space available to revegetate after construction of the Preferred Alternative compared to many other locations. The character of this cul-de-sac is residential and typical of many residential subdivisions along the I-5 corridor. The established large trees that are seen behind the residences are located on privately owned parcels as well as within the I-5 right-of-

way. They are strong visual elements that produce a somewhat higher than average degree of vividness to this view. The viewed area has average degrees of intactness and unity.

**With the Preferred Alternative (see Appendix C, Exhibit 13b)**

The part of the Preferred Alternative alignment east of this KOP would be at-grade and would be far enough way from nearby residences that some large existing trees between the residences and the alignment would not need to be removed. However, the removal of most of the larger trees that form the backdrop of this view would reduce vividness to low. The remaining trees would contribute to maintaining an average degree of intactness. The high degree of unity would be reduced to average. The overall visual quality of the view from this location on S 285th Street would remain average. Landscaping and sound wall treatments that would be implemented to mitigate impacts to adjacent residences would not be seen from this location.

**Visual Quality Rating - Existing (with Preferred Alternative)**

- Vividness = average (low)
- Intactness = average (average)
- Unity = high (average)
- Visual Quality = Average (Average)

**KOP 14, Looking East between S 288th Street and S 304th Street toward I-5 from within the Camelot Square Mobile Home Park**

**Existing Condition (see Appendix C, Exhibit 14a)**

KOP 14, which represents views of the Preferred Alternative corridor by residents within the Camelot Square Mobile Home Park, is located within a portion of the mobile home park that has views of I-5. In areas of the mobile home park that are adjacent to I-5, sound walls have been constructed (as seen in Exhibit 14a). The sound walls and nearby vegetation (much of which is within the I-5 right-of-way) screen views of I-5 from most of the mobile home park and provide an attractive backdrop (particularly the trees). The character of the mobile home park is typical of that of a well-maintained residential area with a backdrop of trees. This view has average degree of vividness and intactness and high unity. The visual quality is average.

**With the Preferred Alternative (see Appendix C, Exhibits 14b and 14c)**

The Preferred Alternative would remove much of the vegetation within the I-5 right-of-way along the boundary of the mobile home park that serves as a backdrop for much of the mobile home park. A retaining wall and sound wall for the at-grade alignment would replace the existing sound wall. The horizontal elements of the alternative along with passing trains would not be consistent with the existing residential character of the portion of the Preferred Alternative corridor seen from KOP 14. The vividness of the view would remain average, but the removal of trees and presence of the retaining wall and sound wall would lower intactness and unity. The existing average visual quality of the corridor seen from this area would be reduced to low. Mitigation measures, such as landscaping and treating sound walls, would improve visual quality to average within approximately 8 to 10 years.

### Visual Quality Rating – Existing (with Preferred Alternative)

- Vividness = average (average)
- Intactness = average (low)
- Unity = high (low)
- Visual Quality = Average (Low)

### KOP 15, Looking East From 28th Avenue S

#### Existing Condition (see Appendix C, Exhibit 15a)

KOP 15 was selected to represent views towards the I-5 corridor from the southern portion of the study area. The area where KOP 15 is located (between S 28th Street and I-5 and north of S 317th Street) contains a number of multi-family developments. The view east from this location includes multi-family buildings that frame a view of trees located on both the west and east sides of I-5. The character of this view is residential, and the complex is well maintained, attractive, and somewhat similar in character to other nearby multi-family developments. The view is pleasant, but not remarkable, and has an average degree of vividness. Intactness, unity, and overall visual quality are average.

#### With the Preferred Alternative (see Appendix C, Exhibit 15b)

The at-grade alignment east of this location would require the removal of the relatively low-growing vegetation that can be seen at the terminus of the drive seen from this KOP. Taller trees on the east side of I-5 that can be seen would remain. The removal of the existing vegetation would also allow uninterrupted views of I-5 and the alignment from the upper floors of residences facing I-5. With the removal of vegetation, some residences would have improved views of Mt. Rainier. Vividness and unity would remain average from this at-grade viewpoint, but the average intactness of the view would be reduced to low. Overall visual quality would be reduced, but remain average. The Preferred Alternative would have a greater impact on views from adjacent residences and from the upper floors of residences that would have views of it and I-5. Mitigation measures, such as landscaping and treating sound walls, would improve visual quality to average within approximately 8 to 10 years.

### Visual Quality Rating – Existing (with the Preferred Alternative)

- Vividness = average (average)
- Intactness = average (low)
- Unity = high (average)
- Visual Quality = Average (average)

#### With S 317th Elevated Alignment Option (see Appendix C, Exhibit 15c)

The elevated alignment would be seen to the east of this location as would the trees that would be removed. The tall trees on the east side of I-5 would be seen beyond the elevated structure. The removal of existing vegetation would allow uninterrupted views of I-5 and the alignment from the upper floors of residences facing I-5 (it could also open up views to Mt. Rainier from some units). Vividness would remain average, but intactness and unity would be reduced to low. Overall visual quality would also be reduced to low. As landscaping planted as mitigation increases in size, visual

quality would improve along this section of the alignment, but not enough to reach an average category.

#### **Visual Quality Rating – Existing (with S 317th Elevated Alignment Option)**

- Vividness = average (average)
- Intactness = average (low)
- Unity = high (low)
- Visual Quality = Average (low)

#### **KOP 16, Looking Northwest from the S 317th Direct Access Ramp from I-5**

##### **Existing Condition (see Appendix C, Exhibit 16a)**

KOP 16 represents a view that passing motorists would have of a portion of the I-5 corridor through which the Preferred Alternative and an option would travel. The travel lanes of I-5 and passing vehicles dominate this view, which is bordered by vegetation on each side of the freeway. The character of this part of I-5 is typical of a major highway lined with vegetation. Vividness and intactness are low, while unity is average due to the consistent appearance of the viewed landscape. The overall visual quality is low.

##### **With Preferred Alternative (see Appendix C, Exhibit 16b)**

The Preferred Alternative would remove the vegetation that currently lines the west side of the I-5 right-of-way as well as remove some buildings to the west of the right-of-way. The presence of the trench (and at-grade alignment to the north of it) and other components would add a large-scale transportation element with a utilitarian character to the vegetated right-of-way. It would produce a very different appearing west side of I-5 that would be viewed by travelers, but would not be out of character with the adjacent freeway. The Preferred Alternative would decrease the average vividness of the view from this location to low, and further reduce the already low visual quality. As landscaping planted as mitigation increases in size, visual quality would improve, but not enough to reach an average category.

#### **Visual Quality Rating – Existing (with Preferred Alternative)**

- Vividness = low (low)
- Intactness = low (low)
- Unity = average (low)
- Visual Quality = Low (Low)

##### **With S 317th Elevated Alignment Option (see Appendix C, Exhibit 16c)**

The elevated structure would be seen within the right-of-way and above I-5 from this location. The vegetation that would be removed along the west side of the I-5 right-of-way would be clearly seen. The elevated alignment would add a large-scale transportation element with a utilitarian character to the currently vegetated right-of-way. The appearance of the west side of I-5 would be very different than it currently is, but would not be out of character with the adjacent freeway. The Preferred Alternative would decrease the average vividness of this view from this location to low, and further

reduce the already low visual quality. As landscaping planted as mitigation increases in size, visual quality would improve, but not enough to reach an average category.

#### **Visual Quality Rating – Existing (with S 317th Elevated Alignment Option)**

- Vividness = average (average)
- Intactness = average (low)
- Unity = average (low)
- Visual Quality = Average (Low)

#### **KOP 17, Looking South From Truman High School**

##### **Existing Condition (see Appendix C, Exhibit 17a)**

KOP 17 represents views to the south from Truman High School. Trees on the southern edge of the property and within the extensive parking lot south of the high school interrupt southern views from many areas near the high school. The view between the trees is of S 317th Street and the Hampton Inn hotel beyond it. Views of the parking lot and the hotel beyond are not memorable and vividness is low. The mixture of seen objects results in a lower than average degree of intactness (but not enough to be considered low) and low unity. The overall visual quality of this view is low.

##### **With Preferred Alternative (see Appendix C, Exhibit 17b)**

The Preferred Alternative would pass south of this location just beyond the grass area adjacent to the parking lot. Because the alignment would be in a trench, components associated with the Preferred Alternative would not be seen from this location. One tree seen from this location would be removed. The Preferred Alternative would not change the existing visual quality elements or further reduce the current low average visual quality of the view.

#### **Visual Quality Rating – Existing (with Preferred Alternative)**

- Vividness = low (low)
- Intactness = average (average)
- Unity = low (low)
- Visual Quality = Low (Low)

##### **With S 317th Elevated Alignment Option (see Appendix C, Exhibit 17c)**

The portion of the alignment that would be seen from KOP 18 would be elevated. The elevated structure and passing trains would be seen in front of the Hampton Inn by people in this parking lot and areas to the north by Truman High School students and staff (who are not considered sensitive viewers). From some locations near this KOP, the elevated structure would block views of Mt. Rainier, but not from this location. The presence of the elevated structure would add a large-scale transportation element to this view, but would not remove any of the objects seen from this location other than a large coniferous tree. The elevated alignment would add another visual element to the view from this location, which would lower the intactness of the view and somewhat further reduce its existing low visual quality.

## Visual Quality Rating – Existing (with S 317th Elevated Alignment Option)

- Vividness = low(low)
- Intactness = average (low)
- Unity = low (low)
- Visual Quality = Low(Low)

### B.3 SR 99 Alternative

Nine KOPs along the SR 99 Alternative alignment were selected to assist in evaluating the impacts of the SR 99 Alternative. The KOPs associated with SR 99 Alternative options are discussed below. The SR 99 Alternative KOPs are located within Landscape Unit 1 (KOPs 10 and 11), Landscape Unit 2 (KOP 14), and Landscape Unit 3 (KOPs 15, 16, and 17). The existing conditions and visual quality of each KOP are described below, as are the potential impacts of the SR 99 Alternative on the existing conditions and visual quality of each KOP. Unlike alignments that would follow I-5 and have space for mitigation measures such as sound walls and landscaping adjacent to residences, mitigation measures that could be applied to alignments that would follow or parallel SR 99 would generally not restore visual quality to average in areas where it would be reduced to low. This is because most of the residences that would be impacted would be multi-family units adjacent to SR 99 and there would be no room along the alignment to plant vegetation that would effectively screen views of the alignments, the majority of which would be elevated. The one exception would be the Kent/Des Moines HC Campus Station Option, where the alignment would pass single-family residential areas and leave enough room for sound walls and landscaping to effectively screen views of the FWLE components.

#### Landscape Unit 1

##### KOP 18, Looking West from S 216th Street toward SR 99

##### Existing Condition (see Appendix C, Exhibit 18a)

This location depicts views that local motorists (mostly people living in nearby neighborhoods) or pedestrians heading west on S 216th Street toward SR 99 see. The character of the part of SR 99 seen from this location is that of an arterial transportation corridor and the character of areas adjacent to SR 99 are largely commercial with residential areas beyond (and downhill of) the SR 99 commercial corridor.

The view encompasses the roadways of S 216th Street and SR 99, one- and two-story commercial and residential buildings (and the roofs of some), the signalized intersection of S 216th Street and SR 99, and glimpses of Puget Sound and areas beyond, including the Olympic Mountains. The overall view is unremarkable, but the presence of Puget Sound in conjunction with a number of trees west of SR 99 improves the vividness rating of the view to average, as is the visual quality of the view from KOP 18.

##### With the SR 99 Alternative (see Appendix A, Exhibit 18b)

The SR 99 Alternative would follow SR 99 and add a second north-south transportation element into the view that would be seen by motorists and pedestrians. It would not be inconsistent with the character of the SR 99 corridor, but it would introduce a larger-scale transportation element into the view. From KOP 18, parts of the elevated guideway and the OCS would be silhouetted against the sky.

The elevated guideway would intrude upon the view of Puget Sound (which would still be seen “under” the structure). The SR 99 Alternative would lower the vividness and unity of the view from average to low. Visual quality would also be reduced to low.

#### **Visual Quality Rating – Existing (with SR 99 Alternative)**

- Vividness = average (low)
- Intactness = average (low)
- Unity = average (low)
- Visual Quality = Average (Low)

#### **With S 216th West Station Option (see Appendix C, Exhibit 18c)**

By locating the alignment and station in a trench, this option would not incorporate a large-scale structure into this part of the SR 99 corridor. Westward views of Puget Sound would continue to be seen and contribute to the vividness of this part of the corridor. Existing buildings along the west side of SR 99 would be removed, which would somewhat change the commercial character of this area, but would not affect visual quality. Streetscape elements associated with the station (but not depicted in Exhibit 18c) would somewhat improve intactness along this part of SR 99. Although this option would slightly improve visual quality of the view from KOP 18, the visual quality would remain average.

#### **Visual Quality Rating – Existing (with S 216th West Station Option)**

- Vividness = average (average)
- Intactness = average (average)
- Unity = average (average)
- Visual Quality = Average (Average)

#### **With the S 216th East Station Option (see Appendix C, Exhibit 18d)**

The S 216th East Station Option that would pass along the east side of SR 99 would not be inconsistent with the character of this portion of the SR 99 corridor. The existing commercial building on the east side of the street that is visible from this location would be removed, and the elevated guideway and the OCS would be silhouetted against the sky. The station would be located south of this location and would not be visible from KOP 18. The elevated guideway would block views of motorists and pedestrians of landforms in the distance beyond Puget Sound and would intrude upon the view of Puget Sound (which would be seen under the elevated guideway), all of which would lower vividness. The large scale of the elevated guideway would encroach on this view and reduce the intactness and unity of this part of the corridor to low. The visual quality of the portion of SR 99 corridor seen from KOP 18 would be reduced from average to low.

#### **Visual Quality Rating – Existing (with S 216th East Station Option)**

- Vividness = average (low)
- Intactness = average (low)
- Unity = average (low)
- Visual Quality = Average (Low)

## **KOP 19, Looking West from S 224th Street toward SR 99**

### **Existing Condition (see Appendix A, Exhibit 19a)**

KOP 19 depicts views that people (mostly local residents from nearby neighborhoods) driving west on S 224th Street toward the SR 99 corridor see. It also represents views to the west toward Puget Sound that some guests in a hotel on the southeast corner of the S 224th Street and SR 99 would have. The view from this location includes SR 99; S 224th Street, including the extension of it downhill beyond SR 99; utility poles and lines; a number of trees; and glimpses of Puget Sound. Properties that are adjacent to the SR 99 corridor are commercial in character. Residential areas can be seen in the distance beyond the SR 99 corridor. The building west of SR 99 and north of S 224th Street contributes intactness and unity to the viewed landscape, as do numerous trees. The portion of Puget Sound and landforms beyond it can be seen in the background add to the vividness of the view. The visual quality of the view from KOP 19 is average.

### **With the SR 99 Alternative (see Appendix C, Exhibit 19b)**

The SR 99 Alternative would add a second transportation element along the SR 99 corridor that would not be inconsistent with the character of this part of the SR 99 corridor. Because the elevated guideway would not be silhouetted against the sky from this location, the portion of the SR 99 Alternative seen from KOP 19 would not be as much of a visual encroachment to the corridor as it would be from KOP 19. The OCS would be silhouetted, but because of the presence of other overhead lines that can be seen from this location, the OCS overhead lines would not be particularly noticeable. The elevated guideway would echo the strong horizontal lines of the background land forms, buildings, SR 99, and utility lines, but would be larger in scale. The views of Puget Sound that contribute to the vividness of the view would be blocked. The average visual quality of the part of the SR 99 corridor seen from this location would be reduced to low.

### **Visual Quality Rating – Existing (with SR 99 Alternative)**

- Vividness = average (low)
- Intactness = average (low)
- Unity = average (average)
- Visual Quality = Average (Low)

### **With the Kent/Des Moines HC Campus Station Option (see Appendix C, Exhibit 19c)**

The Kent/Des Moines HC Campus Station Option elevated guideway seen from KOP 19 would not be inconsistent with the major arterial character of this portion of the SR 99 corridor. The elevated structure would be larger in scale than other elements seen along this part of the corridor. The elevated structure would block views of Puget Sound and areas beyond, which would contribute to a lowering of the average vividness of this part of the corridor to low. The average intactness of this part of the corridor would be reduced by the encroachment of the guideway, and unity would likewise be reduced from average to low. This station option's impact to the part of the corridor seen from this KOP would be very similar to that of the SR 99 Alternative described above and would reduce the existing average visual quality to low.

### Visual Quality Rating – Existing (with Kent/Des Moines HC Campus Station Option)

- Vividness = average (low)
- Intactness = average (low)
- Unity = average (low)
- Visual Quality = Average (Low)

### Kent/Des Moines HC Campus Station Option from S 216th West Station Option (see Appendix C, Exhibit 19d)

The simulation depicts the S 216th West Station Option combined with the Kent/Des Moines HC Campus Station Option. Because the profile of this option along the portion the SR 99 corridor seen from KOP 19 would be in a trench, it would be less visually prominent to motorists, pedestrians, and future hotel guests than the elevated SR 99 Alternative alignment would be. It would not block or intrude on views of Puget Sound and the Olympic Mountains. This station option would not change the average visual quality of the part of the SR 99 corridor viewed from KOP 19.

### Visual Quality Rating – Existing (with Kent/Des Moines HC Campus Station Option from S 216th West Station Option)

- Vividness = average (average)
- Intactness = average (average)
- Unity = average (average)
- Visual Quality = Average (Average)

## Landscape Unit 2

### KOP 20, Looking South from S 226th Street at Area between 28th Avenue S and SR 99 Existing Condition (see Appendix C, Exhibit 20a)

KOP 20 is located in a parking area that serves several residential buildings lining the east side of 28th Avenue S. Although this location represents views from the parking area (units in the buildings have view windows and balconies on the west, or view, side of the buildings), the parking area is used by residents. The Kent/Des Moines HC Campus Station Option would pass east of the parking area through the rear portions of commercial properties that contain buildings and outdoor storage areas and are accessed via SR 99 (which is higher in elevation than the parking area). The area this station option would pass through has a utilitarian appearance that is commercial/parking lot in character. The viewed area has low vividness, intactness, and unity. The visual quality of the parking area and adjacent commercial properties is low.

### With the Kent/Des Moines HC Campus Station Option (see Appendix C, Exhibit 20b)

With the Kent/Des Moines HC Campus Station Option, the corridor of elevated guideway would pass next to the parking areas associated with multi-family buildings and would be a large-scale overhead element. The station option would add a transportation element to the character of the area, which is currently a mix of residential, parking lot, and commercial (with outside storage areas). Residents would see the elevated guideway and trains as they walked between the parking areas and their units and from units that have windows facing east. Most of the units do not have eastern views of trees; they have views across the parking area of the backs of businesses, parking and storage areas, and vegetated areas largely composed of blackberry bushes.

### Visual Quality Rating – Existing (with Kent/Des Moines HC Campus Station Option)

- Vividness = low (low)
- Intactness = low (low)
- Unity = low (low)
- Visual Quality = Low (Low)

### With Kent/Des Moines HC Campus Station Option from S 216th West Station Option (see Appendix C, Exhibit 20c)

With the Kent/Des Moines HC Campus Station Option from the S 216th West Station Option, the portion of the alignment passing this location would be in a trench approximately 20 feet below the adjacent grade. The top of the retaining wall would be seen, as would a fence on top of the wall. The large trees east of the alignment would be removed. Residents would see the wall and fence as they walk between the parking areas and their units, and some elevated units would have views into the trench. The wall and fence would not change the existing low visual quality of the area it would pass over, and they would not intrude on views. Mitigation measures such as treating the sound wall and the landscaping would improve visual quality, but not enough to raise it to average.

### Visual Quality Rating – Existing (with Kent/Des Moines HC Campus Station Option from S 216th West Station Option)

- Vividness = low (low)
- Intactness = low (low)
- Unity = low (low)
- Visual Quality = Low (Low)

### KOP 21, 28th Avenue S Looking North

#### Existing Condition (see Appendix C, Exhibit 21a)

KOP 21 was selected to represent views of residents along the west side of 28th Avenue S as well as views of motorists who live in the neighborhood driving on 28th Avenue. The view from KOP 21 is of the east side of 28th Avenue S looking north. The area is residential in character, and vegetation in the fronts of yards tends to screen north-south views of residences along 28th Avenue S. The character of the viewed landscape is that of a pleasant, well-maintained, typical residential neighborhood with average vividness. Utility poles and lines, which are the primary negative visual features, do not lower intactness below average. The unity rating of this view is high, and visual quality is average.

#### With the Kent/Des Moines HC Campus Station Option (see Appendix C, Exhibit 21b)

The Kent/Des Moines HC Campus Station Option would require the removal of all the residences and landscaping associated with the residences along the east (right) side of 28th Avenue S. Near this location, the alignment would enter a trench. Part of this option's sound wall would be seen above the retained-cut wall. The sound wall would block views of trains passing through the trench but not the OCS. The Kent/Des Moines HC Campus Option would change the character of the portion of its corridor along the east side of 28th Avenue S from residential to transportation and would lower the average vividness and intactness of the view. The removal of trees and residences and the strong horizontal appearance of the sound wall would lower the average degree of unity of the existing view from average to low. The visual quality of this part of the station option would be reduced from average to

low. Mitigation measures, such as treating the sound wall and landscaping would improve visual quality to average within approximately 8 to 10 years.

#### **Visual Quality Rating – Existing (with Kent/Des Moines HC Campus Station Option)**

- Vividness = average (low)
- Intactness = average (average)
- Unity = average (low)
- Visual Quality = Average (Low)

#### **KOP 22, Looking West from S 260th Street toward SR 99**

##### **Existing Condition (see Appendix C, Exhibit 22a)**

KOP 22 is adjacent to a residential area where views of the SR 99 corridor and S 260th Street are largely blocked by nearby structures, a perimeter fence, and vegetation. KOP 22 represents the views that motorists (mostly residents of neighborhoods to the east) and pedestrians heading west on S 260th Street toward the SR 99 corridor see. The land near the intersection of SR 99 and S 260th Street is commercial in use and gives the intersection area a transportation corridor/commercial character. The view from KOP 22 along S 260th Street toward SR 99 and beyond is unremarkable and vividness is low. The view includes S 260th Street, parking areas and adjacent buildings, the intersection of S 260th Street and SR 99, utility poles and lines, and a gas station east of SR 99, which together produce an intactness rating of low. The trees that can be seen along S 260th Street and the rising terrain S 260th Street follows in the distance contribute to an average degree of unity. The visual quality of the view from KOP 22 is low.

##### **With the SR 99 Alternative (see Appendix C, Exhibit 22b)**

The SR 99 Alternative would not be inconsistent with the character of the portion of the SR 99 corridor seen from KOP 22 by motorists and pedestrians. The elevated guideway would be partially silhouetted against the sky from this location and would somewhat encroach on views of the rising terrain in the background, but would not block the view of the terrain. The rising terrain in the background would be seen under the elevated guideway. The presence of the elevated structure would somewhat add to the vividness of the unremarkable eastern view from this location, but not enough to increase the vividness rating from low to average. The elevated guideway would add a new large-scale transportation element from this view that would pass over S 260th Street. Its presence would somewhat further reduce the low visual quality of the view from this location.

##### **Visual Quality Rating – Existing (with SR 99 Alternative)**

- Vividness = low (low)
- Intactness = low (low)
- Unity = average (low)
- Visual Quality = Low (Low)

##### **With the S 260th West Station Option (see Appendix C, Exhibit 22c)**

From KOP 22, the elevated guideway passing along the west side of the SR 99 corridor would be partially silhouetted against the sky when viewed by motorists and pedestrians from this location east

of SR 99. The S 260th West Station Option alignment would be farther from KOP 22 than the SR 99 Alternative alignment, so it would be slightly less visually prominent. The presence of the elevated guideway would not be inconsistent with the character of the portion of the SR 99 corridor viewed from KOP 22. The elevated guideway would introduce a large-scale transportation element into this view, but not further lower the existing low vividness, intactness, unity, or visual quality of the view.

#### **Visual Quality Rating – Existing (with S 260th West Station Option)**

- Vividness = low (low)
- Intactness = low (low)
- Unity = low (low)
- Visual Quality = Low (Low)

#### **With the S 260th East Station Option (see Appendix C, Exhibit 22d)**

From KOP 22, the elevated S 260th East Station would be seen between this location and SR 99 and would be partially silhouetted against the sky. The station would add a large-scale horizontal element crossing over S 260th Street to the view that would be different in character than the current utilitarian transportation character of the part of the SR 99 corridor seen from KOP 22. The presence of the elevated structure would increase the low vividness of this part of the SR 99 corridor to average. It would not improve intactness and unity. The low visual quality of part of the SR 99 corridor would not change.

#### **Visual Quality Rating – Existing (with S 260th East Station Option)**

- Vividness = low (average)
- Intactness = low (low)
- Unity = low (low)
- Visual Quality = Low (Low)

### **Landscape Unit 3**

#### **KOP 23, Looking Northeast from SR 99 toward S 272nd Street**

##### **Existing Condition (see Appendix C, Exhibit 23a)**

The expansive view along the SR 99 corridor from KOP 23 toward the S 272nd Street intersection represents a view toward a section of the corridor where the differences among the SR 99 Alternative and the S 272nd Redondo Trench Station Option discussed later in this appendix would be very apparent to people traveling on this section of SR 99. Viewers include a range of motorists (primarily local residents and commuters) and to a lesser extent, pedestrians. Features that can be seen from this location include the SR 99 roadway and sidewalks, areas for sidewalk and median landscaping (although the median landscaping in this view is less attractive than segments of the median to the northeast), commercial buildings located adjacent to the street as well as set back away from it, parking lots, light standards, utility poles and their associated lines, and vegetation in the background. This view is typical of views along commercial sections adjacent to the SR 99 corridor that include small businesses (on the left side of Exhibit 23a) and larger businesses containing large parking areas (on the right side of Exhibit 23a). The character of this view is typical of an arterial transportation corridor with adjacent heavy commercial land uses. The view from KOP 23 is unremarkable and intactness and unity are low, as is visual quality.

### **With the SR 99 Alternative (see Appendix C, Exhibit 23b)**

The SR 99 Alternative would introduce an elevated transportation element along the corridor that would not be inconsistent with the existing major arterial character of the corridor, but would be much larger in scale than other elements seen along this part of the corridor. Buildings and vegetation along the east side of SR 99 would be removed, which would somewhat change the commercial character of those parts of the corridor but have little to no effect on visual quality. The elevated structure would become the skyline element in this view of the corridor. Vegetation beyond the elevated guideway would still be seen under parts of it. The presence of the SR 99 Alternative would further contribute to a reduction in the low visual quality of the portion of the SR 99 corridor seen from this location.

#### **Visual Quality Rating – Existing (with SR 99 Alternative)**

- Vividness = low (low)
- Intactness = low (low)
- Unity = low (low)
- Visual Quality = Low (Low)

### **With the S 272nd Redondo Trench Station Option (see Appendix C, Exhibit 23c)**

The aspect of the S 272nd Redondo Trench Station Option that would be most noticeable to motorists and pedestrians from this location would be the removal of existing buildings and trees and the presence of fencing associated with the trench on the east side of SR 99. Changes to the SR 99 corridor as a result of this station option would not be inconsistent with the character of this part of the SR 99 corridor. The station option would slightly improve on the intactness and unity of the view from KOP 23, but not enough to change them from low to average. Visual quality would remain low with this station option.

#### **Visual Quality Rating – Existing (with S 272nd Redondo Trench Station Option)**

- Vividness = low (low)
- Intactness = low (low)
- Unity = low (low)
- Visual Quality = Low (Low)

### **KOP 24, Looking Southwest toward S 288th Street from SR 99**

#### **Existing Condition (see Appendix C, Exhibit 24a)**

KOP 24 is situated in a parking area of a series of residential buildings located along the east side of the SR 99 corridor and represents views that residents in the parking area have. This portion of the SR 99 corridor contains a number of areas with concentrations of sensitive viewers residing in multi-story residential buildings. The elevated view from KOP 24 includes the SR 99 roadway, a landscaped median and landscaped sidewalk areas, a series of small-scale commercial buildings, a number of utility poles and light standards, and vegetated hillsides in the background. Although the view from this KOP is oriented along the SR 99 corridor, views to west from nearby residential units include Puget Sound and the Olympic Mountains. The view along the SR 99 corridor from KOP 25 represents a mix of land uses, including commercial and residential, that influences the character of this part of the SR 99 corridor. The vividness, intactness, and unity of the view from KOP 24 are average, as is visual quality.

**With the SR 99 Alternative (see Appendix C, Exhibit 24b)**

Although the SR 99 Alternative would not be inconsistent with the character of the SR 99 corridor seen from KOP 24 and would not remove adjacent commercial buildings, the elevated guideway would introduce a large-scale horizontal transportation element into the view. The median over which the elevated structure would pass could be replanted, but vegetation would not include young trees of the species that the current median contains. The structure would pass through the view and be silhouetted against the sky. The presence of the elevated guideway would decrease the visual connection with areas to the southwest and would reduce the vividness of this portion of the corridor seen from KOP 24 from average to low. The elevated guideway would encroach on views of the SR 99 corridor, and intactness of the corridor would be reduced to low. Unity would be somewhat lowered but not enough to lower it from average to low. The visual quality of the portion of the SR 99 corridor seen from KOP 24 would be reduced from average to low.

**Visual Quality Rating - Existing (with SR 99 Alternative)**

- Vividness = average (low)
- Intactness = average (low)
- Unity = average (average)
- Visual Quality = Average (Low)

**With the S 272nd Redondo Trench Station Option (see Appendix C, Exhibit 24c)**

Changes to the SR 99 corridor that would be seen by residents in the parking area would be minor with the S 272nd Redondo Trench Station Option (a few trees along the west side of SR 99 would be removed). This station option would be consistent with the complex character of this view (commercial, transportation, and residential) and would not change the average visual quality of the portion of the SR 99 corridor seen from KOP 24.

**Visual Quality Rating – Existing (with S 272nd Redondo Trench Station Option)**

- Vividness = high (high)
- Intactness = low (low)
- Unity = average (average)
- Visual Quality = Average (Average)

**KOP 25, Looking Northwest toward the S 288th Street and SR 99 Intersection from SR 99 Existing Condition (see Appendix C, Exhibit 25a)**

KOP 25 is situated along a section of SR 99 that represents views that motorists (commuters, people passing through the SR 99 corridor, and residents in nearby neighborhoods to the east and west) see near an important corridor intersection. The intersection is lined with small businesses (that give it a commercial character), behind which trees from residential areas can be seen. Puget Sound and areas beyond contribute to vividness, while the low-rise commercial buildings of similar appearance and scale in conjunction with the trees seen in the background produce average unity. Utility poles along with the street and traffic control lights associated with the intersection intrude into western views from this location and reduce intactness to low. The visual quality of the view of the SR 99 corridor from KOP 25 is average.

**With the SR 99 Alternative (see Appendix C, Exhibit 25b)**

The elevated guideway that would pass over this view would be a major visual transportation element. It would not be inconsistent with the existing character of this part of the SR 99 corridor, but would be larger in scale than nearby features and a dominant visual feature. Although the elevated guideway would not block views of Puget Sound for people driving or walking by this location, it would intrude on views and its presence would lower the vividness of this part of the corridor as well as reduce visual unity. Intactness would continue to be low. The visual quality of the view from KOP 25 would be reduced from average to low.

**Visual Quality Rating – Existing (with SR 99 Alternative)**

- Vividness = average (low)
- Intactness = low (low)
- Unity = average (low)
- Visual Quality = Average (Low)

**With the S 272nd Redondo Trench Station Option (see Appendix C, Exhibit 25c)**

Changes to the portion of the SR 99 corridor seen from this location as a result of this station option would be difficult to see due to the alignment's location on a slope west of SR 99 at S 288th Street. Wires associated with the OCS would be seen from this location and are depicted on the left side of Exhibit 25c. The S 272nd Redondo Trench Station Option would not change the appearance of the part of the SR 99 corridor or reduce the existing average visual quality.

**Visual Quality Rating – Existing (with S 272nd Redondo Trench Station Option)**

- Vividness = average (average)
- Intactness = average (average)
- Unity = average (average)
- Visual Quality = Average (Average)

**KOP 26, Looking Northeast on 16th Avenue S near S 303rd Street****Existing Condition (see Appendix C, Exhibit 26a)**

KOP 26 is located in a visually sensitive area along the northern part of a residential area that lines the west side of 16th Avenue S. The view from this location of the station option route would be seen by nearby residents and people in the neighborhood driving on 16th Avenue S. The view includes a residence on the west side of the street and the undeveloped and heavily vegetated area across the street between 16th Avenue S and SR 99. This portion of 16th Avenue S has a suburban/semi-rural/undeveloped character. The view does not contain memorable, vivid elements but has a high degree of intactness and unity and average overall visual quality.

**With the S 272nd Redondo Trench Station Option (see Appendix C, Exhibit 26b)**

This portion of the S 272nd Redondo Trench Station Option corridor seen from KOP 26 would be at-grade and require the removal of well established trees along the east side of 16th Avenue S, although trees behind the ones that would be removed would still be seen. A sound wall would parallel 16th Avenue S. The station option would introduce a transportation element that would be inconsistent with the residential, rural character of this area. The OCS would be seen above the sound

wall, as would the tops of passing trains. The introduction of these elements would lower vividness and intactness of this part of the option to low, and unity would be reduced from high to average. Visual quality would be reduced from average to low. Mitigation measures, such as treating the sound wall and landscaping, could restore visual quality to average in approximately 8 to 10 years.

**Visual Quality Rating – Existing (with S 272nd Redondo Trench Station Option)**

- Vividness = average (low)
- Intactness = average (low)
- Unity = high (average)
- Visual Quality = Average (Low)

*Appendix C*  
*Simulations*

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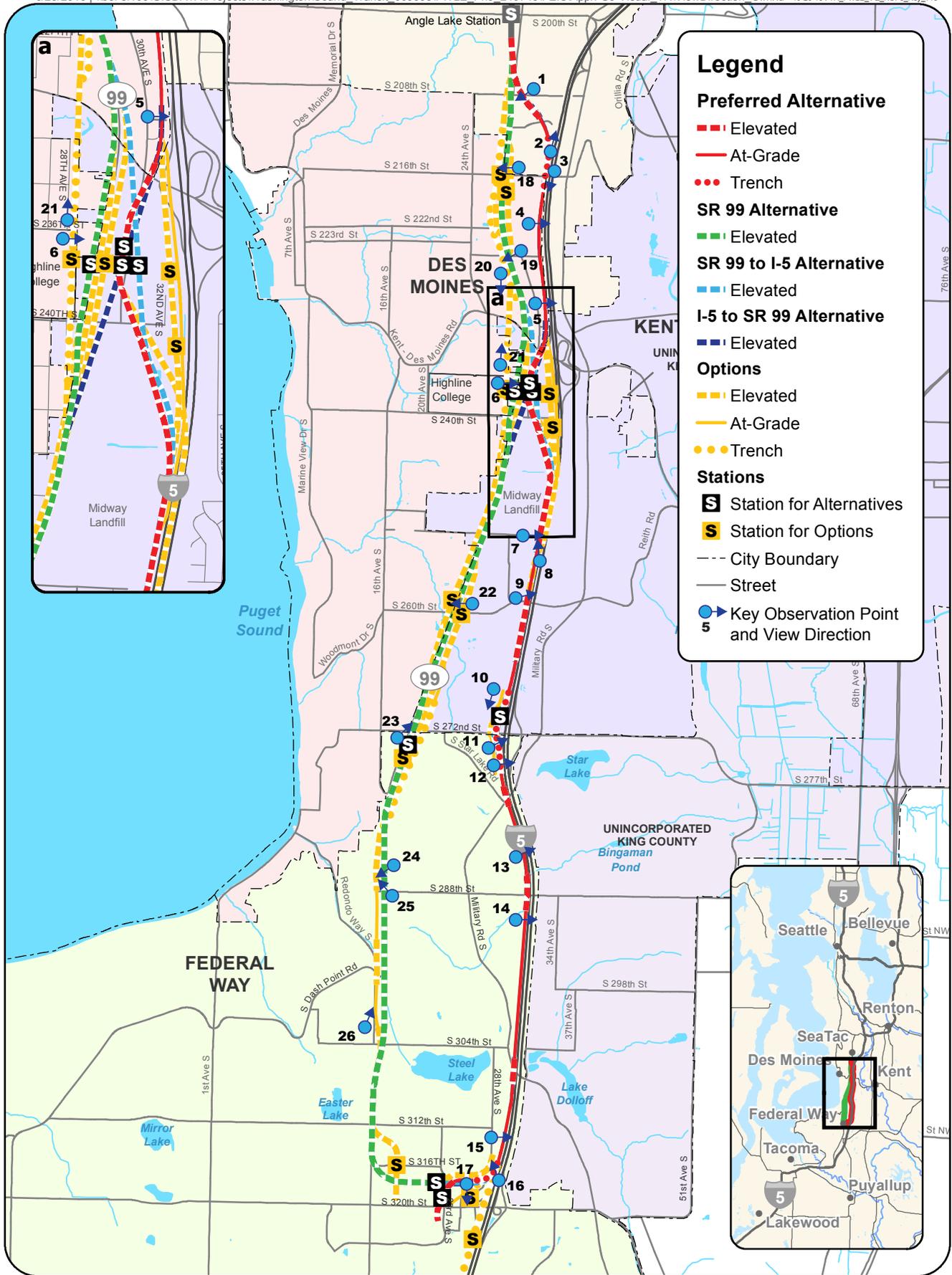


# Simulations

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The FWLE key observation point (KOP) simulations contained in this appendix (Exhibits 1 through 26) were developed using the conceptual design drawings available at the time the Final EIS was being developed, or approximately 10 percent of design completion. They do not contain most engineering details that would be developed and do not depict the avoidance and minimization measures described in Section 3.2 (Build Alternatives) of the Visual and Aesthetic Resources Technical Report.

Sound Transit will incorporate specific measures to mitigate visual impacts as it develops the detailed design for the light rail facilities. Avoidance, minimization, and mitigation measures will be developed by interdisciplinary teams and local government representatives with opportunities for the community to comment. Because these measures have not yet been developed, except as noted below, they are not shown. Mitigation measures will likely “soften” or screen views of the Preferred Alternative compared to components depicted in the simulations contained in this appendix. Some of the simulations included in this appendix depict (in very conceptual form) potential mitigation measures related to landscaping that are described in Section 4 (Potential Mitigation Measures) of the technical report and are examples of how measures could soften views of FWLE components. These simulations are useful for depicting the form and scale of the components of the various alternatives and options as well as how they might affect views. In addition, the simulations are valuable for depicting differences between the alternatives and options.



Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2015).



Key Map and View Direction  
Location of Key Observation Points  
Federal Way Link Extension



**Exhibit 1a. KOP 1: Existing Condition – Looking Southwest from S 208th Street toward SR 99 and SR 509 Right-of-way**



**Exhibit 1b. KOP 1: Preferred Alternative**



**Exhibit 2a. KOP2: Existing Condition – Looking North along 32nd Avenue S**



**Exhibit 2b. KOP 2: Preferred Alternative**



**Exhibit 3a. KOP 3: Existing Condition – Looking South from S 216th Street Overpass at I-5**



**Exhibit 3b. KOP 3: Preferred Alternative**



**Exhibit 4a. KOP 4: Existing Condition – Looking East from Midway Park toward I-5**



**Exhibit 4b. KOP 4: Preferred Alternative Approximately 1 Year after Planting**



**Exhibit 4c. KOP 4: Preferred Alternative Approximately 8 to 10 Years after Planting**



**Exhibit 5a. KOP 5: Existing Condition – Looking East from 30th Avenue S toward I-5**



**Exhibit 5b. KOP 5: Preferred Alternative Approximately 1 Year after Planting**



**Exhibit 5c. KOP 5: Preferred Alternative Approximately 8 to 10 Years after Planting**



**Exhibit 6a. KOP 6: Existing Condition – Looking East from Highline College Parking Lot at SR 99**



**Exhibit 6b. KOP 6: Preferred Alternative**



**Exhibit 7a. KOP 7: Existing Condition – S 254th Street Looking East**



**Exhibit 7b. KOP 7: Preferred Alternative**



**Exhibit 8a. KOP 8: Existing Condition – Looking Northwest from I-5**



**Exhibit 8b. KOP 8: Preferred Alternative**



**Exhibit 9a. KOP 9: Existing Condition – Looking East at I-5 and S 259th Place Underpass**



**Exhibit 9b. KOP 9: Preferred Alternative**



**Exhibit 10a. KOP 10: Existing Condition – Looking South on 28th Avenue S**



**Exhibit 10b. KOP 10: Preferred Alternative**



**Exhibit 10c. KOP 10: S 272nd Star Lake Elevated Station Option**



**Exhibit 11a. KOP 11: Existing Condition – Mark Twain Elementary School Looking Northeast**



**Exhibit 11b. KOP 11: Preferred Alternative**



**Exhibit 11c. KOP 11: S 272nd Star Lake Elevated Station Option**



**Exhibit 12a. KOP 12: Existing Condition – S 275th Street Looking East**



**Exhibit 12b. KOP 12: Preferred Alternative**



**Exhibit 12c. KOP 12: S 272nd Star Lake Elevated Station Option**



**Exhibit 13a. KOP 13: Existing Condition – Looking East along S 285th Street**



**Exhibit 13b.KOP 13: Preferred Alternative**



**Exhibit 14a. KOP 14: Existing Condition – Looking East between S 288th Street and S 304th Street toward I-5 (Camelot Square Mobile Home Park)**



**Exhibit 14b. KOP 14: Preferred Alternative Approximately 1 Year after Planting**



**Exhibit 14c. KOP 14: Preferred Alternative Approximately 8 to 10 Years after Planting**



**Exhibit 15a. KOP 15: Existing Condition – 28th Avenue Looking East**



**Exhibit 15b. KOP 15: Preferred Alternative**



**Exhibit 15c. KOP 15: S 317th Elevated Alignment Option**



**Exhibit 16a. KOP 16: Existing Condition – S 317th Street Direct Access Ramp from I-5 Looking Northwest**



**Exhibit 16b. KOP 16: Preferred Alternative**



**Exhibit 16c. KOP 16: S 317th Elevated Alignment Option**



**Exhibit 17a. KOP 17: Existing Condition – Truman High School Looking South**



**Exhibit 17b. KOP 17: Preferred Alternative**



**Exhibit 17c. KOP 17: S 317th Elevated Alignment Option**



**Exhibit 18a. KOP 18: Existing Condition – Looking West from S 216th Street toward SR 99**



**Exhibit 18b. KOP 18: SR 99 Alternative**



**Exhibit 18c. KOP 18: South 216th West Station Option**



**Exhibit 18d. KOP 18: South 216th East Station Option**



**Exhibit 19a. KOP 19: Existing Condition – Looking West from South 224th Street toward SR 99**



**Exhibit 19b. KOP 19: SR 99 Alternative**



**Exhibit 19c. KOP 19: Kent/Des Moines HC Campus Station Option**



**Exhibit 19d. KOP 19: Kent/Des Moines HC Campus Station Option from S 216th West Station Option**



**Exhibit 20a. KOP 20: Existing Condition – Looking South from S 226th Street at Area between 28th Avenue S and SR 99**



**Exhibit 20b. KOP 20: Kent/Des Moines HC Campus Station Option**



**Exhibit 20c. KOP 20: Kent/Des Moines HC Campus Station Option from S 216th West Station Option**



**Exhibit 21a. KOP 21: Existing Condition – Looking North along 28th Avenue S**



**Exhibit 21b. KOP 21: Kent/Des Moines HC Campus Station Option**



**Exhibit 22a. KOP 22: Existing Condition – Looking West from S 260th Street toward SR 99**



**Exhibit 22b. KOP 22: SR 99 Alternative**



**Exhibit 22c. KOP 22: South 260th West Station Option**



**Exhibit 22d. KOP 22: South 260th East Station Option**



**Exhibit 23a. KOP 23: Existing Condition – Looking Northeast at S 272nd Street from SR 99**



**Exhibit 23b. KOP 23: SR 99 Alternative**



**Exhibit 23c. KOP 23: S 272nd Redondo Trench Station Option**



Exhibit 24a. KOP 24: Existing Condition – Looking Southwest toward S 288th Street from SR 99



Exhibit 24b. KOP 24: SR 99 Alternative



Exhibit 24c. KOP 24: S 272nd Redondo Trench Station Option



**Exhibit 25a. KOP 25: Existing Condition – Looking Northwest toward S 288th Street from SR 99**



**Exhibit 25b. KOP 25: SR 99 Alternative**



Exhibit 25c. KOP 25: S 272nd Redondo Trench Station Option



**Exhibit 26a. KOP 26: Existing Condition – Looking Northeast along 16th Avenue S**



**Exhibit 26b. KOP 26: S 272nd Redondo Trench Station Option**



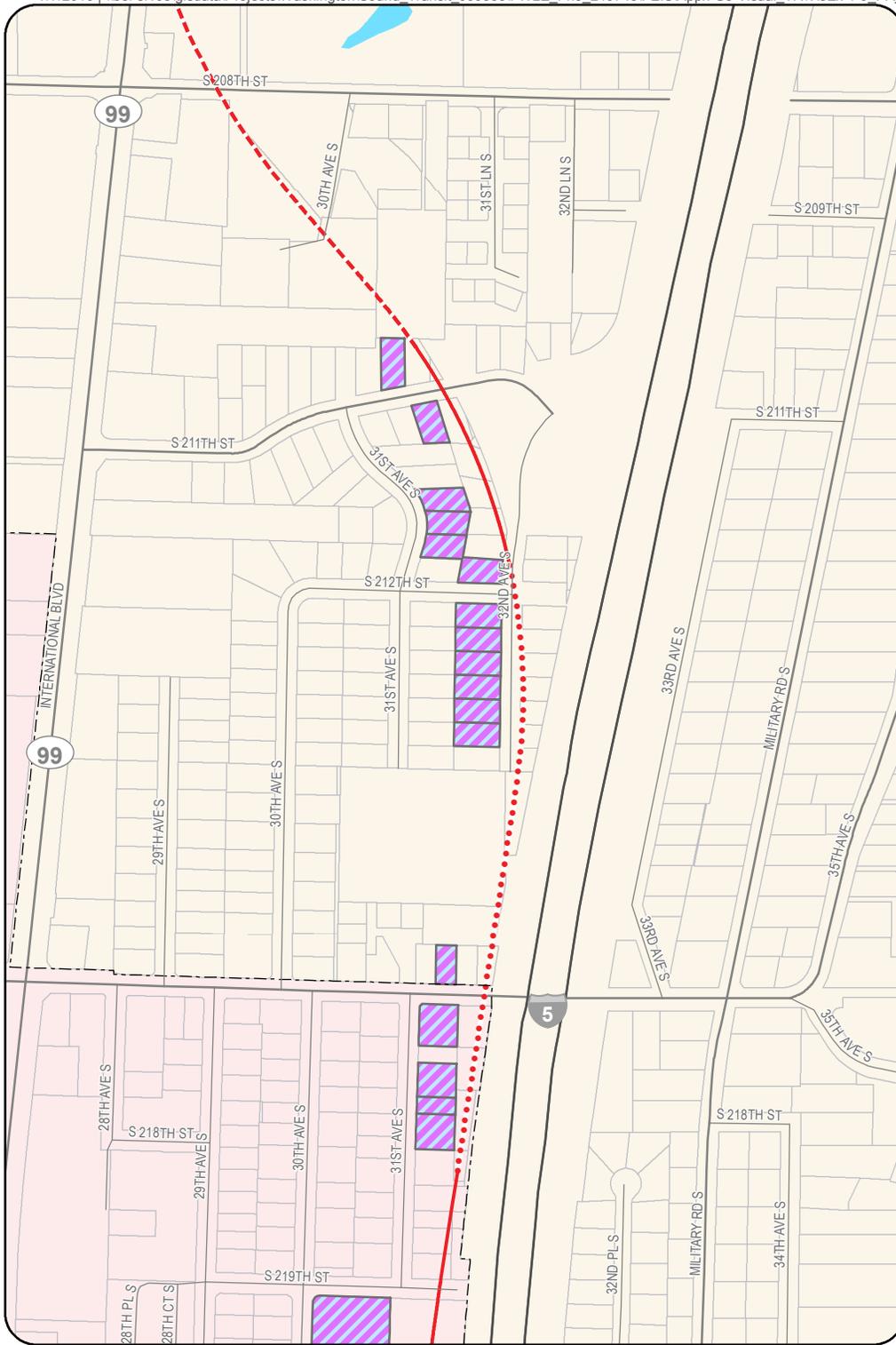


# Visual Impact Maps

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Exhibits D-1 and D-2 show the residential parcels where the visual quality of views towards the Federal Way Link Extension alternatives would be lowered if the Federal Way Link Extension were constructed along the I-5 or SR 99 corridors. The maps only show areas in each corridor where impacts would occur. The maps do not illustrate every location where the FWLE would be visible from nearby properties or roadways. Station and alignment options associated with the Preferred and SR 99 alternatives are only shown if they change the number of residential parcels where visual quality would be lowered.

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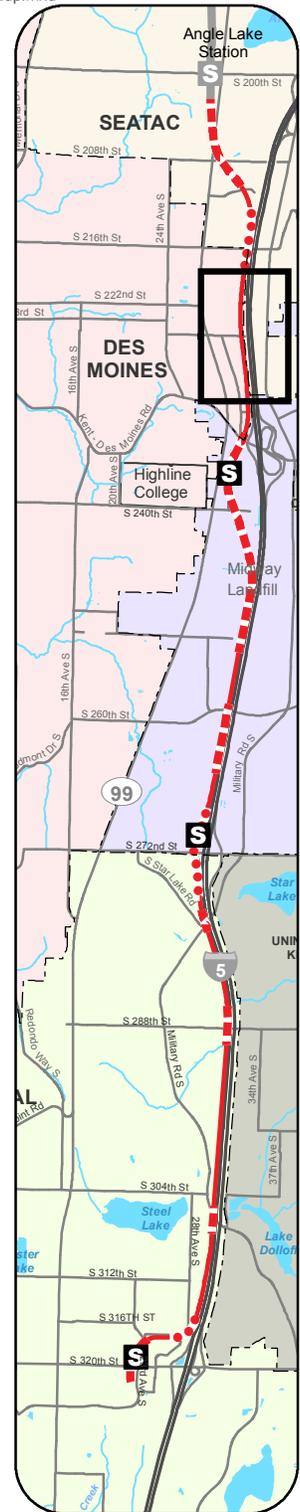
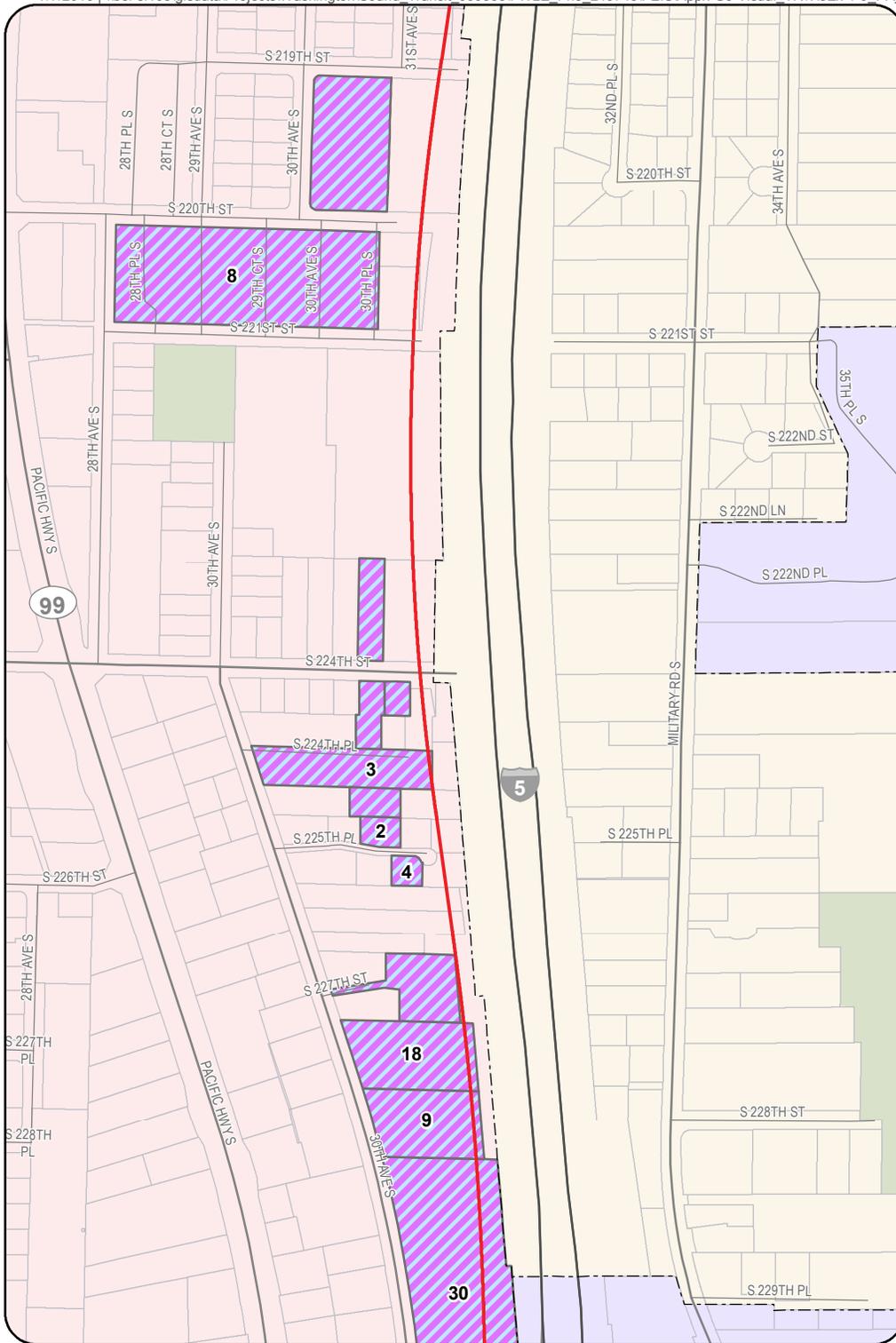


<b>Preferred Alternative</b>	Visual Impact <sup>1</sup>
Elevated	City Boundary
At-Grade	Street
Trench	Stream
	Waterbody
	Park / Open Space

**Note:**  
<sup>1</sup> Visual impact is 1 unit per parcel unless otherwise noted.

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2015).





**Preferred Alternative**

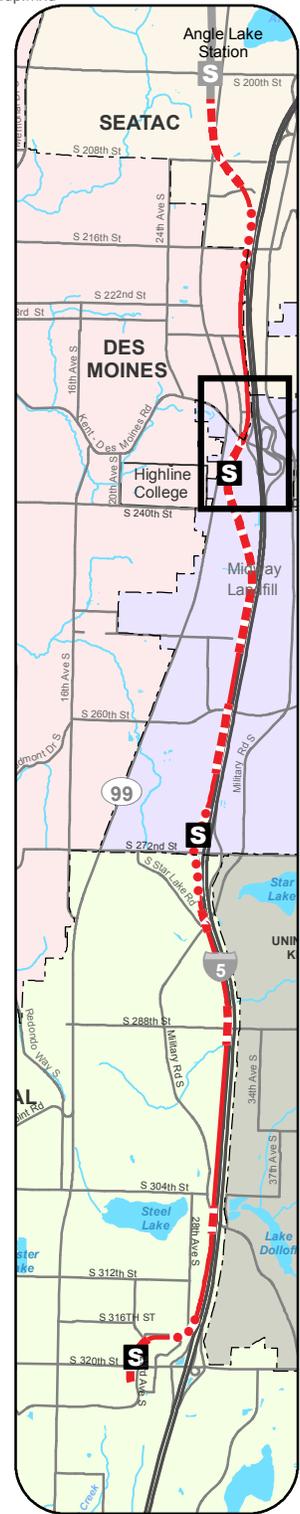
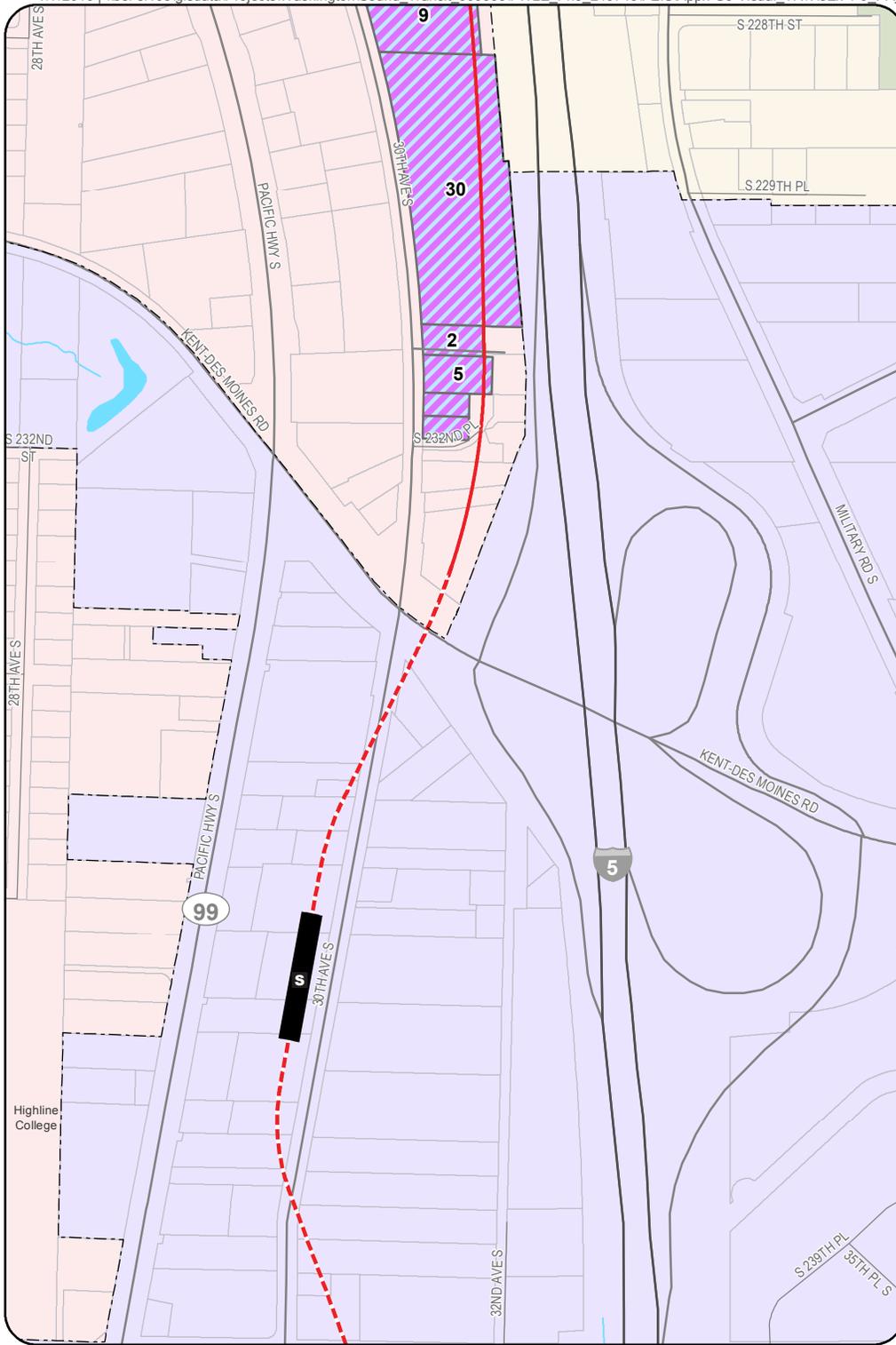
- At-Grade
- City Boundary
- Street
- Stream
- Waterbody
- Park / Open Space

Visual Impact<sup>1</sup>

**Note:**  
<sup>1</sup> Visual impact is 1 unit per parcel unless otherwise noted.

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2015).



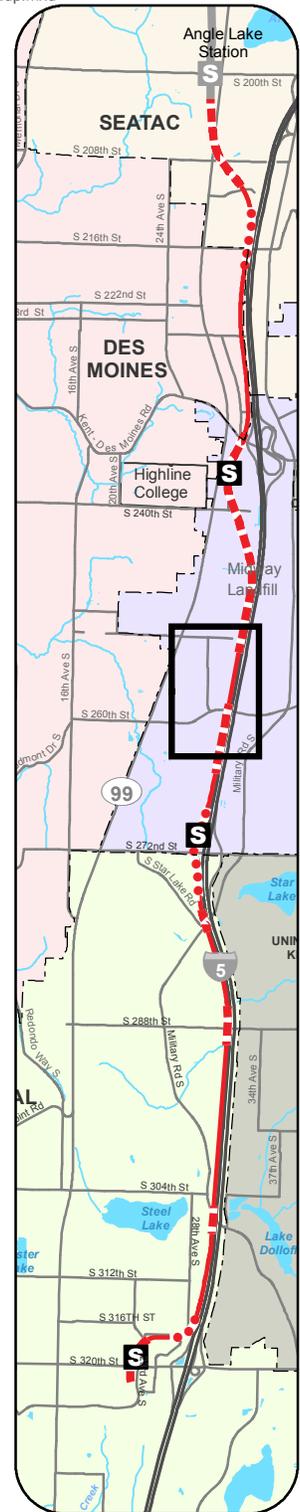
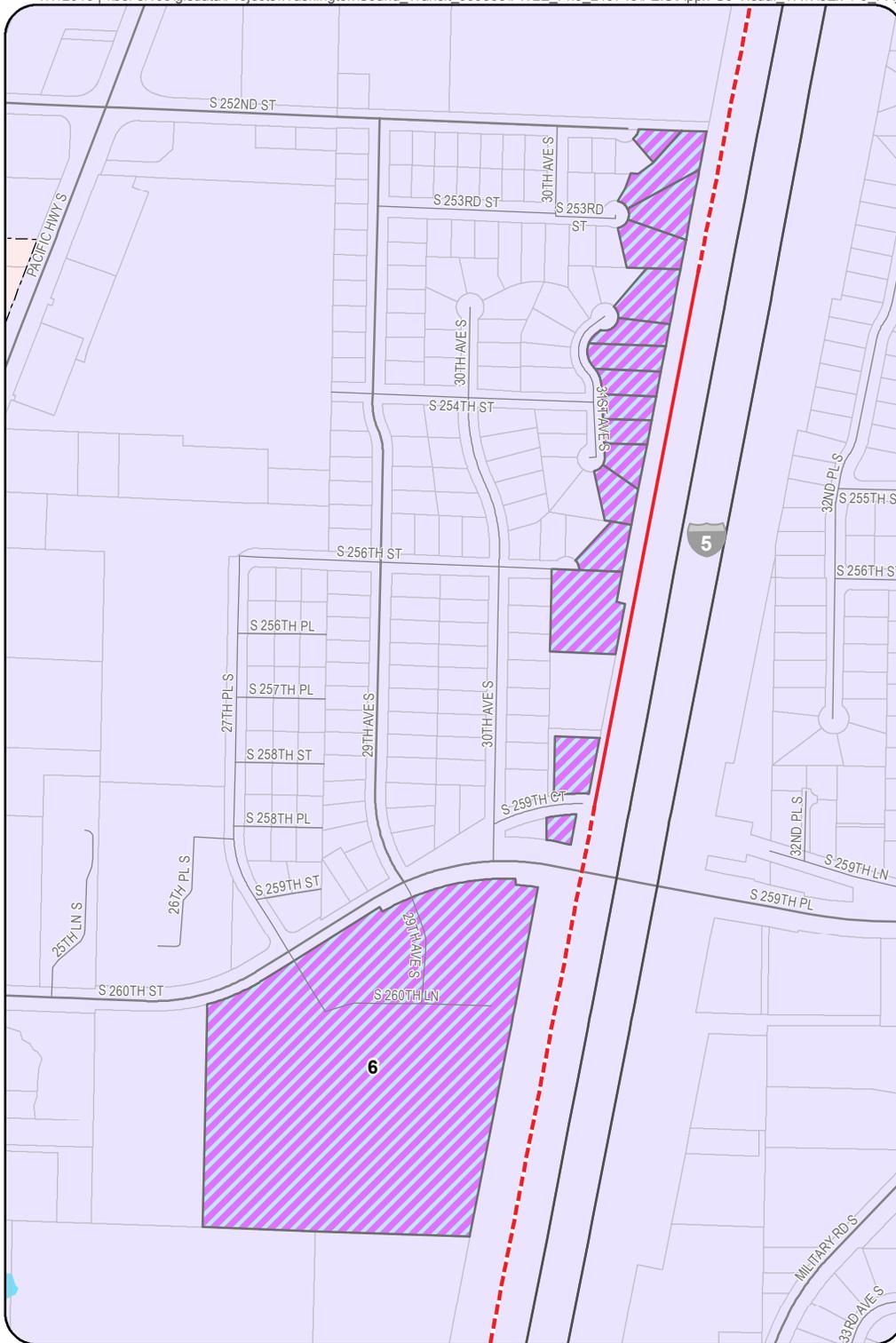


<b>Preferred Alternative</b>	Visual Impact <sup>1</sup>
Elevated	City Boundary
At-Grade	Street
Station	Stream
	Waterbody
	Park / Open Space

**Note:**  
<sup>1</sup> Visual impact is 1 unit per parcel unless otherwise noted.

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2015).





**Preferred Alternative**

- - - Elevated
- At-Grade

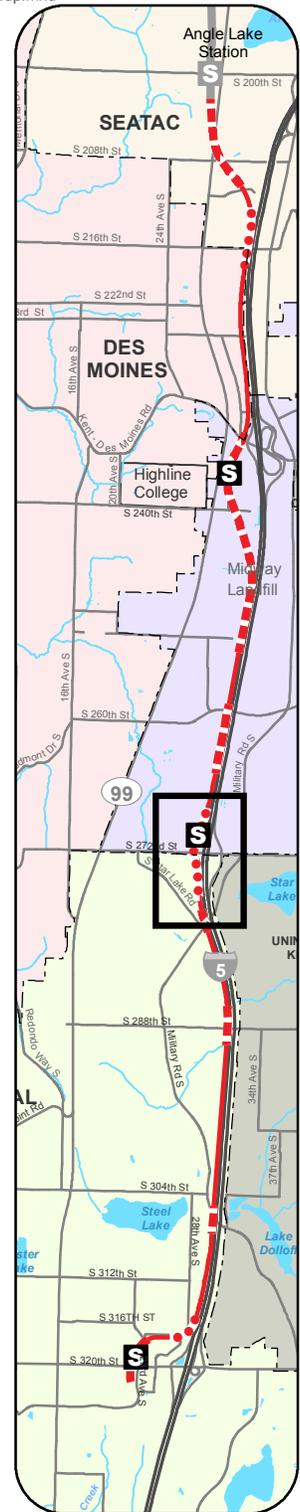
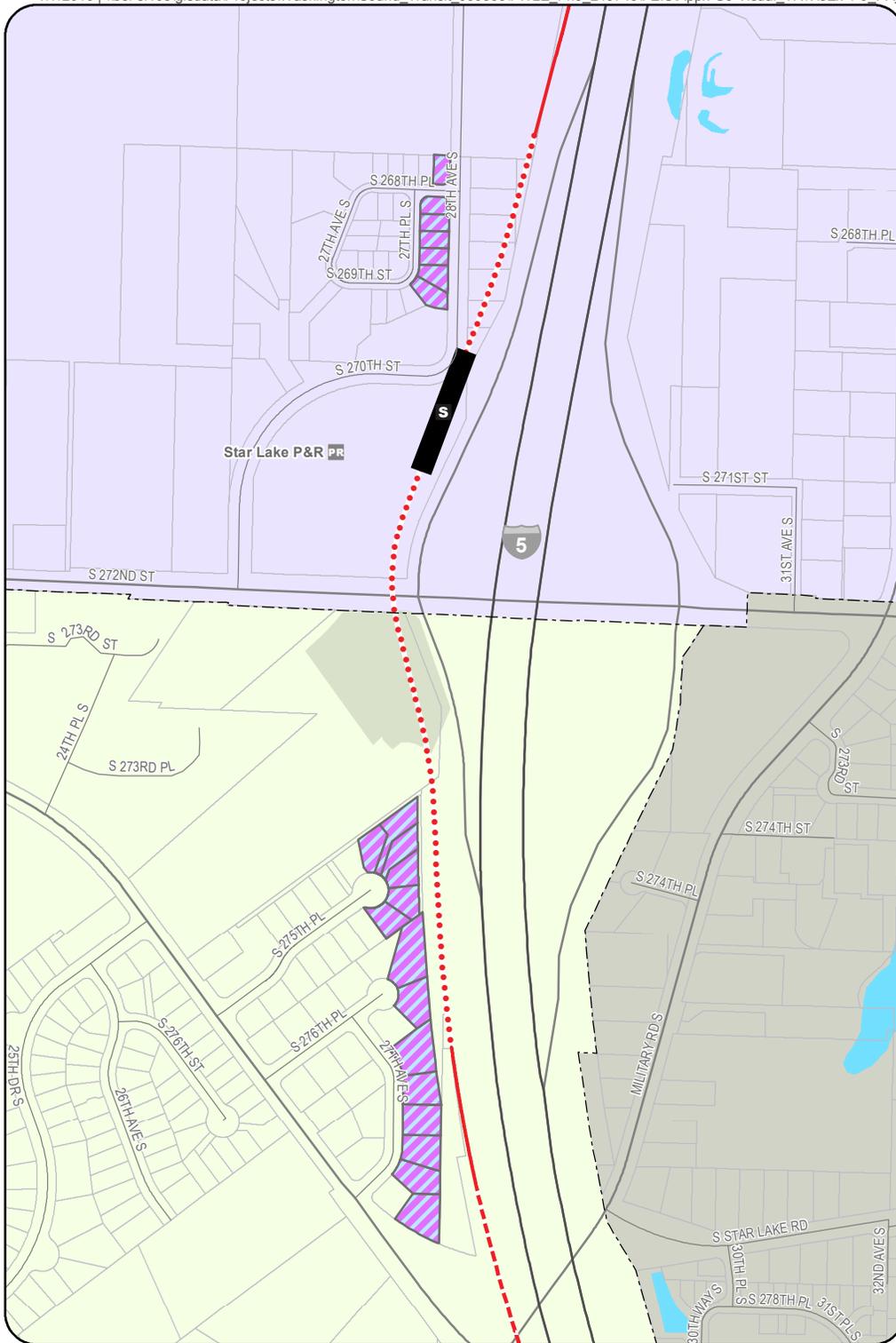
**Visual Impact**<sup>1</sup>

- Visual Impact
- City Boundary
- Street
- Stream
- Waterbody
- Park / Open Space

**Note:**  
<sup>1</sup> Visual impact is 1 unit per parcel unless otherwise noted.

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2015).



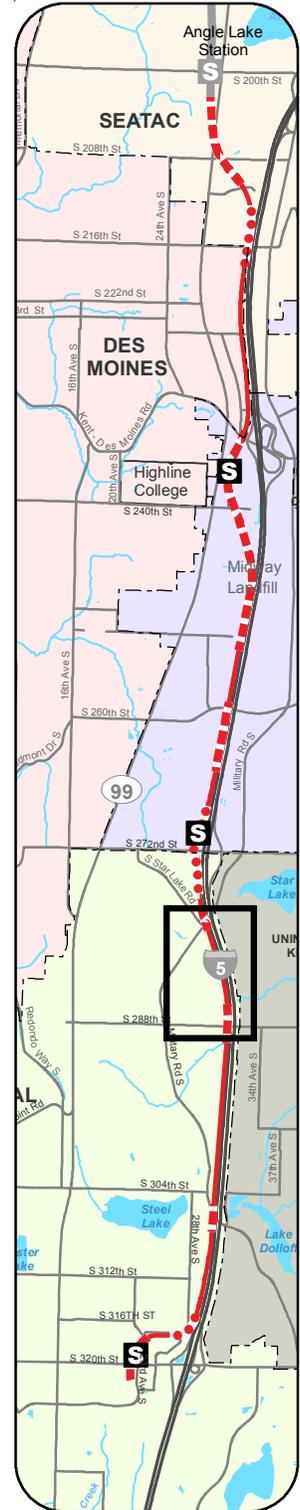
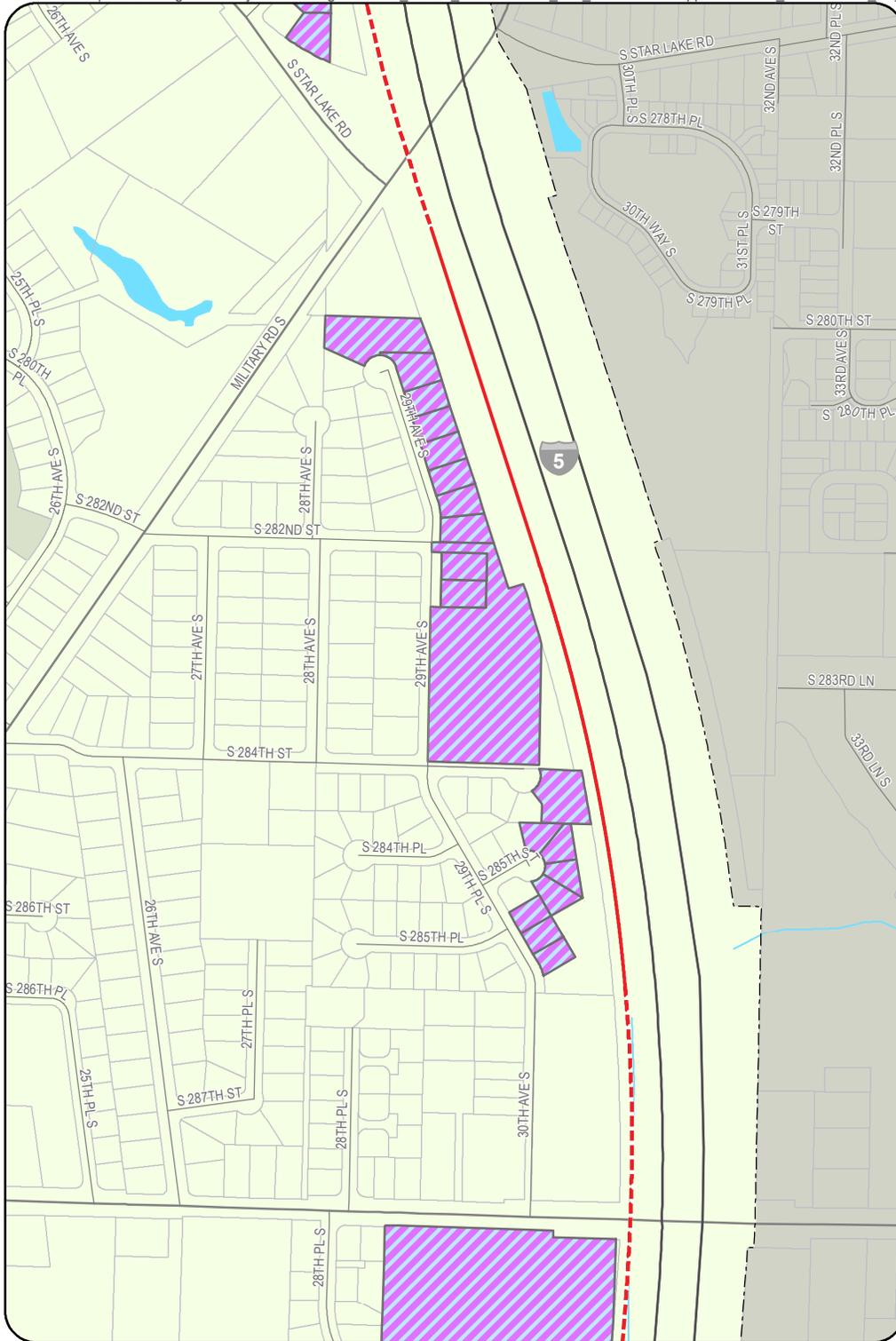


<b>Preferred Alternative</b>	Visual Impact <sup>1</sup>
Elevated	City Boundary
At-Grade	Street
Trench	Stream
Station	Waterbody
	Park / Open Space

**Note:**  
<sup>1</sup> Visual impact is 1 unit per parcel unless otherwise noted.

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2015).



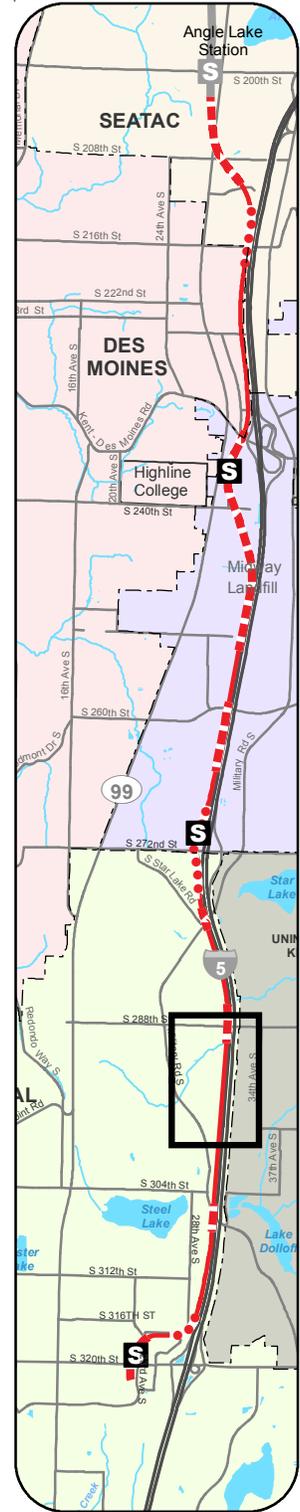
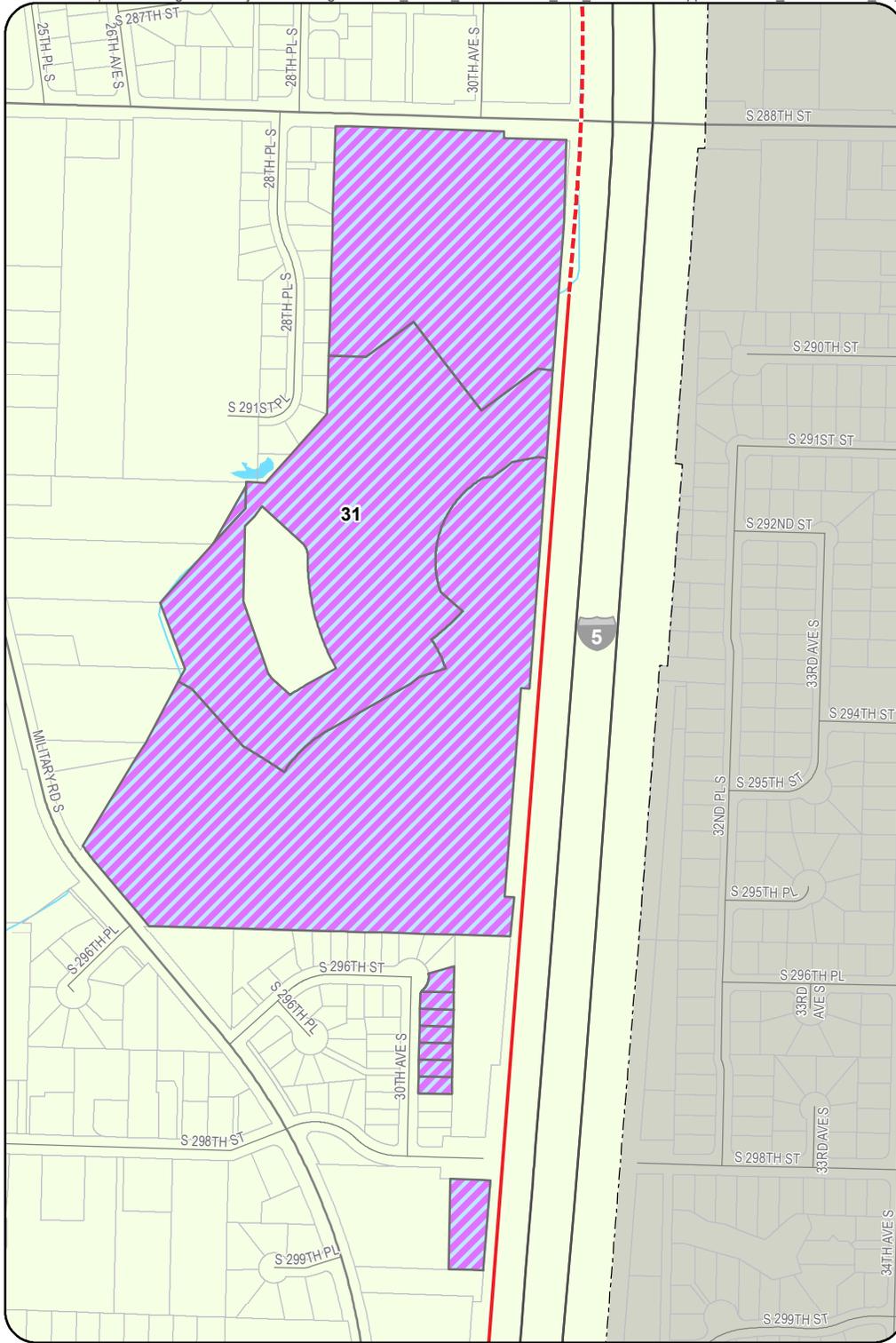


<b>Preferred Alternative</b>	Visual Impact <sup>1</sup>
Elevated	City Boundary
At-Grade	Street
	Stream
	Waterbody
	Park / Open Space

**Note:**  
<sup>1</sup> Visual impact is 1 unit per parcel unless otherwise noted.

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2015).



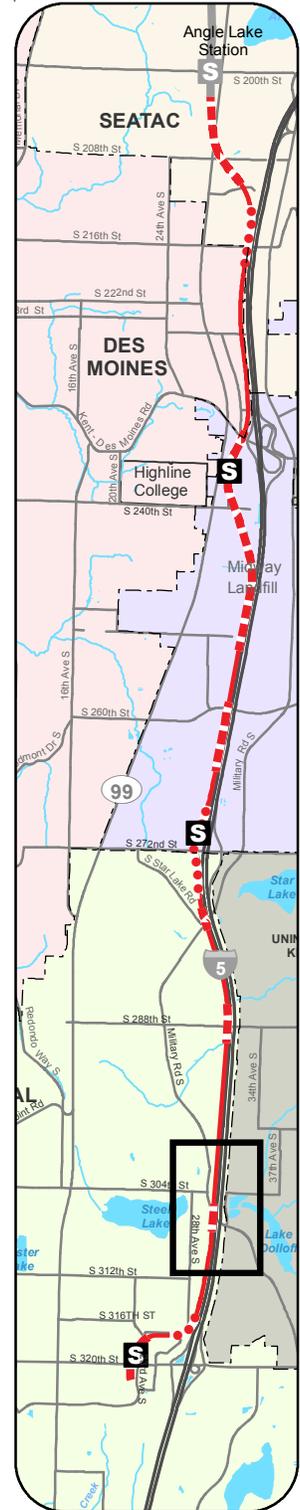
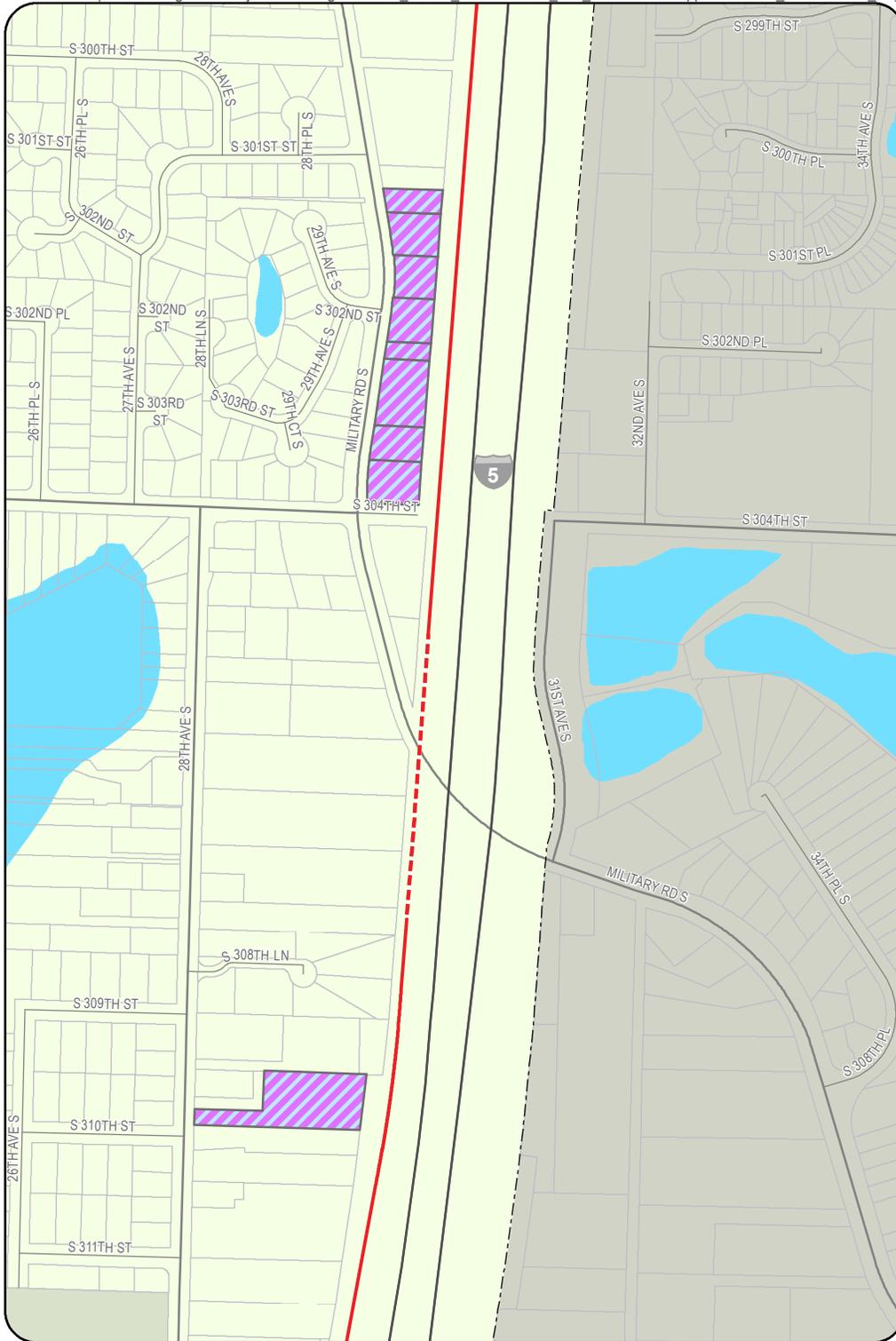


<b>Preferred Alternative</b>	Visual Impact <sup>1</sup>
Elevated	City Boundary
At-Grade	Street
	Stream
	Waterbody
	Park / Open Space

**Note:**  
<sup>1</sup> Visual impact is 1 unit per parcel unless otherwise noted.

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2015).

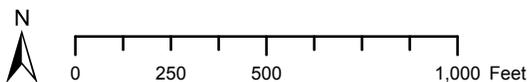


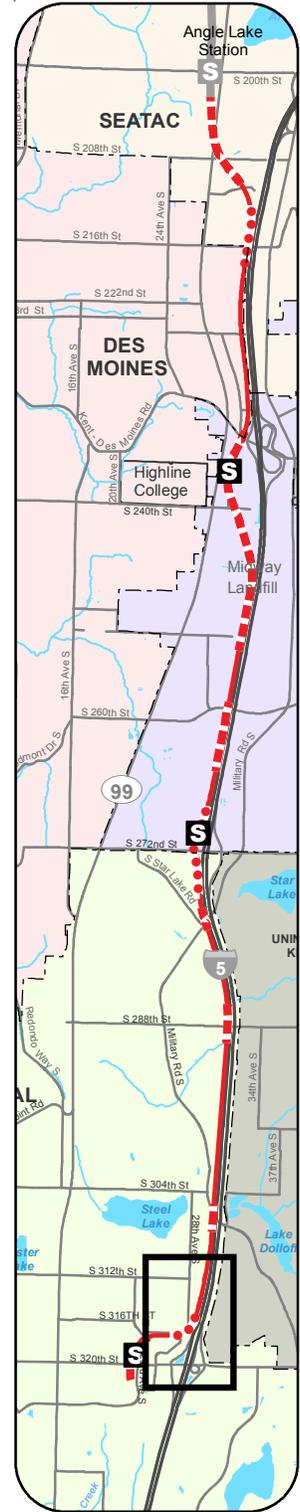
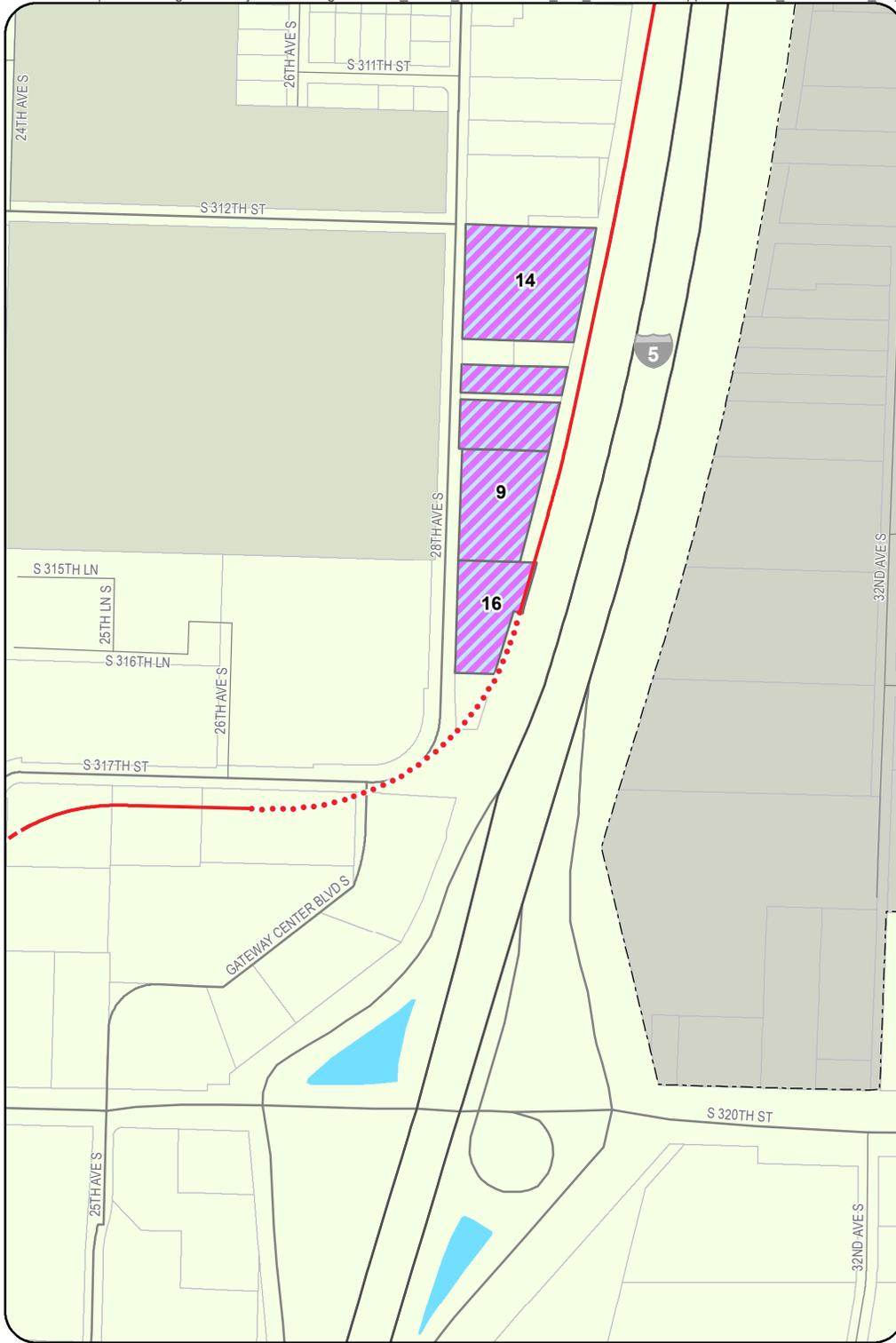


<b>Preferred Alternative</b>	Visual Impact <sup>1</sup>
Elevated	City Boundary
At-Grade	Street
	Stream
	Waterbody
	Park / Open Space

**Note:**  
<sup>1</sup> Visual impact is 1 unit per parcel unless otherwise noted.

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2015).



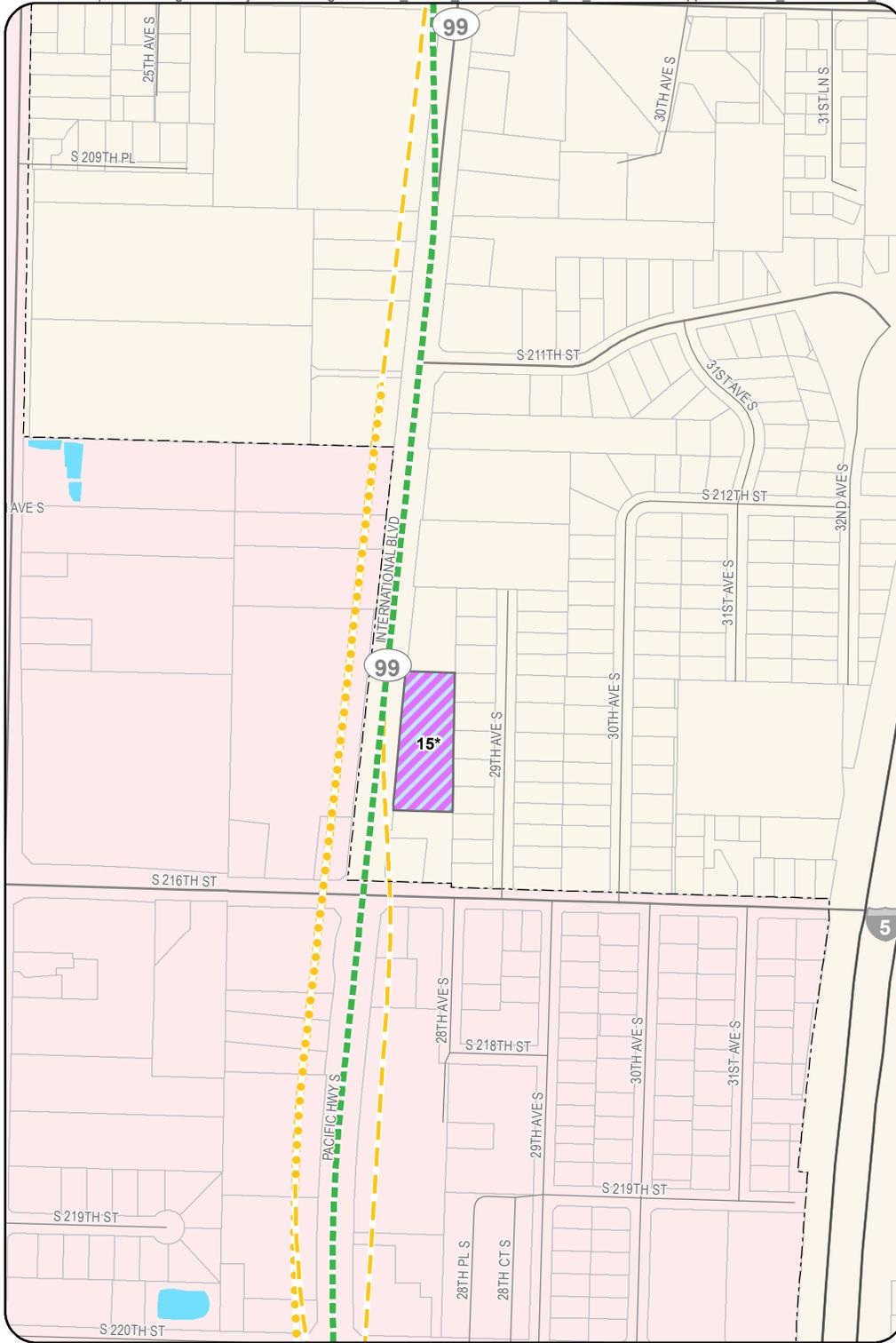


<b>Preferred Alternative</b>	Visual Impact <sup>1</sup>
Elevated	City Boundary
At-Grade	Street
Trench	Stream
	Waterbody
	Park / Open Space

**Note:**  
<sup>1</sup> Visual impact is 1 unit per parcel unless otherwise noted.

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2015).

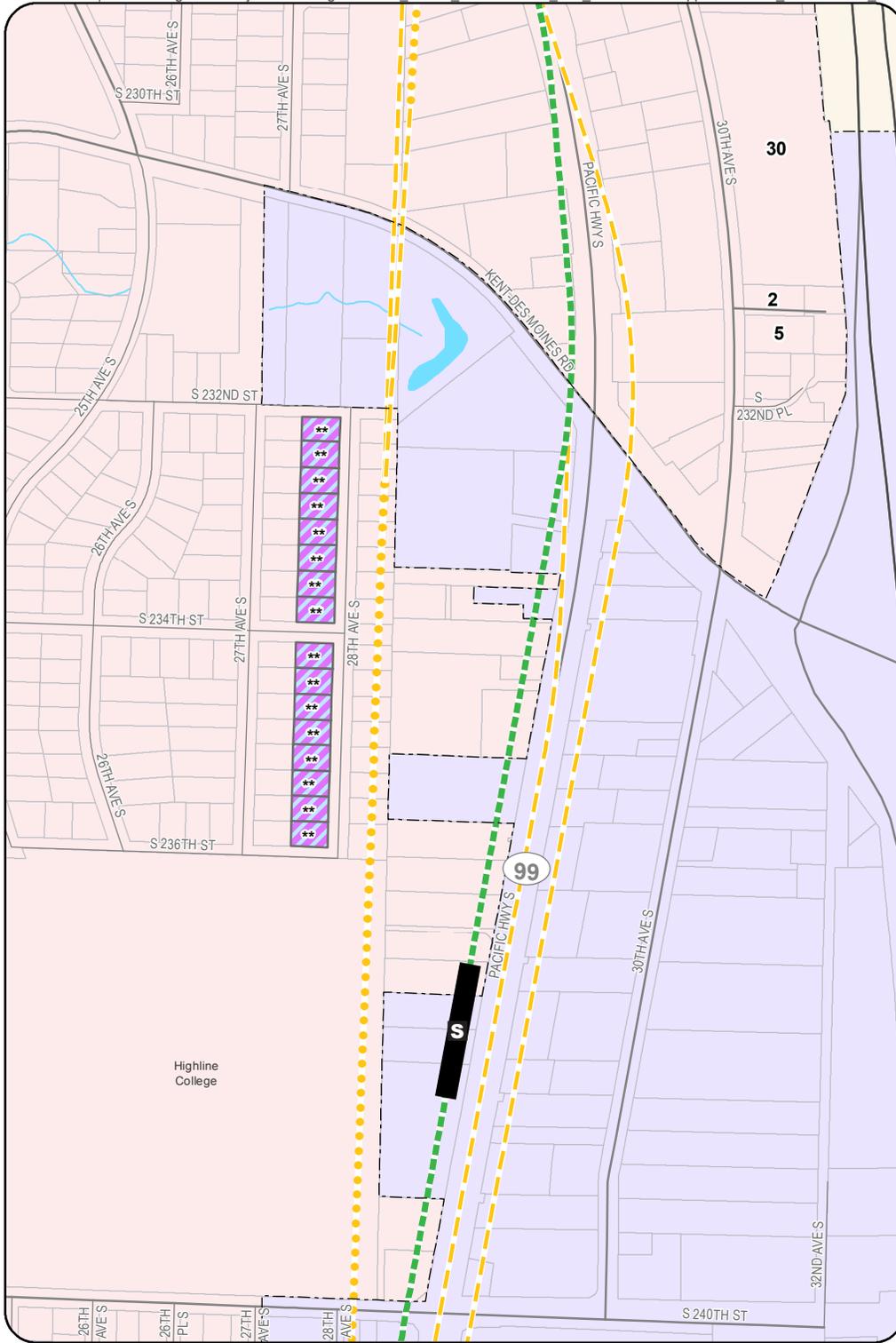




<b>SR 99 Alternative</b>	Visual Impact <sup>1</sup>	<b>Note:</b> <sup>1</sup> Visual impact is 1 unit per parcel unless otherwise noted. * Avoided with the S 216th West Station Option. ** Impacted by the Kent/Des Moines HC Campus Station Option. *** Impacted with the 272nd Redondo Trench only.
Elevated	City Boundary	
<b>Options</b>	Street	
Elevated	Stream	
Trench	Waterbody	
	Park / Open Space	

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2015).





**SR 99 Alternative**

- Elevated
- Options
- Trench

**Visual Impact<sup>1</sup>**

- Visual Impact<sup>1</sup>
- Station
- City Boundary
- Street
- Stream
- Waterbody
- Park / Open Space

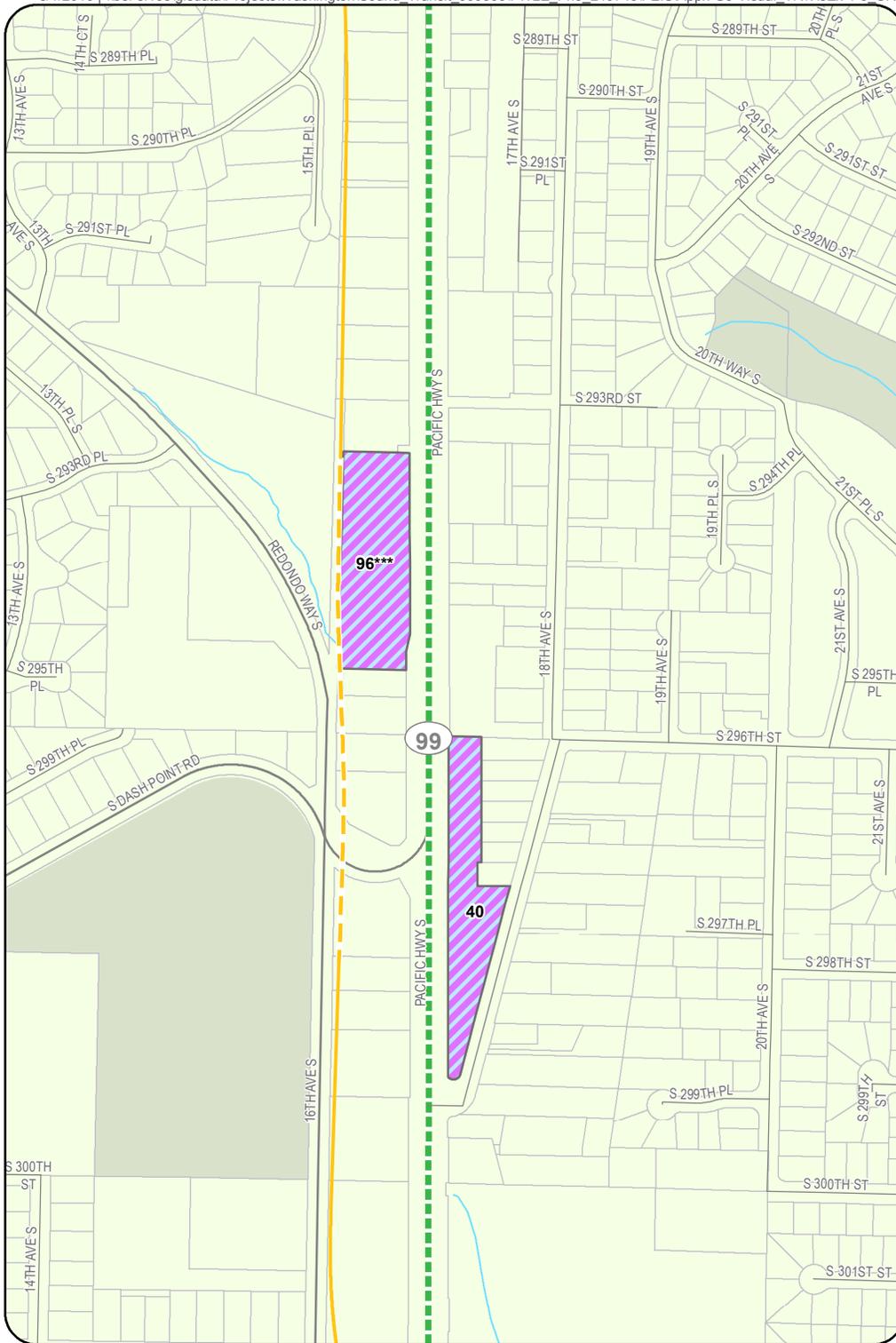
**Note:**

- <sup>1</sup> Visual impact is 1 unit per parcel unless otherwise noted.
- \* Avoided with the S 216th West Station Option.
- \*\* Impacted by the Kent/Des Moines HC Campus Station Option.
- \*\*\* Impacted with the 272nd Redondo Trench only.

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2015).



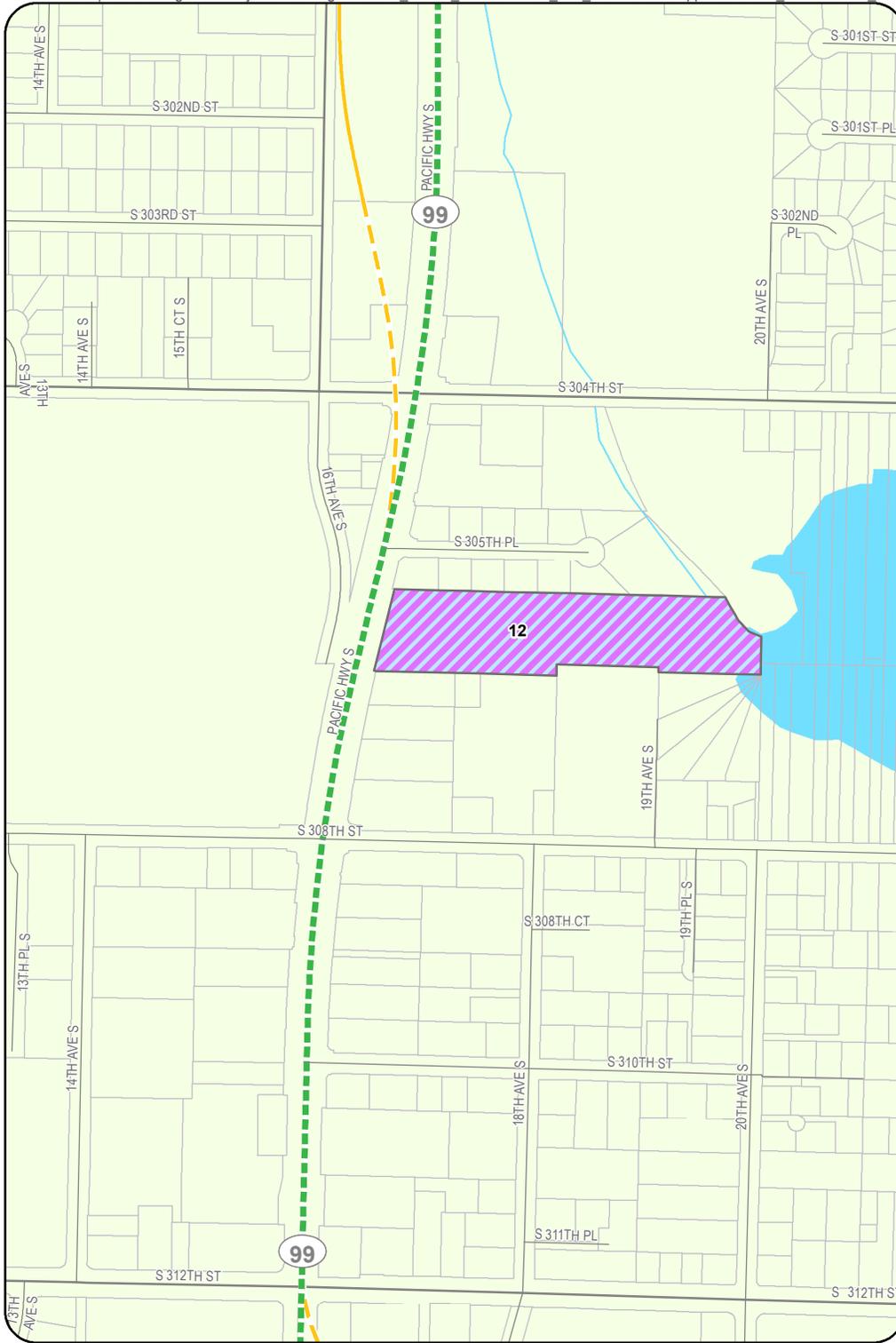




<b>SR 99 Alternative</b>	Visual Impact <sup>1</sup>	<b>Note:</b> <sup>1</sup> Visual impact is 1 unit per parcel unless otherwise noted. * Avoided with the S 216th West Station Option. ** Impacted by the Kent/Des Moines HC Campus Station Option. *** Impacted with the 272nd Redondo Trench only.
Elevated	City Boundary	
<b>Options</b>	Street	
Elevated	Stream	
At-Grade	Waterbody	
	Park / Open Space	

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2015).





<b>SR 99 Alternative</b>	Visual Impact <sup>1</sup>	<b>Note:</b> <sup>1</sup> Visual impact is 1 unit per parcel unless otherwise noted. * Avoided with the S 216th West Station Option. ** Impacted by the Kent/Des Moines HC Campus Station Option. *** Impacted with the 272nd Redondo Trench only.
Elevated	City Boundary	
<b>Options</b>	Street	
Elevated	Stream	
At-Grade	Waterbody	
	Park / Open Space	

Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2015).

