



# *West Seattle and Ballard Link Extensions*

**Draft** Environmental Impact Statement

## VISUAL AND AESTHETICS TECHNICAL REPORT

Appendix N.2

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# West Seattle and Ballard Link Extensions Visual and Aesthetics Technical Report

January 2022

**Sound Transit**

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Attachment N.2A Key Observation Point Analysis

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# Acronyms and Abbreviations

KOP	key observation point
WSBLE	West Seattle and Ballard Link Extensions

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# 1 INTRODUCTION

## 1.1 Overview

Central Puget Sound Regional Transit Authority (Sound Transit) is proposing to expand Link light rail transit service from Downtown Seattle to West Seattle and Ballard (Figure 1-1). The West Seattle and Ballard Link Extensions (WSBLE) Project is an 11.8-mile corridor in the city of Seattle in King County, Washington, the most densely populated county of the Puget Sound region. The West Seattle Link Extension would be about 4.7 miles and include stations at SODO, Delridge, Avalon, and Alaska Junction. The Ballard Link Extension would be about 7.1 miles from Downtown Seattle to Ballard's Northwest Market Street area. It would include a new 3.3-mile light rail-only tunnel from Chinatown-International District to South Lake Union and Seattle Center/Uptown. Stations would serve the following areas: Chinatown-International District, Midtown, Westlake, Denny, South Lake Union, Seattle Center, Smith Cove, Interbay, and Ballard.

The WSBLE Project is part of the Sound Transit 3 Plan of regional transit system investments, funding for which was approved by voters in the region in 2016. The project would provide fast, reliable light rail in Seattle and connect to dense residential and job centers throughout the Puget Sound region, while the new Downtown Seattle light rail tunnel would provide capacity for the entire regional system to operate efficiently. The Puget Sound Regional Council (the regional metropolitan planning organization) and the City of Seattle have designated the following regional growth centers, Manufacturing/Industrial Centers, and urban villages in the project corridor:

- **Regional Growth Centers.** The project corridor includes three regional growth centers designated by the Puget Sound Regional Council and the City of Seattle: Seattle Downtown, South Lake Union, and Uptown. The First Hill/Capitol Hill growth center is also just east of the project corridor.
- **Manufacturing/Industrial Centers.** The project corridor includes two Manufacturing/Industrial Centers designated by the Puget Sound Regional Council: the Duwamish and Ballard Interbay Manufacturing/Industrial Centers. The City of Seattle has designated these areas as the Duwamish Manufacturing/Industrial Center and the Ballard Interbay Northend Manufacturing/Industrial Center.
- **Urban Villages.** There are two neighborhoods in the project corridor designated by the City of Seattle as urban villages: West Seattle Junction and Ballard neighborhoods.

These designations indicate that these areas will continue to increase in residential and/or employment density over the next 30 years.

Regional transit service in the project corridor includes regional bus service, light rail, Sounder commuter rail, Washington State Ferries, and Amtrak passenger rail service. Light rail currently operates between the Angle Lake Station in the city of SeaTac and the Northgate Station in Seattle, traveling through the Downtown Seattle Transit Tunnel. Extensions of light rail are under construction north to Lynnwood, east to Bellevue and Redmond, and south to Federal Way, and are anticipated to begin operation in 2024. Planned light rail extensions would continue south to Tacoma Dome, expected to begin service in 2032, and north to Everett, planned to begin service in 2037. The West Seattle Link Extension is scheduled to open in 2032. The Ballard Link Extension is scheduled to begin service in 2037. Depending on funding availability, service from Smith Cove to Ballard Station is scheduled to open in 2037 or 2039.

Figure 1-1. West Seattle and Ballard Link Extensions Project Corridor



Table 1-1 lists the WSBLE Project Build Alternatives for each extension (West Seattle and Ballard).

## **1.2 Purpose of Report**

This technical report focuses on the portions of the WSBLE Project that would be above ground and thus potentially visible. The existing visual and aesthetic conditions of the study area for the WSBLE Project are described as changes to existing visual conditions that would occur with each alternative or option. Existing City of Seattle regulations and ordinances related to visual and aesthetic resources are identified, and the consistency of the alternatives with the directives and objectives of those regulations and ordinances are discussed. This technical report concludes with a comparison of the impacts of each alternative on visual and aesthetic resources along with a review of Sound Transit design measures that are intended to help project components fit with their visual environment and includes mitigation measures to reduce visual impacts.

**Table 1-1. Summary of West Seattle and Ballard Link Extensions Build Alternatives**

Extension	Segment	Alternative	Alternative Abbreviation	Stations (and Station Profile)	Connections
<b>West Seattle</b>	<b>SODO</b>	<b>Preferred At-Grade</b>	<b>SODO-1a</b>	<b>SODO (At-Grade) or SODO Staggered Station Configuration (At-Grade)</b>	<b>All Duwamish Segment alternatives.</b>
West Seattle	SODO	At-Grade South Station Option	SODO-1b	SODO (At-Grade)	All Duwamish Segment alternatives.
West Seattle	SODO	Mixed Profile	SODO-2	SODO (Elevated)	All Duwamish Segment alternatives.
<b>West Seattle</b>	<b>Duwamish</b>	<b>Preferred South Crossing</b>	<b>DUW-1a</b>	<b>None</b>	<b>All SODO Segment alternatives. All Delridge Segment alternatives.</b>
West Seattle	Duwamish	South Crossing South Edge Crossing Alignment Option	DUW-1b	None	All SODO Segment alternatives. All Delridge Segment alternatives.
West Seattle	Duwamish	North Crossing	DUW-2	None	All SODO Segment alternatives. All Delridge Segment alternatives.
<b>West Seattle</b>	<b>Delridge</b>	<b>Preferred Dakota Street Station</b>	<b>DEL-1a</b>	<b>Delridge (Elevated)</b>	<b>All Duwamish Segment alternatives. Connects to WSJ-1, WSJ-2, and WSJ-4*.</b>
West Seattle	Delridge	Dakota Street Station North Alignment Option	DEL-1b	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-1, WSJ-2, and WSJ-4*.
<b>West Seattle</b>	<b>Delridge</b>	<b>Preferred Dakota Street Station Lower Height*</b>	<b>DEL-2a*</b>	<b>Delridge (Elevated)</b>	<b>All Duwamish Segment alternatives. Connects to WSJ-3a* and WSJ-3b*.</b>
West Seattle	Delridge	Dakota Street Station Lower Height North Alignment Option*	DEL-2b*	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-3a* and WSJ-3b*.
West Seattle	Delridge	Delridge Way Station	DEL-3	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-1, WSJ-2, and WSJ-4*.

Extension	Segment	Alternative	Alternative Abbreviation	Stations (and Station Profile)	Connections
West Seattle	Delridge	Delridge Way Station Lower Height*	DEL-4*	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-3a* and WSJ-3b*.
West Seattle	Delridge	Andover Street Station	DEL-5	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-1, WSJ-2, and WSJ-4*.
West Seattle	Delridge	Andover Street Station Lower Height*	DEL-6*	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-5*.
<b>West Seattle</b>	<b>West Seattle Junction</b>	<b>Preferred Elevated 41st/42nd Avenue Station</b>	<b>WSJ-1</b>	<b>Avalon (Elevated), West Seattle Junction (Elevated)</b>	<b>Connects to DEL-1a, DEL-1b, DEL-3, and DEL-5.</b>
<b>West Seattle</b>	<b>West Seattle Junction</b>	<b>Preferred Elevated Fautleroy Way Station</b>	<b>WSJ-2</b>	<b>Avalon (Elevated), West Seattle Junction (Elevated)</b>	<b>Connects to DEL-1a, DEL-1b, DEL-3, and DEL-5.</b>
<b>West Seattle</b>	<b>West Seattle Junction</b>	<b>Preferred Tunnel 41st Avenue Station*</b>	<b>WSJ-3a*</b>	<b>Avalon (Tunnel), West Seattle Junction (Tunnel)</b>	<b>Connects to DEL-2a*, DEL-2b*, and DEL-4*.</b>
<b>West Seattle</b>	<b>West Seattle Junction</b>	<b>Preferred Tunnel 42nd Avenue Station Option*</b>	<b>WSJ-3b*</b>	<b>Avalon (Tunnel), West Seattle Junction (Tunnel)</b>	<b>Connects to DEL-2a*, DEL-2b* and DEL-4*.</b>
West Seattle	West Seattle Junction	Short Tunnel 41st Avenue Station*	WSJ-4*	Avalon (Elevated), West Seattle Junction (Tunnel)	Connects to DEL-1a, DEL-1b, DEL-3, and DEL-5.
West Seattle	West Seattle Junction	Medium Tunnel 41st Avenue Station*	WSJ-5*	Avalon (Retained Cut), West Seattle Junction (Tunnel)	Connects to DEL-6*.
<b>Ballard</b>	<b>SODO</b>	<b>Preferred At-Grade</b>	<b>SODO-1a</b>	<b>Not applicable</b>	<b>Connects to CID-1a*, CID-2a, and CID-2b.</b>
Ballard	SODO	At-Grade South Station Option	SODO-1b	Not applicable	All Chinatown-International District Segment alternatives.
Ballard	SODO	Mixed Profile	SODO-2	Not applicable	Connects to CID-1a* and CID-2a.
Ballard	Chinatown-International District	4th Avenue Shallow* <sup>a</sup>	CID-1a*	Stadium (existing station would be rebuilt) and International District/Chinatown (tunnel)	All SODO Segment alternatives. All Downtown Segment alternatives.
Ballard	Chinatown-International District	4th Avenue Deep Station Option*	CID-1b	International District/Chinatown (Tunnel)	Connects to SODO-1b. Connects to DT-1.

Extension	Segment	Alternative	Alternative Abbreviation	Stations (and Station Profile)	Connections
Ballard	Chinatown-International District	5th Avenue Shallow	CID-2a	International District/Chinatown (Tunnel) or International District/Chinatown Diagonal Station Configuration (Tunnel)	All SODO Segment alternatives. All Downtown Segment alternatives.
Ballard	Chinatown-International District	5th Avenue Deep Station Option	CID-2b	International District/Chinatown (Tunnel)	Connects to SODO-1a and SODO-1b. Connects to DT-1.
<b>Ballard</b>	<b>Downtown</b>	<b>Preferred 5th Avenue/Harrison Street</b>	<b>DT-1</b>	<b>Midtown, Westlake, Denny, South Lake Union, and Seattle Center (Tunnel)</b>	<b>All Chinatown-International District Segment alternatives. Connects to SIB-1 and SIB-2.</b>
Ballard	Downtown	6th Avenue/Mercer Street	DT-2	Midtown, Westlake, Denny, South Lake Union, and Seattle Center (Tunnel)	Connects to CID-1a* and CID-2a. Connects to SIB-3.
<b>Ballard</b>	<b>South Interbay</b>	<b>Preferred Galer Street Station/Central Interbay</b>	<b>SIB-1</b>	<b>Smith Cove (Elevated)</b>	<b>Connects to DT-1. Connects to IBB-1a, IBB-2a*, and IBB-2b*.</b>
Ballard	South Interbay	Prospect Street Station/15th Avenue	SIB-2	Smith Cove (Elevated)	Connects to DT-1. Connects to IBB-3 and IBB-1b.
Ballard	South Interbay	Prospect Street Station/Central Interbay	SIB-3	Smith Cove (Retained cut)	Connects to DT-2. Connects to IBB-1a, IBB-2a*, and IBB-2b*.
<b>Ballard</b>	<b>Interbay/Ballard</b>	<b>Preferred Elevated 14th Avenue</b>	<b>IBB-1a</b>	<b>Interbay (Elevated), Ballard (Elevated)</b>	<b>Connects to SIB-1 and SIB-3.</b>
Ballard	Interbay/Ballard	Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue)	IBB-1b	Interbay (Elevated), Ballard (Elevated)	Connects to SIB-2.
<b>Ballard</b>	<b>Interbay/Ballard</b>	<b>Preferred Tunnel 14th Avenue*</b>	<b>IBB-2a*</b>	<b>Interbay (Retained cut), Ballard (Tunnel)</b>	<b>Connects to SIB-1 and SIB-3.</b>
<b>Ballard</b>	<b>Interbay/Ballard</b>	<b>Preferred Tunnel 15th Avenue Station Option*</b>	<b>IBB-2b*</b>	<b>Interbay (Retained cut), Ballard (Tunnel)</b>	<b>Connects to SIB-1 and SIB-3.</b>
Ballard	Interbay/Ballard	Elevated 15th Avenue	IBB-3	Interbay (Elevated), Ballard (Elevated)	Connects to SIB-2.

\* As described in the introduction to Chapter 2, Alternatives Considered, of the Draft Environmental Impact Statement, at the time the Sound Transit Board identified alternatives for study in the Draft Environmental Impact Statement some alternatives were anticipated to require third-party funding based on early cost estimates. The asterisk identifies these alternatives and the alternatives that would only connect to these alternatives in adjacent segments.

<sup>a</sup> The 4th Avenue Shallow Alternative (Alternative CID-1a\*) would require the existing Stadium Station to be rebuilt to the west of its current location due to the tunnel portal, although the Ballard Link Extension would not connect to Stadium Station.



## **2 INTRODUCTION TO RESOURCE, METHODOLOGY, AND REGULATORY REQUIREMENTS**

### **2.1 Introduction to Visual and Aesthetic Resources**

Visual and aesthetic resources are the landscape's natural and cultural features that can be seen and contribute to the public's appreciation and enjoyment of their surroundings. These resources include 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. For this technical report, impacts to visual and aesthetic resources are defined in terms of the extent to which the WSBLE Project alternatives would change the visual character and visual quality of the resources.

### **2.2 Methodology**

Sound Transit used a methodology specifically designed to analyze the visual impacts of linear rail projects in an urban setting. Sound Transit's methodology draws upon established Federal Highway Administration guidelines (Federal Highway Administration 1988) with several key differences, such as the identification of viewer sensitivity, and the use of a qualitative rather than quantitative scale. The Guidelines for the Visual Impact Assessment for Highway Projects (Federal Highway Administration 2015) were also consulted. The Sound Transit's methodology was applied by professionally credentialed landscape architects. For linear projects such as the WSBLE, it is important to select locations that can serve as representatives of areas found along routes of a proposed project from which the project would be seen. These locations are called key observation points (KOPs) and are used to depict current views toward a proposed project and how the views would change with the project. The KOPs that are used in this technical report represent a variety of types of view locations and a variety of locations that would be seen by different types of viewers. The locations were selected with input from the City of Seattle to represent the proposed project in areas where there is a potential for visual impacts. The locations selected were those where it was possible to gain access to the observation point with an unobstructed view of the proposed project.

The impact assessment conducted in this technical report focuses on changes to the landscape that would be seen by sensitive viewers. 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. People who are less familiar with a landscape, are engaged in activities that may require their attention (such as workers) or are viewing it for short periods of time (such as motorists) are not considered to have high viewer sensitivity. In this assessment, people who have high sensitivity to changes in the viewed environment are called sensitive viewers. Recreational trail users, including bicyclists, were identified as sensitive viewers, but not pedestrians or bicyclists that are using a sidewalk or trail for transportation purposes.

The Federal Highway Administration methodology evaluates changes to the visual character of a view that would be seen by sensitive viewers as well as changes to visual quality. Visual character is a non-evaluative description of a viewed landscape. Visual character can describe a landscape in terms that many people understand. For example, a neighborhood in a new

subdivision might be said to have a suburban, residential visual character. Most people would have an image of what the neighborhood looks like. Other examples of visual character types include industrial, rocky shoreline, and high school campus. These descriptions do not assign “value” or “degree of beauty,” they just describe the appearance of an area. Where conflicts in visual settings can occur is when an object of one visual character type (like a factory with an industrial character) is placed in or next to another visual character type (like a high school campus) and visual incompatibility results.

Visual quality does assign “value” or “degree of attractiveness” to a viewed landscape so that changes from a proposed project can be determined. The Federal Highway Administration methodology uses a quantitative approach to determine visual quality. It starts with a description of views of a landscape and seeks to understand: 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 three components: vividness, intactness, and unity. The three components that together determine visual quality are described below.

- 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.

The three components of visual quality are rated numerically and are considered together to determine overall visual quality. The Federal Highway Administration methodology uses a seven-point scale to rate each of the three components and then divides the totals by three to come up with an overall visual quality rating that can be anywhere from 1 (very low) to 7 (very high). The fairly complex seven-point Federal Highway Administration scale was simplified for this analysis to three general levels of visual quality: low, average, and high. The descriptions of the three simplified 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 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 vividness (distinctiveness, memorability, and drama), intactness (the elements in the views “fit” with their natural and human-built surroundings), and unity (compositional harmony) to place them in the high visual quality category. This is generally the most frequent category. In this analysis, a view with high average visual quality would have vividness, intactness, and unity characteristics that are slightly higher than average but not high enough to qualify as high. Likewise, a view with low average would have slightly lower than average vividness, unity, and intactness characteristics, but not enough to be considered to have low visual quality.

- 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.

Because the vast majority of the visual quality of the study area is average, the average category was further refined to high average, average, and low average. This refinement assisted in describing changes to visual quality from alternatives in situations where the existing average visual quality of a view from a KOP might be lowered but still remain in the “average” category. By using high average, average, and low average, a better description of the influence of a Build Alternative on visual quality could be made. For example, if a Build Alternative lowered the existing high average visual quality of a view from a KOP to low average, that information would be important to know, rather than simply stating the average visual quality of the view from a KOP would remain average with that Build Alternative.

The study area for visual and aesthetic resources is the portion of the viewshed of the Build Alternatives that would be clearly seen by sensitive viewers. A viewshed is the geographical area from which an object is visible and can include all surrounding points that are in line-of-sight with that object and excludes points that are beyond the horizon or obstructed by terrain and other features (such as buildings and trees). In many locations along the alignments of the alternatives, sensitive viewers’ views of WSBLE Project components such as guideways, stations, trains, hi-rail vehicle access required for maintenance, and vent shafts for tunnels would be partially or completely blocked by vegetation, terrain, and buildings. In densely developed areas, the alternatives’ viewshed is frequently between approximately 100 feet and 500 feet on either side of the alignment.

This 100-foot to 500-foot distance is considered the study area for this assessment. In areas where above-grade WSBLE Project components would be higher than nearby buildings and vegetation, the components could be visible beyond 500 feet. Given the developed urban nature of the areas through which the Build Alternatives would pass and the many features (such as buildings of varying sizes, streets, bridges, and trees) that are already viewed in these areas, being able to see WSBLE Project components beyond approximately 500 feet would generally not alter the visual character or visual quality of views. Where Build Alternatives would cross waterbodies, their bridges would be clearly seen beyond 500 feet. In these situations, the study area is extended out to approximately 0.5 mile on either side of the alternative.

This assessment considered changes to the viewed environment that would be seen by areas with concentrations of sensitive viewers within the study area at the distances described above (between approximately 100 feet and 500 feet from the alignments on land and within approximately 0.5 mile from the alignments on water). The Federal Highway Administration methodology recognizes that the greater the number of people who would have their views altered by a proposed project, the greater the potential impact of a proposed project would be. By focusing on areas with concentrations of sensitive viewers, impacts associated with the various alternatives can be compared.

The following factors were used to assess how the Build Alternatives would affect visual and aesthetic resources:

- Changes to visual character near areas with concentrations of sensitive viewers (this is a qualitative description).
- Changes to the visual quality of views towards the alternative near areas with concentrations of sensitive viewers. If the visual quality category would be lowered one

category or more (high to average or average to low), the change was considered an impact.

- Potential blockage of or intrusion on existing views from scenic routes and public places identified in Seattle Municipal Code Ordinance 25.05.675.P, Public View Protection. Areas where alternatives would interrupt or block views were qualitatively described.

Of the factors identified above, the primary factor used to assess potential impacts from the alternatives was change to the visual quality of views towards the Build Alternatives that would be seen from areas with concentrations of sensitive viewers. Attachment N.2A, Key Observation Point Analysis, contains reduced-scale existing condition photographs of views from each KOP toward various alternative alignments; reduced-scale conceptual simulations (based on the degree of detail available at the time the simulation was produced) of the view with the various Build Alternatives in place; and detailed evaluations that describe if, how, and why the various alternatives that were simulated for each KOP would change the existing visual quality of the views. The findings in Attachment N.2A were then extrapolated to assist in assessing impact levels to areas that were similar to the areas represented by the KOPs.

### 2.3 Regulatory Requirements

The WSBLE would be within the Seattle city limits. The Seattle Municipal Code contains several policies and regulations of relevance to visual and aesthetic resources. One of the codes of most relevance in terms of assessing potential impacts to visual and aesthetic resources is Seattle Municipal Code Ordinance Section 25.05.675. Several Section 25.05.675 policies are of relevance to the WSBLE, including the following:

- Policy P, Public View Protection – This policy contains directives that guide the protection of public views of “significant natural and human-made features” seen from specific public places such as viewpoints, parks, scenic routes, and view corridors that are identified in Policy P. The features in Policy P that are of potential relevance to this technical report are the Olympic Mountains, the Cascade Mountains, Mount Rainier, Puget Sound, Elliott Bay, Salmon Bay, Lake Washington, the Lake Washington Ship Canal, and views of the downtown skyline. Attachment 1 to Policy P is a list of public places consisting of the specified viewpoints, parks, scenic routes, and view corridors which contain relevant views of the Olympic Mountains, the Cascade Mountains, Mount Rainier, Puget Sound, Elliott Bay, Salmon Bay, Lake Washington, the Lake Washington Ship Canal, and views of the downtown skyline. Attachment 1 also includes two exhibits, Exhibit 1 – SEPA Scenic Routes Map North Seattle and Exhibit 2 – SEPA Scenic Routes Map South Seattle. The two exhibits identify scenic routes described as “Seattle Engineering Department, Traffic Division map and designated by Ordinance 97025” and “Scenic routes identified as protected view rights of way in the Seattle Mayor’s April 1987 Open Space Policies Recommendation.” The routes shown on these exhibits are collectively described in the figures and text of this technical report as City of Seattle Designated Scenic Routes and are shown in Figures 3-1 to 3-5 in Chapter 3, Affected Environment.

Policy P also strives to protect public views of historic landmarks designated by the Landmarks Preservation Board that, because of their prominence of location or contrasts of siting, age, or scale, are easily identifiable visual features of their neighborhood or the city and contribute to the distinctive quality or identity of their neighborhood or the city.

- Policy K, Light and Glare – This policy states that “Development projects sometimes include lighting and/or reflective surface materials which can impact motorists, pedestrians, and the surrounding area.” Potential impacts from light and glare are discussed in this technical report, as are mitigation measures. Policy K of Section 25.05.675 is subject to the overview policy set forth in Section 25.05.665.
- Policy Q, Shadows on Open Spaces – The policy describes areas outside of Downtown Seattle where it is desirable to minimize or prevent “light blockage and the creation of shadows on open spaces most used by the public.” These areas include public parks, public schoolyards, private schools that allow the public use of schoolyards during non-school hours, and publicly owned street ends in shoreline areas. Potential impacts from shadows on open spaces are discussed in this technical report. Policy Q of Section 25.05.675 is subject to the overview policy set forth in Section 25.05.665.
- Policy G, Height, Bulk and Scale – This policy states that it is City of Seattle policy that the “height, bulk, and scale of development projects should be reasonably compatible with the general character of development anticipated by the goals and policies set forth in the Land Use Element, Growth Strategy Element, and Shoreline Element of the Seattle Comprehensive Plan.” There are places where the height of the stations would be higher than what is allowed under City zoning. The existing visual character of areas along the alternative alignments and near proposed stations is very generally described in this technical report, as are potential changes to visual character from the Build Alternatives. Policy G of Section 25.05.675 is subject to the overview policy set forth in Section 25.05.665.

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## 3 AFFECTED ENVIRONMENT

### 3.1 West Seattle Link Extension

Although the West Seattle Link Extension would pass through four segments (SODO, Duwamish, Delridge, and West Seattle Junction), this section does not include the SODO Segment and the Duwamish Segment east of Harbor Island. It focuses on segments and portions of segments that contain areas with concentrations of sensitive viewers who would potentially be concerned with changes to the visual and aesthetic settings from the project. The SODO Segment and eastern part of the Duwamish Segment do not meet that criteria. Figures 3-1 through 3-3 show the locations of areas with concentrations of sensitive viewers as well as KOPs and the view directions of the KOPs that were used to depict existing views toward the alternative alignments. Attachment N.2A includes existing condition photographs from all of the KOPs in these segments and describes the existing views from each KOP and how the visual quality categories of the views were determined. See Chapter 2, Alternatives Considered, and Appendix J, Conceptual Design Drawings, for more information on the above-ground elements that would be potentially seen by sensitive viewers.

#### 3.1.1 SODO Segment

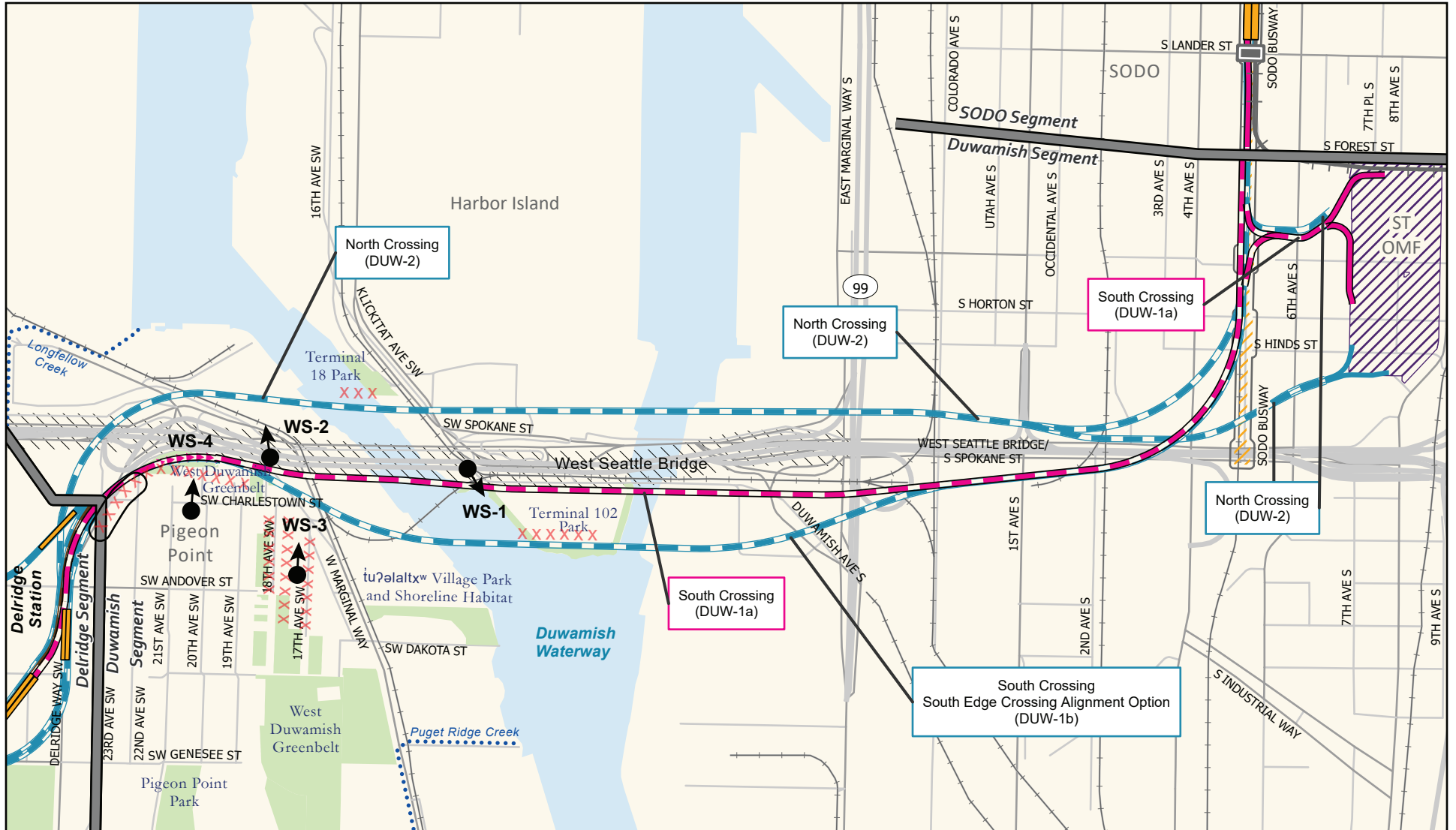
The description of the affected environment focuses on areas that contain concentrations of sensitive viewers. Although there may be isolated sensitive viewers within the SODO Segment, the segment does not contain areas with concentrations of sensitive viewers and therefore is not addressed in this section.

#### 3.1.2 Duwamish Segment

The eastern part of the Duwamish Segment does not contain areas with concentrations of sensitive viewers. The portion of the Duwamish Segment where there are concentrations of sensitive viewers, which was evaluated for this technical report, begins at Harbor Island, heads west over the Duwamish Waterway (also known as the Duwamish River), proceeds up and over the top of Pigeon Point, and slopes down to 23rd Avenue Southwest (the boundary of the Duwamish and Delridge segments). The Duwamish Waterway is near three areas with concentrations of sensitive viewers (recreationists) that would be near West Seattle Link Extension alternatives: Terminal 18 Park, which is north of the West Seattle Bridge; Harbor Marina Corporate Center at Terminal 102 (a thin strip of land with some vegetation along three sides of the south end of Harbor Island along the shoreline between an office park and parking lots); and Village Park and Shoreline Habitat, which is south of the West Seattle Bridge. The West Seattle Bridge, which passes above this area, is a very strong visual presence. The visual quality of views up and down the Duwamish Waterway from these two recreational areas is low to low average.

Two streets (17th Avenue Southwest and 18th Avenue Southwest) containing single-family residences within the Riverside community are situated at the bottom of the Pigeon Ridge slope, which also contains the West Duwamish Greenbelt. This pocket of residences in an otherwise industrial area has a residential character, and the adjacent greenbelt has a natural character. The visual quality of views from the residences to the north toward the West Seattle Bridge is generally low.

The Duwamish Segment continues west upslope to the top of Pigeon Point and a residential area known as the Pigeon Point community. Southwest Charleston Street, 19th Street Southwest, 20th Street Southwest, and 21st Street Southwest pass along the top of Pigeon Point.



Source: City of Seattle, King County (2019, 2020), 2021.

**Alternatives**

- Preferred Alternative
- Preferred Alternative with Third-party Funding
- Other Alternatives

**Alternative Profile**

- Elevated
- At-Grade
- Tunnel
- Retained Cut

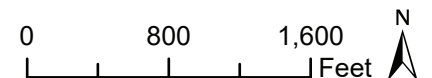
**Station**

- New

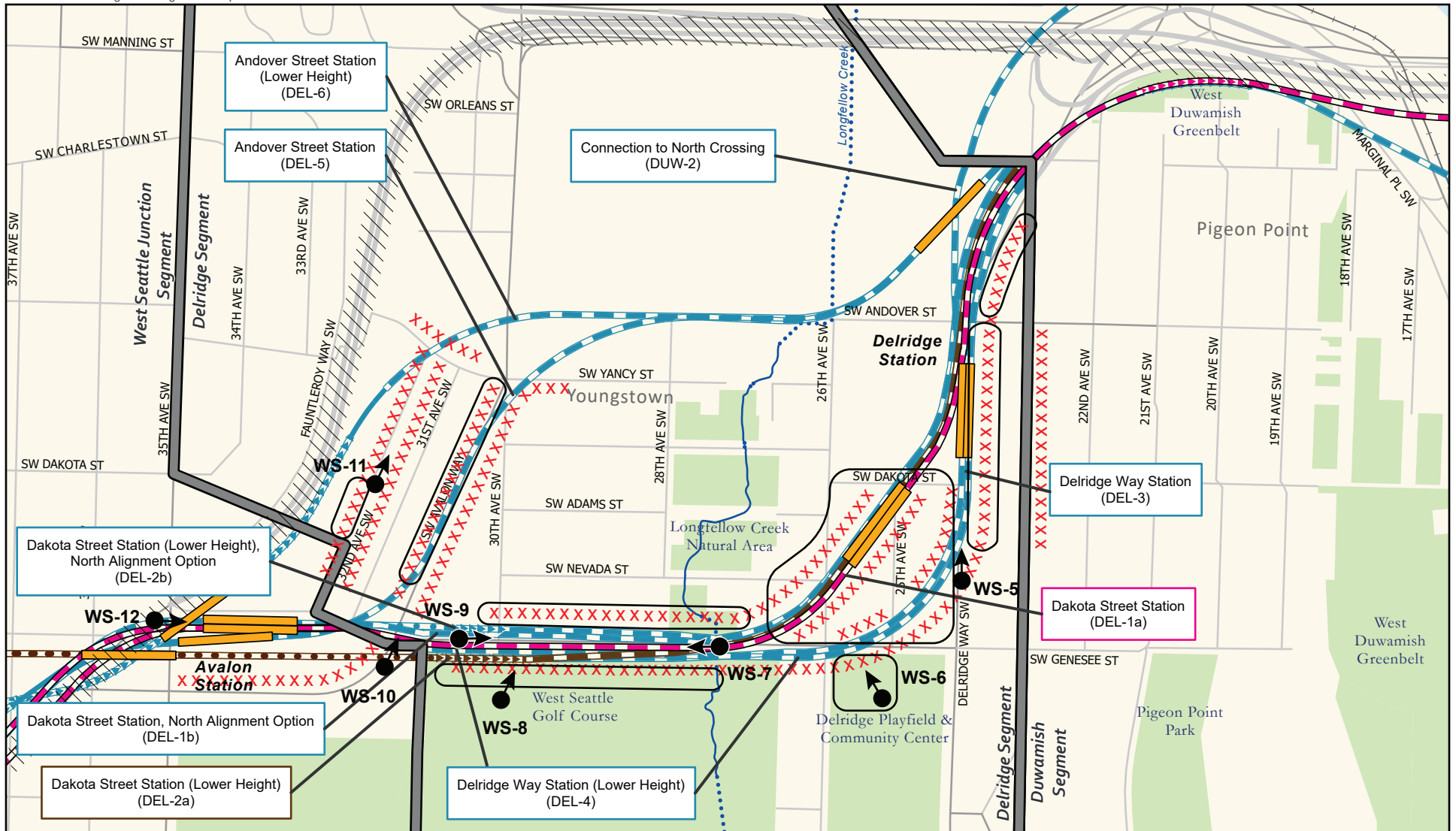
- Segment Line
- + Existing Link Light Rail
- Railroad
- | SODO Busway
- Proposed Overpass
- Sound Transit Operations and Maintenance Facility (ST OMF)
- ..... Piped Stream
- Park

- Key Observation Point (KOP) and View Direction
- City of Seattle Designated Scenic Route
- Location of impact to visual quality with one or more alternatives near areas with concentrations of sensitive viewers
- XXXXX Approximate Areas with Concentration of Sensitive Viewers

**FIGURE 3-1**  
**Visual Setting and Impacts**  
 West Seattle Link Extension -  
 Duwamish Segment  
*West Seattle and*  
*Ballard Link Extensions*





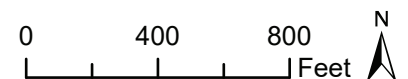


Source: City of Seattle, King County (2019, 2020, 2021).

- |  |              |  |
|--|--------------|--|
| <b>Alternatives</b>                            | Segment Line | Key Observation Point (KOP) and View Direction   |
| Preferred Alternative                          | Railroad     | City of Seattle Designated Scenic Route  |
| Preferred Alternative with Third-party Funding | Stream       | Location of impact to visual quality with one or more alternatives near areas with concentrations of sensitive viewers |
| Other Alternatives                             | Piped Stream | Approximate Areas with Concentration of Sensitive Viewers  |
| <b>Alternative Profile</b>                     | Park         |  |
| Elevated                                       | Tunnel       |  |
| At-Grade                                       | Retained Cut |  |
| <b>Station</b>                                 |              |  |
| New  |              |  |

**FIGURE 3-2**  
**Visual Setting and Impacts**  
 West Seattle Link Extension -  
 Delridge Segment

*West Seattle and  
 Ballard Link Extensions*



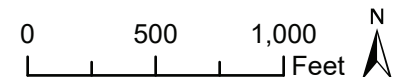


Source: City of Seattle, King County (2019, 2020, 2021).

- Alternatives**
- Preferred Alternative
  - Preferred Alternative with Third-party Funding
  - Other Alternatives
- Alternative Profile**
- Elevated
  - Tunnel
  - At-Grade
  - Retained Cut
- Station**
- New
- Segment Line
  - Stream
  - ⋯ Piped Stream
  - Park
  - Key Observation Point (KOP) and View Direction
  - City of Seattle Designated Scenic Route
  - Location of impact to visual quality with one or more alternatives near areas with concentrations of sensitive viewers
  - XXXXX Approximate Areas with Concentration of Sensitive Viewers

**FIGURE 3-3**  
**Visual Setting and Impacts**  
 West Seattle Link Extension -  
 West Seattle Junction Segment

*West Seattle and  
 Ballard Link Extensions*



The West Duwamish Greenbelt serves as a backdrop to this residential area, and trees within it block views of the industrial and commercial areas that lie to the north. This area has a residential character and the existing visual quality of views to the north and northwest from residences in these areas is generally high.

As the segment continues west, it travels downslope and includes additional streets in the Pigeon Point community (21st Avenue Southwest, 22nd Avenue Southwest, and 23rd Avenue Southwest) with residences. Both 21st Avenue Southwest and 22nd Avenue Southwest dead-end against the edge of the West Duwamish Greenbelt, and 23rd Avenue Southwest connects with Delridge Way Southwest. Trees in the West Duwamish Greenbelt, along streets, and within yards block views to the north and west from many of the residences on these streets of the Delridge Way Southwest-West Seattle Bridge on-ramp, the West Seattle Bridge, and industrial-commercial areas beyond them. These residential streets have a residential character and due to nearby vegetative screening, the visual quality of views from the residences generally average.

East Marginal Way and the West Seattle Bridge are City of Seattle Designated Scenic Routes. There are no relevant City of Seattle protected views in this segment along East Marginal Way, which primarily offers views of industrial lands and Port Terminal activities, including docks and piers that are not considered to be protected views. The bridge offers views of the Olympic Mountains, the Cascade Mountains, Mount Rainier, Puget Sound, Elliott Bay, and the downtown skyline. The views from the portion of the West Seattle Bridge at Longfellow Creek offers views of the downtown skyline, the Cascade Mountains, and partial views of Elliott Bay.

#### 3.1.3 Delridge Segment

This segment includes alternatives that would pass through several areas within the overall Delridge Segment area. Several alternatives would begin near the northwest corner of Pigeon Point. Part of the segment continues south along Delridge Way Southwest, and the other part heads west along Southwest Andover Street past the Nucor Steel Complex. The residential area on the slope east of Delridge Way Southwest has an established residential visual character (with many mature trees that block views to the west). The visual quality of views to the west are average to high. The area west of this part of Delridge Way Southwest (south to Southwest Dakota Street) contains commercial buildings (mostly office) and large parking areas. It has a commercial character, low to average visual quality, and no areas with concentrations of sensitive viewers.

The neighborhood south of Southwest Dakota Street, east of Delridge Way Southwest, north of Southwest Genesee Street, and east of the Longfellow Creek Natural Area is composed of several blocks. This area is residential in visual character, contains sensitive residential viewers, and generally has average visual quality. The area south of Southwest Genesee Street contains the Delridge Playfield and Community Center as well as the West Seattle Golf Course, with residences between them along the west side of 26th Avenue Southwest. Delridge Playfield has high visual quality. The heavily vegetated Longfellow Creek Natural Area passes from north to south through the center (and low elevation point) of the Delridge Segment and is an important visual feature. An entrance to the trail that follows the Longfellow Creek Natural Area (the Longfellow Creek Legacy Trail) is on the north side of Southwest Genesee Street and is used by recreationists (sensitive viewers) accessing the trail. These greenspaces, along with the mature trees that line edge of Southwest Genesee Street, greatly influence the appearance of this part of the segment and create an open-space, park-like visual character. The portion of the Delridge Segment north of Southwest Genesee Street passes by residences east of the Longfellow Creek Natural and continues west uphill next to additional residences to the

segment's end. The residential area north of Southwest Genesee Street has a residential visual character along with views of high average visual quality.

The West Seattle Golf Course has a recreational visual character and contains visually distinctive elements associated with golf courses, such as fairways, greens, sand traps, and paths. It supports many mature trees, including trees that line much of the north side of the golf course along the edge of Southwest Genesee Street. These trees form the northern backdrop of the golf course and tend to screen views of the residences to the north. Some openings in the line of trees, however, allow views of the downtown skyline. People at the West Seattle Golf Course are sensitive viewers, and the visual quality of views to the north they see are generally high.

The northern part of the Delridge Segment continues west along Southwest Andover Street past industrial and commercial areas before slowly curving to the southwest, reconnecting with Southwest Andover Street, and entering the residential neighborhood between Southwest Andover Street and the West Seattle Bridge. Multi-family residential buildings line this part of Southwest Andover Street, while there are single-family residences along the streets (32nd Avenue Southwest and Southwest Yancy Street) to the west. This area has a residential visual character, sensitive residential viewers, and views of generally average visual quality.

The on-ramps to the West Seattle Bridge are a City of Seattle Designated Scenic Route, although views to the east from this portion of the scenic route are blocked by adjacent trees to the east side (which block views of it from adjacent residences facing 32nd Avenue Southwest).

The City of Seattle protected views (other than scenic routes) in this segment are the West Seattle Golf Course and the West Seattle Rotary Viewpoint; however, the views from the West Seattle Rotary Viewpoint to the West Seattle Bridge on-ramps are blocked by adjacent trees and residential buildings. The West Seattle Golf Course was selected as a KOP.

#### **3.1.4 West Seattle Junction Segment**

The eastern boundary of the West Seattle Junction Segment begins at the segment boundary and heads west across Southwest Avalon Way and Southwest Genesee Street to Fauntleroy Way Southwest. It then generally follows Fauntleroy Way Southwest to the Alaska Junction area. There are four distinct subsections in this segment.

The first subsection consists of the residential neighborhood between Southwest Avalon Way on the east and Fauntleroy Way Southwest on the west. Multi-family buildings line both sides of Southwest Avalon Way. Single-family residences are found along Southwest Genesee Street and 32nd Avenue Southwest. This neighborhood is somewhat elevated, and some of the multi-family residential buildings have views of the West Seattle Golf Course and nearby areas. The visual character of this area is residential, and the visual quality of views are generally average. There are sensitive residential viewers throughout this subarea.

The second subsection follows the Fauntleroy Way Southwest corridor as it travels southwest and uphill from its intersection with Southwest Avalon Way to the Alaska Junction area. This part of Fauntleroy Way Southwest angles through the generally north-south/east-west street grid pattern of West Seattle. Land uses along this part of Fauntleroy Way Southwest are largely commercial and oriented to the street and/or have parking areas that provide easy street access to customers. The character of this part of the corridor is commercial, and the visual quality is average to low. Sensitive viewers along this portion of Fauntleroy Way Southwest are people using the Fauntleroy Place (a triangle between three streets, including Fauntleroy Way Southwest). Areas to the northwest and uphill from the commercial part of Fauntleroy Way

Southwest are residential in use and character and contain concentrations of sensitive residential viewers. The area between 36th Avenue Southwest and 42nd Avenue Southwest is primarily composed of single-family residences. Streets in this area are lined with trees, and many of the residences' yards contain additional trees that block views of Fauntleroy Way Southwest. The area has a strong single-family residential character, and the visual quality of this area is generally average. The western part of this subsection north of Southwest Alaska Street contains mixed use, with some multi-family residential buildings. This area has a more urban character, contains many sensitive residential viewers, and has views that are generally of average visual quality.

The third subsection, which encompasses the blocks west and south of the Fauntleroy Way Southwest and Southwest Alaska Street intersection and north of Southwest Edmonds Street, has a very urban visual character. The blocks in this area have a generally pleasant appearance similar to many redeveloping areas in Seattle. The visual quality of views from residences in this area are generally average. Sensitive viewers are composed primarily of residents who view the surrounding area from multi-family buildings, ranging from one to approximately six stories in height.

The last subsection is the residential area south of Southwest Edmonds Street. This area is primarily single-family residential in use and visual character, although multi-family buildings line the east side of California Avenue Southwest. Sensitive residential views are found throughout this area, and the visual quality of views in this area is generally average.

Three City of Seattle Designated Scenic Routes are within the West Seattle Junction Segment: the southwestern portion of the West Seattle Bridge, a portion of Fauntleroy Way Southwest from the off-/on-ramps, and along 35th Avenue Southwest parallel to the West Seattle Golf Course. Key features that can be seen from Fauntleroy Way Southwest are limited because of views are blocked by terrain, vegetation, and buildings. Depending upon location along the southern end of 35th Avenue Southwest, there are views of the Cascade Mountains, and the downtown skyline. Other than the City of Seattle Designated Scenic Routes, there are no relevant City of Seattle protected views in this segment.

## 3.2 Ballard Link Extension

The visual and aesthetics study area distances for the Ballard Link Extension are the same as those described for the West Seattle Link Extension. This section does not include the SODO Segment because it does not have concentrations of sensitive viewers. The Chinatown-International District and Downtown segments do have areas with concentrations of sensitive viewers, but other than stations and other facilities such as tunnel vents, the segments would not have above-ground components. Therefore, these segments are discussed below but do not include KOPs. The South Interbay and Interbay/Ballard segments would have above-ground components and contain nearby concentrations of sensitive viewers. KOPs were assigned to these segments to depict existing conditions and alternatives that would pass through them. Figures 3-4 and 3-5 show the locations and view directions of the KOPs that were used to depict existing views toward alternatives in the South Interbay and Interbay/Ballard segments, respectively. Attachment N.2A includes existing condition photographs from all of the KOPs in these two segments, provides descriptions of the existing views from the KOPs, and explains how visual quality categories were determined. See Chapter 2, Alternatives Considered, and Appendix J, Conceptual Design Drawings, for more information on the above-ground elements that would be potentially seen by sensitive viewers.

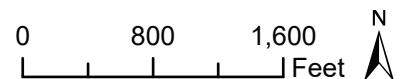


Source: City of Seattle, King County (2019, 2020, 2021).

- Alternatives**
- Preferred Alternative
  - Preferred Alternative with Third-party Funding
  - Other Alternatives
- Alternative Profile**
- Elevated
  - Tunnel
  - At-Grade
  - Retained Cut
- Station**
- New
- Segment Line
  - Railroad
  - Park
  - City of Seattle Designated Scenic Route
  - Location of impact to visual quality with one or more alternatives near areas with concentrations of sensitive viewers
  - XXXXXX Approximate Areas with Concentration of Sensitive Viewers
  - Key Observation Point (KOP) and View Direction

**FIGURE 3-4**  
**Visual Setting and Impacts**  
**Ballard Link Extension -**  
**South Interbay Segment**

*West Seattle and*  
*Ballard Link Extensions*



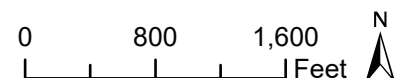


Source: City of Seattle, King County (2019, 2020, 2021).

- |  |              |   |
|--|--------------|---|
| <b>Alternatives</b>                            | Segment Line | Key Observation Point (KOP) and View Direction            |
| Preferred Alternative                          | Railroad     | City of Seattle Designated Scenic Route                   |
| Preferred Alternative with Third-party Funding | Stream       | Approximate Areas with Concentration of Sensitive Viewers |
| Other Alternatives                             | Park         |   |
| <b>Alternative Profile</b>                     |              |   |
| Elevated                                       | Tunnel       |   |
| At-Grade                                       | Retained Cut |   |
| <b>Station</b>                                 |              |   |
| New  |              |   |

**FIGURE 3-5**  
**Visual Setting and Impacts**  
**Ballard Link Extension -**  
**Interbay/Ballard Segment**

*West Seattle and*  
*Ballard Link Extensions*



### 3.2.1 Chinatown-International District Segment

The Chinatown-International District Segment has some areas with concentrations of sensitive viewers, including multi-family residential buildings and Hing Hay Park. The Build Alternatives being considered in this segment would be located in tunnels, and the only above-ground elements that would be potentially seen by sensitive viewers are the station entrances and other facilities such as tunnel vents. Multi-family residential buildings near the station entrances and other above-ground facilities are generally located in the area east of 5th Avenue South, but there are some multi-story residential buildings west of 5th Avenue South and north of South Jackson Street. People using Hing Hay Park are assumed to be recreationists and are considered sensitive viewers. The visual quality of views in this area ranges from average to low average.

### 3.2.2 Downtown Segment

The Downtown Segment has areas with concentrations of sensitive viewers, including multi-family residential buildings and several parks. The Build Alternatives being considered in this segment would be located in tunnels, and the only above-ground elements that would be potentially seen by sensitive viewers are the station entrances and other facilities such as tunnel vents. There are multi-family residential buildings near many of the station entrances in this segment, particularly Midtown, South Lake Union, and Seattle Center Stations. Parks near the station entrances include Freeway Park, Westlake Park, Urban Triangle Park, and Seattle Center. People using the parks are assumed to be recreationists and are considered sensitive viewers. The visual quality of views in this area ranges from average to low average.

### 3.2.3 South Interbay Segment

The southern part of the South Interbay Segment has several areas with concentrations of sensitive viewers, including multi-family residential areas, Kinnear Park, and the Southwest Queen Anne Greenbelt. Multi-family residential buildings are east of Elliott Avenue West on blocks north and south of West Mercer Street and West Mercer Place, along West Republican Street, and on streets east of Kinnear Park. The visual quality of views in this area ranges from low average to high average.

The lower portion of southwestern Kinnear Park within the South Interbay Segment is largely undeveloped, as is the Southwest Queen Anne Greenbelt to the immediate northwest. Both of these areas have a natural forested character. Several developed and user-created trails pass through the lower part of Kinnear Park, and a series of user-created trails pass through the greenbelt. People using the trails in the park and greenbelt are assumed to be recreationists and are considered sensitive viewers. Some residences on the top of the Queen Anne hillside might have views of the lower portions of the park and greenbelt, although heavy vegetation blocks most views. The visual quality of views within the lower portions of Kinnear Park and the Southwest Queen Anne Greenbelt range from low to average along the edges of these areas (that look at the backs of commercial buildings lining Elliott Avenue West and the Pier 86 grain terminal west of Elliott Avenue West) to high within the interiors of the two areas.

The Elliott Avenue West/15th Avenue West corridor is the primary route used to pass from south to north in this part of Interbay. There are few east-west connector streets along this corridor and no grid pattern exists. The West Galer Street Flyover and the Magnolia Bridge provide elevated east-west access over 15th Avenue West and the parallel BNSF Railway corridor. The land use in this area is primarily commercial and industrial, which reflects its visual character. The Seattle Armory is located between the BNSF Railway corridor on the west and



15th Avenue West on the east. This area has a commercial and industrial visual character and does not contain sensitive viewers.

The portion of the South Interbay Segment between 15th Avenue West and the BNSF Railway tracks north of the segment boundary includes the Interbay P-Patch Community Garden, the Interbay Golf Center, and the Interbay Athletic Complex. This large area of “green” has a recreational character, average visual quality, and a variety of sensitive viewers. Sensitive viewers within and near this segment include recreationists using recreational facilities, people living in multi-family residential complexes along and near 15th Avenue West, and residents on the lower hillsides of Queen Anne Hill and Magnolia, although many views toward Interbay from these elevated areas are partially or completely blocked by vegetation or buildings. The visual quality of views in these areas is generally average.

The portion of Elliott Avenue West from the southern boundary of the segment to the Magnolia Bridge is a City of Seattle Designated Scenic Route, as is the Magnolia Bridge. Views from this section of Elliott Avenue West (features such as the downtown skyline, Mount Rainier, Elliott Bay, Puget Sound, and the Olympic Mountains) are generally blocked by buildings, stationary trains on the BNSF tracks, and/or trees, whereas views from the Magnolia Bridge are open and include all of the features. A lookout point at the west end of the Magnolia Bridge provides views of many of these features, but trees block much of the view towards Interbay. The City of Seattle protected views (other than scenic routes) in this segment are Smith Cove Park, Kinnear Park, and the Interbay Golf Center. The Interbay Golf Center was selected as a KOP.

#### **3.2.4 Interbay/Ballard Segment**

The Interbay/Ballard Segment starts at the north end of the Interbay Golf Center and Athletic Complex and continues north to the Salmon Bay shoreline. The BNSF corridor passes along the west side of this part of the segment. West Emerson Street provides east-west access (via a bridge) through this area and connects 15th Avenue West and Queen Anne Hill with Magnolia. The street pattern in this area consists of a series of short blocks, angled streets, and dead-ends. Properties east of 15th Avenue West contain a mixture of land uses, including multi-story multi-family and single-family residential, small commercial, recreation (the South Lake Washington Ship Canal Trail), and commercial marine (north of the trail and along the shoreline of Salmon Bay). Land use west of 15th Avenue West is primarily commercial and includes Fishermen’s Terminal, which supports commercial marine uses, other commercial uses such as restaurants, and recreational boating (including a marina). The character of most of this area is commercial/industrial and visual quality is generally low, although the visual quality of the core of the Fishermen’s Terminal complex is average, as is the residential area east of 15th Avenue West on the edge of the northwest corner of Queen Anne Hill. Areas with concentrations of sensitive viewers are found in the residential area along the northwest corner of Queen Anne Hill.

The segment continues over Salmon Bay. The Ballard Bridge connects Interbay to Ballard as it passes over Salmon Bay and is one of many structures found in and along the waters of Salmon Bay. The southern and northern shorelines of Salmon Bay are lined with maritime commercial, educational (the Seattle Maritime Academy), and recreational (docks and boat ramps) improvements. Many of the shoreline properties contain elements that extend into the waters of the Salmon Bay, such as piers, repair bays, floating docks, dry docks, and moored ships. Upland areas include buildings and expansive paved storage areas. To the west of the Ballard Bridge is the extensive Fishermen’s Terminal marina complex, which contains docks and storage areas to support commercial and recreational vessels. This facility takes up much of Salmon Bay. The character of this segment subsection is working waterfront and open water,

and the visual quality of views in this area ranges from average to high. The waters of Salmon Bay contain water-based recreationists, who are considered sensitive viewers.

The area from Shilshole Avenue Northwest north to Northwest Market Street is commercial and industrial in use and character. Visual quality is low. Buildings are primarily large, one- or two-story commercial structures, some of which have paved parking or storage areas with little landscaping on the properties. This part of 15th Avenue Northwest has more street trees than does 14th Avenue Northwest. The most memorable components of 14th Avenue Northwest are the series of unpaved and somewhat landscaped medians in the street. The areas in the street next to the medians are used for parking. From Northwest Market Street north, both 14th and 15th Avenues Northwest support a mixture of residential types ranging from multi-family multi-story complexes to single-family residences. These areas have a primarily residential character and generally average visual quality.

There are several City of Seattle Designated Scenic Routes within the Interbay/Ballard Segment. At the north end of Interbay, 15th Avenue West and West Emerson Street are City of Seattle Designated Scenic Routes. The designation of 15th Avenue West continues over the Ballard Bridge as 15th Avenue West becomes 15th Avenue Northwest. It continues north to Northwest Market Street, which is also a City of Seattle Designated Scenic Route. Features visible from parts of these routes include the Lake Washington Ship Canal, Salmon Bay, Mount Rainier, and the Olympic and Cascade mountains.

A City of Seattle protected view (other than scenic routes) in this segment is Ballard High School. The southeastern end of the Ballard Avenue Landmark District is located west of this alternative and west of the Ballard Bridge (which blocks views towards the district from areas east of the bridge). As described in Section 2.3, Regulatory Requirements, one of the objectives of Policy P, Public View Protection, of Seattle Municipal Code Section 25.05.675 is to protect public views of historic landmarks designated by the Landmarks Preservation Board such as Ballard Avenue Landmark District. Visual effects to historic resources are discussed in Appendix N.5, Historic and Archaeological Resources.

## **4 ENVIRONMENTAL IMPACTS**

### **4.1 West Seattle Link Extension**

The West Seattle Link Extension Build Alternatives evaluated in this section are shown in Figures 3-1 through 3-3. Chapter 2, Alternatives Considered, and Appendix J, Conceptual Plans, provide more information on above-ground components of the project. Attachment N.2A includes existing conditions photographs from all of the KOPs in the West Seattle Link Extension area, reduced-scale simulations of alternatives developed for the KOPs, and detailed descriptions of if, how, and to what degree the alternatives would change the visual quality of views from the KOPs.

#### **4.1.1 No Build Alternative**

With the No Build Alternative, the existing visual and aesthetic conditions found throughout the segments described in the affected environment would generally be maintained, subject to changes related to planned development. With the No Build Alternative, light rail stations would not be built in the Delridge, Avalon, and Alaska Junction areas. Development would continue to occur in accordance with zoning and would evolve into denser multi-family development in the Delridge area, along Avalon Way, with more mixed use in the Alaska Junction area. It is likely that density in the West Seattle Junction area would continue to increase and that some of the less developed parcels of land used for the alternatives would be redeveloped and contribute to the increasingly urban character of this area.

#### **4.1.2 Build Alternatives**

##### **4.1.2.1 Impacts Common to All Build Alternatives**

All of the West Seattle Link Extension Build Alternatives would change the visual environments to varying degrees. Figures 3-1 through 3-3 depict the West Seattle Link Extension alternative alignments and proposed profile (at-grade, elevated, trench, or tunnel). The construction and operation of the Build Alternatives would require the removal of 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 cut-and-cover construction where the alternative would pass beneath them in a trench that would be covered after construction. Tunnel alignments would not be visible after construction, with the exception of station entrances and vent/egress shafts. Table 4-1 identifies the main components of the West Seattle Link Extension alternatives and describes their visual characteristics. As detailed in Section 5.2, Sound Transit Design Measures, Sound Transit has developed design measures that would also be incorporated into the Build Alternatives.

**Table 4-1. Visual Characteristics of WSBLE Project Components**

Project Component	Visual Characteristics and Notes
Elevated Guideways or Structures (guideway columns, straddle bents) <sup>a</sup>	These are often the most visible project elements. The bottom parts of elevated guideways and hi-rail access would range between approximately 20 feet and 170 feet in height with the West Seattle Link Extension and between about 30 feet and 80 feet above grade with the Ballard Link Extension. Noise barriers near sensitive receivers could add several additional feet to the height of the elevated guideways. Elevated hi-rail access ramps would be required to reach and maintain elevated guideways. In some locations, elevated guideways (and their associated overhead catenary system) could intrude on views of features such the Cascade and Olympic Mountains, Mount Rainier, Elliott Bay, Puget Sound, Salmon Bay, the Lake Washington Ship Canal, and the downtown skyline, although they might not block these views altogether. Elevated stations (and guideways to a lesser extent) could create shadows that could have impacts. However, stations and associated structures such as elevators, escalators, and walkways as well as underground stations egress/vent structures would be designed to be attractive architectural elements or features and would add visual interest to the nearby area.
Bridges	Bridges that cross waterways would be the most visible structures as seen from a distance associated with the WSBLE Project (see Figure 4-1). Several alternatives would build bridges over the Duwamish Waterway and Salmon Bay. High-level fixed bridge structure types could include balanced cantilever segmental box girder, extradosed, cable-stayed, arch (only for the bridge over Salmon Bay), or steel truss superstructures (only for the bridge over the Duwamish Waterway). The moveable bridge over Salmon Bay could include a vertical lift or double-leaf bascule bridge, both with a balanced cantilever segmental box girder for the fixed portion of the bridge. The bridge structure types would be determined based on various factors including engineering constraints, environmental effects, and coordination with other agencies on permitting requirements.
Stations	Depending on size, bulk, and whether they would be elevated, retained cut, or at-grade, stations could block or intrude on views of features such the Cascade and Olympic Mountains, Mount Rainier, Elliott Bay, Puget Sound, and the downtown skyline; cast shadows; or add built elements to the landscape. Elevated stations would be more visible than stations in retained cuts or tunnels and would contain features such as escalators, elevators, and stairs. The only at-grade station would be in SODO, where there are no sensitive viewers.
Overhead Catenary System	The overhead catenary system can be a very visible component from close viewing distances. Overhead catenary system elements (wires and poles) become less visible as viewing distances increase. The structures could intrude on views but would not block views because of their thin, cable-like profile and appearance.
Lighting and Glare Associated with Stations	Project-related lighting at stations could create light impacts, increase the level of ambient light nearby, and increase skyglow, which can impact nighttime views of the stars. Design-related measures such as shielding and altering light direction in stations would be used where appropriate to reduce potential impacts. Glare impacts from the WSBLE Project Build Alternatives would be unlikely. “Glare” is defined by the online Merriam-Webster Dictionary as “a harsh uncomfortably bright light” (Merriam-Webster 2020); given this definition, potential reflection from stations might be seen under certain conditions and at certain times of the day, but would not be likely to produce harsh, uncomfortable bright light that would be a safety issue to vehicle drivers.
Lighting Associated with Trains	Lights from the interior of WSBLE Project light rail trains and train headlights would be seen at night in some locations as the light rail passes viewers, although some noise barriers on elevated structures near sensitive viewers would block views of interior train lights and/or train headlights, particularly when looking upward at trains traveling above viewers on elevated guideways. Briefly seeing light associated with passing light rail trains would not be expected to create visual disturbances, given the existing level of traffic on streets at night on most streets near the Build Alternatives. Some sensitive viewers living in residences that would be adjacent to elevated structures might find passing nighttime light rail visually disturbing.

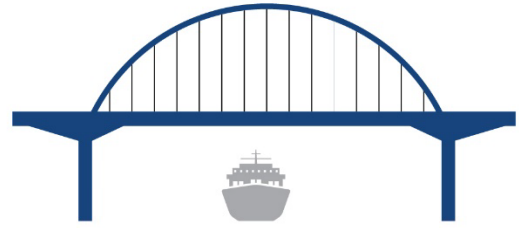
Project Component	Visual Characteristics and Notes
Building Removal	Removal of existing buildings can improve or detract from visual settings, depending on building condition, style, scale, and color. Areas where buildings would be removed would contain project elements and/or be revegetated to better 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 industrial areas below sensitive viewers that are currently blocked by vegetation. When possible, Sound Transit would preserve existing vegetation as practical, 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 could be installed near sensitive noise receivers. They are built of solid materials and placed adjacent to or attached to the light rail guideway (see Figure 4-2). When these measures are not effective, sound walls might be constructed along property lines, sometimes replacing existing fences. The proposed locations of sound walls are shown in Appendix N.3, Noise and Vibration Technical Report, and were considered in the visual impact analysis.
Retained Cut	Retained cut for light rail would only be visible from nearby areas. Fencing and/or walls along the top of the retained cut would be the most visible elements of this feature and would be appropriately designed to fit in with the adjacent properties.
Traction Power Substations	The traction power substations 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 where the facilities would be located.
Tunnel Egress and Vent Shaft Structure	The tunnel egress and vent shaft structure would provide access from tunnels to the surface and provide a way for the vent shaft to vent above the surface. The structure would be a building approximately 30 feet by 30 feet and 25 feet in height above-grade.

<sup>a</sup> Guideway columns are structures that hold up elevated guideways. Straddle bents are supports made of two guideway columns that support a beam on which the elevated guideway sits.

Figure 4-1. Bridge Structure Types Illustration



Balanced Cantilever Segmental Box Girder



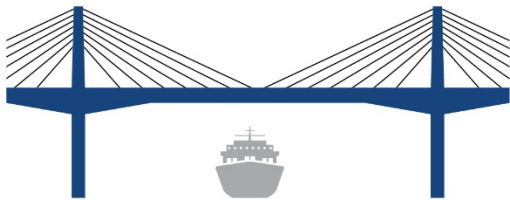
Arch



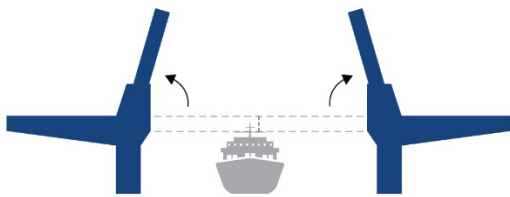
Extradosed



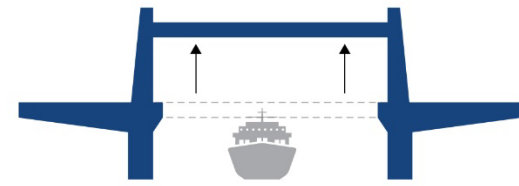
Truss



Cable Stayed



Double-Leaf Bascule



Vertical Lift

**Figure 4-2. Sound Wall on Elevated Guideway**



**4.1.2.2 Duwamish Segment**

Table 4-2 identifies locations within the Duwamish Segment where there would be visual impacts (a reduction of one or more visual quality categories) near areas with concentrations of sensitive viewers. These locations are identified in Figure 3-1. The following subsections describe how the alternatives would, or would not, impact the visual quality of views toward them from areas with concentrations of sensitive viewers. It then identifies alternative components that would be seen from City of Seattle Designated Scenic Routes and whether those components would intrude upon or block views of important visual resources identified by the City. The subsection concludes with a discussion about light and glare that would be associated with the alternatives as well as identifying where the alternatives would cast shadows on open spaces used by the public.

**Table 4-2. Duwamish Segment Visual Quality Impacts near Concentrations of Sensitive Viewers**

Alternative	Visual Impacts (miles) <sup>a</sup>	Where Visual Quality Impacts Would Occur
Preferred South Crossing (DUW-1a)	0.1	Residences along 21st Avenue Southwest, 22nd Avenue Southwest, and 23rd Avenue Southwest.
South Crossing South Edge Crossing Alignment Option (DUW-1b)	0.1	Residences along 21st Avenue Southwest, 22nd Avenue Southwest, and 23rd Avenues Southwest.
North Crossing (DUW-2)	0	None.

<sup>a</sup> Visual impacts occur when an existing visual quality category (high, average, low) is reduced one or more categories. Visual impacts are in miles along the length of the alternative or option adjacent to concentrations of sensitive viewers.

**South Crossing Alternative (DUW-1a)**

*Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Preferred Alternative DUW-1a would pass near several distinct areas with concentrations of sensitive viewers. This alternative would continue west and to the south side of the West Seattle

Bridge. Where Preferred Alternative DUW-1a would cross State Route 99, the alignment would be higher than the West Seattle Bridge and would gradually increase in height as it travels west because light rail cannot travel on grades as steep as automobiles can. This alternative would cross over the East Duwamish Waterway, Harbor Island, and the West Duwamish Waterway on a fixed, light-rail-only bridge. It would pass over and place a guideway column in Harbor Marina Corporate Center at Terminal 102. This alternative's bridge would add additional large-scale transportation elements to views from both Harbor Marina Corporate Center at Terminal 102 and Village Park and Shoreline Habitat. The presence of the bridge's guideway column would somewhat change the character of the view from Harbor Marina Corporate Center at Terminal 102, but would not further reduce the low visual quality of the views from either park.

The bridge for Preferred Alternative DUW-1a would pass south of the West Seattle Bridge and be seen from the Riverside community from residences along 17th Avenue Southwest and 18th Avenue Southwest (see Figure 2-3a in Attachment N.2A). It would add an additional large-scale infrastructure element to the northern view from this residential area. The existing low visual quality category of views toward Preferred Alternative DUW-1a would not change.

Sound Transit is considering multiple bridge types for crossing the Duwamish Waterway. In addition to the balanced cantilever segmental box girder bridge depicted in the simulations (Attachment N.2A), Sound Transit is considering several other bridge types, including extradosed, truss, and cable-stayed bridges. Each of these bridges would have different visual characteristics. Although it would be narrower in width, the balanced cantilever segmental box girder bridge used for simulations would be very similar to the existing West Seattle Bridge in scale, form, materials, and overall appearance. Its bridge deck would be supported by a series of guideway columns that are similar in appearance to those supporting the West Seattle Bridge. The extradosed bridge would be similar in appearance to the balanced cantilever segmental box girder bridge until it crossed the West Duwamish Waterway. The crossing of the waterway would require that the bridge deck be supported by cables attached to two guideway columns, the tops of which would be approximately 270 feet above the waterway and 100 feet above the deck of the bridge. The cables would create an inverted "v" shape from the tops of the guideway columns to the bridge deck.

The appearance of the cable-stayed bridge would be different from that of the balanced cantilever segmental box girder bridge in the middle of Harbor Island to the west side of the Duwamish Waterway. The bridges crossing Duwamish Waterway would be supported by cables attached to two guideway columns, the tops of which would be approximately 400 feet above the waters of the navigation channel and 130 feet above the deck of the bridge. Like the extradosed bridge (although at a much bigger scale), the support cables of this bridge would create an inverted "v." Due to its height and vivid appearance, the cable-stayed bridge is the most visually distinctive bridge being considered and would be seen over the greatest distance.

The types of bridges and their different visual characteristics would have different influences on the visual character of views toward the West Seattle Bridge. However, regardless of bridge type, this alternative would not impact the visual quality of views toward the bridges by residents in the Riverside community or recreationists in parks along the waterway. The visual quality of views toward the West Seattle Bridge are already low, and the presence of an elevated guideway would not change the low visual quality.

Another concentration of sensitive viewers is on the top of Pigeon Point. Preferred Alternative DUW-1a would pass by a residential area at the north end of Pigeon Point (along Southwest Charlestown Street and 19th Avenue Southwest, 20th Avenue Southwest, and 21st Avenue Southwest) that is bordered by the West Duwamish Greenbelt. Tree removal in the greenbelt



would open up views to the north toward Elliott Bay. This and the removal of residences next to the greenbelt would be noticed by remaining residents (see Figure 2-4b in Attachment N.2A). However, the remaining residences would be too far back from the greenbelt to see the industrial lands to the north that the trees in the greenbelt currently screen. None of the project components (elevated guideways, overhead catenary system, or trains) associated with this alternative would be seen from remaining residences. The residential character of views to the north from remaining residences would remain transportation or change from transportation to unbuilt lot with the removal of residences. Sound Transit would use the lots where residences would be removed for the construction of the guideway. This alternative would reduce the high visual quality of views to the north from remaining residences to high average, which would not be a visual impact.

A third area with sensitive viewers along the Preferred Alternative DUW-1a alignment is on the northwestern slope of Pigeon Point along 21st Avenue Southwest, 22nd Avenue Southwest, and 23rd Avenue Southwest. In this area, this alternative would change visual character and impact visual quality of views from some residences along these streets. Removing trees would result in uninterrupted views of industrial and commercial areas below as well as the West Seattle Bridge and other streets from some residences. This would change the current residential and natural character of the views to industrial-commercial and bridge. In addition, components of this alternative would be seen, depending on location. The existing average to high visual quality of views to the northwest from this area would be reduced to low, which would be an impact to visual quality.

There are no trails within the portion of the West Duwamish Greenbelt that Preferred Alternative DUW-1a would pass through. There is a pedestrian passageway consisting of series of sections of paved walkway and stairs between Southwest Charleston Street and Southwest Marginal Way that allows pedestrians to walk between Pigeon Point and Southwest Marginal Way. This alternative would pass over this series of paved walkways and stairs and would be seen by pedestrians. People using the passageway are generally using it for transportation rather than recreation and are not considered sensitive viewers in this analysis. The elevated guideway would add another large-scale elevated transportation element (in addition to the West Seattle Bridge) to views along the passageway and would not change the visual character of quality of most areas along the guideway.

### *City of Seattle Designated Scenic Routes and Public View Protection*

East Marginal Way and the West Seattle Bridge are City of Seattle Designated Scenic Routes. There are no views of elements identified as protected by the City (such as the Olympic Mountains, the Cascade Mountains, Mount Rainier, Puget Sound, Elliott Bay, and the downtown skyline) from the stretch of East Marginal Way where Preferred Alternative DUW-1a would be visible. The nearby presence of the Preferred Alternative DUW-1a elevated guideway in the foreground of the view from East Marginal Way looking directly south would be another layer of the human-made elements (overpasses) that characterize the existing view conditions. Views to the south from the West Seattle Bridge would be altered by the presence of the elevated guideways associated with Preferred Alternative DUW-1a. This alternative would be approximately 115 feet south (over the center of the Duwamish Waterway) of the West Seattle Bridge and, in some locations, would block travelers' passing views of the Duwamish Waterway and Mount Rainier (see Figure 2-1b in Attachment N.2A). Sound Transit is considering the possibility of a steel truss or a cable-stayed bridge for this crossing rather than the bridge that was depicted in Attachment N.2A for Preferred Alternative DUW-1a and the others that were simulated. Both steel truss or cable-stayed bridges could be less bulky in terms of scale and

form than the bridges that were depicted in the simulations. They would still intrude upon, or block, the views described above, but likely to a lesser degree.

As described above, Sound Transit is considering several bridge types for crossing the Duwamish Waterway. Cable-stayed, truss, and extradosed bridges would be less bulky in terms of scale and form than the balanced cantilever segmental box bridge type depicted in the simulations (Attachment N.2A). Cables from the cable-stayed and extradosed bridge types would be seen by people passing them on the West Seattle Bridge (but would not block views), and the tall guideway columns of both types of bridges would momentarily block north or south views. The many vertical support arms of the steel truss bridge would intrude upon views from the West Seattle Bridge as drivers approach and pass over the Duwamish Waterway more than the cable-stayed and the extradosed types of bridges.

Other than the West Seattle Bridge, no City of Seattle protected views would be affected by this alternative.

### *Light, Glare, and Shadows*

As is the case with vehicles currently traveling on the West Seattle Bridge, lights and glare (from reflective surface materials) from passing trains associated with Preferred Alternative DUW-1a would be seen from nearby areas. Lights from trains would be seen from the Riverside and the northwestern slope of Pigeon Point residential areas, and from the West Duwamish Greenbelt, Harbor Marina Corporate Center at Terminal 102, and *tu?alaltx*<sup>™</sup> Village Park and Shoreline Habitat. The lights from trains would add additional lights to the variety of lights seen throughout the Duwamish Segment. Light and glare produced by trains would not affect motorists, pedestrians, or the surrounding area. Safety lights for aviation could be required on the bridges being considered for crossing the Duwamish Waterway. These lights could be required at the tops of bridge towers, guideway columns, or the bridges tallest point. These lights would be seen at night and be similar in appearance to other aviation safety lights, such as those on the tops of communication towers and buildings. Navigation lights could be required on the guideway column protection system and the base of the bridge deck. These lights would be similar to navigation lights seen on bridges over the Duwamish Waterway. The bridge and elevated guideway would add to the existing shadows associated with the West Seattle Bridge, including shadows on public open spaces such as the West Duwamish Greenbelt and Terminal 18 Park (only when winter sun angles are low).

### ***South Crossing South Edge Crossing Alignment Option (DUW-1b)***

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Option DUW-1b would be the same as Preferred Alternative DUW-1a except it would cross the East and West Duwamish waterways on the south edge of Harbor Island. Option DUW-1b would not pass by areas with concentrations of sensitive viewers until crossing the south end of Harbor Island above Harbor Marina Corporate Center at Terminal 102. It would continue west across the Duwamish Waterway and approach Pigeon Point from the southeast and follow the alignment of Preferred Alternative DUW-1a. The portions of Option DUW-1b that would pass near areas with concentrations of sensitive viewers would be very similar to that of Preferred Alternative DUW-1a and would have the same influence on visual quality, protected views, and light, glare, and shadows (see Figure 2-1c in Attachment N.2A). This option would be approximately 400 feet farther south of Preferred Alternative DUW-1a when it would cross the Duwamish Waterway. The elevated guideway of this Option DUW-1b would pass above the southern portion of Harbor Marina Corporate Center at Terminal 102, and guideway columns would be placed within or near it. The presence of the bridge and guideway columns would not

further reduce the low visual quality of views from within Harbor Marina Corporate Center at Terminal 102. The portion of this alternative in the Pigeon Point community would be the same as Preferred Alternative DUW-1a and have similar visual impacts from nearby Riverside area residences.

### *City of Seattle Designated Scenic Routes and Public View Protection*

East Marginal Way is a City of Seattle Designated Scenic Route. However, there are no views of elements identified as protected by the City (such as the Olympic Mountains, the Cascade Mountains, Mount Rainier, or Duwamish Waterway) from the stretch of East Marginal Way where Option DUW-1b would be visible. The nearby presence of the elevated guideway of Option DUW-1b in the foreground of the view from East Marginal Way looking directly south would be another layer of the human-made elements (overpasses) that characterizes the existing view conditions.

The West Seattle Bridge is also a City of Seattle Designated Scenic Route. At Harbor Island, Option DUW-1b would be over 400 feet farther south from the West Seattle Bridge than Preferred Alternative DUW-1a and would intrude to a lesser degree on travelers' views of key features, such as Mount Rainier and the Duwamish Waterway (see Figure 2-1c in Attachment N.2A). As discussed above for Preferred Alternative DUW-1a, other than the West Seattle Bridge, no City of Seattle protected views would be affected by this alternative.

### *Light, Glare, and Shadows*

Option DUW-1b would have a similar influence on light, glare, and shadows as Preferred Alternative DUW-1a, although unlike that alternative, the shadow from the elevated guideway would be cast on parts of one additional open space used by the public (Harbor Marina Corporate Center at Terminal 102) at the south end of Harbor Island.

### **North Crossing Alternative (DUW-2)**

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Alternative DUW-2 would continue south from South Forest Street along the west side of the existing light rail line on an elevated guideway before heading west on a new fixed, light-rail-only bridge north of the existing West Seattle Bridge. The height of the guideway would range from between approximately 30 feet and 170 feet high. It would be at its highest when crossing the West Duwamish Waterway. Alternative DUW-2 would parallel the north side of the West Seattle Bridge past the western shoreline of the Duwamish Waterway, pass through industrial areas north and northwest of the bridge, and turn south toward the edge of Delridge Way Southwest and the boundary of this segment.

Alternative DUW-2 would have the least change to visual character and least impact on visual quality of the Duwamish Segment alternatives. It would pass by one area containing concentrations of sensitive viewers, Terminal 18 Park. This alternative would introduce another large-scale overhead structure (in addition to the West Seattle Bridge) to views to the south from Terminal 18 Park. This alternative would not change the existing maritime transportation-oriented visual character of views from Terminal 18 Park or further reduce the low visual quality of views from this park. This alternative would be seen to the north behind the West Seattle Bridge by residents in the Riverside neighborhood along 17th Avenue Southwest and 18th Avenue Southwest and would not further reduce the existing low visual quality of views towards it (see Figure 2-3d in Attachment N.2A).

Trains would be visible in the distance between existing vegetation (that would not be removed) in the West Duwamish Greenbelt from residences along Southwest Charlestown Street and 19th Avenue Southwest, 20th Avenue Southwest, and 21st Avenue Southwest (see Figure 2-4c in Attachment N.2A). Although trains would be visible, this would not change the residential visual character or lower the existing high visual quality in this area.

Alternative DUW-2 would not remove trees along the northwestern slope of Pigeon Point within the West Duwamish Greenbelt and would not change the existing visual character or lower visual quality of views from residences along 21st Avenue Southwest, 22nd Avenue Southwest, and 23rd Avenue Southwest.

### *City of Seattle Designated Scenic Routes and Public View Protection*

East Marginal Way is a City of Seattle Designated Scenic Route. There are no views of elements identified as protected by the City (such as the Olympic Mountains, the Cascade Mountains, Mount Rainier, Puget Sound, Elliott Bay, and the downtown skyline) from the stretch of East Marginal Way where Alternative DUW-2 would be visible. The nearby presence of the Alternative DUW-2 elevated guideway in the foreground of the view from East Marginal Way looking directly south would be another layer of the human-made elements (overpasses) that characterize the existing view conditions.

Alternative DUW-2 would pass approximately 350 feet north of the West Seattle Bridge. The elevated guideway would alter or block short segments of views to the north for people traveling on the West Seattle Bridge. The elevated guideway would intrude on views of features such as Elliott Bay, Puget Sound, and the downtown skyline (see Figure 2-2b in Attachment N.2A).

Sound Transit is considering the possibility of a steel truss or a cable-stayed bridge for this crossing rather than the balanced cantilever segmental box girder bridge that was depicted in Attachment N.2A for this alternative and others that were simulated. Both steel truss or cable-stayed bridges would be less bulky in terms of scale and form than the bridges that were depicted in the simulations. They would still intrude upon, or block, the views described above but to a lesser degree. Other than the West Seattle Bridge, no City of Seattle protected views would be affected by this alternative.

### *Light, Glare, and Shadows*

The influence of light, glare, and shadows produced by Alternative DUW-2 would be similar to that described for Preferred Alternative DUW-1a but would not be seen from the same areas with concentrations of sensitive viewers. Lights from this alternative would be seen in front of the West Seattle Bridge from Terminal 18 Park. Shadows created by the elevated guideway would be cast on one open space used by the public (Terminal 18 Park) for short periods of time in the winter when the sun angle would be low.

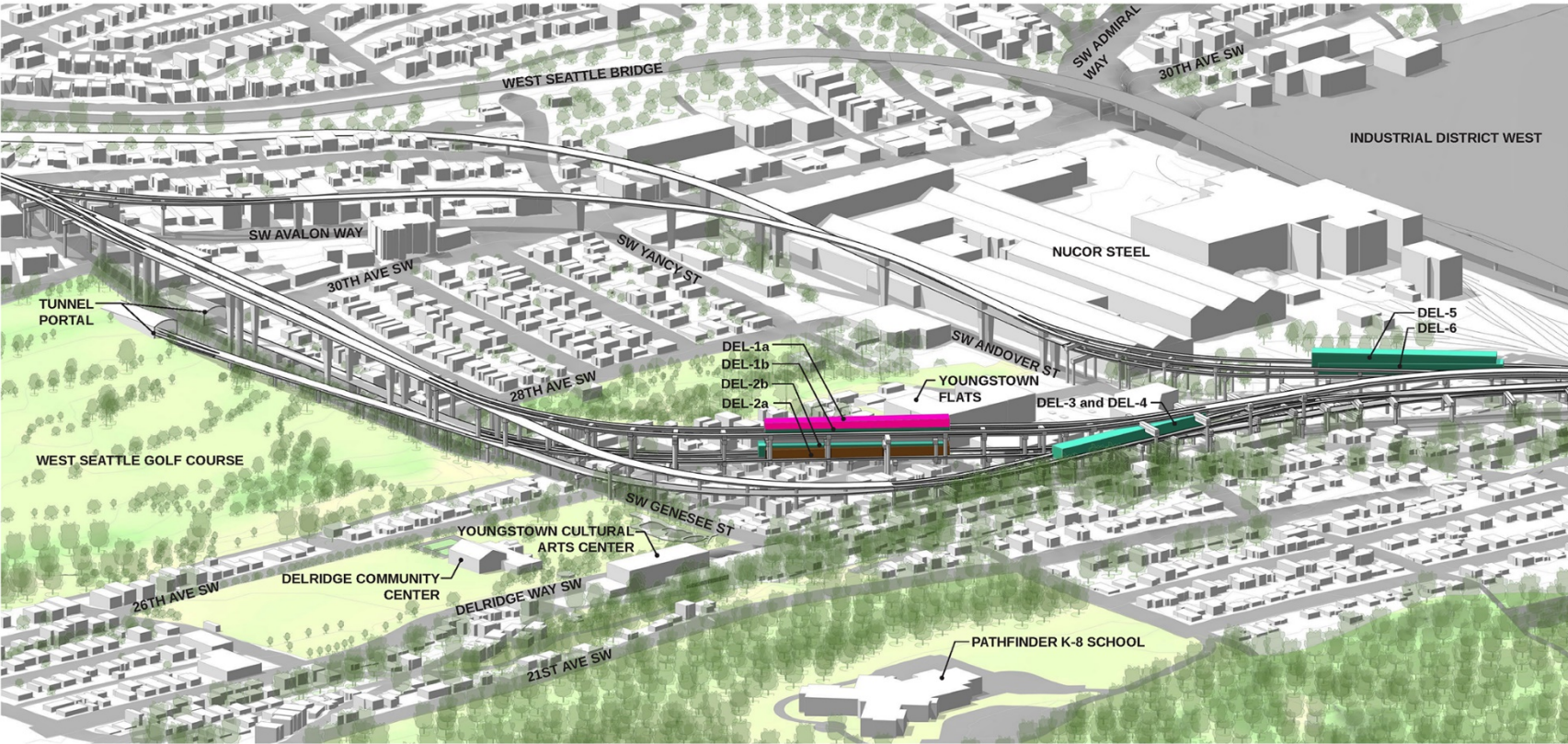
#### **4.1.2.3 Delridge Segment**

Table 4-3 identifies locations within the Delridge Segment where there would be visual impacts (a reduction of one or more visual quality categories) near areas with concentrations of sensitive viewers. The Delridge Segment would have primarily above-ground components and contains nearby concentrations of sensitive viewers. Simulations developed for the Delridge Segment in Attachment N.2A serve as a guide to understand how visual quality would change with the alternative from clear vantage points. Cross sections and 3D views are provided in Attachment N.2B to illustrate the general height, bulk, and scale of the Delridge Station. For more information about station design, see the Sound Transit Station Area Development Opportunities Memo (Sound Transit in development). Because the station and alignments in

Delridge represent a noticeable visual change, a 3D model was created to compare the following components of the alternatives: heights and locations of alignments, station heights, bulk of station elements, and scale relative to the surrounding buildings and landscape (Figure 4-3).

The West Seattle and Ballard Link Extensions minimum operable segment (M.O.S.) would have an interim terminus in Delridge. With the M.O.S., a tail track (which would look the same as the guideway for the full-length alternatives) would extend approximately 500 feet southwest of Delridge Station. The M.O.S. would have the same design of the guideway and Delridge Station, and therefore would not result in different visual impacts than the full-length alternatives discussed for the Delridge Segment and is not discussed further in this technical report.

Figure 4-3. Delridge Segment Alternatives 3D Model



VIEW LOOKING NW

**Table 4-3. Delridge Segment Visual Quality Impacts near Concentrations of Sensitive Viewers**

Alternative	Visual Impacts (miles) <sup>a</sup>	Where Visual Impacts Would Occur
Preferred Dakota Street Station (DEL-1a)	1.0	Residences along 23rd Avenue Southwest, 25th Avenue Southwest, 26th Avenue Southwest, Nevada Street, Delridge Way Southwest, and parts of Southwest Genesee Street and part of the Delridge Playfield, West Seattle Golf Course, and some locations within Longfellow Creek Natural Area.
Dakota Street Station North Alignment Option (DEL-1b)	1.0	Similar to Preferred Alternative DEL-1a; however, additional residences north of Southwest Genesee Street would be removed and therefore do not have visual impacts.
Preferred Dakota Street Station Lower Height Alternative (DEL-2a)*	1.0	Similar to Preferred Alternative DEL-1a but would impact views from fewer residences.
Dakota Street Station Lower Height North Alignment Option (DEL-2b)*	1.0	Similar to Preferred Alternative DEL-1a; however, additional residences north of Southwest Genesee Street would be removed and therefore do not have visual impacts.
Delridge Way Station (DEL-3)	1.0	Similar to Preferred Alternative DEL-1a.
Delridge Way Station Lower Height (DEL-4)*	1.0	Similar to Preferred Alternative DEL-1a.
Andover Street Station (DEL-5)	0.2	Residences along Southwest Avalon Way between Southwest Yancy Street and Southwest Genesee Street.
Andover Street Station Lower Height (DEL-6)*	0.1	Residences along a small section of 32nd Avenue Southwest.

\* As described in the introduction to Chapter 2, Alternatives Considered, of the Draft Environmental Impact Statement, at the time the Sound Transit Board identified alternatives for study in the Draft Environmental Impact Statement some alternatives were anticipated to require third-party funding based on early cost estimates. The asterisk identifies these alternatives and the alternatives that would only connect to these alternatives in adjacent segments.

<sup>a</sup> Visual impacts occur when an existing visual quality category (high, average, or low) is reduced one or more categories. Visual impacts are in miles along the length of the alternative or option adjacent to concentrations of sensitive viewers.

**Dakota Street Station Alternative (DEL-1a)**

*Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Preferred Alternative DEL-1a would follow Delridge Way Southwest south on an elevated guideway to an elevated station. The guideway would be on the west side of Delridge Way Southwest except for in the vicinity of Southwest Andover Street, where it would be in the roadway right-of-way. The height of Preferred Alternative DEL-1a components would range between approximately 70 feet and 150 feet. The height of the top of the Delridge Station with this alternative would be approximately 110 feet. The alternative’s elevated guideway would follow Delridge Way Southwest and cross over it near Southwest Dakota Street (see Figure 2-5b in Attachment N.2A). This alternative would require the removal of some single-family residences along Delridge Way Southwest south of Southwest Andover Street, as well as

the removal of most of the residences in the blocks between Delridge Way Southwest on the east, Southwest Genesee Street on the south, 26th Avenue Southwest on the west, and Southwest Dakota Street on the north. The curve of the alignment would not follow the street grid of this area, which would be inconsistent with the existing street pattern and would disrupt the visual coherence.

The height of the elevated Delridge Station (about 110 feet) would be taller than the current 30- to 35-foot height allowed by zoning. By removing the residences and introducing the elevated guideway and station into this area, the current residential character of views from remaining nearby residences and the Delridge Playfield would change to a transportation character, and these new transportation elements would seem visually out of place. The elevated station and guideway would be noticeably higher and be larger in bulk and scale than any other structures in this area, and the station would have a more contemporary design than many older nearby residential single-family buildings in the area. The new station design would be similar to that of the many of the newer multi-family developments that are increasingly being built in the area (particularly along Delridge Way Southwest). The elevated station and guideway would reduce the current average degree of visual unity and intactness of views toward them to low. These reductions would result in a lowering of the current average visual quality to low, which would be a visual impact.

Southeast of the Delridge Station, Preferred Alternative DEL-1a would slowly curve toward Southwest Genesee Street past the Delridge Playfield (see Figure 2-6b in Attachment N.2A) and follow the south side of Southwest Genesee Street next to the West Seattle Golf Course up the hill to Southwest Avalon Way (see Figure 2-7b in Attachment N.2A). The elevated guideway would be as high as approximately 150 feet above-grade along this section of the alignment. Trees along both sides of Southwest Genesee Street and within the northern edge of the West Seattle Golf Course would be removed (see Figure 2-8b in Attachment N.2A), as would residences north of Southwest Genesee Street.

Some vegetation would be removed from the south edge of the Longfellow Creek Natural Area. Remaining trees would screen or partially screen views of the elevated guideway from most of the Longfellow Creek Legacy Trail, which follows the creek along the bottom of its ravine. In the few areas along the trail where the elevated guideway would be seen, the high visual quality of views would be reduced to average, which would be a visual impact.

The removal of the trees, residences, and other visual elements in the Delridge Segment, as well as the elevated guideway, would be seen by sensitive viewers in the Delridge Playfield, the West Seattle Golf Course, and remaining residences north of the residences adjacent to Southwest Genesee Street that were removed (see Figure 2-9b in Attachment N.2A). The existing high visual quality of views toward the guideway from the Delridge Playfield and West Seattle Golf Course would be reduced to low average, which would be a visual impact. The generally high average visual quality of views from the residences north of Southwest Genesee Street toward the guideway would be reduced to low, which would also be an impact to visual quality. Note that the impact assessment in Attachment N.2A describes that this alternative would not impact the visual quality of views looking down the length of Southwest Genesee Street from two KOPs (WS-7 and WS-9) at either end of the street. This conclusion would not apply to perpendicular views toward the guideway from remaining residences to the north of the residences adjacent to Southwest Genesee Street that would remain. Where the alternative would cross over the Southwest Genesee Street and Avalon Way Southwest intersection, it would introduce a new large-scale transportation element to an area whose character is a mix of residential and transportation arterial intersection (see Figure 2-10b in Attachment N.2A). The elevated guideway and columns would be dominant visual components to the view but would



not block street-level views of the downtown skyline. The average visual quality of the views near this intersection would be reduced to low average, which would not be a visual impact.

### *City of Seattle Designated Scenic Routes and Public View Protection*

There are no City of Seattle Designated Scenic Routes near Preferred Alternative DEL-1a. The alternative would intrude upon or block views of the Downtown Seattle skyline from parts of the West Seattle Golf Course (see Figure 2-8b in Attachment N.2A). Views of the Olympic Mountains, the Cascade Mountains, Mount Rainier, Puget Sound, Elliott Bay, Salmon Bay, Lake Washington, the Lake Washington Ship Canal, or the downtown skyline from the other City of Seattle protected view, the West Seattle Rotary Viewpoint would not be blocked by Preferred Alternative DEL-1a (which is located above and over 0.25 mile to the east of the West Seattle Rotary Viewpoint).

### *Light, Glare, and Shadows*

With Preferred Alternative DEL-1a, lights, and to a much lesser degree, glare from passing trains on the elevated guideway as well as the elevated station lights would be seen from nearby, including areas with concentrations of sensitive viewers. At night, trains would be quite visible, particularly between Delridge Way Southwest and Southwest Avalon Street. The elevated guideway would cast shadows on the north end of the West Seattle Golf Course and the southern edge (adjacent to Southwest Genesee Street) of the Longfellow Creek Natural Area.

### ***Dakota Street Station North Alignment Option (DEL-1b)***

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Option DEL-1b would be similar to Preferred Alternative DEL-1a except it would be within the Southwest Genesee Street right-of-way between the West Seattle Golf Course and the Longfellow Creek Natural Area, then shift to the north side of Southwest Genesee Street west of 28th Avenue Southwest. The height of Option DEL-1b components would range between approximately 60 feet and 150 feet. The height to the top of the Dakota Street Station for this alternative would be approximately 110 feet. Up to the east end of the West Seattle Golf Course, the impacts associated with this alternative would be essentially the same as those described for Preferred Alternative DEL-1a (see Figure 2-5c in Attachment N.2A for a view of this alternative along Delridge Way Southwest). Shortly after leaving the Dakota Street Station, the elevated guideway would cross to the south side of Southwest Genesee Street and then veer back along and over the center of the street and onto the north side for the rest of the route in this segment. Some vegetation would be removed from the southern edge of the Longfellow Creek Natural Area. Remaining trees would screen or partially screen views of the elevated guideway from most of the Longfellow Creek Legacy Trail, which follows the creek along the bottom of its ravine. In the few areas along the trail where the elevated guideway would be seen, the high visual quality of views would be reduced to average, which would be a visual impact.

This alternative, unlike Preferred Alternative DEL-1a, would require removing all of the residences on the north side of Southwest Genesee Street and many of the trees that line the south side of the street as well as trees within the northern edge of the West Seattle Golf Course. It would remove fewer trees along the south side of Southwest Genesee Street and the northern edge of the West Seattle Golf Course than would be removed with Preferred Alternative DEL-1a. The changes to the appearance of Southwest Genesee Street and the presence of the elevated guideway, which would be higher (approximately 150 feet at its highest

point along Southwest Genesee Street) and have a larger bulk and scale than nearby structures, would be seen from the remaining nearby residences north of the residences that would be removed, as well as by recreationists using the West Seattle Golf Course (see Figure 2-8c in Attachment N.2A). The visual quality of views from the remaining residences towards the guideway would be reduced from high average to low, which would be a visual impact. The existing high visual quality of views toward the guideway from the Delridge Playfield and West Seattle Golf Course would be reduced to low average, which would be a visual impact. The Avalon Way Southwest and Southwest Genesee Street intersection crossing would appear very similar in appearance to Preferred Alternative DEL-1a and would also not be considered a visual impact (see Figure 2-10c in Attachment N.2A).

### *City of Seattle Designated Scenic Routes and Public View Protection*

There are no City of Seattle Designated Scenic Routes near Option DEL-1b. This alternative would have similar impacts on protected views as Preferred Alternative DEL-1a.

### *Light, Glare, and Shadows*

The influence of Option DEL-1b on light, glare, and shadows would be very similar to what was described above for Preferred Alternative DEL-1a.

### ***Dakota Street Station Lower Height Alternative (DEL-2a)\****

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

From the beginning of the Delridge Segment to the east end of the West Seattle Golf Course, the Preferred Alternative DEL-2a\* would be similar to Preferred Alternative DEL-1a, although it would be lower in height (see Figure 2-5d in Attachment N.2A). This alternative would travel over and south of Southwest Genesee Street through the north end of the West Seattle Golf Course, where it would enter a tunnel. The maximum height of the elevated guideway would be about 60 feet, and the height to the top of the Delridge Station would be approximately 60 feet. With this alternative, the station would be approximately 50 feet lower than the station for Preferred Alternative DEL-1a.

The elevated station would be taller than the current 30- to 35-foot height allowed by zoning. The influence of this lower station on visual character would be very similar to that described for Preferred Alternative DEL-1a, but because the top of this alternative's station would be about 50 feet lower, it would be seen from fewer areas and therefore would change the visual character of less of the area than would Preferred Alternative DEL-1a. This alternative's impact to visual quality would be the same as that of Preferred Alternative DEL-1a. The elevated station and guideway's height, bulk, and scale would reduce the current average degree of visual unity and intactness of views towards it to low. These reductions would result in a lowering of the current average visual quality to low, which would be a visual impact.

By removing the residences and introducing the elevated guideway and station, the current residential character of views towards this area from remaining nearby residences would change to transportation. The elevated station and guideway would be noticeably higher and have a larger bulk and scale than nearby structures, and would lack visual coherence with the street grid due to the curved alignment. The station would also have a more contemporary design than many older nearby residential single-family buildings. The station design, height, bulk, and scale would be similar to that of the many newer multi-family developments that are increasingly being built in the area (particularly along Delridge Way Southwest). The elevated station and guideway would reduce the current average degree of visual unity and intactness of

views towards it to low. These reductions would result in a lowering of the current average visual quality to low, which would be a visual impact.

The alternative would remove some trees along the edge of Southwest Genesee Street on private property. Trees would screen or partially screen views of the elevated guideways along most of the Longfellow Creek Legacy Trail. The elevated guideway would be seen from some locations along the trail, but its presence would not lower visual quality of views along the trail.

From Southwest Genesee Street, Preferred Alternative DEL-2a\* would remove one residence north of Southwest Genesee Street. It would pass through the northern portion of the West Seattle Golf Course to a portal at the west end of the golf course. The guideway would extend farther south into the West Seattle Golf Course than would Preferred Alternative DEL-1a. The presence of this alternative would change the recreational visual character of views toward it from within the golf course and the residential character of views along the north side of Southwest Genesee Street to transportation. Potential sound walls along the eastern portion of Southwest Genesee Street would be on the elevated guideway and would not be very different in appearance from the guideway structure. Freestanding sound walls would be on the west end of Genesee right before the alignment enters into a tunnel. In this area, the sound walls would be noticeable and more memorable than the existing view. The change would not be enough to change the vividness rating. The sound wall near the tunnel portal would contrast with the existing view in terms of height, bulk, and scale, and would be an encroachment into the view. The removal of trees and presence of this alternative through the north end of the West Seattle Golf Course would lower the existing high unity and intactness of views in this area. It would reduce the high visual quality of views from within the West Seattle Golf Course and the Delridge Playfield to low average, which would be a visual impact. This alternative would also reduce the high average visual quality of views from along both sides of Southwest Genesee Street to low average, which would not be a visual impact.

### *City of Seattle Designated Scenic Routes and Public View Protection*

There are no City of Seattle Designated Scenic Routes near Preferred Alternative DEL-2a\*. This alternative would have similar impacts on protected views as Preferred Alternative DEL-1a.

### *Light, Glare, and Shadows*

The influence of Preferred Alternative DEL-2a\* on light, glare, and shadows would be similar to what was described for Preferred Alternative DEL-1a, although passing trains and the station would be lower in height in many areas, particularly at the elevated Delridge Station. The elevated guideway would cast shadows on parts of two open spaces used by the public—the north end of the West Seattle Golf Course and along the southern edge (adjacent to Southwest Genesee Street) of the Longfellow Creek Natural Area.

### ***Dakota Street Station Lower Height North Alignment Option (DEL-2b)\****

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Up to the east end of the West Seattle Golf Course, the impacts associated with Option DEL-2b\* would be essentially the same as those described for Preferred Alternative DEL-2a\*, except it would shift to the north side of Southwest Genesee Street west of 28th Avenue Southwest. With Option DEL-2b\*, the alternative and associated impacts to visual quality near areas with concentrations of sensitive viewers would be very similar to those associated with Option DEL-1b. This alternative's Delridge Station would also be approximately 60 feet high and would have similar height and scale influences on the visual character and quality of views toward it from remaining residences. Residences north of Southwest Genesee Street would be removed.

Compared to Option DEL-1b, this alternative would not require the removal of as many trees along the south side of Southwest Genesee Street. This would result in slightly less of an impact on the visual quality of views within the West Seattle Golf Course. With this alternative, the existing high visual quality of views from the West Seattle Golf Course would be reduced to average. This alternative would still have a visual impact on views toward it from the West Seattle Golf Course as well as from remaining residences north of Southwest Genesee Street. Potential sound walls along the eastern portion of Southwest Genesee Street would be on the elevated guideway and would not be very different in appearance than the guideway structure. Freestanding sound walls would be on the west end of Genesee right before the alignment enters into a tunnel. In this area, the sound walls would be noticeable and more memorable than the existing view, but vegetation would act as a visual buffer. The change would not be enough to change the vividness rating. The sound wall near the tunnel portal would contrast with the existing view in terms of height, bulk, and scale, and would be an encroachment into the view, but not enough to reduce the visual quality to create a visual impact.

Option DEL-2b\* would remove some vegetation along the edge of the Longfellow Creek Natural Area. Although trees within the Longfellow Creek Natural Area would generally screen views of the elevated guideway, people on the Longfellow Creek Legacy Trail would see the elevated guideway from some locations. The presence of the elevated guideway would not lower the visual quality of views along the trail.

### *City of Seattle Designated Scenic Routes and Protected Views*

There are no City of Seattle Designated Scenic Routes near Option DEL-2b\*. The alternative would somewhat intrude upon views of the downtown skyline from parts of the West Seattle Golf Course (see Figure 2-8e in Attachment N.2A). It would not intrude upon or block views of the Olympic Mountains, the Cascade Mountains, Mount Rainier, Puget Sound, Elliott Bay, Salmon Bay, Lake Washington, or the Lake Washington Ship Canal. Views of the alternative would be blocked from the other City of Seattle protected view, the West Seattle Rotary Viewpoint.

### *Light, Glare, and Shadows*

The influence of Option DEL-2b\* on light, glare, and shadows would be similar to that described for Preferred Alternative DEL-2a\*, although there would be less shadow on the West Seattle Golf Course because the west end of this alternative would be on the opposite side of Southwest Genesee Street.

### **Delridge Way Station Alternative (DEL-3)**

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Alternative DEL-3 would follow Delridge Way Southwest south on an elevated guideway to the Delridge Station. The station would be in the middle of Delridge Way Southwest, north of Southwest Dakota Street. The height of the Alternative DEL-3 elevated guideway would range between about 50 feet and 150 feet, and the height to the top of the Delridge Station would be approximately 90 feet. The elevated station and guideway would be noticeably higher and have a larger bulk and scale than nearby structures. This alternative would pass through the middle of residential blocks east of Delridge Way Southwest. It would require the removal of residences and trees, which would open up views to the west from remaining residences that are currently screened by trees and buildings. This would change the visual character of views from remaining residences on the hillside between the east side of Delridge Way Southwest and 23rd Avenue Southwest. The new views would include commercial and industrial areas, the elevated

guideway, and the Delridge Station, which would cross over the middle of Delridge Way Southwest. The removal of trees and buildings and the presence of the alternative's components would decrease the average visual unity and intactness of views to the west from remaining residences along 23rd Avenue Southwest. This would reduce the average visual quality of views toward Alternative DEL-3 to low, which would be a visual impact.

This alternative would continue south along Delridge Way Southwest and follow it farther south than the other Delridge Segment Build Alternatives before veering west (see Figure 2-5e in Attachment N.2A) mid-block through the residential area south of Southwest Dakota Street between Delridge Way Southwest and 26th Avenue Southwest. The elevated guideway in this area would change the residential character of the areas it would pass through to transportation. The height, bulk, and scale of the elevated guideway would lower the generally average visual quality of views from remaining residences towards it to low, which would be a visual impact.

Alternative DEL-3 would not remove vegetation from the edge of the Longfellow Creek Natural Area, although it might be seen from a few points along the Longfellow Creek Legacy Trail due to its height. Where seen, it would lower the high visual quality of views toward the guideway to average, which would be a visual impact.

The guideway would pass along the south side of Southwest Genesee Street and would remove residences north of Southwest Genesee Street. It would also remove trees along the south side of this street (see Figures 2-6d, 2-7f, and 2-9f in Attachment N.2A) From the West Seattle Golf Course, Delridge Playfield, and Southwest Genesee Street, its appearance would be similar to that of Preferred Alternative DEL-1a, and impacts would be similar. The existing high visual quality of views toward the guideway from the Delridge Playfield and West Seattle Golf Course would be reduced to low average, which would be a visual impact. The generally high average visual quality of views from the residences north of Southwest Genesee Street toward the guideway would be reduced to low, which would also be an impact to visual quality.

### *City of Seattle Designated Scenic Routes and Protected Views*

There are no City of Seattle Designated Scenic Routes near Alternative DEL-3. This alternative would have similar impacts on protected views as Preferred Alternative DEL-1a.

### *Light, Glare, and Shadows*

With Alternative DEL-3, lights and, to a much lesser degree, glare from passing trains on the elevated guideway and the elevated Delridge Station lights would be seen from nearby, including areas with concentrations of sensitive viewers. At night, light rail trains would be quite visible, particularly in areas along both sides of Delridge Way Southwest where there are residences. The influence of this alternative on light, glare, and shadows in open spaces used by the public (the north end of the West Seattle Golf Course and the southern edge of the Longfellow Creek Natural Area) would be similar to what was described for Preferred Alternative DEL-1a.

### ***Delridge Way Station Lower Height (DEL-4)\****

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Alternative DEL-4\* would follow the same alignment as Alternative DEL-3 to the station but would be at a lower height to connect to tunnel alternatives in the West Seattle Junction Segment. With Alternative DEL-4\*, the height of the elevated guideway would range up to about 60 feet, and the height of the top of the Delridge Station would be approximately 90 feet. The elevated station and guideway would be noticeably higher and have a larger bulk and scale than

nearby structures. Between the beginning of the Delridge Segment and Southwest Genesee Street (including the Delridge Station), this alternative would be similar to Alternative DEL-3, although the maximum height would be about 40 feet lower.

The influence of this alternative on visual quality near areas with concentrations of sensitive viewers near the Delridge Station and the residential neighborhood south of the station would be very similar to that described for Alternative DEL-3. Although it would be lower in height, this alternative's influence on visual character and visual quality in the residential area east of Delridge Way Southwest would be very similar to that of Alternative DEL-3.

Alternative DEL-4\* would not remove vegetation from the edge of the Longfellow Creek Natural Area, although it might be seen from a few points along the Longfellow Creek Legacy Trail. If and where it is seen, it would lower the high visual quality of views toward the guideway to average, which would be a visual impact.

Impacts on Delridge Playfield, residents along Southwest Genesee Street, and sensitive viewers in the golf course would be very similar to Preferred Alternative DEL-2a\* (see Figures 2-6e, 2-7g, and 2-9f in Attachment N.2A). Sound walls would be similar to those described for Preferred Alternative DEL-2a\*. The removal of trees and the presence of this alternative through the north end of the West Seattle Golf Course would lower the existing high unity and intactness of views in this area. It would reduce the high visual quality of views from within the West Seattle Golf Course and the Delridge Playfield to low average, which would be a visual impact. This alternative would also reduce the high average visual quality of views from along both sides of Southwest Genesee Street to low average, which would not be a visual impact.

### *City of Seattle Designated Scenic Routes and Public View Protection*

There are no City of Seattle Designated Scenic Routes near Alternative DEL-4\*. This alternative would have similar impacts on protected views as Option DEL-2b\*.

### *Light, Glare, and Shadows*

The influence of Alternative DEL-4\* on light, glare, and shadows on open spaces would be similar to that described for Preferred Alternative DEL-1a, although passing trains and the station would be lower in height in many areas.

### ***Andover Street Station Alternative (DEL-5)***

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Alternative DEL-5 would be on an elevated guideway on the west side of Delridge Way Southwest, north of Southwest Andover Street, and would pass to the north of the alternatives previously described in the Delridge Segment. The height of the elevated guideway would range from about 50 to 130 feet, and the top of the Delridge Station would be approximately 100 feet in height. After crossing over Delridge Way Southwest (see Figure 2-5f in Attachment N.2A), this alternative would extend west along Southwest Andover Street near commercial and industrial areas to Southwest Yancy. From Southwest Yancy Street, the alternative would head south and enter a residential area. Although Alternative DEL-5 would have the second least impact on the visual quality of views seen from areas with concentrations of sensitive viewers, it would have impacts along Southwest Avalon Way. This alternative would remove several multi-family residential buildings and most or all of the street trees along Southwest Avalon Way. The guideway curves to the west from Southwest Avalon Way would remove residential buildings (single-family and multi-family) along this street north of Southwest Genesee Street (see Figure 2-10e in Attachment N.2A).

It would impact views from multi-family buildings along Southwest Avalon Way where buildings and existing street trees would be removed, and the elevated guideway would be seen along (and over) much of Southwest Avalon Way. The residential character of views along the street from residences would be changed to transportation. The height, bulk, and scale of the elevated guideway passing over Southwest Avalon Way through a corridor flanked with residences would reduce the average visual unity and intactness of views along it to low and reduce the average visual quality of views to low, which would be a visual impact.

### *City of Seattle Designated Scenic Routes and Protected Views*

There are no City of Seattle Designated Scenic Routes near Alternative DEL-5. This alternative would not have an effect on City of Seattle protected views.

### *Light, Glare, and Shadows*

With Alternative DEL-5, lights from passing trains on the elevated guideway would be seen by residents from the multi-story residential buildings that line this part of Southwest Andover Way. The lights from the trains would add to the at-grade lights from vehicles traveling on Southwest Andover Way. Shadows from the elevated guideway would be cast on Southwest Andover Way and adjacent properties, but not on the open spaces used by the public.

### ***Andover Street Station Lower Height Alternative (DEL-6)\****

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Alternative DEL-6\* would be similar to Alternative DEL-5 up to and including the light rail station. After passing through commercial and industrial properties west of Delridge Way Southwest, Alternative DEL-6\* would head west along Southwest Andover Street, pass into a residential area west of Southwest Andover Way, and then turn south through (and remove residences in) the residential area between 32nd Avenue Southwest and the ramp to and from the West Seattle Bridge. The elevated guideway would range from ground level to about 120 feet. The station top height would be approximately 90 feet.

Alternative DEL-6\* would have the least impact on visual quality of all the Delridge Segment alternatives. Just before the alternative would cross Southwest Yancy Street, it would remove a cluster of single-family residences. After crossing south of Southwest Yancy Street on the north end of 32nd Avenue Southwest, this alternative would also remove a series of residences from the west (uphill) side of the street, adjacent to the West Seattle Bridge. Trees that currently screen views of the West Seattle Bridge would be left in place on the north end of 32nd Avenue Southwest. Where the residences and trees would be removed, the view toward the alignment from remaining residences would be changed from a residential character to transportation. The existing average visual quality of views to the west from these remaining residences would remain average.

Farther south along 32nd Avenue Southwest, trees would be removed that are currently behind some remaining residences on the west side of the street. The removal of trees would open up views to a portion of the West Seattle Bridge, the elevated guideway, and potential sound walls from the remaining residences along this portion of 32nd Avenue Southwest. The average visual quality of views to the west from these residences would be reduced to low, which would be a visual impact.

### *City of Seattle Designated Scenic Routes and Public View Protection*

The removal of trees and buildings along the east side of the West Seattle Bridge would be noticed by travelers. The tree removal might open up views of the downtown skyline that are

currently blocked. The elevated guideway might block or intrude on those views as travelers would pass by this part of the bridge. This alternative would not have an effect on City of Seattle protected views.

*Light, Glare, and Shadows*

With Alternative DEL-6\*, lights from passing trains on the elevated guideway would be seen by residents from the multi-story residential buildings that line this part of 32nd Avenue Southwest. The lights from the trains would add to the at-grade lights from vehicles traveling on 32nd Avenue Southwest. The removal of trees next to the West Seattle Bridge on-ramp would eliminate the screening value of the trees for screening lights from vehicles traveling on the on-ramp. Shadows from the elevated guideway would not be cast on open spaces used by the public.

**4.1.2.4 West Seattle Junction Segment**

Table 4-4 identifies locations within the West Seattle Junction Segment where there would be visual impacts (a reduction of one or more visual quality categories) near areas containing concentrations of sensitive viewers. Simulations developed for the West Seattle Junction Segment in Attachment N.2A serve as a guide to understand how visual quality will change with the alternative from clear vantage points. Cross sections and 3D views are provided in Attachment N.2B to illustrate the general height, bulk, and scale of the different station types (elevated or tunnel) in this segment. For additional information related to station design, see the Sound Transit Station Area Development Opportunities Memo (Sound Transit in development).

**Table 4-4. West Seattle Junction Segment Visual Quality Impacts near Concentrations of Sensitive Viewers**

Alternative	Visual Quality Impacts (miles) <sup>a</sup>	Where Visual Impacts Would Occur
Preferred Elevated 41st/42nd Avenue Station (WSJ-1)	0.1	Residences along 42nd Avenue Southwest, Southwest Hudson Street, and California Avenue Southwest.
Preferred Elevated Fauntleroy Way Station (WSJ-2)	0.2	Residences along 36th Avenue Southwest, 37th Avenue Southwest, and 38th Avenue Southwest.
Preferred Tunnel 41st Avenue Station (WSJ-3a)*	0	None.
Preferred Tunnel 42nd Avenue Station Option (WSJ-3b)*	0	None.
Short Tunnel 41st Avenue Station (WSJ-4)*	0	None.
Medium Tunnel 41st Avenue Station (WSJ-5)*	0	None.

\* As described in the introduction to Chapter 2, Alternatives Considered, of the Draft Environmental Impact Statement, at the time the Sound Transit Board identified alternatives for study in the Draft Environmental Impact Statement some alternatives were anticipated to require third-party funding based on early cost estimates. The asterisk identifies these alternatives and the alternatives that would only connect to these alternatives in adjacent segments.

<sup>a</sup> Visual impacts occur when an existing visual quality category (high, average, low) is reduced one or more categories. Visual impacts are in miles along the length of the alternative or option adjacent to concentrations of sensitive viewers.



### ***Elevated 41st/42nd Avenue Station Alternative (WSJ-1)***

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

The Preferred Alternative WSJ-1 would begin near the elevated Avalon Station (the height to the top of the station would be approximately 70 feet to 80 feet high, depending on which alternative it would connect to in the Delridge Segment) and proceed west to where it would curve to the southeast to pass over to the northwest side of Fauntleroy Way Southwest. The Fauntleroy Place park would be permanently removed with this alternative, so there would be no visual impacts to views from the former park site. The height of the elevated guideway would range from about 30 feet to 80 feet. The guideway would depart Fauntleroy Way Southwest and curve to the southwest over 39th Avenue Southwest, 40th Avenue Southwest, and 41st Avenue Southwest before crossing south over Southwest Alaska Street to the Alaska Junction Station, which would be bounded by Southwest Alaska Street, Southwest Edmonds Street, 41st Avenue Southwest, and 42nd Avenue Southwest. From the station, the elevated guideway would travel south to its terminus north of Southwest Hudson Street. The guideway would end on the west side of 42nd Avenue Southwest and would include a tail track south of the Alaska Junction Station.

Preferred Alternative WSJ-1 would change the visual character at its east end near the Avalon Station. Residential viewers living in remaining single-family residences on both sides of Southwest Genesee Street would see the changes, as would viewers living in a series of multi-family buildings on Southwest Avalon Way. With this alternative, a multi-family residential building and all of the single-family residences along Southwest Genesee Street would be removed and replaced with the elevated guideway and Avalon Station. The top of the station would be approximately 70 to 80 feet in height (see Figure 2-12b in Attachment N.2A). The appearance and character of the area would change for residences to the north. The elevated station and its associated plaza would maintain the area's average visual quality. The height, bulk, and scale of the elevated Avalon Station would be similar to that of the five- to six-story multi-family buildings that face Southwest Avalon Way directly south of the station. The station plaza would provide an at-grade visual connection to Southwest Genesee Street, the multi-family buildings on Southwest Avalon Way, and Fauntleroy Way Southwest. The average visual quality of views towards this alternative would be slightly increased to high average by the presence of the station and station plaza the resulting increase in visual intactness, vividness, and unity.

This alternative would pass south of another area with concentrations of sensitive (residential) viewers; this area is northwest of, and behind, the series of commercial buildings that line the northwest side of Fauntleroy Way Southwest. The removal of these buildings (and associated trees) would eliminate their screening value in terms of screening views to the southeast of Fauntleroy Avenue Southwest from the residences. The residences would have clear views of the elevated guideway, passing trains, and Fauntleroy Way Southwest. Although the visual character of the views from residences in these areas would change from commercial to transportation, the existing low to low average visual quality of the views (that currently feature the backs and/or roofs of commercial buildings/properties) would not be reduced by the presence of the elevated guideway and new streetscape, and there would not be a visual impact.

The area west of the Fauntleroy Way Southwest and Southwest Alaska Street intersection and south of Southwest Alaska Street contains several concentrations of sensitive viewers. Mixed use, with some multi-family residential and multi-story commercial buildings are within this general area along Southwest Alaska Street (between 41st Avenue Southwest and 42nd Avenue Southwest). The replacement of large mixed-use buildings would be clearly seen by

some nearby residents. The large-scale mixed use, urban visual character of the area would be replaced with a large-scale transportation character, which would include the elevated guideway and the height, bulk, and scale of the Alaska Junction Station. The average visual quality of views in the direction of the elevated guideway and station would not be lowered enough to reduce the visual quality category to low, and there would not be an impact to visual quality.

Impacts to visual quality from Preferred Alternative WSJ-1 would occur at the south end of the alignment where the tail track and hi-rail access would remove residences along the west side of 42nd Avenue Southwest between Southwest Edmonds Street and Southwest Hudson Street. The removal of residences and replacement with the tail track and hi-rail access would change the visual character of this area from residential to transportation facility (see Figure 2-15b in Attachment N.2A). The existing high average visual quality of views towards this area from the remaining residential areas would be reduced to low, which would be a visual impact.

### *City of Seattle Designated Scenic Routes and Public View Protection*

The portion of Fauntleroy Way Southwest and its ramp to the West Seattle Bridge and 35th Avenue Southwest are City of Seattle Designated Scenic Routes. Preferred Alternative WSJ-1 would cross over Fauntleroy Way Southwest just before it links to the West Seattle Bridge but would not intrude upon or block views of notable features like the downtown skyline (which cannot be seen from this location). Other than the City of Seattle Designated Scenic Routes, there are no relevant City of Seattle protected views in this segment.

Along 35th Avenue Southwest, the distant presence of the Preferred Alternative WSJ-1 elevated guideway in the background of the view looking north would not lower the vividness, intactness, or unity of the view. The elevated guideway would be another human-made element that characterizes the existing view conditions and would not distract or intrude from views of the downtown skyline or Cascade Mountains beyond due to the natural topography, existing buildings, and existing vegetation in the foreground.

### *Light, Glare, and Shadows*

Elevated stations like the Avalon and Alaska Junction stations would have lights that would be seen from nearby locations, including some buildings containing sensitive residential viewers. The elevated guideway, tail track, and hi-rail vehicle access would also have lighting that would be seen from nearby residential areas. Measures to reduce potential light impacts associated with stations, tail track, and the hi-rail vehicle access are discussed in Section 5, Sound Transit Measures and Mitigation Measures. At-grade vehicle lights and overhead airplane lights are common sights within most of this segment. Elevated lights on trains would be new additions to lights seen in the West Seattle Junction Segment. The lights from passing trains would not impact motorists, pedestrians, and the surrounding area.

### ***Elevated Fauntleroy Way Station Alternative (WSJ-2)***

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Preferred Alternative WSJ-2 would be elevated along the south side of Southwest Genesee Street between 31st Avenue Southwest and Fauntleroy Way Southwest. The height of Avalon Station would be approximately 60 to 70 feet (depending on the alternative it connects with in Delridge) and would be similar in height, bulk, and scale compared to the surrounding neighborhood as described for Preferred Alternative WSJ-1. The height of the elevated guideway for the Preferred Alternative WSJ-2 would range between approximately 30 feet and 70 feet. After crossing south over and continuing southwest along Fauntleroy Way Southwest (see Figure 2-13c in Attachment N.2A). This alternative would remove street-facing commercial

buildings and vegetation on Fauntleroy Way Southwest and residences on nearby side streets, opening up views to the south toward Fauntleroy Way Southwest and the elevated guideway from remaining residences. This would change the residential character of most of the views to transportation. The existing average visual quality of views to the south from the remaining residences between 36th Avenue Southwest, 37th Avenue Southwest, and 38th Avenue Southwest would be reduced to low average, which would not be a visual impact. Similar to Preferred Alternative WSJ-1, the Fauntleroy Place park would be permanently removed with this alternative, so there would be no visual impacts to views from the former park.

This alternative would cross south over Fauntleroy Way Southwest, and its elevated guideway would connect with the elevated Alaska Junction Station (with a height of 70 to 80 feet) that would straddle Southwest Alaska Street (see Figure 2-14b in Attachment N.2A). The station and rest of the elevated guideway south of the station would be seen from several multi-family residential buildings along the west side of 39th Avenue Southwest. The station would be constructed in an area currently containing small commercial buildings, a gas station, and a parking lot. The elevated station, plaza, and guideway would be more memorable elements in this view than the current mix of land uses and buildings. The height, bulk and scale of the elevated Alaska Junction Station would be compatible with nearby buildings and would follow the street pattern in this location. The station and its associated plaza would simplify the visually complex intersection area and add a unifying architectural element. The low visual quality of views toward the intersection that are seen by nearby residences would improve to average, which would be a beneficial change.

### *City of Seattle Designated Scenic Routes and Public View Protection*

Preferred Alternative WSJ-2 would twice pass over the section of Fauntleroy Way Southwest that is a City of Seattle Designated Scenic Route. The elevated guideway would not intrude upon or block views of notable features such as the downtown skyline.

Along 35th Avenue Southwest and similar to Preferred Alternative WSJ-1, the distant presence of the elevated guideway of the Preferred Alternative WSJ-2 alignment in the background of the view looking north would not lower the vividness, intactness, or unity of the view. The guideway would be another human-made element that characterizes the existing view conditions and would not distract or intrude from views of the downtown skyline or Cascade Mountains beyond due to the natural topography, existing buildings, and existing vegetation in the foreground. Other than the City of Seattle Designated Scenic Routes, there are no relevant City of Seattle protected views in this segment.

### *Light, Glare, and Shadows*

Both the elevated Avalon and Alaska Junction stations would have lights that would be seen from nearby locations, including residential buildings with sensitive viewers. At-grade vehicle lights along Fauntleroy Way Southwest and nearby streets are common sights along most of this segment. Elevated lights on light rail trains would be new additions to light views seen by sensitive viewers, including residents living in multi-family buildings at about the same height as the elevated guideway. The presence of passing light rail train lights could be noticed by some residents. The shadows cast by Preferred Alternative WSJ-2 on open spaces used by the public would be similar to those described for Preferred Alternative WSJ-1.

### ***Tunnel 41st Avenue Station Alternative (WSJ-3a)\****

Preferred Alternative WSJ-3a\* (and the other tunnel alternatives) would produce few changes to the visual character and quality of portions of its route seen by the greatest concentrations of sensitive viewers. The most noticeable change to existing visual conditions would be near the

southern portion of this alternative. Preferred Alternative WSJ-3a\* would require the demolition of a number of buildings, including several stories-high multi-family buildings along the east side of 41st Street West that are directly across the street from a large multi-family residential complex. The removal of these buildings would change the residential character of the east side of 41st Street Southwest to vacant lot or transportation character and would be seen from the adjacent residences. The average visual quality to the east from the multi-family complex west of 41st Street Southwest would not be reduced to low, and would therefore not be a visual impact. Construction of the underground tracks employ a cut-and-cover method, which would require the removal of residences on the east side of 41st Avenue Southwest between Southwest Edmonds Street and Southwest Hudson Street. The removal of these residences would change the existing residential visual character of the area when viewed from remaining residences to a vacant lot or transportation character. The presence of the above-ground egress and vent shaft structure associated with the alternative and the cleared land would not reduce the average visual quality of views towards the areas to low and therefore not be a visual impact.

### ***Tunnel 42nd Avenue Station Option (WSJ-3b)\****

Preferred Option WSJ-3b\* would be essentially the same as Preferred Alternative WSJ-3a\*, but the guideway would pass under the surface of slightly different locations. Residences would be removed for the elevated guideway and above-ground egress and vent shaft along the east side of 42nd Avenue Southwest between Southwest Edmonds Street and Southwest Hudson Street. As with Preferred Alternative WSJ-3a\*, this option would change the character of the area where residences would be removed but would not lower the average visual quality of views toward the area to low; therefore, it would not be a visual impact.

### ***Short Tunnel 41st Avenue Station Alternative (WSJ-4)\****

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Alternative WSJ-4\* would pass near several areas with concentrations of sensitive viewers. Alternative WSJ-4\* would have Avalon Station at about 60 to 70 feet high. The height, bulk, and scale of the station might differ from some of the land uses that would remain next to it, but would be similar to the height, bulk, and scale of multi-story, mixed-use buildings that are being developed and will continue to be built in the area. The guideway would begin elevated about 40 feet high near the Avalon Station (which is closer in height to nearby multi-family buildings), head west, and cross over Fauntleroy Way Southwest. After crossing Fauntleroy Way Southwest, the alternative curves southwest and parallels Fauntleroy Way Southwest to the northwest. Alternative WSJ-4\* would remove single-family residences along either side of Southwest Genesee Street and, after passing over Fauntleroy Way Southwest, would remove a series of buildings and vegetation north of Fauntleroy Way Southwest. The removal of these features would open up views to the south that are currently blocked by the buildings and trees. The new open views to the south from remaining residences would include Fauntleroy Way Southwest and the elevated guideway, which would change the character of most of the views from residential to transportation. The average visual quality of these views would be reduced to low average, which would not be a visual impact.

The West Seattle Junction Station would be in a tunnel along 41st Street Southwest, starting south of Southwest Alaska Street. To build the station, this alternative would require the demolition of a number of buildings, including several stories-high multi-family buildings along the east side of 41st Street West that are directly across the street from a large multi-family residential complex. The removal of these buildings would change the residential character of the east side of 41st Street Southwest to vacant lot or transportation character and would be

seen from the adjacent residences. The average visual quality to the east from the multi-family complex west of 41st Street Southwest would likely not be reduced, and therefore would not be a visual impact.

The other location of where residences would be removed for the elevated guideway and above-ground egress vent shaft would be along the west side of 41st Avenue Southwest from Southwest Edmonds Street to mid-block south of Southwest Hudson Street. As with Preferred Alternative WSJ-3a\*, this alternative would change the character of the area where residences would be removed but would not lower the average visual quality of views toward the area to low, and thus would not be a visual impact.

### *City of Seattle Designated Scenic Routes and Protected Views*

Alternative WSJ-4\* would pass over the section of Fauntleroy Way Southwest that is a City of Seattle Designated Scenic Route. The elevated guideway would not intrude upon or block views of notable features such as the downtown skyline.

Along 35th Avenue Southwest, the distant presence of the elevated guideway of the Alternative WSJ-4\* alignment in the background of the view looking north would not lower the vividness, intactness, or unity of the view. The guideway would be another human-made element that characterizes the existing view conditions and would not distract or intrude from views of the downtown skyline or Cascade Mountains beyond due to the natural topography, existing buildings, and existing vegetation in the foreground. Other than the City of Seattle Designated Scenic Routes, there are no relevant City of Seattle protected views in this segment.

### *Light, Glare, and Shadows*

Lights at the elevated Avalon Station would be seen from nearby residential areas. Measures to reduce potential light impacts associated with stations are discussed in Section 5, Sound Transit Design and Mitigation Measures. At-grade vehicle lights along Fauntleroy Way Southwest and nearby streets are a common sight along most of this segment. Elevated lights on light rail trains near Avalon Station would be additional new lights seen by sensitive viewers. The shadows cast by Alternative WSJ-4\* from its elevated guideway and station would be similar to those described for Preferred Alternative WSJ-1, but along a shorter alignment.

### ***Medium Tunnel 41st Avenue Station Alternative (WSJ-5)\****

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Alternative WSJ-5\* would enter the West Seattle Junction Segment from the northeast in a retained cut between the West Seattle Bridge on-ramp and 32nd Avenue Southwest. It would continue under Fauntleroy Avenue Southwest in a retained cut and enter a tunnel west of 37th Avenue Southwest. From the tunnel portal south, this alternative would be similar to Preferred Option WSJ-3b\*. Single-family residences between the West Seattle Bridge on-ramp and the southern portion of 32nd Avenue Southwest would be removed, as would single-family residences along Southwest Genesee Street and multi-family buildings that face Avalon Way Southwest whose “backs” face the area where residences would be removed. The removals could change the existing residential visual character of views from remaining residences to a vacant lot or transportation character. Although the removal of residential buildings (and associated vegetation) in a residential neighborhood would be very noticeable to residents, the average visual quality of views from remaining residences toward Alternative WSJ-5\* would not be reduced to low and would not be considered a visual impact.

West of Fauntleroy Avenue Southwest and near the elevated guideway at the southern terminus of Alternative WSJ-5\*, this alternative's influence on the visual quality of views from areas with concentrations of sensitive viewers would be very similar to that of Preferred Alternative WSJ-3a\*.

### *City of Seattle Designated Scenic Routes and Protected Views*

Part of the Alternative WSJ-5\* guideway would parallel the West Seattle Bridge, which is a City of Seattle Designated Scenic Route. Residences and some vegetation that currently screen views to the east from the bridge (and of the bridge from nearby residences) in this area would be removed. Views to the east beyond the bridge may be opened up with this alternative.

Along 35th Avenue Southwest, the distant presence of the elevated guideway of Alternative WSJ-5\* in the background of the view looking north would not lower the vividness, intactness, or unity of the view. The elevated guideway would be another human-made element that characterizes the existing view conditions and would not distract or intrude from views of the downtown skyline or Cascade Mountains beyond due to the natural topography, existing buildings, and existing vegetation in the foreground. Other than the City of Seattle Designated Scenic Routes, there are no relevant City of Seattle protected views in this segment.

### *Light, Glare, and Shadows*

Although part of the Alternative WSJ-5\* guideway would be in a retained cut and a tunnel, lights from light rail trains might be seen from adjacent properties and from the West Seattle Bridge on-ramp.

### **4.1.3 Construction Impacts**

Activities related to building the West Seattle Link Extension would have temporary impacts on the visual environment. Section 2.5, Construction Approach, in Chapter 2, Alternatives Considered, of the Draft WSBLE Environmental Impact Statement provides an overview of potential construction activities and timing. The construction period for the West Seattle Link Extension is anticipated to occur over a 5-year period. During this time, many construction activities and related effects would be seen by sensitive viewers, such as moving and storing equipment and materials; exposing soils; glare and lights associated with nighttime construction; storing construction materials; using cranes, in-water equipment, and barges for bridge construction; and making general visual changes to the viewed landscape during the project construction period. As detailed in Table 2-6, Major Construction Activities and Duration, in Chapter 2, Alternatives Considered, of the Draft WSBLE Environmental Impact Statement, demolition and clearing activities are estimated to last between 2 months and 12 months, guideway construction between 1 year and 2 years, bridge construction between 3 years and 4 years over the Duwamish Waterway, tunnel construction between 1.5 and 2 years, and elevated station construction about 3 years. All of these activities would be seen by the public and some would be nearby and seen by sensitive viewers. Staging areas throughout the project corridor would range in size from about 1 acre per mile for elevated or at-grade construction to 3 to 5 acres for water-crossing structure construction.

Views toward the West Seattle Link Extension for sensitive viewers will change during the construction period, and there will be impacts of varying degrees. Measures to reduce the effect of construction activities on views seen by sensitive viewers are identified in Section 5.

### 4.1.4 Indirect Impacts

The West Seattle Link Extension could support changes to nearby land uses in station areas, as allowed by zoning. Increases in density of development that are allowed under zoning could occur and would likely be consistent with existing new development in West Seattle. This might result in changes to the visual setting of the areas where the West Seattle Link Extension would support new and more dense development around station areas.

## 4.2 Ballard Link Extension

The South Interbay and Interbay/Ballard segment alternative alignments evaluated in this section are shown in Figures 3-4 and 3-5. Chapter 2, Alternatives Considered, and Appendix J, Conceptual Plans, of the Draft Environmental Impact Statement provide more information on above-ground components of the project. Attachment N.2A includes existing conditions photographs from all of the Ballard Link Extension Segment KOPs, reduced-scale simulations of alternatives developed for these KOPs, and detailed descriptions of if, how, and to what degree the alternatives would change the visual quality of views from the KOPs.

### 4.2.1 No Build Alternative

With the No Build Alternative, the existing visual and aesthetic conditions found throughout the South Interbay and Interbay/Ballard segments would generally be maintained, subject to changes related to planned development. With the No Build Alternative, stations would not be built in the Smith Cove, Interbay, and Ballard station areas. Given City of Seattle policies that encourage increased residential density, it can be assumed that the appearance of residential neighborhoods in the general and immediate vicinity of the station areas would change over time as development would increase the density of these areas. These changes in density could occur sooner if the alternative stations were built. It is likely that density in the Ballard Station areas in the immediate vicinity of Northwest Market Street and 14th Avenue Northwest and 15th Avenue Northwest would change over time as development in these areas would increase their density.

### 4.2.2 Build Alternatives

#### 4.2.2.1 Impacts Common to All Build Alternatives

All of the Ballard Link Extension alternatives would change the visual environments in which they would be constructed. Elements that would be common to all of the WSBLE Project Build Alternatives are described above under Section 4.1.2 for the West Seattle Link Extension.

#### 4.2.2.2 Chinatown-International District Segment

The alternatives being considered in the Chinatown-International District Segment would be in tunnels accessed via station entrances on 4th Avenue South and 5th Avenue South. Other than stations and other facilities such as tunnel vents, these areas would not contain components above ground. The stations' street-level entrances would be the main above-ground elements of the Build Alternatives that would be potentially seen by sensitive viewers, but would not change the visual quality of views towards these elements by the sensitive viewers. The street-level entrances to stations would be designed to fit in with the neighborhoods of which they would be a part and designed with community input and are not anticipated to reduce visual intactness, vividness, or unity. Sound Transit would coordinate with the City of Seattle on design to promote visual unity in station areas. Other facilities, such as the tunnel vents, would typically be less prominent than the station entrances but would also be designed to fit in the neighborhood in

coordination with the City. These facilities would not change the visual quality of views towards them by sensitive viewers. An exception is the tunnel vent in front of Union Station, which would be a prominent component of Alternative CID-1a\* and Option CID-1b\*. Any aesthetic and visual concerns related to the design of the stations and other facilities would be addressed during the community input and design review phases of the WSBLE Project. This segment is not considered further in this technical report, and KOPs were not used to depict existing conditions or alternatives.

**4.2.2.3 Downtown Segment**

All of the alternatives in the Downtown Segment would be in tunnels accessed via station entrances that would vary by alternative. Other than stations and other facilities such as tunnel vents, these areas would not contain components above ground. The stations’ street-level entrances would be the main above-ground elements of the Build Alternatives that would be potentially seen by sensitive viewers, but would not change the visual quality of views towards the entrances by the sensitive viewers. The street-level entrances to stations would be designed to fit in with the neighborhoods of which they would be a part, be designed with community input, and are not anticipated to reduce visual intactness, vividness, or unity. Sound Transit would coordinate with the City of Seattle on design to promote visual unity in station areas. Other facilities, such as the tunnel vents, would be less prominent than the station entrances but would also be designed to fit in the in coordination with the City. These facilities would not change the visual quality of views towards them by sensitive viewers. Any aesthetic and visual concerns related to the design of the stations and other facilities would be addressed during the community input and design review phases of the WSBLE Project. This segment is not considered further in this technical report, and KOPs were not used to depict existing conditions or alternatives in this segment.

**4.2.2.4 South Interbay Segment**

Table 4-5 identifies locations within the South Interbay Segment where there would be visual impacts (a reduction of one or more visual quality categories) near areas with concentrations of sensitive viewers. The South Interbay Segment would have primarily above-ground components and contains nearby concentrations of sensitive viewers. Simulations developed for the segment in Attachment N.2A serve as a guide to understand visual changes with the alternatives from clear vantage points. Cross sections of Smith Cove Station are shown in Attachment N.2B to illustrate the general height, bulk, and scale of the station.

**Table 4-5. South Interbay Segment Visual Quality Impacts near Concentrations of Sensitive Viewers**

Alternative	Visual Quality Impacts (miles) <sup>a</sup>	Where Visual Quality Impacts Would Occur
Preferred Galer Street Station/Central Interbay (SIB-1)	0.1	Residences to the northeast of the Interbay Athletic Complex.
Prospect Street Station/15th Avenue (SIB-2)	0.4	Trails in the Southwest Queen Anne Greenbelt and possibly residences uphill from the greenbelt.
Prospect Street Station/Central Interbay (SIB-3)	1.0	Trails in the lower part of Kinnear Park and the Southwest Queen Anne Greenbelt and possibly residences uphill and residences to the northeast of the Interbay Athletic Complex.

<sup>a</sup> Visual impacts occur when an existing visual quality category (high, average, low) is reduced one or more categories. Visual impacts are in miles along the length of the alternative adjacent to concentrations of sensitive viewers.



### **Galer Street Station/Central Interbay Alternative (SIB-1)**

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Preferred Alternative SIB-1 would continue the tunnel beneath Republican Street in the Downtown Segment from 2nd Avenue West to a tunnel portal on the east side of 5th Avenue West. From the tunnel portal, this alternative would become elevated and cross to the west side of Elliott Avenue West and continue northwest. The elevated guideway would cross to the east side of Elliott Avenue West near West Mercer Place and continue northwest between the east side of Elliott Avenue West and Kinnear Park. North of Kinnear Park, the alignment would transition to the west side of Elliott Avenue West to enter the Smith Cove Station.

The elevated guideway with Preferred Alternative SIB-1 would range from about 30 and 80 feet in height and would be highest near West Armory Way. This alternative would pass through several areas with concentrations of sensitive viewers. The portion of its alignment that would exit the portal at-grade and then transition to an elevated guideway would be seen from nearby residences along West Republican Street and several side streets. Its presence would not reduce the existing average visual quality of this area. As the alignment would become elevated and turn northwest along Elliott Avenue West, it would be within view of a series of multi-family residential buildings situated at 6th Avenue West (see Figure 3-1b in Attachment N.2A). The elevated guideway would pass by nearby residents as it follows Elliott Avenue West northward, partially blocking views of the Olympic Mountains. However, its presence would not lower the average visual quality category of views from residences along Elliott Avenue West to the west that include features such as Elliott Avenue West, industrial buildings, office buildings, parking lots, the BNSF Railway tracks (and stationary freight train cars), the green open space of Centennial Park Trail, and the Pier 86 grain terminal. Partial views of Elliott Bay and the Olympic Mountains are possible between buildings and structures west of Elliott Avenue West. The potential undergrounding of existing overhead utilities at locations along Elliott Avenue West would raise the intactness from average to high average, but this would not be enough to change the visual quality.

Near the southwest corner of Queen Anne Hill, Preferred Alternative SIB-1 would follow the east side of Elliott Avenue West past the west side of Kinnear Park. It would be seen through trees in the park by recreationists using some of the trails near the park's edge. Because western views from portions of the edge of Kinnear Park from where the alternative would be viewed also include views of Elliott Avenue West, the BNSF Railway tracks, and the Pier 86 grain terminal, the low visual quality of those views would not be reduced lowered with the presence of the elevated guideway.

The elevated guideway would cross over Elliott Avenue West, remove a series of commercial buildings on the west side of the street, cross over the Galer Street Flyover (the Smith Cove Station would straddle the overpass and would be about 90 feet in height). The Smith Cove Station would not be near concentrations of sensitive viewers. This alternative would pass west of the Southwest Queen Anne Greenbelt and would not be seen from the greenbelt.

After leaving the Smith Cove Station, this alternative would pass through commercial properties (and remove buildings), cross over the Magnolia Bridge, and pass through part of the Seattle Armory to the BNSF Railway tracks without passing near areas with concentrations of sensitive viewers. It would follow the eastern edge of the BNSF Railway tracks next to the Interbay Golf Center where it would require the removal of vegetation that screens some views from the golf course to the west of BNSF Railway tracks and freight trains. The elevated guideway would introduce an additional transportation element into southern and western views from parts of this expansive recreational facility (see Figure 3-2b in Attachment N.2A). The presence of the

elevated guideway along the west side of the golf center would somewhat lower the average visual quality of views toward the alternative, but not enough to reduce it to low.

The elevated guideway would continue north from the Interbay Golf Center adjacent to the BNSF Railway tracks to the Interbay Athletic Complex, where it would turn northeast and cross over part of the complex and West Dravus Street. The alternative would remove vegetation that partially screens views of the BNSF Railway tracks and freight trains to the immediate west of the complex (see Figure 3-3b in Attachment N.2A). The elevated guideway and straddle bents passing through this relatively small and visually contained recreational area would remove grass fields and add a large-scale transportation element. This would change the visual character of the view towards the elevated guideway from recreational to transportation. The average visual unity and intactness of the view and its high average visual quality would be reduced to low. This would be a visual impact to views from the multi-story residential development to the northeast but not to recreationists, because the grass fields they use would be displaced and recreationists would no longer use the fields. It would also not be a visual impact to people using the soccer field and associated stands (which face south away from the changes to the athletic fields) at the Interbay Athletic Complex because their viewing attention would continue to be on the soccer field.

The elevated guideway and passing trains could be seen from residential areas on the slope east of 15th Avenue West, but their presence would not lower the existing average visual quality (see Figure 3-4b in Attachment N.2A). The elevated guideway, passing light rail trains, and the Interbay Station would be seen more closely from some areas along the eastern slope of Magnolia (see Figure 3-5b in Attachment N.2A). The Preferred Alternative SIB-1 components would somewhat lower the existing average to above average visual quality of views toward the alignment. However, this alternative would not reduce visual quality to low and therefore would not be a visual impact.

### *City of Seattle Designated Scenic Routes and Public View Protection*

Elliott Avenue West between the Seattle waterfront and the Magnolia Bridge is a City of Seattle Designated Scenic Route, as is the Magnolia Bridge. From Elliott Avenue West within this segment, views to the west of features such as Mount Rainier, the downtown skyline, Elliott Bay, Puget Sound, and the Olympic Mountains are frequently blocked by buildings, freight train cars in storage on BNSF Railway tracks, or trees. However, views from the Magnolia Bridge are open and include all of these features, although partial views at some locations along Elliott Avenue West are possible between the buildings and structures to the west. The Preferred Alternative SIB-1 elevated guideway would not intrude upon or block views of these features from Elliott Avenue West. The three locations where the elevated guideway would cross over Elliott Avenue West would be noticeable but would not block views of the features mentioned above. Western views of Elliott Bay and the Olympic Mountains could be blocked along a limited portion of the Magnolia Bridge east of where the elevated guideway would cross over the bridge. Western and southwestern views from the bridge on-ramp area are generally blocked or partially blocked by existing buildings, so the presence of an elevated guideway would very likely not block views of important features from the Magnolia Bridge.

With the exception of the Interbay Golf Course (a protected viewpoint), Preferred Alternative SIB-1 would not intrude on views of Mount Rainer, the Olympic and Cascade mountains, the downtown skyline, or Puget Sound from the City of Seattle specified protected viewpoints located near this segment (Smith Cove Park and Kinnear Park). Views of these features would not be blocked from the Interbay Golf Course, but views of Elliott Bay would be partially intruded upon from some locations (see Figure 3-2b in Attachment N2.A).

### *Light, Glare, and Shadows*

Lights from trains using the Preferred Alternative SIB-1 elevated guideway would be seen from nearby locations, including the multi-family buildings east of the southern end of this alternative. The train would add additional lights to nighttime views toward Elliott Way West that currently include lights from facilities to the west, such as commercial buildings, trains on BNSF Railway tracks, the Pier 86 grain terminal, and ships anchored in Elliott Bay. The elevated Smith Cove Station over the West Galer Street Flyover would be seen at night from distant residences, along with vehicle lights on the Magnolia Bridge, lights from commercial and industrial areas, and lights from berthed cruise ships.

The lights from light rail trains on the elevated guideway and the Smith Cove Station would not impact motorists, pedestrians, and the surrounding area. Lights from trains would be noticed from the Interbay Golf Center, the Interbay Athletic Complex soccer stadium and associated stands, and the multi-family building to the northeast but would not impact these areas because lights from trains passing on the elevated guideway would well above roadways and pedestrian pathways. If the lights are seen, it would only be for a short duration and would not impact motorists or pedestrians. In addition to train lights, lights associated with the BNSF Railway tracks and beyond, which are currently blocked by trees from most (but not all) locations east of the tracks, would become visible with this alternative. The elevated guideway would cast shadows on adjacent open spaces used by the public, specifically the western edge of Kinnear Park and the Interbay Golf Center. The shadows would change throughout the day and be unlikely to impact facility users. Magnolia hill also casts late afternoon shadows over the Interbay area that vary by time of year and day.

### ***Prospect Street Station/15th Avenue Alternative (SIB-2)***

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Alternative SIB-2 would continue the tunnel beneath Republican Street in the Downtown Segment from 2nd Avenue West to a tunnel portal on the east side of 5th Avenue West. From the tunnel portal, the alternative would become elevated and cross to the west side of Elliott Avenue West and continue northwest. The Alternative SIB-2 elevated guideway would be as high as 40 feet, and the top of the Smith Cove Station would be about 60 feet in height. From 2nd Avenue West to beyond Kinnear Park, the Alternative SIB-2 alignment would be very similar to that of Preferred Alternative SIB-1. North of Kinnear Park, the elevated guideway and elevated Smith Cove Station would be between the east side of Elliott Avenue West and the west side of the southern end of the Southwest Queen Anne Greenbelt. Commercial buildings along the east side of Elliott Avenue West would be removed, as would trees within the Southwest Queen Anne Greenbelt.

From the Smith Cove Station, the elevated guideway would continue northwest between the east side of Elliott Way West and the Southwest Queen Anne Greenbelt as it would transition into a retained cut. Then the alignment would veer away from Elliott Way West and pass through the west portion of the Southwest Queen Anne Greenbelt, which would require the removal of trees within the greenbelt. These changes would be seen by recreationists using trails and possibly by people in residences east of and above the Southwest Queen Anne Greenbelt (although views of these changes from the residences would be often be screened by trees on the slope). The natural visual character of the western portion of the Southwest Queen Anne Greenbelt would be changed to transportation. The existing high average visual quality of views within the Southwest Queen Anne Greenbelt would be reduced to low, which would be a visual impact.

After leaving the Southwest Queen Anne Greenbelt, this alternative would transition to elevated and follow the center of 15th Avenue West, where it would pass by concentrations of sensitive (residential) viewers. These residents are in multi-family residential buildings along the east side of 15th Avenue West and in single-family residences on the slope east of 15th Avenue West, along streets such as 14th Avenue West and Prosch Avenue West. Trees and other buildings block views to the west from many of the residences on the hillside east of 15th Avenue West, so in many locations the elevated guideway would not be seen. Where the elevated guideway would be seen passing approximately 40 feet high, it would add another transportation element into westward views from these residential areas and would not greatly change the character of the viewed landscape, which is a combination of commercial, recreation (due to the Interbay Golf Center), and transportation (15th Avenue West) (see Figure 3-4c in Attachment N.2A). The presence of the elevated guideway and trains would not reduce the generally average visual quality of the views from the residential areas east of 15th Avenue West to low average, which would not be a visual impact. The elevated guideway and passing trains would also be seen from some on the eastern slope of Magnolia but would not be particularly noticeable (see Figure 3-5c in Attachment N.2A) and would not alter the existing average visual quality of views to the west toward the guideway.

### *City of Seattle Designated Scenic Routes and Public View Protection*

Elliott Avenue West between the Seattle waterfront and the Magnolia Bridge is a City of Seattle Designated Scenic Route, as is the Magnolia Bridge. Views to the west from Elliott Avenue West of features such as the downtown skyline, Elliott Bay, Puget Sound, and the Olympic Mountains are blocked by buildings and trains in the BNSF Railway tracks. The Alternative SIB-2 elevated guideway would not intrude upon or block views of these features from this part of Elliott Avenue West. The guideway would be to the east of the Magnolia Bridge and would not block views from the bridge.

### *Light, Glare, and Shadows*

Lights from trains passing on the Alternative SIB-2 elevated guideway and from the elevated Smith Cove Station would be seen from nearby residences, from Kinnear Park, and from the Southwest Queen Anne Greenbelt. The light rail train lights would add additional moving lights to views of Elliott Way West that are currently seen from some residences. The hi-rail vehicle access lighting would also be seen from the Southwest Queen Anne Greenbelt and nearby residences. However, the lights from passing trains and the hi-rail access would not impact motorists, pedestrians, and the surrounding area. Lights from trains passing on the elevated guideway would be well above roadways and pedestrian pathways. If the lights are seen, it would only be for a short duration and would not impact motorists or pedestrians. Similarly, where train lights are seen from the surrounding area, there would not be an impact because of the short duration the lights would be seen as the trains pass. Lights from the elevated Smith Cove Station would be designed in accordance with Sound Transit design measures and would not have an impact on the surrounding area. Measures to reduce potential light impacts associated with stations and the hi-rail vehicle access are discussed in Section 5. The elevated guideway and the elevated Smith Cove Station would cast shadows on adjacent areas that would change throughout the day. In the late afternoon, shadows from the elevated guideway would be cast on two open spaces used by the public, the western edge of Kinnear Park and the Southwest Queen Anne Greenbelt. However, the shadows would change throughout the day and be unlikely to impact facility users.

### **Prospect Street Station/Central Interbay Alternative (SIB-3)**

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Alternative SIB-3 would continue the tunnel under West Mercer Street from the Downtown Segment from 2nd Avenue West to a tunnel portal east of Elliott Avenue West on the northwestern edge of Kinnear Park, south of West Prospect Street. From the tunnel portal, this alternative would travel through a retained cut east of Elliott Avenue West that would include the Smith Cove Station. The top of the Smith Cove Station (in a retained cut) would be about 30 feet in height above the existing ground surface. The alternative would pass through the western portion of the Southwest Queen Anne Greenbelt as a retained cut and then transition to an elevated guideway that would pass over 15th Avenue West. The height of the elevated guideway would range from about 30 feet to 80 feet.

This alternative would remove vegetation in a limited portion of lower Kinnear Park where its tunnel would end and the retained cut to the north would begin. The removal of vegetation in this limited area of the park would lower the existing high average visual unity and intactness to low, which would be a visual impact. This alternative would continue north in a retained cut and then transition to at-grade along and through the western edge of the Southwest Queen Anne Greenbelt. It would require the removal of buildings along the east side of Elliott Avenue West and vegetation within the western part of the Southwest Queen Anne Greenbelt. The removal of vegetation and presence of this alternative would change the natural visual character of the western portion of the Southwest Queen Anne Greenbelt to transportation. It would also reduce the high average visual quality of views within the western portion of the Southwest Queen Anne Greenbelt to low. This visual impact would be seen by recreational users and potentially from residences above the Southwest Queen Anne Greenbelt.

This alternative would transition to an elevated guideway and pass over 15th Avenue West, where it would remove some buildings along the east side of the road. The removal of these buildings and presence of the elevated guideway would change views or vividness to the west (but not the visual quality of the view) from residences on the southern end of 14th Avenue West. The alternative would veer northwest and follow the same route as Preferred Alternative SIB-1 along the west side of the Interbay Golf Center and the Interbay Athletic Complex. Alternative SIB-3 would have the same impacts on the visual quality of views by sensitive viewers from these areas as Preferred Alternative SIB-1.

#### *City of Seattle Designated Scenic Routes and Public View Protection*

Elliott Avenue West between the Seattle waterfront and the Magnolia Bridge is a City of Seattle Designated Scenic Route, as is the Magnolia Bridge. Views from Elliott Avenue West to the west, of features such as the downtown skyline, Elliott Bay, Puget Sound, and the Olympic Mountains, are blocked by buildings and trains in the BNSF Railway tracks. The Alternative SIB-3 elevated guideway would not intrude upon or block views of these features from this part of Elliott Avenue West or from the Magnolia Bridge. This alternative would not intrude upon or block views of Mount Rainer, the Olympic and Cascade mountains, the downtown skyline, or Puget Sound from three of the protected viewpoints near this segment—the Interbay Golf Center, Smith Cove, or Kinnear Park.

#### *Light, Glare, and Shadows*

Lights from trains on the at-grade portion of Alternative SIB-3 and lighting in the portion of Smith Cove Station above the existing ground surface would be seen by recreationists in the northern end of Kinnear Park and in the Southwest Queen Anne Greenbelt. Lights from the trains on the elevated guideway portion of this alternative would be noticed from the Interbay Golf Center, the Interbay Athletic Complex soccer stadium and stands, and the multi-family building to the

northeast. Train lights would not impact these areas because of the short duration the lights would be seen as the trains pass. In addition to lights from trains, lights from the BNSF Railway tracks and beyond that are currently blocked by trees from most (but not all) locations in the golf center, the athletic complex, and the multi-family building would become visible.

Lights from trains passing on the elevated guideway portion of this alternative would be well above roadways and pedestrian pathways. If the lights are seen, it would only be for a short duration and would not impact motorists or pedestrians. The hi-rail vehicle access lighting would be seen from the Southwest Queen Anne Greenbelt. Lights from Smith Cove Station and the hi-rail vehicle access would be designed in accordance with Sound Transit design measures (see Section 5, Sound Transit Design and Mitigation Measures) and would not have an impact on the surrounding area. The elevated guideway would cast afternoon shadows on open space used by the public—the western edge of the Interbay Golf Center. However, the shadows would change throughout the day and be unlikely to impact facility users.

**4.2.2.5 Interbay/Ballard Segment**

Table 4-6 identifies locations within the Interbay/Ballard Segment where there would be visual impacts (a reduction of one or more visual quality categories) near areas with concentrations of sensitive viewers. The Interbay/Ballard Segment would have primarily above-ground components for some alternatives and below-ground components for others, and contains nearby concentrations of sensitive viewers. Simulations developed for the segment in Attachment N.2A serve as a guide to understand visual changes with the alternatives from clear vantage points. Cross sections and 3D views are provided in Attachment N.2B to illustrate the general height, bulk, and scale of the different station types (elevated or tunnel) in this segment.

**Table 4-6. Interbay/Ballard Segment Visual Quality Impacts near Areas with Concentrations of Sensitive Viewers**

Alternative	Visual Quality Impacts (miles) <sup>a</sup>	Where Visual Quality Impacts Would Occur
Preferred Elevated 14th Avenue (IBB-1a)	0.1	The high visual quality of views from Salmon Bay toward the Ballard Bridge by water-based recreationists would be reduced to average for all bridge types. Only the arch, extradosed, and cable-stayed bridge types being considered could also impact visual quality of views from the northwestern part of Queen Anne Hill.
Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)	0.1	Same as for Preferred Alternative IBB-1a.
Preferred Tunnel 14th Avenue (IBB 2a)*	0	None.
Preferred Tunnel 15th Avenue Station Option (IBB-2b)*	0	None.
Elevated 15th Avenue (IBB-3)	0.2	The high visual quality of views from Salmon Bay toward the Ballard Bridge by water-based recreationists would be reduced to low average.

\* As described in the introduction to Chapter 2, Alternatives Considered, of the Draft Environmental Impact Statement, at the time the Sound Transit Board identified alternatives for study in the Draft Environmental Impact Statement some alternatives were anticipated to require third-party funding based on early cost estimates. The asterisk identifies these alternatives and the alternatives that would only connect to these alternatives in adjacent segments.

<sup>a</sup> Visual impacts occur when an existing visual quality category (high, average, low) is reduced one or more categories. Visual impacts are in miles along the length of the alternative or option adjacent to concentrations of sensitive viewers.

### ***Elevated 14th Avenue Alternative (IBB-1a)***

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

The Preferred Alternative IBB-1a would cross over West Dravus Street on elevated guideway parallel to the BNSF Railway tracks and then curve northeast to Interbay Station. The station would be just north of West Dravus Street between the railroad tracks and 17th Avenue West. The height of the top of the Interbay Station would be about 80 feet to 90 feet, depending on which alternative it connects with in the South Interbay Segment. The elevated Interbay Station would be in what is now a largely commercial and industrial area east of the BNSF Railway tracks and west of 15th Avenue West. This alternative's elevated guideway and Interbay Station would change the visual character of part of this area to transportation. The station and its plaza would help visually unify the area and improve the low existing visual quality of views to average, which would be a beneficial change seen by sensitive viewers such as residents in multi-family buildings along West Dravus Street, the west side of 15th Avenue West north of West Dravus Street, the east side of 15th Avenue West on Queen Anne Hill, and in Magnolia near West Dravus Street.

After leaving the Interbay Station, this alternative would pass over 15th Avenue West and the West Emerson Street interchange and pass through a residential area on the northwest part of Queen Anne Hill. The removal of residences, the elevated guideway, and the start of the bridge over Salmon Bay would change the residential character of portions of this area to transportation. However, these project features would not lower the high average to average visual quality of views toward the alternative to low, so these changes would not be considered a visual impact. The height of the Preferred Alternative IBB-1a elevated guideway would range from approximately 30 feet to 140 feet and would be highest south and north of Salmon Bay where it would transition to the bridge.

The bridge would have a clearance of approximately 136 feet over the navigation channel in Salmon Bay and would be approximately 600 feet east of the Ballard Bridge. Although many views toward the bridge from the northwest part of Queen Anne Hill would be blocked by trees or buildings, where it would be seen (see Figure 3-6b in Attachment N.2A), it would appear in front of and "over" the existing Ballard Bridge and would become a dominant element of the view. The presence of the balanced cantilever segmental box girder bridge that is depicted in simulations would decrease the high vividness of the view to high average. Seeing the bridge would lower the average intactness of the view to low average and reduce the high average unity to low average. The overall high average visual quality of the view would be lowered to low average, which is not enough of a reduction to be considered a visual impact.

The Preferred Alternative IBB-1a bridge would be visible from many locations within Salmon Bay used by water-based recreationists. The scale and height of the bridge would be very noticeable, especially compared to the Ballard Bridge, but would not block views of the bridge or views up and down Salmon Bay (see Figure 3-8b in Attachment N.2A). Although the vividness of the bridge would be high, the existing high visual quality of views from the waters of Salmon Bay by recreationists toward the Ballard Bridge would be lowered to average, which would be a visual impact. The distance of impact indicated in Table 4-6 is the portion of the balanced cantilever segmental box girder bridge that would cross directly over the open water of Salmon Bay. Through design review in coordination with the City of Seattle, Sound Transit would consider measures to minimize impacts to visual quality from the bridge, such as design guidelines and context-sensitive design.

The bridge would also be seen by people traveling on the South Ship Canal and Burke-Gilman trails. People using these trails are considered to be using them primarily for transportation,

similar to motorists driving on City of Seattle Designated Scenic Routes. Some of these viewers would no doubt appreciate the scenery they pass. However, because they are in transit and focused on the road or trail on which they are traveling, they are not considered sensitive viewers for this analysis.

Sound Transit is considering several bridge types for the Preferred Alternative IBB-1a and Option IBB-1b crossings. In addition to the balanced cantilever segmental box girder bridge depicted in the simulations, Sound Transit is considering an arch bridge, a extradosed bridge, and a cable-stayed bridge (see Figure 4-1). Each of these bridge types would have different visual characteristics and different potential impacts on the visual quality of views seen by sensitive viewers. The arch, extradosed, and cable-stayed bridges would have components taller than those associated with the balanced cantilever segmental box girder bridge. Like the balanced cantilever segmental box girder bridge, the three other potential bridge types would have visual impacts on views from Salmon Bay by water-based recreationists. The three taller bridge types could result in enough of a reduction to the visual quality of views seen by residents on the northwest part of Queen Anne Hill to be considered a visual impact. The arch, extradosed, and cable-stayed bridges would also likely be the most visually distinctive bridge types. They would likely be seen over a greater distance than the balanced cantilever segmental box girder bridge would be seen from and could be considered attractive enough by some people to become positive signature elements to views toward Salmon Bay.

After crossing Salmon Bay, Preferred Alternative IBB-1a would travel along 14th Avenue Northwest toward Northwest Market Street and its terminus to the north. This alternative would remove a number of commercial buildings along 14th Avenue Northwest for the elevated Ballard Station (the height to the top of the station structure would be about 80 feet), which would cross over Northwest Market Street and be seen from residences on 14th Avenue Northwest (see Figure 3-11b in Attachment N.2A). Some residences along 14th Avenue Northwest would be removed for the guideway, tail track, and station. These changes would be seen from remaining residences and convert the character of this area from commercial to transportation.

North of the Ballard Station, residences along the east side of 14th Avenue Northwest would be removed for the elevated guideway (see Figure 3-12b in Attachment N.2A). These changes related to the Ballard Station and trail track would be seen from remaining residences and would convert the character of the area from commercial and residential to transportation. The presence of alternative components would not reduce the existing average quality views and therefore would not be a visual impact.

### *City of Seattle Designated Scenic Routes and Public View Protection*

Preferred Alternative IBB-1a would cross over a portion of 15th Avenue Northwest and also pass near the Ballard Bridge, both of which are City of Seattle Designated Scenic Routes. The elevated guideway over 15th Avenue Northwest would not block or intrude upon views of features of concern along City of Seattle Designated Scenic Routes. One location on the Ballard Bridge was selected to represent how views to the east from the bridge would change with this alternative (see Figure 3-9b in Attachment N.2A). Eastern views of features such as Salmon Bay, the Lake Washington Ship Canal, and the Cascade Mountains would be partially blocked by columns supporting the elevated guideway, depending on where on the bridge travelers would be. However, the elevated guideway would be high enough so that it would not block views of these features.

This alternative would not intrude upon or block views of key features such as Queen Anne Hill, the Olympic Mountains, Salmon Bay, or the Lake Washington Ship Canal from Ballard High School, which is a City of Seattle protected view. The high school is located at 14th Avenue



Northwest and Northwest 61st Street, several blocks north of the elevated guideway, tail track, and station, all of which are south of Northwest 58th Street. In addition, the high school is uphill (elevated around 100 feet) from the proposed light rail facilities.

The southwest corner of the Ballard Avenue Landmark District is located to the west. The alternative's elements would not block views of the Ballard Avenue Landmark District from ground level views, and the alternative's crossing of Salmon Bay would offer elevated views of it from areas east of the Ballard Bridge (currently blocked by the bridge).

### *Light, Glare, and Shadows*

Lights associated with trains traveling on the Preferred Alternative IBB-1a elevated guideway would be seen by sensitive viewers on northeast Queen Anne Hill (described previously), on the bridge crossing Salmon Bay, and from residences in Ballard at the north end of this alternative. Views of lights from passing trains would not impact motorists, pedestrians, and the surrounding area. Lights from trains passing on the elevated guideway portion of the alternative and option would be well above roadways and pedestrian pathways, and if the lights are seen, it would only be for a short duration and would not impact motorists or pedestrians. Train lights would also not impact the surrounding area because of the short duration the lights would be seen as the trains pass. Lights from the elevated Interbay and Ballard stations and the tail tracks at Ballard Station would be seen by nearby residents but would not have an impact because lighting would be designed in accordance with Sound Transit design measures. Measures to reduce potential light impacts are discussed in Section 5, Sound Transit Design and Mitigation Measures. Safety lights for aviation could be required on the bridges being considered for the crossing of Salmon Bay. These lights could be required at the tops of bridge towers or guideway columns or at the bridge's tallest point. These lights would be seen at night and be similar in appearance to other aviation safety lights, such as those on the tops of communication towers and buildings. Navigation lights could be required on the guideway column protection system and the base of the bridge deck. These lights would be similar to navigation lights seen on bridges over Salmon Bay and the Lake Washington Ship Canal. The elevated guideway would cast shadows on one open space used by the public—Salmon Bay.

### ***Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)***

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

From its southern boundary, Option IBB-1b would continue north up the center of 15th Avenue Northwest and veer to the northwest toward the West Emerson Street interchange, then pass into the same residential areas in northwest Queen Anne through which Preferred Alternative IBB-1a would pass. From that point, Option IBB-1b would follow the same route as Preferred Alternative IBB-1a.

Option IBB-1b would somewhat reduce the generally average visual quality of views from sensitive viewers along the east side of 15th Avenue Northwest and from northwest Queen Anne Hill, but not enough to lower the visual quality category one or more categories. The removal of residences along the east side of 15th Avenue Northwest near West Dravus Street would open up views to the west from the backs residences that face 14th Avenue Northwest. The presence of the elevated guideway and views beyond it would change the character of western views from these properties from residential to transportation but would not reduce the existing average visual quality. The rest of this alternative would be the same as Preferred Alternative IBB-1a and would have the same influence of visual character and quality.

### *City of Seattle Designated Scenic Routes and Public View Protection*

The influence of Option IBB-1b on City of Seattle Designated Scenic Routes and protected views would be very similar to that described for Preferred Alternative IBB-1a.

### *Light, Glare, and Shadows*

The influence of Option IBB-1b on light, glare and shadows on open spaces would be very similar to what was described for Preferred Alternative IBB-1a.

### ***Tunnel 14th Avenue Alternative (IBB-2a)\* and Tunnel 15th Avenue Station Option (IBB-2b)\****

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Preferred Alternative IBB-2a\* would cross under West Dravus Street, enter in a retained cut parallel to the BNSF Railway tracks, and then curve northeast to Interbay Station. This alternative would continue from Interbay Station to a tunnel portal between 15th Avenue West and Thorndyke Avenue West. The tunnel would continue under Salmon Bay and north to Ballard Station at 14th Avenue Northwest. Preferred Option IBB-2b\* would be the same as Preferred Alternative IBB-2a\* but would have a different alignment under Salmon Bay, and Ballard Station would be at 15th Avenue Northwest. Preferred Alternative IBB-2a\* and Preferred Option IBB-2b\* would have the least impact on visual character and visual quality of the Build Alternatives in the Interbay/Ballard Segment because the majority of this alternative and this option would be in a tunnel. The primary project component that would be visible above ground would be the top 30 feet or so of the Interbay Station, which includes the architectural station entries, elevators, ancillary spaces, and stairway enclosures. The Interbay Station would be in a retained cut (in an area that is currently industrial in character) north of West Dravus Street between 17th Avenue West and Thorndyke Avenue West. The presence of the station would convert the industrial character of the surrounding area to transportation and would not further reduce the low visual quality of the area. The station would not create a visual impact to views of recreationists at the soccer field and associated stands at the Interbay Athletic Complex or residents in the adjacent multi-family residential complex.

Preferred Alternative IBB-2a\* and Preferred Option IBB-2b\* would remove a number of commercial and residential buildings along 14th Avenue Northwest and 15th Avenue Northwest for the tunnel Ballard Station, respectively. These changes from Preferred Alternative IBB-2a\* would be seen from remaining residences but would not reduce the existing average quality views and therefore would not be a visual impact. Changes associated with Preferred Option IBB-2b\* would be seen by sensitive viewers in multi-family buildings near the intersection of 15th Avenue Northwest and Northwest Market Street. The tunnel station would somewhat increase the vividness of views in this area from low average to average as well as increase overall visual quality. These would be beneficial changes to views toward that station seen by nearby residents.

### *City of Seattle Designated Scenic Routes and Protected Views*

Neither Preferred Alternative IBB-1a\* or Preferred Option IBB-2b\* would block or intrude on views of features of concern along City of Seattle Designated Scenic Routes or protected views.

### *Light, Glare, and Shadows*

Lights from the top of the Interbay Station seen by nearby residents in the multi-family complexes on West Dravus Street and on the west side of 15th Avenue West would not have an

impact because lighting would be designed in accordance with Sound Transit design measures. Measures to reduce potential light impacts associated with stations are discussed in Section 5.

### ***Elevated 15th Avenue Alternative (IBB-3)***

#### *Impacts to Visual Quality near Areas with Concentrations of Sensitive Viewers*

Alternative IBB-3 would cross over West Dravus Street in the median of 15th Avenue West. Interbay Station would be elevated above 15th Avenue West, straddling West Dravus Street. Station entrances would be on West Dravus Street on both the east and west sides of 15th Avenue West. The Alternative IBB-3 elevated guideway would depart from the elevated Interbay Station (the top of the station structure would be approximately 80 feet high). The presence of the elevated guideway and the Interbay Station in what is now a largely commercial and industrial area east of the BNSF Railway tracks would change the visual character of part of this area to transportation. The existing low visual quality of views into this commercial and industrial area would increase to average with the presence of the station, which would be a beneficial change that would be seen by nearby residents in multi-family buildings along West Dravus Street and the west side of 15th Avenue West north of West Dravus Street.

This alternative would continue north over the center of 15th Avenue Northwest before veering west toward Fishermen's Terminal and crossing Salmon Bay. The Salmon Bay crossing would require a moveable bridge about 130 feet west of the Ballard Bridge. The bridge would have a clearance of approximately 70 feet over the Salmon Bay navigation channel when closed. The moveable bridge depicted in the simulations identified below is a vertical lift moveable bridge with a balanced cantilever segmental box girder approach. The four towers of this type of bridge would be seen west of and behind the Ballard Bridge from the northwest side of Queen Anne Hill (see Figure 3-6c in Attachment N.2A). Although the four towers would be clearly seen, they would not reduce the existing high average visual quality of views like the one represented in Figure 3-6c. It would also be seen paralleling the Ballard Bridge from Fishermen's Terminal (see Figure 3-7c in Attachment N.2A). The moveable bridge would not be seen from nearby areas with concentrations of sensitive viewers but would be seen by water-based recreationists (sensitive viewers) traveling on Salmon Bay. The moveable bridge (particularly the four tower guideway columns) would be seen in front of, and higher than, the Ballard Bridge from Salmon Bay. The large-scale and vertical orientation of the four guideway columns would interrupt views of the Ballard Bridge and areas behind it and reduce the high intactness and unity of views from the water to the east to low and average. These reductions would lower the high visual quality of the view seen by water-based recreationists to low average, which would be a visual impact. Through design review in coordination with the City of Seattle, Sound Transit would consider measures to minimize impacts to visual quality from the bridge, such as design guidelines and context-sensitive design.

Sound Transit is also considering a double-leaf bascule moveable bridge with a balanced cantilever segmental box girder approach for Alternative IBB-3 (see Figure 4-1). This type of bridge would include two spans (the bridge deck that vehicles drive on) and, depending upon the design of the bridge, could include truss-like guideway columns and weights at the ends of each span. This bridge type would not have the four towers associated with the vertical lift bridge in the simulations identified above but, like the vertical lift bridge, would impact the visual quality of views of it by recreationists on Salmon Bay, reducing them from high to low average.

After crossing over to the north side of Salmon Bay, the elevated guideway would continue north through industrial areas before crossing over and traveling along the east side of 15th Avenue Northwest to the elevated Ballard Station south of Northwest Market Street. An elevated guideway would continue north to between Northwest 56th and 57th streets. The elevated

Ballard Station (approximately 80 feet in height to the top of the station structure) and nearby elevated guideway would be seen by sensitive viewers in multi-family buildings near the intersection of 15th Avenue Northwest and Northwest Market Street. The elevated station would somewhat increase the vividness of views in this area to average as well as overall visual quality. These would be beneficial changes to views toward that station that would be seen by nearby residents.

### *City of Seattle Designated Scenic Routes and Public View Protection*

The Alternative IBB-3 alignment would start by traveling over 15th Avenue West, which is a City of Seattle Designated Scenic Route. It would not intrude on or block views of notable features from 15th Avenue Northwest. The Salmon Bay crossing would be clearly seen from locations west of the Ballard Bridge. This alternative's moveable bridge over Salmon Bay would be very visible from the Ballard Bridge. The bridge's columns would block views of parts of the Lake Washington Ship Canal, Salmon Bay, and the Olympic Mountains, depending on where on the Ballard Bridge travelers would be. The deck of the moveable bridge would be high enough to not block views of these features from most of the Ballard Bridge (see Figure 3-10b in Attachment N.2A). Northwest Market Street is a City of Seattle Designated Scenic Route west of 15th Avenue Northwest. The elevated Ballard Station would not block views of the Olympic Mountains (now visible from the part of Northwest Market Street that is farther to the west and a City of Seattle Scenic Route). There are no City of Seattle protected views near this alternative, but the southwest corner of the Ballard Avenue Landmark District is located to the west. The alternative's elements would not block views of the Ballard Avenue Landmark District from ground level views, and the alternative's crossing of Salmon Bay would offer elevated views of it.

### *Light, Glare, and Shadows*

Lights associated with trains traveling on the Alternative IBB-3 elevated guideway would be seen at night from areas around Salmon Bay and along the Lake Washington Ship Canal. Sensitive viewers who would see the passing lights (and lights from the elevated station) would be residents near the 15th Avenue Northwest and Northwest Market Street intersection. Views of lights from passing trains would not impact motorists, pedestrians, and the surrounding area because the guideway would be elevated and because of the short duration the lights would be seen as the trains pass. The bridges being considered for this alternative's Salmon Bay crossing could require safety lights for aviation at the tops of their towers and guideway columns or at their tallest point. These lights would be seen at night and be similar in appearance to other aviation safety lights, such as those on the tops of communication towers and buildings. Navigation lights could be required on the guideway column protection system and the base of the bridge deck. These lights would be similar to navigation lights seen on bridges over Salmon Bay and the Lake Washington Ship Canal. Lights from the elevated Interbay and Ballard stations and the tail tracks at Ballard Station would be seen by nearby residents but would not have an impact because lighting would be designed in accordance with Sound Transit design measures. Measures to reduce potential light impacts are discussed in Section 5. The elevated guideway would cast shadows on one open space used by the public, Salmon Bay.

### **4.2.3 Construction Impacts**

Activities related to building the Ballard Link Extension would have temporary impacts on the visual and aesthetic environment. These activities and the equipment required for them produce temporary impacts such as moving and storing equipment and materials, exposing soils, glare and lights associated with nighttime construction, storing construction materials, in-water

equipment and barges for bridge construction, and making general visual changes to the viewed landscape during the project construction period. As detailed in Table 2-6, Major Construction Activities and Duration, in Chapter 2, Alternatives Considered, of the Draft WSBLE Environmental Impact Statement, demolition and clearing activities are estimated to last between 2 months and 12 months, guideway construction is estimated to take between 1 and 2 years, bridge construction between 4 and 5 years, station construction between 2 and 6 years, and tunnel portal construction 1.5 to 2 years. All of these activities would be seen by the public and some would be near and seen by sensitive viewers. There would be staging areas throughout the project corridor; these areas would range in size from about 1 acre per mile for elevated or at-grade construction to 3 to 5 acres for water-crossing structure construction. Views toward the WSBLE Project by sensitive viewers would change during the construction period, and there would be impacts of varying degrees. Measures to reduce the effect of construction activities on views seen by sensitive viewers are identified in Section 5.

### 4.2.4 Indirect Impacts

See Section 4.1.4, Indirect Impacts, for the West Seattle Link Extension for an overview of the types of expected indirect impacts related to increases in density and new buildings that would also occur with the Ballard Link Extension. The portion of the Ballard Link Extension that would most noticeably reinforce a dense large-scale urban environment as a result of the construction of the elevated Ballard Stations and their ground-level improvements would be the portions of the alternatives near Northwest Market Street, which would maintain or improve the existing visual quality in these areas.

## 4.3 Consistency with Policies

As described in Section 2.3, Regulatory Requirements, Seattle Municipal Code Section 25.05.675, Specific Environmental Policies, is the ordinance with the greatest number of policies that were examined for this technical report. The policies to examine are Policy P, Public View Protections (with an emphasis on views from City of Seattle Designated Scenic Routes); Policy K, Light and Glare; Policy Q, Shadows on Open Spaces; and Policy G, Height, Bulk and Scale. The effects of the project alternatives on Policies P, K, and Q are discussed in Sections 4.1 and 4.2 for each alternative's assessment; Policy G is discussed in Section 4.3.1 and will be examined during the design review phase of the WSBLE Project.

There are other City of Seattle ordinances and policies that Sound Transit will need to consider, as appropriate, in coordination with the City of Seattle as part of WSBLE Project that would have some influence on visual and aesthetic resources. In many cases, project design details related to the WSBLE Project are not far enough along to address the ordinances and/or policies, and in other cases the ordinances and policies are addressed in other sections of the Draft WSBLE Environmental Impact Statement or will be addressed during final design. The following sections list some of the ordinances and policies that Sound Transit will need to examine for the WSBLE Project and include some assessment related to visual and aesthetic resources.

### 4.3.1 Seattle Municipal Code Section 25.05.675, Specific Environmental Policies

Seattle Municipal Code Section 25.05.675 contains Policy G, Height, Bulk and Scale. This policy states that it is City policy that the "height, bulk, and scale of development projects should be reasonably compatible with the general character of development anticipated by the goals and policies set forth in the Land Use Element, Growth Strategy Element, and Shoreline Element of the Seattle Comprehensive Plan; the procedures and locational criteria for shoreline

environment resignations set forth in Sections 23.60A.060 and 23.60A.220; and the adopted land use regulations for the area in which they are located, and to provide for a reasonable transition between areas of less intensive zoning and more intensive zoning.” It describes how impacts might be mitigated. This policy goes on to state that a “project that is approved pursuant to the design review process is presumed to comply with these height, bulk, and scale policies. This presumption may be rebutted only by clear and convincing evidence that height, bulk, and scale impacts documented through environmental review have not been adequately mitigated. Any additional mitigation imposed by the decisionmaker pursuant to these height, bulk, and scale policies on projects that have undergone design review shall comply with design guidelines applicable to the project.” This policy will be examined during the design review phase of the WSBLE Project.

### **4.3.2 Seattle Municipal Code Section 23.60A, Shoreline Master Program**

The City’s Shoreline Master Program contains two policies that may apply to the WSBLE Project. The first is Policy Q of Section 23.60A.152, General Development, which contains standards for lighting that states “Artificial night lighting shall first be avoided. If that is infeasible, lighting should minimize night light impacts on the aquatic environment by focusing the light on the pier surface, using shades that minimize illumination of the surrounding environment and using lights that minimize penetration into the water, to the maximum extent feasible, considering the activities that occur at the site at night.” The second possibly applicable policy includes Section 23.60A, which also contains policy sections under “Development” that describe view corridor requirements for development of “lots” on private lands and within public rights-of-way that are subject to Shoreline Master Program requirements. These requirements vary by shoreline designation but may require that view corridors of varying percentages of “lot” width (for developments on shoreline lots) be established on the lots to maintain views of the water from upland areas. This policy will be examined during the design review phase of the project.

### **4.3.3 Seattle Design Guidelines**

The City of Seattle’s Design Guidelines are the primary tool used in the review of proposed private projects by the Department of Construction and Inspections for administrative design review, and/or by Design Review Boards (City of Seattle 2013a). These guidelines apply to all areas of the city except downtown and are used in tandem with neighborhood plans.

The design guidelines are organized around three themes: context and site, public life, and design concept. Each theme includes three to four individual guidelines. The various guidelines within each theme can provide a large-scale transportation project such as the WSBLE Project with guidance to, among other things: help a proposed project employ the natural systems and features of a site; strengthen the urban pattern and form of the area surrounding the proposed project; provide and strengthen a sense of place near the proposed project; contribute to the architectural character of the neighborhood the proposed project would be in; improve the quality of public life by considering how a proposed project would reinforce or emphasize connectivity, walkability, street-level interactions among people; and integrate transportation systems.

In addition to the City’s design guidelines, neighborhood guidelines have been developed that provide specific guidance for proposed projects in those neighborhoods. Several neighborhoods that the project would pass through have specific neighborhood design guidelines. The City’s design guidelines are applied to neighborhoods that do not have specific neighborhood plans. Neighborhood design guidelines have “jurisdiction over all physical design elements within the private property lines.” Some neighborhood design guidelines may contain comments related to design features outside of, but adjacent to, private property lines such as sidewalks and

landscaping. These comments are advisory only. It should be noted that elements within public rights-of-way are under the purview of the Seattle Department of Transportation.

### 4.3.4 West Seattle Junction Neighborhood Design Guidelines

The West Seattle Junction design guidelines apply to proposed development projects in the West Seattle Urban Village that would be subject to design review (City of Seattle 2013c). The organization of the 2013 document follows that of the Seattle Design Guidelines. The West Seattle design guidelines are organized around three themes: context and site, public life, and design concept. Guidelines within each theme can provide a large-scale transportation project such as the West Seattle Link Extension with guidance in the following:

- Using the natural systems and features of a site.
- Strengthening the urban pattern and form of the portion of the West Seattle Junction area surrounding the West Seattle Link Extension.
- Providing and strengthening a sense in the portion of the West Seattle Junction area near the West Seattle Link Extension.
- Contributing to the architectural character of the neighborhood.
- Improving the quality of public life by considering how the West Seattle Link Extension would reinforce or emphasize connectivity, walkability, street-level interactions among people.
- Integrating transportation systems.

The stations associated with the various West Seattle Link Extension alternatives would be designed to meet the intentions of the guidelines highlighted above. This will be accomplished through coordination with the City of Seattle.

The guidelines also identify Fauntleroy Way Southwest as a major pedestrian street and the portions of Southwest Oregon, Alaska, and Edmunds streets as important pedestrian connections. The walkability section of the design guidelines describes measures to create safe and comfortable walking environments that would be of relevance to the West Seattle Link.

Streetscapes associated with West Seattle Link Extension stations and the rebuilding of sidewalks that would be removed during construction would help meet these aspirations.

The design guidelines also identify several gateways within the neighborhood. The West Seattle Link Extension would pass by a gateway at Southwest Alaska Street and Fauntleroy Way Southwest as well as a gateway at Fauntleroy Way Southwest and 35th Avenue Southwest. Preferred Alternative WSJ-3a\* would include an elevated station over Southwest Alaska Street and Fauntleroy Way Southwest that would help create a gateway into this area. The stations in the Southwest Avalon Way area that would be on either side of 35th Avenue Southwest would help create gateways into the neighborhood.

### Ballard Neighborhood Design Guidelines

The Ballard Neighborhood Design Guidelines (City of Seattle 2013b) were revised in 2019 and help to reinforce and protect existing character. The design guidelines apply to proposed development projects in the Ballard Urban Village that would be subject to design review. The Ballard guidelines state that the “overriding objective of the Ballard Neighborhood Design Guidelines is to encourage new projects to reinforce the roles and character of the distinct areas in Ballard that collectively give Ballard its identity as a city within a city.” To that end, character

areas have been developed within Ballard. The character areas that the Ballard Link Extension alternatives would pass through are identified below, as are elements of the Ballard Supplemental Guidance (most of which pertains to buildings) that may be of relevance to the Ballard Link Extension.

**Industrial** – The industrial areas in the urban village emphasizes “maker” and production uses that are both utilitarian and urban. Streets can be navigated by trucks and walkers.

- The Ballard Link Extension would allow trucks and walkers to navigate through the industrial areas in the urban village.

**General Commercial** – Meets the needs for goods and services and contains a mixture of retail business, offices, and residences on upper floors while serving as a major transportation hub. Expected increases in walking and transit will be supported by promoting active storefronts and generous sidewalks to balance the transportation volumes. Design the street-level of buildings, streetscape, and landscaping to produce active storefronts and a comfortable walking environment that balance the vehicle traffic on 15th Avenue Northwest and Northwest Market Street. At intersection of 15th Avenue Northwest and Northwest Market Street, create a sense of place by incorporating active use on corners and pedestrian amenities.

- The Alternative IBB-3 elevated station above 15th Avenue Northwest and Northwest Market Street and its associated street improvements would emphasize this intersection as a major transportation hub, create a sense of place by adding a visually distinctive elevated element to the intersection, and create active use in this area.

**Residential In-Town** – Multi-family neighborhoods close to shops, services, jobs, and transportation.

- All the Ballard Link Extension alternatives would provide a transportation option to residents.

**Residential/Neighborhood Retail** – Characterized by a mix of multi-family buildings—many with street-level entrances and small commercial uses. Suggests considering small, pedestrian-oriented retail at corners on 14th Avenue Northwest and where retail or cafes are located, prioritize pedestrian and bicycle access amenities rather than parking.

- Preferred Alternative IBB-1a and Preferred Alternative IBB-2a\* would support pedestrian and bicycle access rather than parking.

**Gateways** – In addition to character areas, the guidelines identify gateways into Ballard and provide direction for how the gateways should develop. The intersection of 15th Avenue Northwest and Northwest Leary Way is a gateway, and the 15th Avenue Northwest and Northwest Market Street intersection is considered a major gateway. The guidelines state that the gateways should have a strong visual identity that can be seen at distances and that integrate architecture, streetscape, and landscaping to create a landmark and sense of place. At major gateways, the guidelines further suggest enhancing the gateway to respond to adjacent transit facilities, incorporating generous pedestrian amenities at transit stops, and creating a landscaped buffer between pedestrians and traffic.

- The Alternative IBB-3 elevated station above 15th Avenue Northwest and Northwest Market Street would have a strong visual identity that would integrate architecture, streetscape, and landscaping to create a landmark with a sense of place that would serve as gateway into Ballard.
- Although not as visible as the Alternative IBB-3 elevated station, the Preferred Option IBB-2b\* station would include smaller-scale elements such as pedestrian amenities that would contribute to the visual identity of a Ballard gateway.



## 5 SOUND TRANSIT DESIGN AND MITIGATION MEASURES

### 5.1 Introduction

The WSBLE Project would result in changes in the visual environment of varying degrees throughout the project segments. Sound Transit has developed design measures that, where practical, would be incorporated into the WSBLE to help the alternatives visually fit in with their surroundings. In addition, Sound Transit has developed mitigation measures to reduce visual impacts of the WSBLE.

### 5.2 Sound Transit Design Measures

The following describes the design measures that Sound Transit would incorporate:

- Sound Transit would develop specific design criteria for the West Seattle Link and Ballard Link extensions that guide project design through a balanced set of systemwide elements and contextual elements, such as a consistent architectural theme for elevated elements and stations, consistent signage, and a systemwide art program. Interdisciplinary teams would develop these criteria with input from local communities and the City of Seattle and integrate these criteria with existing plans, including plans for redevelopment.
- Sound Transit would coordinate with the City of Seattle and adjacent communities through design review to promote visual unity in station areas.
- Through design review in coordination with the City of Seattle, Sound Transit would consider measures to minimize impacts to visual quality from the bridge alternatives over Salmon Bay, such as design guidelines and context-sensitive design.
- Sound Transit would surplus the remainder of the parcels, not needed after construction, which could potentially be redeveloped consistent with Sound Transit's Transit Oriented Development Policies and City of Seattle plans.
- When possible, Sound Transit would preserve existing vegetation.
- Sound Transit would plant appropriate vegetation within and adjoining the project right-of-way to replace existing street trees and other visually important vegetation removed for the project, or to provide screening for sensitive visual environments and/or sensitive viewers. New plantings would be consistent with Sound Transit operations and maintenance requirements.
- Sound Transit would design exterior lighting at stations, tail tracks, and hi-rail access to minimize height and use source shielding to avoid lighting bulbs that would be directly visible from residential areas, streets, and highways. Shielding would also limit spillover light and glare in residential areas.
- During construction, Sound Transit would provide visual screening along some areas where construction activities would be seen by nearby sensitive viewers. Visual screening would include construction of a barrier to screen ground-level views into construction areas where practical. Nighttime construction lighting would be shielded and directed downward to avoid light spillover onto adjacent sensitive uses.

### 5.3 Mitigation Measures

In addition to the design measures described above, Sound Transit has developed mitigation measures for inclusion in this Draft Environmental Impact Statement. These measures, which are described in the subsections below, would be applied within the West Seattle Link Extension study area near the locations of sensitive viewers, shown in Figures 3-1, 3-2, and 3-3. Within the Ballard Link Extension study area, these measures would be applied to visual impact locations shown in Figures 3-4 and 3-5. Sound Transit would further refine the mitigation measures as project design is further developed.

The following are descriptions by segment of where the site-specific mitigation measures within the WSBLE study area would be applied. Most of the visual quality impacts to these areas would be mitigated by planting screening vegetation where appropriate along the edge of construction footprints or within residential properties (if desired by residents) to screen views of proposed project components and/or areas that are currently screened by vegetation that would be removed. For safety purposes, vegetation types and locations would adhere to Sound Transit clear zone requirements and setbacks. It should be noted that the use of vegetation to buffer or screen views of Build Alternative elements would not provide immediate mitigation. Depending upon the location of the vegetation in relationship to sensitive viewers, distance to Build Alternative elements, size of the elements, and the growth rates of the vegetation selected, effective screening of the elements could take 5 to 10 years and perhaps as long as 15 years. Impacts associated with some of the higher elements of the alternatives, such as bridges crossing the West Duwamish Waterway and Salmon Bay or the taller alternatives passing along Southwest Genesee Street, could not be mitigated. The impacts of the elements on sensitive viewers could be lessened with the strategic planting of vegetation, but the elements themselves would be too large to screen and they would produce unavoidable impacts.

#### 5.3.1 West Seattle Link Extension

##### 5.3.1.1 Duwamish Segment

###### ***Area 1: Residential Areas along 22nd Avenue Southwest and 23rd Avenue Southwest***

This measure would apply to Preferred Alternative DUW-1a and Option DUW-1b:

- Following construction, plant vegetation where appropriate to screen views of areas to the west, elevated guideway, and Delridge Way Southwest from remaining residences on 23rd Avenue Southwest.

##### 5.3.1.2 Delridge Segment

###### ***Area 1: Residences along Delridge Way Southwest and 23rd Avenue Southwest from Eastern Edge of Segment to Southwest Andover Street***

This measure would apply to Preferred Alternative DEL-1a, Option DEL-1b, Preferred Alternative DEL-2a\*, Option DEL-2b\*, Alternative DEL-3, and Alternative DEL-4\*:

- Following construction, plant vegetation where appropriate to screen views of areas to the west, the elevated guideway, and Delridge Way Southwest from remaining residences on 23rd Avenue Southwest.

### **Area 2: 23rd Avenue Southwest South of Southwest Andover Street**

This measure would apply to Alternative DEL-3 and Alternative DEL-4\*:

- Following construction, plant vegetation where appropriate to screen views of elevated guideway, Delridge Way Southwest, and views to the west from remaining residences on 23rd Avenue Southwest.

### **Area 3: Delridge Way Southwest, 25th Avenue Southwest, and 26th Avenue Southwest**

This measure would apply to Preferred Alternative DEL-1a, Option DEL-1b, Preferred Alternative DEL-2a\*, Option DEL-2b\*, Alternative DEL-3, and Alternative DEL-4\*:

- Following construction, plant vegetation where appropriate to screen views of elevated guideway from remaining residences along Delridge Way Southwest, 25th Avenue Southwest, and 26th Avenue Southwest.

### **Area 4: Delridge Playfield and Community Center**

This measure would apply to Preferred Alternative DEL-1a, Option DEL-1b, Option DEL-2b\*, Alternative DEL-3, and Alternative DEL-4\*:

- Following construction, plant screening vegetation where appropriate within the northwest edge of the park, if the City of Seattle desires, to screen views of the elevated guideway.

### **Area 5: West Seattle Golf Course**

This measure would apply to Preferred Alternative DEL-1a, Option DEL-1b, and Alternative DEL-3:

- Although the elevated guideway could not be screened by vegetation, plant vegetation where appropriate to screen views of Southwest Genesee Street and frame views of the downtown skyline.
- Following construction, plant vegetation in a manner and pattern similar to the vegetation within the golf course that would be removed for construction.

Because Option DEL-2b\* would not enter the golf course's area of play, no mitigation measures are recommended.

This measure would apply to Preferred Alternative DEL-2a\*, and Alternative DEL-4\*:

- Redesign and revegetate the north end of the golf course that would be impacted and include screening vegetation where appropriate to block views of the elevated guideway, transition to the portal, and portal.

### **Area 6: Residential Areas North of Southwest Genesee Street and Longfellow Creek Natural Area**

This measure would apply to Preferred Alternative DEL-1a, Preferred Alternative DEL-2a\*, Alternative DEL-3, and Alternative DEL-4\*:

- Following construction, plant vegetation where appropriate that would not conflict with the light rail operations in front of remaining residences on north side of Southwest Genesee Street to replace vegetation removed for construction.
- Following construction, plant screening vegetation where appropriate along perimeter of stormwater detention facility to block views from adjacent residences.

This measure would apply to Option DEL-1b and Option DEL-2b\*:

- Following construction, plant replant vegetation (subject to Sound Transit height restrictions for vegetation planted near elevated guideways) in front of remaining residences on north side of Southwest Genesee Street to replace vegetation removed for construction.

### **Area 7: Southwest Avalon Way**

Alternative DEL-5 would place an elevated guideway over the center of Southwest Avalon Way. It would be clearly seen by adjacent residents, but there would be no mitigation measures to reduce its impact. Therefore, no mitigation measures are recommended in this area.

### **Area 8: 32nd Avenue Southwest**

This measure would apply to Alternative DEL-6\*:

- Following construction, plant vegetation where appropriate to somewhat screen views of the elevated guideway from remaining residences on both sides of 32nd Street Southwest.

### **5.3.1.3 West Seattle Junction Segment**

#### **Area 1: North of Fauntleroy Way Southwest along 37th Avenue Southwest, 38th Avenue Southwest, and 39th Avenue Southwest**

This measure would apply to Preferred Alternative WSJ-2:

- Following construction, plant screening vegetation where appropriate along the edge of construction footprint.

#### **Area 2: Along 42nd Avenue Southwest and California Avenue Southwest.**

This measure would apply to Preferred Alternative WSJ-1:

- Following construction, plant screening vegetation where appropriate along the edge of construction footprint.

### **5.3.2 Ballard Link Extension**

#### **5.3.2.1 South Interbay Segment**

##### **Area 1: Kinnear Park**

This measure would apply to Alternative SIB-3:

- Following construction, plant replant vegetation within the construction footprint using the same or similar plant species and spacing patterns as the vegetation that would be removed.

##### **Area 2: Southwest Queen Anne Greenbelt**

This measure would apply to Alternative SIB-2 and Alternative SIB-3:

- Following construction, plant screening vegetation where appropriate along the edge of construction footprint.

- Following construction, plant replant vegetation within the construction footprint using the same or similar plant species and spacing patterns as the vegetation that would be removed.

### **Area 3: Interbay Athletic Complex and Residences**

This measure would apply to Preferred Alternative SIB-1 and Alternative SIB-3:

- Following construction, plant screening vegetation where appropriate along the west edge of the construction footprint where it would be far enough away from the elevated guideway over time to block views of the BNSF Railway tracks and stationary freight train cars.

### **5.3.2.2 Interbay/Ballard Segment**

#### **Area 1: Salmon Bay East of Ballard Bridge**

The bridge for the Salmon Bay crossing would be passing over water and through airspace above the water, which would offer no opportunities for screening views of the bridge from the water. Therefore, no mitigation measures related to screening views are recommended for Preferred Alternative IBB-1a or Option IBB-1b.

#### **Area 2: Salmon Bay West of Ballard Bridge**

The bridge for the Salmon Bay crossing would be passing over water and through airspace above the water, which would offer no opportunities for screening views of the bridge. Therefore, no mitigation measures related to screening views are recommended for Alternative IBB-3.

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## 6 REFERENCES

City of Seattle. 2013a. [Seattle Design Guidelines](http://www.seattle.gov/Documents/Departments/OPCD/Vault/CitywideDesignGuidelinesUpdate/SeattleDesignGuidelines.pdf). Department of Planning and Development. <http://www.seattle.gov/Documents/Departments/OPCD/Vault/CitywideDesignGuidelinesUpdate/SeattleDesignGuidelines.pdf>. December.

City of Seattle. 2013b. [Ballard Municipal Center Neighborhood Design Guidelines](https://www.seattle.gov/Documents/Departments/SDCI/About/BallardDG2013.pdf). Department of Planning and Development. Adopted 2001, Revised 2013. <https://www.seattle.gov/Documents/Departments/SDCI/About/BallardDG2013.pdf>.

City of Seattle. 2013c. [West Seattle Junction Neighborhood Design Guidelines](https://www.seattle.gov/Documents/Departments/SDCI/About/WestSeattleDG2013.pdf). Department of Planning and Development. <https://www.seattle.gov/Documents/Departments/SDCI/About/WestSeattleDG2013.pdf>.

Federal Highway Administration. 1988. *Visual Impact Assessment for Highway Projects*. FHWA-HI-88-054.

Federal Highway Administration. 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](https://www.environment.fhwa.dot.gov/guidebook/documents/VIA_Guidelines_for_Highway_Projects.asp). January.

Merriam-Webster. 2020. [Online Dictionary](https://www.merriam-webster.com/dictionary/glare). <https://www.merriam-webster.com/dictionary/glare>.

Sound Transit. In development. Station Area Development Opportunities Memo.

### GIS References

City of Seattle. 2019. [Seattle GeoData](https://data-seattlecitygis.opendata.arcgis.com/). Data for city boundaries, zoning, land use (existing and future), Seattle transportation network, streetcar line, parks resources, railroad, storm sewer, utilities (stormwater), environmental considerations application (ECA), shorelines and related infrastructure. <https://data-seattlecitygis.opendata.arcgis.com/>.

King County. 2019. [King County Open Data](https://data.kingcounty.gov/). Data for aerial imagery, streets, tax parcels, building footprint, zoning, census data, city boundaries, parks and open spaces, transit facilities, slopes, wetlands, wellhead protection areas, streams, waterbodies. <https://data.kingcounty.gov/>.

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**Attachment N.2A**  
**Key Observation Point Analysis**

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## **Acronyms and Abbreviations**

KOP	key observation point
WSBLE	West Seattle and Ballard Link Extensions

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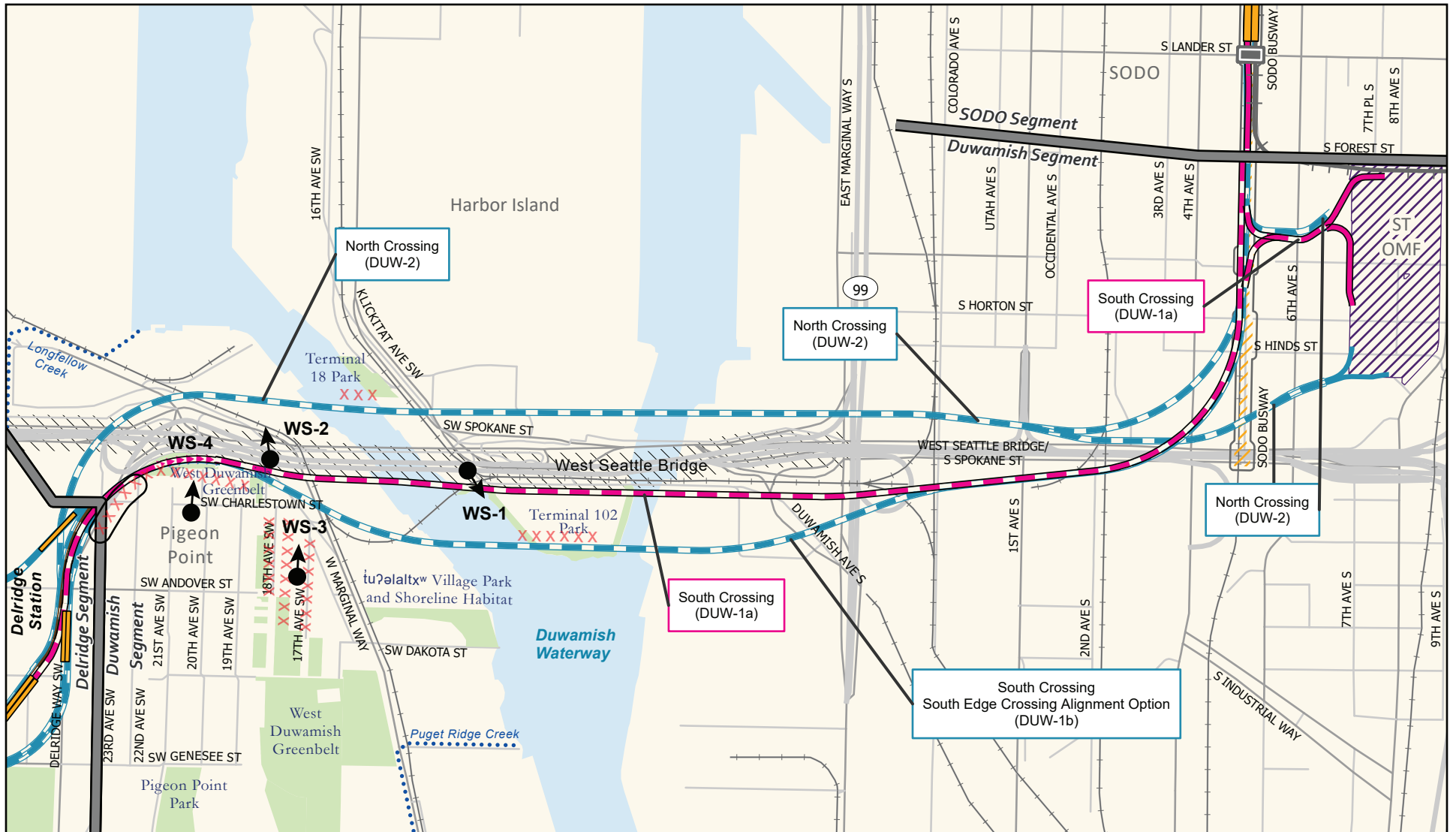
# 1 INTRODUCTION

This attachment explains how the West Seattle and Ballard Link Extensions (WSBLE) Project alternatives would influence the visual character and quality of the areas they would pass through, as seen from selected key observation points (KOPs). Figures 1-1 through 1-5 identify the locations of the KOPs by segment analyzed. The KOPs described in this attachment were selected in consultation with the City of Seattle. They depict a range of locations and types of views, such as views looking up at alternatives to represent views of elevated guideways from areas below them, views looking perpendicular toward alternatives to represent level views from adjacent areas, and views looking down at alternatives to represent views from hillsides toward alternatives below. KOPs were selected to represent views that would be seen by sensitive viewers from locations such as residential areas and recreation areas. Sensitive viewers include residents and users of recreation areas, such as parks, who are very familiar with, and/or concerned with, a viewed landscape and would notice changes to it. Some locations for KOPs were selected to represent views from streets and bridges that have been identified as City of Seattle Designated Scenic Routes. Several views were chosen to depict entries or gateways into neighborhoods from locations that do not necessarily have sensitive viewers but are very familiar to residents entering the neighborhood.

## 1.1 Simulations

The simulations included in this attachment were developed using the conceptual design drawings available when the Draft Environmental Impact Statement was being developed, or approximately 10 percent of design completion. The simulations do not contain many engineering details that would be further developed through final design and do not depict the avoidance and minimization measures described in the main section of this technical report. Overhead utility locations could change as a result of future coordination with utility providers. 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 further by interdisciplinary teams and in coordination with the City of Seattle. These measures will likely “soften” or screen views of the components compared to how the components are depicted in the simulations contained in this attachment. 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.

All of the alternatives would build a bridge over the Duwamish Waterway (also known as the Duwamish River) and some of the alternatives would build a bridge over Salmon Bay. High-level fixed bridge structure types could include a balanced cantilever segmental box girder (which is the type of bridge depicted in the simulations in this documents), extradosed, cable-stayed, arch (only for the bridge over Salmon Bay), or truss (only for the bridge over the Duwamish Waterway) superstructures. The moveable bridge over Salmon Bay could include a vertical lift or double-leaf bascule bridge, both with a balanced cantilever segmental box girder for the fixed portion of the bridge. The various types of bridges are depicted in Figure 4-1 in Section 4.1.2, Build Alternatives, of the technical report. The bridge structure types would be determined during final design based on various factors, including engineering constraints, environmental effects, cost, and coordination with other agencies on permitting requirements.

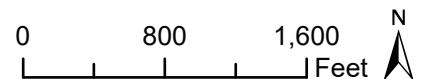


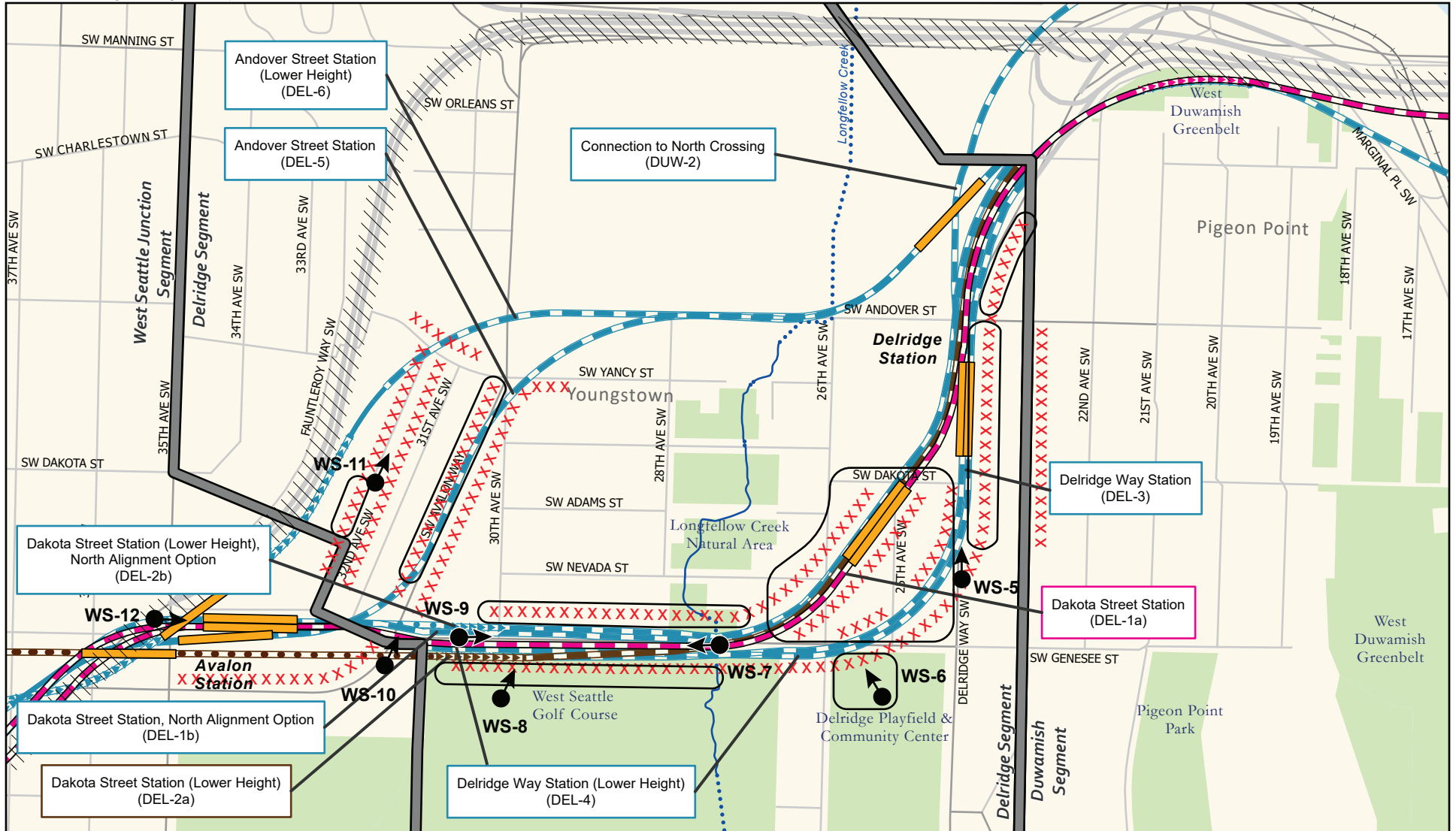
Source: City of Seattle, King County (2019, 2020), 2021.

- |  |  |
|--|--|
| <b>Alternatives</b>                            | Segment Line   |
| Preferred Alternative                          | Existing Link Light Rail                                   |
| Preferred Alternative with Third-party Funding | Railroad   |
| Other Alternatives                             | SODO Busway  |
| <b>Alternative Profile</b>                     | Proposed Overpass  |
| Elevated                                       | Sound Transit Operations and Maintenance Facility (ST OMF) |
| At-Grade                                       | Piped Stream   |
| Retained Cut                                   | Park   |
| <b>Station</b>                                 |  |
| New  |  |

- |  |
|--|
| Key Observation Point (KOP) and View Direction   |
| City of Seattle Designated Scenic Route  |
| Location of impact to visual quality with one or more alternatives near areas with concentrations of sensitive viewers |
| Approximate Areas with Concentration of Sensitive Viewers  |

**FIGURE 1-1**  
**Visual Setting and Impacts**  
 West Seattle Link Extension -  
 Duwamish Segment  
*West Seattle and Ballard Link Extensions*





Source: City of Seattle, King County (2019, 2020, 2021).

**Alternatives**

- Preferred Alternative
- Preferred Alternative with Third-party Funding
- Other Alternatives

**Alternative Profile**

- Elevated
- Tunnel
- At-Grade
- Retained Cut

**Station**

- New

Segment Line

Railroad

Stream

Piped Stream

Park

● Key Observation Point (KOP) and View Direction

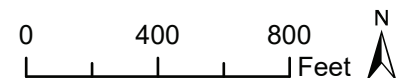
City of Seattle Designated Scenic Route

Location of impact to visual quality with one or more alternatives near areas with concentrations of sensitive viewers

XXXXX Approximate Areas with Concentration of Sensitive Viewers

**FIGURE 1-2**  
**Visual Setting and Impacts**  
 West Seattle Link Extension -  
 Delridge Segment

*West Seattle and  
 Ballard Link Extensions*







Source: City of Seattle, King County (2019, 2020, 2021).

**Alternatives**

- Preferred Alternative
- Preferred Alternative with Third-party Funding
- Other Alternatives

**Alternative Profile**

- Elevated
- Tunnel
- At-Grade
- Retained Cut

**Station**

- New

Segment Line

Railroad

Park

Key Observation Point (KOP) and View Direction

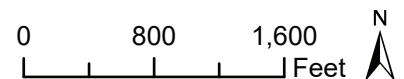
City of Seattle Designated Scenic Route

Location of impact to visual quality with one or more alternatives near areas with concentrations of sensitive viewers

XXXXX Approximate Areas with Concentration of Sensitive Viewers

**FIGURE 1-4**  
**Visual Setting and Impacts**  
**Ballard Link Extension -**  
**South Interbay Segment**

*West Seattle and*  
*Ballard Link Extensions*



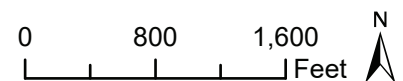


Source: City of Seattle, King County (2019, 2020, 2021).

- Alternatives**
- Preferred Alternative (Pink line)
  - Preferred Alternative with Third-party Funding (Brown line)
  - Other Alternatives (Blue line)
- Alternative Profile**
- Elevated (Pink line with 'X' marks)
  - Tunnel (Grey line with 'X' marks)
  - At-Grade (Grey line)
  - Retained Cut (Grey line with 'X' marks)
- Station**
- New (Yellow box)
- Legend:**
- Segment Line (Black line)
  - Railroad (Black line with cross-ticks)
  - Stream (Blue line)
  - Park (Green area)
  - Key Observation Point (KOP) and View Direction (Black dot with arrow)
  - City of Seattle Designated Scenic Route (Diagonal hatching)
  - Location of impact to visual quality with one or more alternatives near areas with concentrations of sensitive viewers (Red oval)
  - Approximate Areas with Concentration of Sensitive Viewers (Red 'X' marks)

**FIGURE 1-5**  
**Visual Setting and Impacts**  
**Ballard Link Extension -**  
**Interbay/Ballard Segment**

*West Seattle and*  
*Ballard Link Extensions*





## 1.2 Analysis Methodology

Sound Transit used a methodology specifically designed to analyze the visual impacts of linear rail projects in an urban setting. Sound Transit's methodology draws upon established Federal Highway Administration guidelines (1988), with several key differences such as the identification of viewer sensitivity and the use of a qualitative rather than quantitative scale. The 2015 Federal Highway Administration guidelines were also consulted. Sound Transit's methodology was applied by professionally credentialed landscape architects. For linear projects such as WSBLE, it is important to select locations that can serve as representatives of areas found along routes of a proposed project from which the project would be seen. These locations are called KOPs and are used to depict current views toward a proposed project and how the views would change with the project.

The KOPs that are used in this technical report represent a variety of types of view locations and a variety of locations that would be seen by different types of viewers. The locations were selected with input from the City of Seattle.

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 three components; vividness, intactness, and unity. The three components are described below.

**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.

The three components of visual quality are considered together to determine visual quality. Federal Highway Administration methodology uses a seven-point scale that rates each of the three components and then divides the totals by three to come up with a visual quality rating that can be anywhere from 1 (very low) to 7 (very high). The fairly complex seven-point Federal Highway Administration scale was simplified in this technical report to three general levels of visual quality: low, average, and high. The descriptions of the three simplified visual quality categories are as follows:

**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 vividness (distinctiveness, memorability, and drama), and intactness (the elements in the views “fit” with their natural and human-built surroundings) and unity (compositional harmony) to place them in the high visual quality category. This is generally the most frequent category. In this technical report, a view with high average visual quality would have vividness,

intactness, and unity characteristics that would be slightly higher than average, but not high enough to qualify as high. Likewise, a view with low average visual quality would have slightly lower than average vividness, unity, and intactness characteristics, but not enough to be considered to have low visual quality.

**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.

Because the vast majority of the visual quality of the areas the project alternatives would pass through is average, the average category was further refined to high average, average, and low average. This refinement assisted in describing changes to visual quality from alternatives in situations where the existing average visual quality of a view from a KOP might be lowered but still remain in the “average” category. By using high average, average, and low average, a better description of the influence of an alternative on visual quality could be made. For example, if an alternative lowered the existing above average visual quality of a view from a KOP to low average, that information would be important to know, rather than simply stating the average visual quality of the view from a KOP would remain average with that alternative. Where the existing visual quality category would be reduced one or more categories (from high to average, from high to low or from average to low), it was determined that an impact to visual quality would occur if the changes were seen by sensitive viewers. If the changes would not be seen by sensitive viewers, the reduction in visual quality was noted, as was the conclusion that the change would not produce a visual impact.

The assessments in this attachment were made by three senior landscape architects conducting visual impact assessments. The group first rated the existing condition photographs of each KOP and assigned visual quality categories to each. The group then examined the simulations of the alternatives that were developed for each KOP and rated the view using the same rating criteria as was used to establish the existing visual quality category.

## 2 WEST SEATTLE LINK EXTENSION

### 2.1 Duwamish Segment

#### 2.1.1 KOP WS-1: West Seattle Bridge Westbound Looking South

##### 2.1.1.1 Existing Condition

This location was selected to depict views that people traveling on the West Seattle Bridge (a City of Seattle Designated Scenic Route) would see when looking south. The view includes industrial lands and docks and piers along the Duwamish Waterway, the waterway itself, Boeing Field, and Mount Rainier in the distance (Figure 2-1a). The memorability or vividness of this view is primarily dependent upon two factors: its elevation over a body of water and views of Mount Rainier. When Mount Rainier is visible on clear days, the vividness of the view is high, despite the industrial setting of the uplands and waterway. When Mount Rainier is not visible, industrial lands and an industrial waterway attract attention and lower the vividness. The mixture of industrial elements of varying sizes and appearances (including steam flumes) creates a view with a low intactness even when Mount Rainier is visible. When visible, Mount Rainier's contrast with the industrial setting in the foreground and middle ground is high, and the unity of the view is less than when the mountain is not visible. The unity of the view is low average, as is the visual quality (Table 2-1). This view would not be seen by sensitive viewers.

**Figure 2-1a. KOP WS-1: Existing Condition**



**Table 2-1. KOP WS-1 Visual Quality Changes by Alternative**

Visual Quality Components	Existing	Preferred South Crossing (DUW-1a)	South Crossing South Edge Crossing Alignment Option (DUW-1b)
Vividness	High	Low	Average
Intactness	Low	Low	Low
Unity	Low Average	Low	Low Average
<b>Visual Quality</b>	<b>Low Average</b>	<b>Low</b>	<b>Low Average</b>

Note: Alternative DUW-2 would not be seen from this view and therefore was not simulated or included on this table. All waterway crossing simulations depicted below indicate a balanced cantilever segmental box girder type bridge. Sound Transit is studying multiple bridge types, which are not shown.

**2.1.1.2 South Crossing Alternative (DUW-1a)**

The nearby presence of the elevated guideway and trains would change the view to the south (Figure 2-1b) with Preferred Alternative DUW-1a. All visual connections with areas to the south would be blocked, except for train users, and the ratings of vividness and unity of the visual quality components would be reduced to low, as would visual quality. This would be considered a visual impact.

**Figure 2-1b. KOP WS-1: Preferred South Crossing (DUW-1a)**



### **2.1.1.3 South Crossing South Edge Crossing Alignment Option (DUW-1b)**

The Duwamish Waterway would still be seen by moving travelers, but the elevated guideway would encroach on views to the south along the waterway and on adjacent industrial lands (Figure 2-1c). The elevated guideway would intrude upon views of Mount Rainier at this elevation and point on the West Seattle Bridge. The high vividness of the existing view is achieved in part because of its open and expansive nature. That openness would be restricted by this alternative, exception for train users, and the vividness would be reduced to from high to average. The low intactness would remain. From this location on the West Seattle Bridge, the low average unity of the view would not change. The visual quality of the view would remain low average. No visual impact would occur.

**Figure 2-1c. KOP WS-1: South Crossing South Edge Crossing Alignment Option (DUW-1b)**



### **2.1.2 KOP WS-2: West Seattle Bridge Westbound Looking North**

#### **2.1.2.1 Existing Condition**

KOP WS-2 was selected to depict views that people traveling on the West Seattle Bridge (a City of Seattle Designated Scenic Route) would see when looking north (Figure 2-2a). The view includes the west edge of Harbor Island, the Duwamish Waterway, the Industrial District West (Harbor Island), Elliott Bay, Queen Anne Hill, Magnolia, and a glimpse of the area north of downtown Seattle (including the Space Needle). The view is somewhat memorable because of its elevation and views of the features mentioned previously. The mixture of different industrial elements in the foreground and middle ground, along with their utilitarian appearance, produce a low intactness. The unity of the view is fairly consistent and low average. The visual quality of the view is low average (see Table 2-2). This view would not be seen by sensitive viewers.

Figure 2-2a. KOP WS-2: Existing Condition



Table 2-2. KOP WS-2 Visual Quality Changes by Alternative

Visual Quality Components	Existing	North Crossing (DUW-2)
Vividness	High Average	Low Average
Intactness	Low	Low
Unity	Low Average	Low Average
<b>Visual Quality</b>	<b>Low Average</b>	<b>Low Average</b>

Notes:

Preferred Alternative DUW-1a and Option DUW-1b would not be seen from this view and therefore were not simulated or included in this table.

All waterway crossing simulations depicted below indicate a balanced cantilever segmental box girder type bridge. Sound Transit is studying multiple bridge types, which are not shown.

### 2.1.2.2 North Crossing Alternative (DUW-2)

With this alternative, the elevated guideway would be higher than the West Seattle Bridge elevation (Figure 2-2b). The elevated guideway would encroach on the wide-open panoramic nature of the moving view and reduce its high average vividness to low average. The features of interest that are seen from the view would not be blocked by the elevated guideway. The guideway would be another element in this view that contains many different types of elements and would not alter the low intactness of the view. The vividness would be reduced from high average to low average, and the intactness would remain low. The visual unity of the view with

the elevated guideway in place would remain low average, as would the visual quality and would not be considered a visual impact.

**Figure 2-2b. KOP WS-2: North Crossing Alternative (DUW-2)**



### **2.1.3 KOP WS-3: 17th Avenue Southwest Looking North**

#### **2.1.3.1 Existing Condition**

This view represents what residents in this small residential neighborhood see when looking north toward Marginal Way Southwest and the West Seattle Bridge. The area beyond Marginal Way Southwest is industrial and commercial in use and character (Figure 2-3a). Utilitarian elements dominate this view and include the elevated West Seattle Bridge, the Spokane Street Bridge, and a tall electrical transmission line support structure. Utility lines and poles, single-family residences, and parked vehicles are prominent features in the foreground of this view. The West Seattle Bridge is the most noticeable element in this view, which has a high average degree of vividness. The bridge is also an intrusive element that, along with a mixture of visual elements such as residences, utilities lines, a large electric transmission line support structure, the 1st Avenue Bridge, and the surface of streets, results in a low degree of visual intactness. The view from this location is disjointed, which results in low visual unity. The visual quality of the view is low (see Table 2-3).

Figure 2-3a. KOP WS-3: Existing Condition



Table 2-3. KOP WS-3 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred South Crossing (DUW-1a)	South Crossing South Edge Crossing Alignment Option (DUW-1b)	North Crossing (DUW-2)
Vividness	High Average	High Average	Average	Average
Intactness	Low	Low	Low	Low
Unity	Low	Low	Low	Low
<b>Visual Quality</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>

Note: All waterway crossing simulations depicted below indicate a balanced cantilever segmental box girder type bridge. Sound Transit is studying multiple bridge types, which are not shown.

### 2.1.3.2 South Crossing Alternative (DUW-1a)

With Preferred Alternative DUW-1a, the elevated guideway and support structure would be located in front of the West Seattle Bridge and be very similar to its angle of descent (Figure 2-3b). The primary difference in the view is that with this alternative, passing trains would be clearly seen at a high elevation (although passing vehicles on the West Seattle Bridge can be seen to some degree). This alternative’s presence would not result in a change of the views vividness, intactness, unity, or visual quality.



Figure 2-3b. KOP WS-3: Preferred South Crossing Alternative (DUW-1a)



### 2.1.3.3 South Crossing South Edge Crossing Alignment Option (DUW-1b)

With Option DUW-1b, the elevated guideway and support structure would be closer to this KOP than would Preferred Alternative DUW-1a, and its angle of approach toward Pigeon Point would be different (Figure 2-3c). The West Seattle Bridge would be visible “behind” the elevated guideway. The most noticeable difference between the existing view and the view with this alternative would be the addition of passing trains. The trains would be additional moving features to a view that currently includes vehicles traveling on the West Seattle Bridge, which would decrease the vividness of the view from high average to average. This alternative would not change the intactness, unity, or visual quality of the view, and there would not be a visual impact.

**Figure 2-3c. KOP WS-3: South Crossing South Edge Crossing Alignment Option (DUW-1b)**



#### **2.1.3.4 North Crossing Alternative (DUW-2)**

The elevated guideway and support structure would be seen “behind and underneath” the West Seattle Bridge (Figure 2-3d) with this alternative. The elevated guideway would add another visual element to the view and change the vividness from high average to average. However, it would not change the view’s low intactness, unity, or visual quality and would not be considered a visual impact.

Figure 2-3d. KOP WS-3: North Crossing Alternative (DUW-2)



**2.1.4 KOP WS-4: Looking North from Southwest Charlestown Street and 20th Avenue Southwest**

**2.1.4.1 Existing Condition**

This view represents the view to the north that residents in this neighborhood on Pigeon Point see. The view extends over the edge of the West Duwamish Greenbelt and includes Elliott Bay, Queen Anne Hill, and the edge of downtown Seattle (Figure 2-4a). The viewed area has a single-family residential character. The waters of Elliott Bay, Queen Anne Hill, and three tall orange Port of Seattle cranes on Harbor Island create a memorable and vivid view. Utility lines and poles encroach on the view to a degree and detract from its visual intactness, thus producing a rating of average. The unity of the view is high, as is the visual quality of the view (see Table 2-4).

**Table 2-4. KOP WS-4 Visual Quality Changes by Alternative**

Visual Quality Components	Existing	Preferred South Crossing (DUW-1a)	South Crossing South Edge Crossing Alignment Option (DUW-1b)	North Crossing (DUW-2)
Vividness	High	High	High	High Average
Intactness	Average	Average	Average	Average
Unity	High	Average	Average	High Average
<b>Visual Quality</b>	<b>High</b>	<b>High Average</b>	<b>High Average</b>	<b>High Average</b>

Note: All waterway crossing simulations depicted below indicate a balanced cantilever segmental box girder type bridge. Sound Transit is studying multiple bridge types, which are not shown.

**Figure 2-4a. KOP WS-4: Existing Condition**



**2.1.4.2 South Crossing Alternative (DUW-1a)**

Construction of Preferred Alternative DUW-1a would require the removal of trees within and next to the West Duwamish Greenbelt as well as the removal of several residences (Figure 2-4b). The removal of these objects would open up distant views of more of Elliott Bay and Queen Anne Hill and would maintain or improve upon the high vividness of the view. The factors that contribute to an average degree of intactness (primarily the utility lines and poles) would remain, as would the average rating. The residential character of views to the north from remaining residences would change with the removal of residences. The lots where the residences would be removed would be used by Sound Transit for project support, and the character would change from residential to transportation (Figure 2-4b depicts the lots as cleared without support elements on them). The replacement of residences with other uses would reduce the view's high degree of unity to average. The visual quality rating of the view would be reduced from high to high average, which is not enough of a reduction to be considered a visual impact.

Figure 2-4b. KOP WS-4: Preferred South Crossing Alternative (DUW-1a)



**2.1.4.3 South Crossing South Edge Crossing Alignment Option (DUW-1b)**

This influence of Option DUW-1b on the visual quality of this view would be very similar to that of Preferred Alternative DUW-1a.

**2.1.4.4 North Crossing Alternative (DUW-2)**

This alternative's elevated guideway would be approximately 800 feet north of this location but would be high enough that part of the elevated structure would be seen, as would passing trains (Figure 2-4c). Unlike Preferred Alternative DUW-1a and Option DUW-1b, vegetation in the West Duwamish Greenbelt next to this location would not be removed. Passing trains and the elevated guideway would slightly lower the vividness and unity rating and would slightly reduce the visual quality rating from high to high average, which would not be enough of a reduction to be considered a visual impact.

Figure 2-4c. KOP WS-4: North Crossing Alternative (DUW-2)



## 2.2 Delridge Segment

### 2.2.1 KOP WS-5: Looking North along Delridge Way Southwest

#### 2.2.1.1 Existing Condition

This location was selected to represent views to the north along Delridge Way Southwest that are seen by nearby residents. The view extends beyond Delridge Way Southwest and includes Queen Anne Hill and a glimpse of Elliott Bay (see Figure 2-5a). This part of Delridge Way Southwest has a primarily residential character, although commercial buildings can be seen in the middle ground and industrial areas can be glimpsed beyond the visual terminus of the street. The primary visual elements in the view are the street, single- and multi-family buildings, and utility lines and poles. Views of Queen Anne Hill and Elliott Bay that are seen in the distance give the view a high average degree of vividness. The pleasant streetscape contains street trees and landscaping, which contributes to average visual intactness. The visual pattern of the streetscape and adjacent areas is moderately coherent, so the unity is average. The visual quality of the view is average (see Table 2-5).

Figure 2-5a. KOP WS-5: Existing Condition



Table 2-5. KOP WS-5 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Dakota Street Station (DEL-1a)	Dakota Street Station North Alignment Option (DEL-1b)	Preferred Dakota Street Station Lower Height (DEL-2a)*	Dakota Street Station Lower Height North Alignment Option (DEL-2b)*	Delridge Way Station (DEL-3)	Delridge Way Station Lower Height (DEL-4)*	Andover Street Station (DEL-5)	Andover Street Station Lower Height (DEL-6)*
Vividness	High Average	Average	Average	Low Average	Average	Average	Average	Average	Average
Intactness	Average	Low	Low	Low	Low	Low	Low	Average	Average
Unity	Average	Low	Low	Low	Low	Low	Low	Low Average	Low Average
<b>Visual Quality</b>	<b>Average</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>	<b>Average</b>	<b>Average</b>

\* As described in the introduction to Chapter 2, Alternatives Considered, of the Draft Environmental Impact Statement, at the time the Sound Transit Board identified alternatives for study in the Draft Environmental Impact Statement, some alternatives were anticipated to require third-party funding based on early cost estimates. The asterisk identifies these alternatives and the alternatives that would only connect to these alternatives in adjacent segments.

Note: Option DEL-2b\* was not simulated because, from this view, it would be similar to Preferred Alternative DEL-1a.

### **2.2.1.2 Dakota Street Station Alternative (DEL-1a)**

With Preferred Alternative DEL-1a, the elevated guideway would travel south along Delridge Way Southwest and cross over it to the west as it approaches the elevated Delridge Station (the edge of which would be seen, as shown in Figure 2-5b). This alternative would require the removal of single-family residences along Delridge Way Southwest; this would detract from the residential character this part of Delridge Way Southwest. The elevated guideway and support structures passing over Delridge Way Southwest would be very visible from this location and would seem visually out of place. Views toward Elliott Bay and Queen Anne Hill would be framed by straddle bents over Delridge Way Southwest. The vividness of this view would change from high average to average. The height, bulk, scale, and form of the elevated guideway would be a visual encroachment and reduce intactness from average to low. Visual connections to Elliott Bay and Queen Anne Hill would somewhat remain. However, the curve of the alignment would not follow the street grid of this area, which would not be consistent with the existing street pattern and would disrupt the visual coherence. Therefore, the unity would be reduced to low. The visual quality would be lowered from average to low, which would be considered a visual impact.

**Figure 2-5b. KOP WS-5: Preferred Dakota Street Station Alternative (DEL-1a)**



### **2.2.1.3 Dakota Street Station North Alignment Option (DEL-1b)**

The influence of Option DEL-1b on the visual quality of this view, as shown on Figure 2-5c, would be very similar to Preferred Alternative DEL-1a. The visual quality would be lowered from average to low, which would be considered a visual impact.



Figure 2-5c. KOP WS-5: Dakota Street Station North Alignment Option (DEL-1b)



#### 2.2.1.4 Dakota Street Station Lower Height Alternative (DEL-2a)\*

The elevated guideway with Preferred Alternative DEL-2a\* would intrude upon views to the north of areas along Delridge Way Southwest, Elliott Bay, and Queen Anne Hill (see Figure 2-5d). The high average vividness of this view would be decreased to low average without views of Elliott Bay and Queen Anne Hill. The location, height, bulk, scale, form, and color of the elevated guideway would be a visual encroachment on this location, reducing intactness from average to low. Because the curved alignment would not provide the visual coherence with the street grid, the unity would be reduced from average to low. The visual quality would be lowered from average to low, which would be considered a visual impact.

Figure 2-5d. KOP WS-5: Preferred Dakota Street Station Lower Height Alternative (DEL-2a)\*



#### 2.2.1.5 Dakota Street Station Lower Height North Alignment Option (DEL-2b)\*

The influence of Option DEL-2b\* on the visual quality of this view would be very similar to Preferred Alternative DEL-2a\*, as shown on Figure 2-5d. The visual quality would be lowered from average to low, which would be considered a visual impact.

#### 2.2.1.6 Delridge Way Station Alternative (DEL-3)

The elevated guideway's wide straddle bents with Alternative DEL-3 would follow both sides of Delridge Way Southwest when viewed from this location and dominate the views to the north (Figure 2-5e). The tunnel-like appearance of the guideway over Delridge Way Southwest would be somewhat unique and vivid but these qualities would be reduced from average to low and high average to low, respectively. This alternative's structures would introduce multiple large-scale elements into the view that would be very different in height, bulk, scale, form, and color compared to existing visual elements. With this alternative, the overhead utility lines would be underground due to the station crossing over Delridge Way Southwest but would not alter the overall visual quality. The intactness of the view down Delridge Way Southwest would be reduced from average to low. The visual pattern of this part of Delridge Way Southwest would be less visually coherent with this alternative than it is currently, and the unity would be reduced from average to low. The visual quality of the view would be reduced from average to low, which would be a visual impact.

Figure 2-5e. KOP WS-5: Delridge Way Station Alternative (DEL-3)



#### 2.2.1.7 Delridge Way Station Lower Height Alternative (DEL-4)\*

From this location, Alternative DEL-4\* would be very similar in appearance to Alternative DEL-3 depicted in Figures 2-5d and 2-5e, as would its influence on visual quality. The visual quality of the view would be reduced from average to low, which would be a visual impact.

#### 2.2.1.8 Andover Street Station Alternative (DEL-5)

The elevated guideway would be seen at the end of Delridge Way Southwest with this alternative but would not require the removal of buildings in the foreground of this view (Figure 2-5f). Its main influence on the view would be that the elevated guideway and station crossing over Delridge Way Southwest would block distant views of Elliott Bay and Queen Anne Hill, which would reduce the high average vividness of the view to average. The guideway and station would introduce new elements into the view, but they would be far enough away so that their presence would not alter existing intactness or unity, but the vividness would change from high average to average. The visual quality of the view would remain average and not be considered a visual impact.

**Figure 2-5f. KOP WS-5: Andover Street Station Alternative (DEL-5)**



**2.2.1.9 Andover Street Station Lower Height Alternative (DEL-6)\***

The appearance of this alternative would be very similar to Alternative DEL-5. However, because this alternative would be pass farther north along Delridge Way Southwest, it would not block as much of distant views of the top of Queen Anne Hill (Figure 2-5g). All of the existing ratings of the visual quality components and visual quality would be the same as with Alternative DEL-5 and would reduce the high average vividness from high average to average, but all other visual components would remain the same. The visual quality would remain average and not be considered a visual impact.

**Figure 2-5g. KOP WS-5: Andover Street Station Lower Height Alternative (DEL-6)\***



## **2.2.2 KOP WS-6: Looking Northwest from Delridge Playfield**

### **2.2.2.1 Existing Condition**

This location represents a place within the Delridge Playfield (much of which is a traditional park) where recreationists who are looking north/northwest do not have their views blocked by trees in the park (Figure 2-6a). The character of the view is a combination of park and residential. Trees within the park and beyond are major visual elements (and when in leaf would block views of some of the residences and utility lines and poles beyond them). This open view in a heavily developed area with views of the distant hill has a high degree of vividness. The pleasant park and residential settings of the view also have high average visual intactness. The unity of the view is high, as is its visual quality (Table 2-6).

Figure 2-6a. KOP WS-6: Existing Condition



Table 2-6. KOP WS-6 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Dakota Street Station (DEL-1a)	Dakota Street Station North Alignment Option (DEL-1b)	Preferred Dakota Street Station Lower Height (DEL--2a)*	Dakota Street Station Lower Height North Alignment Option (DEL-2b)*	Delridge Way Station (DEL-3)	Delridge Way Station Lower Height (DEL-4)*
Vividness	High	High	High	Average	Average	High	Average
Intactness	High Average	Low	Low	Low	Low	Low	Low
Unity	High	Low Average	Low Average	Average	Average	Low Average	Average
<b>Visual Quality</b>	<b>High</b>	<b>Low Average</b>	<b>Low Average</b>	<b>Average</b>	<b>Average</b>	<b>Low Average</b>	<b>Average</b>

\* As described in the introduction to Chapter 2, Alternatives Considered, of the Draft Environmental Impact Statement, at the time the Sound Transit Board identified alternatives for study in the Draft Environmental Impact Statement, some alternatives were anticipated to require third-party funding based on early cost estimates. The asterisk identifies these alternatives and the alternatives that would only connect to these alternatives in adjacent segments.

Note: Alternative DEL-5 and Alternative DEL-6\* would not be seen from this view and therefore were not simulated or included in this table.

### **2.2.2.2 Dakota Street Station Alternative (DEL-1a)**

With Preferred Alternative DEL-1a, the elevated guideway and support structures would be very visible from this location. This alternative would not enter the grounds of the Delridge Playfield, but the viewed landscape beyond would be influenced by it (Figure 2-6b). The vividness or memorability of the view with the elevated guideway and support structures would remain high. The scale, form (particularly the double guideway columns and horizontal supports), color, and materials of the alternative's components would encroach on the viewed landscape and introduce a new, major transportation facility element into a view that is currently residential and park in character. The elevated guideway would pass "over" the top of the hill that forms the backdrop of this view and would be silhouetted against the sky. With these changes, the intactness of the view would be reduced from high average to low. The visual connection with the far hillside would be maintained by the elevated guideway, but the visual pattern of the view would change. The unity of the view would be reduced from high to low average. The visual quality of the view would be reduced from high to low average, which would be a visual impact.

**Figure 2-6b. KOP WS-6: Preferred Dakota Street Station Alternative (DEL-1a)**



### **2.2.2.3 Dakota Street Station North Alignment Option (DEL-1b).**

The influence of this alternative on the visual quality of this view would be very similar to that of Preferred Alternative DEL-1a.

### **2.2.2.4 Dakota Street Station Lower Height Alternative (DEL-2a)\***

Portions of the elevated guideway would be visible from this location (Figure 2-6c) with Preferred Alternative DEL-2a\*. This alternative would not enter the grounds of the Delridge Playfield, but the viewed landscape (particularly the residential area across Southwest Genesee

Street) would be influenced by it. From this viewing location, the elevated guideway would be similar in appearance to an elevated overpass unless trains were traveling on it. The vividness of the view would be reduced from high to average. The strong horizontal form, color, materials, and scale of the elevated guideway would encroach on the viewed landscape and introduce a major transportation facility element into an area that is residential and park in character. It would reduce the intactness from high average to low. The alignment of this alternative as it would pass from Fauntleroy Way Southwest to Southwest Genesee Street would not follow the grid pattern of nearby streets. This would change the visual pattern and coherence of the viewed area and the reduce the unity rating from high to average. The visual quality of the view would be reduced from high to average, which would be a visual impact.

**Figure 2-6c. KOP WS-6: Preferred Dakota Street Station Lower Height Alternative (DEL-2a)\***



#### **2.2.2.5 Dakota Street Station Lower Height North Alignment Option (DEL-2b)\***

From this location, Option DEL-2b\* elevated guideway would be very similar in appearance to Preferred Alternative DEL-2a\* elevated guideway. The visual quality of the view would be reduced from high to average, which would be a visual impact.

#### **2.2.2.6 Delridge Way Station Alternative (DEL-3)**

Alternative DEL-3 elevated guideway would be very visible from this location (Figure 2-6d). It would create less visual change to the portion of the neighborhood across the street from the Delridge Playfield seen from this location than would the other alternatives. However, this alternative would be closer to this location than the other alternatives. The memorability or vividness of the view with the elevated guideway and support structures would remain high. The location, scale, form, color, and materials of the elevated guideway and columns would



encroach into the viewed landscape and introduce a major transportation facility element into the view, which would reduce the intactness rating from high average to low. The elevated guideway would not follow the existing street pattern and would pass “over” the top of the hill that forms the backdrop of the view and would be silhouetted against the sky. The existing high unity would be reduced to low average. The visual quality of the view would be lowered from high to low average, which would be a visual impact.

**Figure 2-6d. KOP WS-6: Delridge Way Station Alternative (DEL-3)**



**2.2.2.7 Delridge Way Station Lower Height Alternative (DEL-4)\***

Alternative DEL-4 would be closer to this location than Preferred Alternative DEL-2a\* and its elevated guideway would be somewhat higher (Figure 2-6e). The influence of this alternative on vividness, intactness, and unity would be similar to that of Preferred Alternative DEL-2a\*, as would the influence on visual quality. The vividness and unity would be reduced from high to average. The intactness would be reduced from high average to low, and the visual quality of the view would be reduced from high to average, which would be a visual impact.

Figure 2-6e. KOP WS-6: Delridge Way Station Lower Height Alternative (DEL-4)\*



### 2.2.3 KOP WS-7: Looking West along Southwest Genesee Street from Near Longfellow Creek

#### 2.2.3.1 Existing Condition

This location represents the view that residents along this portion of Southwest Genesee Street and Delridge Way Southwest see when looking west as well as the view people accessing the Longfellow Creek Greenway Legacy Trail from Southwest Genesee Street see (Figure 2-7a). The view from this location includes Longfellow Creek Natural Area to the north (right), the edge of the West Seattle Golf Course to the south (left), and the slope up to Southwest Avalon Way. Residences (single family and multi-family) can be seen along the north side of Southwest Genesee Street beyond the Longfellow Creek Natural Area. Trees in the Longfellow Creek Natural Area and along the south side of Southwest Genesee Street (next to the West Seattle Golf Course) are dominant visual elements of the view and lend a natural character to part of the view. The residences along the north side of Southwest Genesee Street beyond the Longfellow Creek Natural Area produce a residential character to that part of the view. The vividness, intactness, and unity of this view are high average, due in large part to the presence of large trees on either side of the road. The visual quality of the view is also high average (Table 2-7).

Figure 2-7a. KOP WS-7: Existing Condition



Table 2-7. KOP WS-7 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Dakota Street Station (DEL-1a)	Dakota Street Station North Alignment Option (DEL-1b)	Preferred Dakota Street Station Lower Height (DEL-2a)*	Dakota Street Station North Alignment Option (DEL-2b)*	Delridge Way Station (DEL-3)	Delridge Way Station Lower Height (DEL-4)*
Vividness	High Average	Low Average	Low Average	Average	Low Average	Low Average	Average
Intactness	High Average	Low	Low	Low	Low	Low	Low
Unity	High Average	Low	Low	Low Average	Low	Low	Low Average
<b>Visual Quality</b>	<b>High Average</b>	<b>Low</b>	<b>Low</b>	<b>Low Average</b>	<b>Low</b>	<b>Low</b>	<b>Low Average</b>

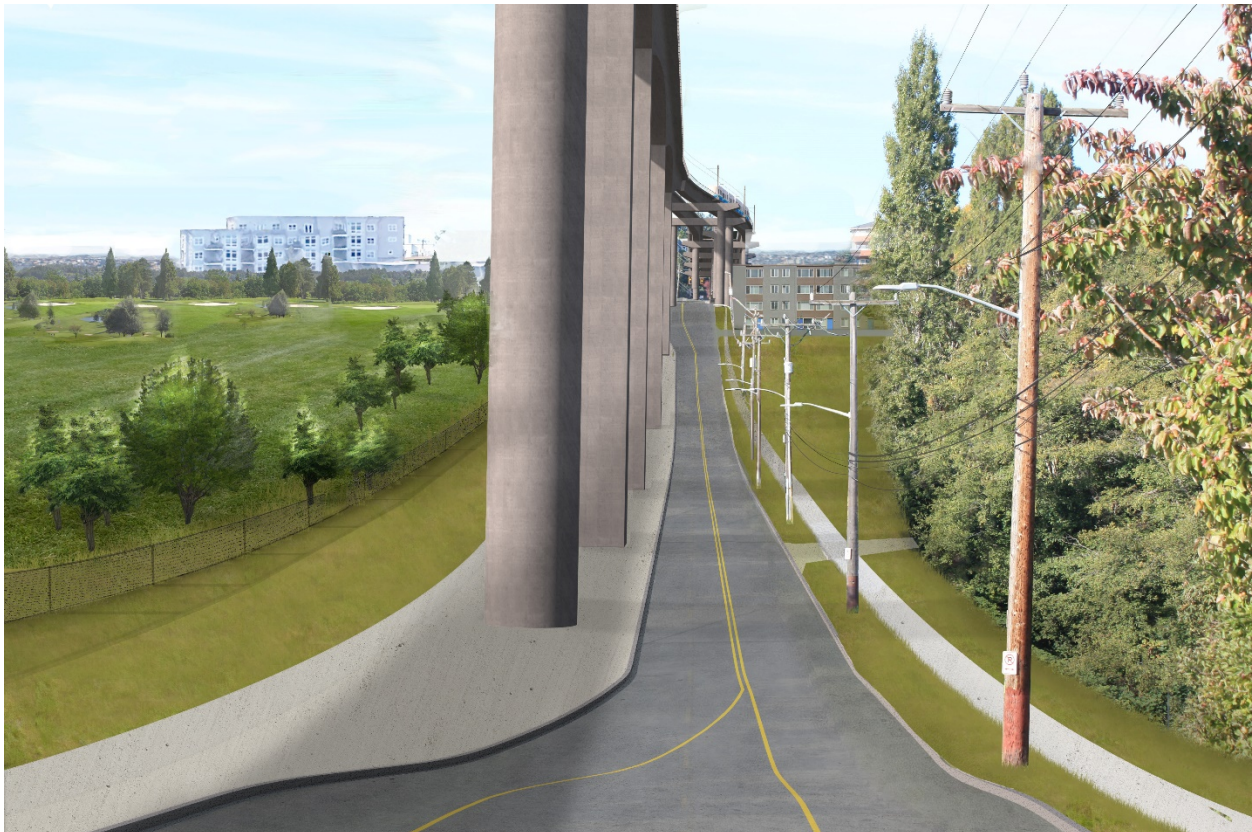
\* As described in the introduction to Chapter 2, Alternatives Considered, of the Draft Environmental Impact Statement, at the time the Sound Transit Board identified alternatives for study in the Draft Environmental Impact Statement, some alternatives were anticipated to require third-party funding based on early cost estimates. The asterisk identifies these alternatives and the alternatives that would only connect to these alternatives in adjacent segments.

Note: Alternative DEL-5 and Alternative DEL-6\* would not be seen from this view and therefore were not simulated or included in this table.

### 2.2.3.2 Dakota Street Station Alternative (DEL-1a)

Trees at the edge of the Longfellow Creek Natural Area next to Southwest Genesee Street would be cleared with Preferred Alternative DEL-1a, but most of the clearing (trees and residences) along the north (right) side of the street would occur farther west (Figure 2-7b). Large trees that line the south side of Southwest Genesee Street and screen views into (and out of) the West Seattle Golf Course would be removed. The existing overhead utilities on the north side of Southwest Genesee Street would shift farther to the north but would not alter the visual quality. The presence of the elevated guideway columns and overhead elevated guideway along the south side of this view would introduce large-scale transportation elements into this view. The visually distinctive and vivid trees would be removed, and vividness would decrease from high average to low average. The columns and elevated guideway would add new human-made objects to this view that would differ in scale, form, color, and materials with existing visual elements and would encroach on the view to the west (but not block it) toward the top of Southwest Genesee Street. The intactness of the view would be reduced from high average to low due to the removal of trees. The high average unity of the view would decrease to low with the removal of the important visual elements in the view (trees and residences) that currently help establish a harmonious visual pattern. The visual quality of the view from this location would be reduced from high average to low, which would be a visual impact.

**Figure 2-7b. KOP WS-7: Preferred Dakota Street Station Alternative (DEL-1a)**



### 2.2.3.3 Dakota Street Station North Alignment Option (DEL-1b)

Option DEL-1b would change the visual character of this view from natural and residential to transportation (Figure 2-7c). The appearance of the view to the west would perhaps best be

described as that found underneath an overpass structure (but would not be as wide). Trees next to the Longfellow Creek Natural Area would be removed, as would trees and residences farther west along the north side of Southwest Genesee Street. The existing overhead utilities on the north side of Southwest Genesee Street would shift farther to the north but would not alter the visual quality. Trees along the south side of Southwest Genesee Street and part of the West Seattle Golf Course would also be removed. The replacement of trees and residences with a series of tall columns (that would be somewhat memorable due to their scale) would reduce the vividness of the view to low average. The existing high average intactness and unity of the view would be reduced to low with the alternative's components, as would visual quality, which would be a visual impact.

**Figure 2-7c. KOP WS-7: Dakota Street Station North Alignment Option (DEL-1b)**



**2.2.3.4 Dakota Street Station Lower Height Alternative (DEL-2a)\***

Preferred Alternative DEL-2a\* components would only be seen on the south side of Southwest Genesee Street (Figure 2-7d) from this location. The north side of the street's visual condition would not change. The large trees that line the south side of Southwest Genesee Street and screen views into and out of the West Seattle Golf Course would be removed, and the north end of the golf course would need to be redesigned. The presence of the golf course netting and support poles would be noticeable but would not reduce the visual quality. The presence of the single row of columns and overhead guideway heading to the tunnel portal would introduce large-scale elements into this view but would not block views to the top of Southwest Genesee Street. The overhead structures and the tunnel portal would be memorable, but the vividness of the view would change to average. The location, scale, form, and color of the elevated structure would be a visual encroachment on this location, which would reduce the intactness of the view.

These new visual elements and removal of trees would reduce the existing high average intactness of the view to low. The single row of columns and elevated guideway heading to the tunnel portal would establish a somewhat coherent pattern in the view, so despite the removal of trees south of Southwest Genesee Street, unity would be reduced to low average rather than low. The visual quality of the view would be reduced from high average to low average, which would not be a visual impact from this location.

**Figure 2-7d. KOP WS-7: Preferred Dakota Street Station Lower Height Alternative (DEL-2a)\***



**2.2.3.5 Dakota Street Station North Alignment Option (DEL-2b)\***

Option DEL-2b\* passes over and along Southwest Genesee Street and its straddle bents would dominate the view and change the visual character of this area from natural and residential to transportation (Figure 2-7e). The appearance of the view to the west would perhaps best be described as that found underneath an overpass structure (but would not be as wide). Trees next to the Longfellow Creek Natural Area would be removed, as would trees and residences farther west along the north side of Southwest Genesee Street. Trees along the south side of Southwest Genesee Street and part of the West Seattle Golf Course would also be removed. The replacement of trees and residences with a series of tall columns (that would be somewhat memorable due to their scale) would reduce the vividness of the view to low average. The existing high average intactness and unity of the view would be reduced to low, as would visual quality, which would be a visual impact.

Figure 2-7e. KOP WS-7: Dakota Street Station North Alignment Option (DEL-2b)\*



### 2.2.3.6 Delridge Way Station Alternative (DEL-3)

With Alternative DEL-3, the large trees that line the south side of Southwest Genesee Street and screen views into the West Seattle Golf Course would be removed (Figure 2-7f). The presence of the single row of columns and overhead guideway heading to the tunnel portal would introduce large-scale elements into this view, which would lower the high average vividness to low average. The high average unity of the view would be reduced to low. The elevated guideway would not block views to the top of Southwest Genesee Street, and the high average intactness of the view would be reduced to low. The existing high average visual quality of the view would be reduced to low; this would be a visual impact.

Figure 2-7f. KOP WS-7: Delridge Way Station Alternative (DEL-3)



#### 2.2.3.7 Delridge Way Station Lower Height Alternative (DEL-4)\*

The influence of Alternative DEL-4\* on the visual quality of the view from this location would be very similar to that of Preferred Alternative DEL-2a\*. The removal of trees along the south side of Southwest Genesee Street would reduce the existing high average vividness of the view to average. The presence of the golf course netting and support poles would be noticeable but would not reduce the visual quality. The change in the view would reduce the existing high average intactness of the view to low. The single row of columns and elevated guideway heading to the tunnel portal would establish a somewhat coherent pattern in the view and would not block views toward the western end of Southwest Genesee Street (Figure 2-7g). The removal of trees south of Southwest Genesee Street, unity would be reduced from high average to low average. The visual quality of the view from this location would be reduced from high average to low average, which would not be a visual impact.



Figure 2-7g. KOP WS-7: Delridge Way Station Lower Height Alternative (DEL-4)\*



## 2.2.4 KOP WS-8: Looking Past the North End of the West Seattle Golf Course

### 2.2.4.1 Existing Condition

This view from the north part of the West Seattle Golf Course includes features of the golf course and views of the downtown Seattle skyline (Figure 2-8a). The foreground includes fairways, greens, a sand trap, paths, and trees. Trees along the north side of the golf course and north of Southwest Genesee Street screen views of the nearby neighborhood on the north side of Southwest Genesee Street. Shorter vegetation allows views of downtown Seattle as well as Port of Seattle cranes on Harbor Island. The character of the view is clearly that of a golf course. The vividness of this view is high (due primarily to the unique combination of a golf course with a framed view of the downtown skyline and three Port of Seattle cranes). The view has high ratings for intactness and unity. The visual quality of the view is high (Table 2-8).

Figure 2-8a. KOP WS-8: Existing Condition



Table 2-8. KOP WS-8 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Dakota Street Station (DEL-1a)	Dakota Street Station North Alignment Option (DEL-1b)	Preferred Dakota Street Station Lower Height (DEL-2a)*	Dakota Street Station Lower Height North Alignment Option (DEL-2b)*	Delridge Way Station (DEL-3)	Delridge Way Station Lower Height (DEL-4)*
Vividness	High	High	High	Average	Average	High	Average
Intactness	High	Low	Low	Low	Average	Low	Low Average
Unity	High	Low Average	Low Average	Low Average	Low Average	Low Average	Low Average
<b>Visual Quality</b>	<b>High</b>	<b>Low Average</b>	<b>Low Average</b>	<b>Low Average</b>	<b>Average</b>	<b>Low Average</b>	<b>Low Average</b>

\* As described in the introduction to Chapter 2, Alternatives Considered, of the Draft Environmental Impact Statement, at the time the Sound Transit Board identified alternatives for study in the Draft Environmental Impact Statement, some alternatives were anticipated to require third-party funding based on early cost estimates. The asterisk identifies these alternatives and the alternatives that would only connect to these alternatives in adjacent segments.

Note: Alternative DEL-5 and Alternative DEL-6\* would not be seen from this view and therefore were not simulated or included in this table.

#### 2.2.4.2 Dakota Street Station Alternative (DEL-1a)

The Preferred Alternative DEL-1a elevated guideway would pass over the view toward downtown Seattle and, along with the two support structures and passing trains, would be a new major visual element in the view (Figure 2-8b). Trees along Southwest Genesee Street would be removed and no longer screen the view of residences on the north side of the street. The tree removals would somewhat open up distant views of downtown Seattle. The vividness or memorability of the view with the elevated guideway and support structures would continue to be high. The location, scale, form, color, and materials of this alternative's elevated guideway and support structures would encroach on the viewed landscape; be silhouetted against the sky; and introduce a new, major transportation facility element into a view that is currently park-like in character. The intactness of the view would be reduced to low. The removal of screening vegetation along Southwest Genesee Street would open up views of residences north of the street, which along with the elevated guideway and support columns, would add new elements into the view and reduce the high degree of visual unity to low average. The visual quality of the view would be reduced from high to low average, which would be a visual impact.

**Figure 2-8b. KOP WS-8: Preferred Dakota Street Station Alternative (DEL-1a)**



#### 2.2.4.3 Dakota Street Station North Alignment Option (DEL-1b)

The influence of Option DEL-1b on the visual quality of this view, as shown in Figure 2-8c, would be very similar to that of Preferred Alternative DEL-1a. The visual quality of the view would be reduced from high to low average, which would be a visual impact.

Figure 2-8c. KOP WS-8: Dakota Street Station North Alignment Option (DEL-1b)



#### 2.2.4.4 Dakota Street Station Lower Height Alternative (DEL-2a)\*

The elevated guideway with Preferred Alternative DEL-2a\* would be visible as it would begin its transition into the tunnel west of this location (Figure 2-8d). The alignment would require the removal of trees along the south side of Southwest Genesee Street because it would extend into the West Seattle Golf Course. The tree removals would open up views to the south toward the alignment from residences on the north side of Southwest Genesee Street as well as open up more views of downtown Seattle to the north for people golfing. The presence of the golf course netting and support poles would be noticeable but would not reduce the visual quality. From this location, the elevated guideway would have an appearance similar to that of an elevated overpass (unless trains were traveling on it). The high vividness of the view would be reduced to average. The strong presence (horizontal form, color, materials, and scale) of the elevated guideway, trains, sound wall, and portal retaining wall would encroach on the viewed landscape of the golf course and introduce a major transportation facility element into the view. The elevated guideway encroachment into the view of downtown Seattle, the portal retaining wall, and construction within the golf course that would permanently change the appearance of its north end would reduce visual intactness to low. The high unity of the existing view would be reduced to low average by this alternative's changes to the existing visual pattern (but would allow some visual connection with the downtown skyline). The visual quality rating of the view would be reduced from high to low average, which would be a visual impact.

**Figure 2-8d. KOP WS-8: Preferred Dakota Street Station Lower Height Alternative (DEL-2a)\***



**2.2.4.5 Dakota Street Station Lower Height North Alignment Option (DEL-2b)\***

The portion of Option DEL-2b\* that would be seen from this location would be north of Southwest Genesee Street (Figure 2-8e). The alignment would require the removal of trees and residences north of Southwest Genesee Street, little of which would be noticed from this location. Part of the elevated guideway and trains would be visible and would somewhat intrude into views of the downtown skyline and reduce the high vividness of the view to average. The presence of the golf course netting and support poles would be noticeable but would not reduce the visual quality. The elevated guideway would be somewhat of an encroachment into the view of downtown Seattle, passing trains would be seen, and the intactness of the view would be reduced from high to average. The high unity of the view would be slightly reduced to low average with the addition of the elevated guideway into the view. The visual quality of the view would be reduced from high to average, which would be a visual impact.

**Figure 2-8e. KOP WS-8: Dakota Street Station Lower Height North Alignment Option (DEL-2b)\***



#### **2.2.4.6 Delridge Way Station Alternative (DEL-3)**

The influence of Alternative DEL-3 on the visual quality of this view would be similar to that of Preferred Alternative DEL-1a. The visual quality of the view would be reduced from high to low average, which would be a visual impact.

#### **2.2.4.7 Delridge Way Station Lower Height Alternative (DEL-4)\***

The influence of Alternative DEL-4\* on the visual quality of this view would be similar to that of Preferred Alternative DEL-2a\*. The visual quality of the view would be reduced from high to low average, which would be a visual impact.

### **2.2.5 KOP WS-9: Looking East along Southwest Genesee Street from Southwest Avalon Way**

#### **2.2.5.1 Existing Condition**

The view from this location represents what residents in this area see when looking east along Southwest Genesee Street (Figure 2-9a). The view includes the downward slope of Southwest Genesee Street, its rise up to Delridge Way Southwest, and the Pigeon Point area beyond and above. Single-family residences along the north (left) side of Southwest Genesee Street give the area a residential character. Tall trees along the south (right) side of the view block views into the north end of the West Seattle Golf Course. The sloping terrain, trees, structures, and

utility lines and poles are strong visual elements in this view. The viewed landscape is somewhat memorable and has a slightly high average degree of vividness. The visual intactness rating of the viewed area is high average. Utility lines intrude on the view and somewhat decrease the unity rating of the view to average. The views visual quality rating is high average (Table 2-9).

Figure 2-9a. KOP WS-9: Existing Condition



Table 2-9. KOP WS-9 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Dakota Street Station (DEL-1a)	Dakota Street Station North Alignment Option (DEL-1b)	Preferred Dakota Street Station Lower Height (DEL-2a)*	Dakota Street Station Lower Height North Alignment Option (DEL-2b)*	Delridge Way Station (DEL-3)	Delridge Way Station Lower Height (DEL-4)*
Vividness	High Average	Average	High Average	High Average	High Average	Average	High Average
Intactness	High Average	Low Average	Low	Low Average	Low Average	Low Average	Average
Unity	Average	Low Average	Low Average	Average	Average	Low Average	Average
<b>Visual Quality</b>	<b>High Average</b>	<b>Low Average</b>	<b>Low Average</b>	<b>Average</b>	<b>Average</b>	<b>Low Average</b>	<b>Low Average</b>

\* As described in the introduction to Chapter 2, Alternatives Considered, of the Draft Environmental Impact Statement, at the time the Sound Transit Board identified alternatives for study in the Draft Environmental Impact Statement, some alternatives were anticipated to require third-party funding based on early cost estimates. The

asterisk identifies these alternatives and the alternatives that would only connect to these alternatives in adjacent segments.

Note: Alternative DEL-5 and Alternative DEL-6\* would not be seen from this view and therefore were not simulated or included in this table.

### **2.2.5.2 Dakota Street Station Alternative (DEL-1a)**

The column to the right of this view with Preferred Alternative DEL-1a would block views down the south (right) side of Southwest Genesee Street and beyond up the hill to Pigeon Point (Figure 2-9b). It would also block views of the tree removals along the south side of the street and the route of the alternative through the West Seattle Golf Course. Residences and some of the trees along the north side of the street would remain. The existing overhead utilities on the north side of Southwest Genesee Street would shift farther to the north but would not alter the visual quality. The curve of the elevated guideway near the east end of this part of Southwest Genesee Street would be seen and, due to its size and form, would be a somewhat memorable visual element. The above average vividness of the view would be reduced to average. The view on the north side of the street would remain fairly intact, although the view on the south side and beyond would change quite a bit and reduce the intactness of the view to low average. The unity rating would be lowered from average to low average. The visual quality of the view would be lowered from high average to low average, which would not be a visual impact.

**Figure 2-9b. KOP WS-9: Preferred Dakota Street Station Alternative (DEL-1a)**



### **2.2.5.3 Dakota Street Station North Alignment Option (DEL-1b)**

Option DEL-1b would remove all the residences and vegetation on the north side of the view (left), which would open up views to the east and north that are currently blocked by trees and



buildings (Figure 2-9c). Because the elevated guideway would be seen as a sweeping element curving from left to right through this view, the memorability or vividness of the view would remain high average. The closeness of the large-scale columns and elevated guideway would encroach on this view of a residential area and reduce the intactness from high average to low. Because so much of the elevated guideway could be seen in the landscape, thus providing a somewhat unifying element, and because the appearance of most of the area on the north side of Southwest Genesee Street would be maintained, the view would be different than it is now but somewhat coherent. The existing overhead utilities on the north side of Southwest Genesee Street would shift farther to the north but would not alter the visual quality. This would result in the unity rating of the view decreasing from above average to low average. The visual quality of the view would be reduced from high average to low average, which would not be a visual impact.

**Figure 2-9c. KOP WS-9: Dakota Street Station North Alignment Option (DEL-1b)**



#### **2.2.5.4 Dakota Street Station Lower Height Alternative (DEL-2a)\***

Preferred Alternative DEL-2a\* would be located entirely on the south (right) side of Southwest Genesee Street along the northern part of the West Seattle Golf Course at an elevation lower than the viewer (Figure 2-9d). Potential sound walls along the eastern portion of Southwest Genesee Street would be on the elevated guideway and would not be very different in appearance than the guideway structure. Freestanding sound walls would be on the western part of Genesee right before the alignment enters into a tunnel. In this area, the sound walls would be noticeable and more memorable than the existing view. The change would not be enough to change the vividness rating. The sound wall near the tunnel portal would contrast with the existing view in terms of height, bulk, and scale, and would be an encroachment into the view. The above average intactness of the view would be reduced to low average. The

average unity rating of the view would be maintained because the viewed landscape would continue to have a somewhat coherent visual pattern. The visual quality of the view would be lowered from high average to average, which would not be a visual impact.

**Figure 2-9d. KOP WS-9: Preferred Dakota Street Station Lower Height Alternative (DEL-2a)\***



### **2.2.5.5 Dakota Street Station Lower Height North Alignment Option (DEL-2b)\***

Option DEL-2b\* would be located entirely on the north (left) side of Southwest Genesee Street at an elevation lower than the viewer. This option would open up views to the east and north that are currently blocked by trees and buildings (Figure 2-9e). Potential sound walls along the eastern portion of Southwest Genesee Street would be on the elevated guideway and would not be very different in appearance than the guideway structure. Freestanding sound walls would be on the western part of Genesee right before the alignment enters into a tunnel. In this area, the sound walls would be noticeable and more memorable than the existing view, but vegetation would act as a visual buffer. The change would not be enough to change the vividness rating. The sound wall near the tunnel portal would contrast with the existing view in terms of height, bulk, and scale, and would be an encroachment into the view. The above average intactness of the view would be reduced to low average. The average unity rating of the view would be maintained because the viewed landscape would continue to have a somewhat coherent visual pattern. The visual quality of the view would be lowered from high average to average, which would not be a visual impact.

Figure 2-9e. KOP WS-9: Dakota Street Station Lower Height North Alignment Option (DEL-2b)\*



### 2.2.5.6 Delridge Way Station Alternative (DEL-3)

From this location, the influence of this alternative on visual quality would be similar to that of Preferred Alternative DEL-1a, although the curve of the Preferred Alternative DEL-1a elevated guideway would not be seen in the distance (Figure 2-9f). The visual quality of the view would be lowered from high average to low average, which would not be a visual impact.

**Figure 2-9f. KOP WS-9: Delridge Way Station Alternative (DEL-3)**



**2.2.5.7 Delridge Way Station Lower Height Alternative (DEL-4)\***

The influence of Alternative DEL-4\* on the visual quality of this view would be similar to that of Preferred Alternative DEL-2a\* (Figure 2-9g). The visual quality of the view would be lowered from high average to low average, which would not be a visual impact.

Figure 2-9g. KOP WS-9: Delridge Way Station Lower Height Alternative (DEL-4)\*



## 2.2.6 KOP WS-10: Southwest Avalon Way Looking North at Intersection with Southwest Genesee Street

### 2.2.6.1 Existing Condition

This location was selected to represent views that residents in this area have when looking along Southwest Avalon Way as it descends to the north (Figure 2-10a). This view includes multi-story, multi-family buildings on either side of Southwest Avalon Way, Harbor Island, Elliott Bay, and the downtown skyline. The character of the view is urban, and its vividness (with the optimal type of light available when the photograph was taken) is high average. Utility lines, traffic signals, and their associated poles are very apparent in the foreground of this view and along with storage containers and other facilities at Harbor Island, detract from the intactness of the view, resulting in a slightly low average intactness rating. The unity of the view is average, as is visual quality (Table 2-10).

Figure 2-10a. KOP WS-10: Existing Condition



Table 2-10. KOP WS-10 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Dakota Street Station (DEL-1a)	Dakota Street Station North Alignment Option (DEL-1b)	Delridge Way Station (DEL-3)	Andover Street Station (DEL-5)
Vividness	High Average	High Average	High Average	High Average	Low Average
Intactness	Low Average	Low Average	Low Average	Low Average	Low
Unity	Average	Low Average	Low Average	Low Average	Low
<b>Visual Quality</b>	<b>Average</b>	<b>Low Average</b>	<b>Low Average</b>	<b>Low Average</b>	<b>Low</b>

Note: Preferred Alternative DEL-2a\*, Alternative DEL-4\*, and Alternative DEL-6\* would not be seen from this view and therefore were not simulated or included in the table.

### 2.2.6.2 Dakota Street Station Alternative (DEL-1a)

Preferred Alternative DEL-1a would pass over Southwest Avalon Way near its intersection with Southwest Genesee Street and remove a multi-story, multi-family building on the northwest corner of the intersection (Figure 2-10b). The scale of the elevated structure and support columns would be out of scale with the intersection and the structures and columns form, materials, and texture would not be consistent. Because the view of downtown Seattle would not be blocked, the vividness of the view would remain high average. The elevated guideway and columns would be encroachments into the view, but based on the height of the elevated

guideway (and views of downtown Seattle beneath the guideway) would not further reduce the low average intactness. This alternative would not be consistent with the existing visual pattern of the streetscape and adjacent areas, so the average unity rating would be reduced to low average. Visual quality would be reduced from average to low average, which would not be a visual impact.

**Figure 2-10b. KOP WS-10: Preferred Dakota Street Station Alternative (DEL-1a)**



**2.2.6.3 Dakota Street Station North Alignment Option (DEL-1b)**

The influence of Option DEL-1b on the visual quality of this view would be very similar to that of Preferred Alternative DEL-1a (Figure 2-10c). Visual quality would be reduced from average to low average, which would not be a visual impact.

Figure 2-10c. KOP WS-10: Dakota Street Station North Alignment Option (DEL-1b)



#### 2.2.6.4 Delridge Way Station Alternative (DEL-3)

The influence of Alternative DEL-3 on the visual quality of this view would be very similar to that of Preferred Alternative DEL-1a (Figure 2-10d). Visual quality would be reduced from average to low average, which would not be a visual impact.



Figure 2-10d. KOP WS-10: Delridge Way Station Alternative (DEL-3)



#### 2.2.6.5 Andover Street Station Alternative (DEL-5)

Alternative DEL-5 would pass from northeast to southwest above the intersection of Southwest Genesee Street and Southwest Avalon Way (Figure 2-10e). It would require the removal of multi-story, multi-family buildings on the west side of Southwest Avalon Way, and this would change the residential character of part of Southwest Avalon Way. The elevated structure and support columns would be out of scale with the elements currently near this intersection, and the alternative's weaving alignment would not follow the nearby street grid. The elevated guideway would encroach on and somewhat block views of downtown Seattle. The above average vividness of the view would be reduced to low average. The elevated structure and columns would be encroachments into the view of this location and would reduce the intactness rating from low average to low. The placement of a series of columns and straddle bents in an area where buildings would be removed, along with the elevated guideway's weaving alignment, would not follow the visual pattern of the existing streetscape and decrease the unity rating from average to low. The average visual quality rating would be reduced from average to low, which would be a visual impact.

Figure 2-10e. KOP WS-10: Andover Street Station Alternative (DEL-5)



## 2.2.7 KOP WS-11: Looking north Along 32nd Avenue SW

### 2.2.7.1 Existing Condition

The view from this location represents what residences in the area would see looking north along 32nd Avenue Southwest (Figure 2-11a). The view includes the downward slope of 32nd Avenue Southwest toward a distant partial view of downtown skyline through the trees in the foreground, with single-family residences and trees on both the east and west side of 32nd Avenue Southwest. The single-family residences on the west side of 32nd Avenue Southwest back up against the West Seattle Bridge, with a buffer of trees between. The sloping terrain, trees, structures and utility poles are strong visual elements in this view. The unity, vividness, and intactness are average due to the consistent neighborhood character with partial views toward the downtown skyline, which is partially obstructed by existing vegetation. The visual quality is average (Table 2-11).

Figure 2-11a. KOP WS-11: Existing Condition



Table 2-11. KOP WS-11 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Andover Street Station Lower Height (DEL-6)*
Vividness	Average	Average
Intactness	Average	Low
Unity	Average	Low
<b>Visual Quality</b>	<b>Average</b>	<b>Low</b>

**2.2.7.2 Andover Street Station Lower Height Alternative (DEL-6)\***

Alternative DEL-6\* would cross Delridge Way Southwest and Southwest Yancy on the north end of 32nd Avenue Southwest. It would remove a series of residences from the west side of the street (Figure 2-11b). Behind some of these residences, trees that currently block views of the West Seattle Bridge would also be removed and would open up views of the West Seattle Bridge, elevated guideway, and sound walls from the remaining residences along this portion of 32nd Avenue Southwest. The sound walls would block the view from ground level. This would reduce the integrity and unity of the residential street by removal of vegetation and residences, and change the neighborhood character to transportation, with views of the guideway, sound walls, and West Seattle Bridge to the west. The intactness, unity, and vividness would be reduced from average to low, and the average visual quality of views to the west from these residences would be reduced from average to low, which would be a visual impact.

Figure 2-11b. KOP WS-11: Andover Street Station Lower Height Alternative (DEL-6)\*



## 2.3 West Seattle Junction Segment

### 2.3.1 KOP WS-12: Genesee Street Looking East toward Southwest Avalon Way

#### 2.3.1.1 Existing Condition

This location was selected to represent views that residents along this portion of Southwest Genesee Street have when looking east toward Southwest Avalon Way (Figure 2-12a). Single-family residences and a multi-story, multi-family building at the end of the street create a residential character. The view is not particularly memorable, and its vividness rating is average. Utility poles and tall trees are major vertical visual elements in this view. The view has a low average intactness rating due to the strong visual presence of the utility poles and lines running along and crossing the street in many places. The unity rating of the view is average, as is the visual quality rating (Table 2-12).

Figure 2-12a. KOP WS-12: Existing Condition



Table 2-12. KOP WS-12 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Elevated 41st/42nd Avenue Station (WSJ-1)	Preferred Elevated Fauntleroy Way Station (WSJ-2)	Short Tunnel 41st Avenue Station Alternative (WSJ-4)*
Vividness	Average	High Average	High Average	High Average
Intactness	Low Average	Average	Average	Average
Unity	Average	High Average	High Average	High Average
<b>Visual Quality</b>	<b>Average</b>	<b>High Average</b>	<b>High Average</b>	<b>High Average</b>

Notes:

Preferred Option WSJ-3b\* would not be seen from this view and therefore was not simulated or included in the table. Preferred Alternative WSJ-3a\* and Alternative WSJ-5\* would change the appearance of this area, but to a lesser degree than Preferred Alternative WSJ-1 and therefore were not simulated or included on this table.

### 2.3.1.2 Elevated 41st/42nd Avenue Station Alternative (WSJ-1)

Residences along both sides of Southwest Genesee Street would be removed and those on the south side of the street (right) would be replaced with an elevated guideway, support structures, and station (Figure 2-12b) with Preferred Alternative WSJ-1. The elevated guideway would continue east and remove the multi-story, multi-family buildings seen at the terminus of Southwest Genesee Street. The back of multi-story, multi-family buildings that face Southwest Avalon Way would be exposed with the removal of single-family residence and associated landscaping along the south side of Southwest Genesee Street. The character of much of this view would change from residential to major transportation facility. With the extension of the elevated guideway to the east (and the arches supporting the guideway), the memorability or

vividness of this view would slightly increase to high average. The intactness of the view would remain average (if utility poles and lines are removed, it could increase to high average). The development of the station and its plaza along with the extension of the elevated guideway through the view would increase the visual unity rating of the view to high average. The average visual quality rating would slightly increase to high average.

**Figure 2-12b. KOP WS-12: Preferred Elevated 41st/42nd Avenue Station Alternative (WSJ-1)**



**2.3.1.3 Elevated Fauntleroy Way Station Alternative (WSJ-2)**

The influence on the visual quality of this view would be similar to that of Preferred Alternative WSJ-1. The average visual quality rating would slightly increase to high average.

**2.3.1.4 Short Tunnel 41st Avenue Station Alternative (WSJ-4)\***

The influence on the visual quality of this view would be similar to that of Preferred Alternative WSJ-1. The average visual quality rating would slightly increase to high average.

**2.3.2 KOP WS-13: Looking Southwest along Fauntleroy Way Southwest from 35th Avenue Southwest**

**2.3.2.1 Existing Condition**

This location is somewhat of a gateway into West Seattle because it represents the view that westbound people approaching the Alaska Junction area see after exiting the West Seattle Bridge (Figure 2-13a). The view is along Fauntleroy Way Southwest as it passes along an area that is primarily low rise and commercial in land use and visual character. Multi-story, mixed-use

buildings in the Alaska Junction area can be seen at the terminus of the street. The character of the view is commercial. Street trees along both sides of Fauntleroy Way Southwest somewhat block views beyond the street corridor and provide some visual unification. The view toward Alaska Junction is not memorable and has an average degree of vividness. Utility lines and poles intrude on the view and somewhat decrease the intactness but not enough to reduce it to low average. The scale of the elements along Fauntleroy Way Southwest appear fairly uniform from this location, and the development pattern is fairly consistent. The unity rating of the view is average as is overall visual quality (Table 2-13).

**Figure 2-13a. KOP WS-13: Existing Condition**



**Table 2-13. KOP WS-13 Visual Quality Changes by Alternative**

Visual Quality Components	Existing	Preferred Elevated 41st/42nd Avenue Station (WSJ-1)	Preferred Elevated Fauntleroy Way Station (WSJ-2)
Vividness	Average	Average	Average
Intactness	Average	Low	Low Average
Unity	Average	Low	Low Average
<b>Visual Quality</b>	<b>Average</b>	<b>Low</b>	<b>Low Average</b>

Note: Preferred Alternative WSJ-3a\*, Preferred Option WSJ-3b\*, Alternative WSJ-4\*, and Alternative WSJ-5\* would not be seen from this view and therefore were not simulated or included on this table.

**2.3.2.2 Elevated 41st/42nd Avenue Station Alternative (WSJ-1)**

The elevated guideway of Preferred Alternative WSJ-1 would pass next to and above this location (Figure 2-13b). It would continue west toward Alaska Junction as it straddles Fauntleroy

Way Southwest. Although the vividness rating of the view would not change, the elevated guideway, straddle bents, and double row of columns would be different in height, bulk, scale, form, color, and materials, and would visually encroach on the view. The average intactness rating would be reduced to low. The tunnel effect along Fauntleroy Way Southwest that would be created by the straddle bents and columns would lower the average unity rating to low by disrupting the existing average harmony and visual pattern of the existing view. The existing overhead power lines would be undergrounded, which would not alter the visual quality. The average visual quality rating would be reduced to low, which would be a visual impact. This impact would include viewers to the right of this image in residences north of Fauntleroy Way Southwest, whose views toward Fauntleroy Way Southwest are currently blocked by buildings and trees that would be removed with this alternative.

**Figure 2-13b. KOP WS-13: Preferred Elevated 41st/42nd Avenue Station Alternative (WSJ-1)**



### **2.3.2.3 Elevated Fauntleroy Way Station (WSJ-2)**

Although the elevated guideway and one straddle bent would be very close to and visible from this location with Preferred Alternative WSJ-2, on the north (right) side of Fauntleroy Way Southwest, this alternative would follow the street direction and maintain a degree of visual intactness, although the rating would be reduced from average to low average (Figure 2-13c). The existing overhead power lines would be undergrounded, which would not alter the visual quality. By following the existing street pattern and creating an open area next to Fauntleroy Way Southwest under the elevated guideway, the unity of the view would not be decreased as much as it would be with different alternatives in this segment. The unity rating would decrease to low average, as would the visual quality rating, which would not be a visual impact.



Figure 2-13c. KOP WS-13: Preferred Elevated Fauntleroy Way Station Alternative (WSJ-2)



### 2.3.3 KOP WS-14: Looking South along 39th Avenue Southwest toward Fauntleroy Way Southwest

#### 2.3.3.1 Existing Condition

This location represents views that residents on the slope north of Fauntleroy Way Southwest have when looking south toward Alaska Junction (Figure 2-14a). The view includes a major intersection in West Seattle; a gas station; a multi-story, multi-family building; Fauntleroy Way Southwest where it angles to the southwest at the junction; a construction crane (a temporary feature); and a hillside beyond the junction. This visually busy and transitioning area has a mixture of character types. The most distinctive component of this view (other than the temporary crane) is the hillside beyond the junction (and cars parked along the side of the streets passing along it). But even with the hillside, the view is not particularly memorable, and its vividness rating is average. The view has an average degree of intactness. With the mixture of uses and building types that can be viewed, the unity of the view is low average. The visual quality rating of the view is average (Table 2-14).

Figure 2-14a. KOP WS-14: Existing Condition



Table 2-14. KOP WS-14 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Elevated Fauntleroy Way Station (WSJ-2)
Vividness	Average	High Average
Intactness	Average	High Average
Unity	Low Average	Average
<b>Visual Quality</b>	<b>Average</b>	<b>Average</b>

Note: Preferred Alternative WSJ-1, Preferred Alternative WSJ-3a\*, Preferred Option WSJ-3b\*, Alternative WSJ-4\*, and Alternative WSJ-5\* would not be seen from this view and therefore were not simulated or included on this table.

### 2.3.3.2 Elevated Fauntleroy Way Station Alternative (WSJ-2)

The Preferred Alternative WSJ-2 elevated station and guideway would be more memorable elements in this view than the mix of land uses and buildings that are currently seen (Figure 2-14b). The vividness of the view would increase from average to high average. The height and scale of the elevated station would be compatible with nearby buildings. The existing overhead power lines would be undergrounded, which would not alter the visual quality. Although the elevated guideway might encroach on views farther down Fauntleroy Way Southwest, this alternative’s components would improve on the intactness of the view and increase the rating to high average. The elevated station and guideway would follow the street pattern in this location, simplify and harmonize the intersection area compared to the existing condition, and increase the low average unity rating to average. The visual quality rating would remain average, which would not be a visual impact.

Figure 2-14b. KOP WS-14: Preferred Elevated Fauntleroy Way Station Alternative (WSJ-2)



### 2.3.4 KOP WS-15: Looking North along 42nd Avenue Southwest near Southwest Hudson Street

#### 2.3.4.1 Existing Condition

This location represents the view north along 42nd Avenue Southwest that residents in this neighborhood see (Figure 2-15a). Single-family residences, street trees, and large trees in the yards of residences are the primary visual elements of this view. The area viewed from this location is residential in character. The view is of a pleasant but unremarkable residential area that has an average degree of vividness. The intactness and unity of this area are high average. The area viewed has slightly high average visual quality rating (Table 2-15).

Figure 2-15a. KOP WS-15: Existing Condition



Table 2-15. KOP WS-15 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Elevated 41st/42nd Avenue Station (WSJ-1)
Vividness	Average	Average
Intactness	High Average	Low
Unity	High Average	Low
<b>Visual Quality</b>	<b>High Average</b>	<b>Low</b>

Notes:

Preferred Option WSJ-3b\* would not be seen from this view and therefore was not simulated or included in this table. Changes associated with the construction of Preferred Option WSJ-3b\* would alter the appearance of this view (but were not simulated because simulations show long-term permanent impacts).

Preferred Alternative WSJ-2, Preferred Alternative WSJ-3a\*, Alternative WSJ-4\*, and Alternative WSJ-5\* would not be seen from this view and therefore were not simulated or included in this table.

**2.3.4.2 Elevated 41st/42nd Avenue Station Alternative (WSJ-1)**

All of the residences along 41st Avenue Southwest that are seen in Figure 2-15a would be removed with Preferred Alternative WSJ-1 (Figure 2-15b). The elevated guideway, the elevated trail track, stored trains, and the high access would introduce large-scale elements into the view that would be very different visually, and somewhat more memorable, than the existing view. The change would not be enough to change the vividness rating to high average however, so it would remain average. The project components would contrast with the existing view in terms of height, bulk, scale, form, color, and material, and would be encroachments into the view. The high average intactness of the view would be reduced to low. The project elements do not fit the

pattern of the area near them, contrast with nearby residential areas, and do not support a harmonious visual setting. As a result, the unity rating of view would be reduced to low. The visual quality rating would also be reduced to low, which would be a visual impact.

**Figure 2-15b. KOP WS-15: Preferred 41st/42nd Avenue Station Alternative (WSJ-1)**



### 3 BALLARD LINK EXTENSION

#### 3.1 South Interbay Segment

##### 3.1.1 KOP B-1a: Looking West from 6th Avenue West and Elliott Avenue West

###### 3.1.1.1 Existing Condition

This location was selected to depict views at places identified as critical, primary and secondary view corridors along Elliott Avenue West, which is a City of Seattle Designated Scenic Route. This view is identified as both a primary and secondary view by the City of Seattle. This location along Elliott Avenue West, similar to that of the other viewpoints along this route, offers views toward Elliott Bay, West Seattle, and the Olympic Mountains beyond (Figure 3-1a). The slightly elevated location of this view adjacent to multi-family residences, which are sensitive viewers, offers views consisting of the natural features listed above. However, the foreground views are dominated by views of Elliott Avenue West, parking lots, overhead utility lines, the BNSF Railway tracks (and stationary and moving freight train cars), and the green open space of Centennial Park Trail. The memorability of vividness of this view is high average due to the foreground views. The intactness of the view, visual unity, and the visual quality is average. This view would be seen by sensitive viewers.

Figure 3-1a. KOP B-1: Existing Condition



**Table 3-1. KOP B-1 Visual Quality Changes by Alternative**

Visual Quality Components	Existing	Preferred Galer Street Station/Central Interbay (SIB-1)	Prospect Street Station/15th Avenue (SIB-2)
Vividness	High Average	Low Average	Low Average
Intactness	Average	High Average	High Average
Unity	Average	Average	Average
<b>Visual Quality</b>	<b>Average</b>	<b>Average</b>	<b>Average</b>

Note: Alternative SIB-3 would not be seen from this view and therefore was not simulated or included in this table.

**3.1.1.2 Galer Street Station/Central Interbay Alternative (SIB-1) and Prospect Street Station/15th Avenue (SIB-2)**

With Preferred Alternative SIB-1 and Alternative SIB-2, the presence of the elevated guideway along the west side and median of Elliott Avenue West would not lower the intactness or unity of this view due to the elevation and proximity of the elevated guideway to the sensitive viewer locations (Figure 3-1b). The elevated guideway and straddle bents would partially block views of the Olympic Mountains from the multi-family residences; this would result in the vividness lowering from high average to low average but not enough to lower the overall visual quality. The dominant land and water features would still remain visible and unobstructed. The existing overhead power lines would be moved underground, which would increase the intactness of the views from average to high average but not enough to increase visual quality. Most of the foreground man-made elements would continue to dominate the view from the residences along Elliott Avenue West, with unobstructed views to Elliott Bay and West Seattle in the background. The presence of the elevated guideway (on the west side and in the median of Elliott Avenue West) and the straddle bents would not lower the average visual quality of views from sensitive residential viewers or travelers along Elliott Avenue West. The visual quality would remain average and therefore would not be a visual impact.

Figure 3-1b. KOP B-1: Preferred Galer Street Station/Central Interbay Alternative (SIB-1)



### 3.1.2 KOP B-2: Looking South from Interbay Golf Center toward Pier 91 Cruise Ship Terminal

#### 3.1.2.1 Existing Condition

This location represents views toward and beyond the southern end of the Interbay Golf Center (Figure 3-2a). It includes the fairways, greens, and trees of the facility. Also seen are industrial buildings beyond the Interbay Golf Center, cruise ships moored at the Smith Cove cruise ship facility, and the hills of West Seattle in the background. The character of the view is a combination of recreational and maritime-industrial. Trees form a frame of the view beyond the golf center and add dark vertical visual elements to this wide-open and expansive view. The vividness of the view is high average due to the unusual pairing of a golf course and large cruise ships. The intactness of the view is average as is the visual unity. Visual quality is also average (Table 3-2).



Figure 3-2a. KOP B-2: Existing Condition



Table 3-2. KOP B-2 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Galer Street Station/Central Interbay (SIB-1)	Prospect Street Station/Central Interbay (SIB-3)
Vividness	High Average	Average	Average
Intactness	Average	Low Average	Low Average
Unity	Average	Low Average	Low Average
<b>Visual Quality</b>	<b>Average</b>	<b>Low Average</b>	<b>Low Average</b>

Note: Alternative SIB-2 would not be seen from this view and therefore was not simulated or included in this table.

### 3.1.2.2 Galer Street Station/Central Interbay Alternative (SIB-1)

With Preferred Alternative SIB-1, the elevated guideway would be seen silhouetted against the sky as it would pass from left to right behind the golf course (Figure 3-2b). The elevated guideway and support structures would be very noticeable and partially block views of cruise ships, although glimpses of these memorable elements would still be seen. Views of the hills of West Seattle would not be blocked—the elevated guideway would pass “over” the hills and be silhouetted against the sky. Views of the industrial buildings beyond the golf course would not be blocked by this alternative. The presence of the golf course netting and support poles would be noticeable but would not reduce the visual quality. The vividness of the view would be reduced from high average to average. The elevated guideway and support structures would introduce large-scale components that would encroach on views beyond the golf course and lower the intactness rating from average to low average. The elevated guideway would pass

through and over almost the entire view and would be a dominant visual. However, it would not entirely block views beyond the golf center that include berthed cruise ships and West Seattle, so the unity of the view would be lowered from average to low average. The visual quality rating would be reduced from average to low average, which would not be a visual impact from this distance and viewing angle.

**Figure 3-2b. KOP B-2: Preferred Galer Street Station/Central Interbay Alternative (SIB-1)**



### **3.1.2.3 Prospect Street Station/Central Interbay Alternative (SIB-3)**

The elevated guideway with this alternative would pass through the southwestern corner of the Interbay Golf Center on the way to its western edge, where it would travel north beside the BNSF Railway tracks (Figure 3-2c). Trains passing on the elevated guideway would be silhouetted against the sky and block views of moored cruise ships (the ships would be partially seen when trains were not present, as would the tops of the West Seattle hills in the background). The vividness of the view would be reduced from high average to average. The scale, form, color, and appearance of the elevated guideway would be similar to that of an elevated overpass, and the intactness of the view would be reduced from average to low average. The guideway and trains would block most of the view beyond the golf course and reduce the existing visual connection with these areas. The presence of the golf course netting and support poles would be noticeable but would not reduce the visual quality. The unity rating of the view would be decreased from average to low average, as would the visual quality rating, which would not be a visual impact from this viewing distance and angle.

Figure 3-2c. KOP B-2: Prospect Street Station/Central Interbay Alternative (SIB-3)



### 3.1.3 KOP B-3: Looking Northwest toward West Dravus Street Overpass from Interbay Athletic Complex

#### 3.1.3.1 Existing Condition

This location represents views by recreationists using the Interbay Athletic Complex as well as views by residents living in the multi-family complex immediately to the northeast (Figure 3-3a). The ballfield is the focus of the foreground view from this location. Its edges are lined with trees that create an enclosed viewing area. The trees screens views into the adjacent BNSF Railway railyard and views of most of the West Dravus Street railyard overpass. Part of the railyard can be seen underneath the portion of the railyard overpass that can be seen from this location. The tops of industrial buildings north of West Dravus Street are visible between gaps in the trees. Although glimpses of industrial features are present in the view, its character is recreational. The field, trees, the overpass structure, and light poles are the most distinctive features of the view, which has an average degree of vividness. Utility poles and lines somewhat encroach on the view, but not enough to reduce the average intactness rating of the view. Due to the screening of adjacent areas by trees, the unity rating of the view is high average. The visual quality rating of the view is average (Table 3-3).

Figure 3-3a. KOP B-3: Existing Condition



Table 3-3. KOP B-3 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Galer Street Station/Central Interbay (SIB-1)	Prospect Street Station/Central Interbay (SIB-3)
Vividness	Average	Low Average	Low Average
Intactness	Average	Low	Low
Unity	High Average	Low	Low
<b>Visual Quality</b>	<b>Average</b>	<b>Low</b>	<b>Low</b>

Note: Alternative SIB-2 would not be seen from this view and therefore was not simulated or included in this table.

### 3.1.3.2 Galer Street Station/Central Interbay Alternative (SIB-1)

The view from this location would change extensively with Preferred Alternative SIB-1 (Figure 3-3b). Most of the vegetation around the edge of the facility that generally restricts views to within the boundary of the ballfield would be removed. Objects currently screened by the vegetation, such as trains in the BNSF Railway railyard and the West Dravus Street overpass, would become very visible. The elevated guideway and support structures passing through this relatively small and visually contained recreational area would also remove the grass ballfields and add a large-scale transportation element. This would change the visual character of the view towards the elevated guideway from recreational to transportation. The elevated guideway would somewhat increase the memorability of the view, but the removal of the vegetative screening that encloses this view and contributes to its vividness would be removed. The removal would lower the vividness rating from average to low average. The scale, form, material, and color of the elevated guideway would contrast with existing visual elements. The elevated guideway, its support structures including straddle bents, and the removal of trees

would reduce the intactness of the view from average to low. By opening up views beyond the facility and introducing a large-scale elevated guideway that would angle through the view and not follow the existing street grid, this alternative would contrast with the existing visual pattern and reduce the unity rating of the view from high average to low. The visual quality rating would be reduced from average to low, which would be a visual impact to views from the multi-story residential development to the northeast but not to recreationists because the grass ballfields they use would be displaced and recreationists would no longer use the fields.

**Figure 3-3b. KOP B-3: Preferred Galer Street Station/Central Interbay Alternative (SIB-1)**



### **3.1.3.3 Prospect Street Station/Central Interbay Alternative (SIB-3)**

The influence of this alternative on the visual quality of the view, as shown in Figure 3-3c, would be similar to that of Preferred Alternative SIB-1.

**Figure 3-3c. KOP B-3: Prospect Street Station/Central Interbay Alternative (SIB-3)**



### **3.1.4 KOP B-4: Looking West from Corner of 14th Avenue West Stairs to Interbay Golf Center**

#### **3.1.4.1 Existing Condition**

KOP B-3 was selected to represent elevated views of Interbay seen by residents on the west side of Queen Anne Hill (and residents on the west side of Magnolia living at similar elevations). The location of KOP B-4 is the top of a public stairway next to 14th Avenue West and is at a viewing elevation similar to that of nearby residences (Figure 3-4a). This visually complex view has a multitude of visual elements. The Interbay Golf Center driving range screen support poles and utility poles introduce tall, thin, light-colored vertical elements into the view that command attention. The green flat driving range also draws attention and contrasts with the areas behind it (the BNSF Railway railyard and residences on the Magnolia hillside). The Magnolia neighborhood (and hill) are important visual elements in this view. The character of the viewed landscape is a mixture of recreational, residential, commercial and transportation. The vividness of the view is high average due to the presence of the driving range, but its intactness is low average due largely to the tall driving range protective fencing, the fencing support poles, and utility poles and lines. The unity of the view is average as is its visual quality (Table 3-4).

Figure 3-4a. KOP B-4: Existing Condition



Table 3-4. KOP B-4 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Galer Street Station/Central Interbay (SIB-1)	Prospect Street Station/15th Avenue (SIB-2)	Prospect Street Station/Central Interbay (SIB-3)
Vividness	High Average	High Average	Average	High Average
Intactness	Low Average	Low Average	Low	Low Average
Unity	Average	Average	Low Average	Average
<b>Visual Quality</b>	<b>Average</b>	<b>Average</b>	<b>Low Average</b>	<b>Average</b>

### 3.1.4.2 Galer Street Station/Central Interbay Alternative (SIB-1)

The Preferred Alternative SIB-1 elevated guideway would pass along the far side of the Interbay Golf Center in this view and be somewhat visible as a low gray horizontal element (Figure 3-4b). Trains passing by would attract more viewer attention than would the elevated guideway. The presence of the guideway and trains would somewhat lower intactness, but not enough to reduce the existing low average rating to low. The visual quality components and the visual quality rating would not change, and there would not be an impact to visual quality.

Figure 3-4b. KOP B-4: Preferred Galer Street Station/Central Interbay Alternative (SIB-1)



### 3.1.4.3 Prospect Street Station/15th Avenue Alternative (SIB-2)

The elevated guideway with this alternative would be along and above the center of 15th Avenue West (Figure 3-4c). The elevated guideway and trains would block views of the driving range and part of the hillside beyond. From this location, the elevated guideway would not be particularly memorable and the view's vividness rating would be lowered from high average to average. The scale, form, and materials of the elevated guideway would be a bit of an encroachment and would reduce the low average intactness rating to low. By following 15th Avenue West, the alignment would reinforce the street grid in this area and the arterial transportation corridor character of 15th Avenue West. The elevated guideway and trains would somewhat interrupt views of the driving range and Magnolia that help establish visual unity, which would lower the unity rating from average to low average. The average visual quality rating would be reduced from average to low average, which would not be a visual impact.



Figure 3-4c. KOP B-4: Prospect Street Station/15th Avenue Alternative (SIB-2)



#### 3.1.4.4 Prospect Street Station/Central Interbay Alternative (SIB-3)

The influence of this alternative on the visual quality of the view would be similar to that of Preferred Alternative SIB-1.

#### 3.1.5 KOP B-5: Looking East from West Dravus Street In Magnolia

##### 3.1.5.1 Existing Condition

This location was selected to represent another elevated view down on the Interbay area from a residential area higher in elevation than KOP B-4, farther from the alternatives, and with a view to the east (Figure 3-5a). The view east down West Dravus Street includes nearby residences, street trees, the West Dravus Street overpass over BNSF Railway tracks, and West Dravus Street as it descends downhill, crosses Interbay, and continues uphill on Queen Anne Hill. This view also depicts how many new multi-story, multi-family residential complexes are present within this part of Interbay. The most visually distinctive elements in this view are the ridgeline of Queen Anne Hill and the descent and rise of West Dravus Street. This view has a strong residential character, which is a mix of single-family neighborhood and concentrated areas of multi-story, multi-family residential development. It is not a particularly memorable or vivid view (average) but has high average intactness (although utility poles and lines detract) and unity. The visual quality of the view is high average (Table 3-5).

Figure 3-5a. KOP B-5: Existing Condition



Table 3-5. KOP B-5 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Galer Street Station/Central Interbay (SIB-1)	Prospect Street Station/15th Avenue (SIB-2)	Prospect Street Station/Central Interbay (SIB-3)
Vividness	Average	Average	Average	Average
Intactness	High Average	Low Average	High Average	Low Average
Unity	High Average	High Average	High Average	High Average
<b>Visual Quality</b>	<b>High Average</b>	<b>Average</b>	<b>High Average</b>	<b>Average</b>

**3.1.5.2 Galer Street Station/Central Interbay Alternative (SIB-1)**

The Preferred Alternative SIB-1 elevated guideway would be seen as a gray horizontal element passing through the entire view (Figure 3-5b). The removal of buildings near its crossing of West Dravus Street would be noticeable, as would trains passing on the elevated guideway. The elevated guideway would somewhat increase the memorability, or vividness, of this view, but not enough to increase the rating from average to high average. This alternative would introduce a new large-scale transportation element into the view. The elevated guideway would not be an encroachment into the view but would be different in character than the elements currently seen in the view. Its presence would reduce the high average intactness rating to low average. The unity of the view would be somewhat reduced, but not enough to lower the high average to average. The high average visual quality would be reduced from high average to average, which would not be a visual impact.

**Figure 3-5b. KOP B-5: Preferred Galer Street Station/Central Interbay Alternative (SIB-1)**



**3.1.5.3 Prospect Street Station/15th Avenue Alternative (SIB-2)**

This alternative would add above-ground vertical components to portions of the view (much of which would be screened by trees and buildings), but the elevated guideway would not be particularly noticeable from this location (Figure 3-5c). Moving trains would be more noticeable than the elevated guideway. The average vividness of the view would not be reduced. The portion of the elevated guideway that would pass over West Dravus Street would be considered a bit of a visual encroachment, but not enough to lower the high average intactness to average. The view would still have high average unity and intactness, average vividness, and high average visual quality, which would not be a visual impact.

**Figure 3-5c. KOP B-5: Prospect Street Station/15th Avenue Alternative (SIB-2)**



**3.1.5.4 Prospect Street Station/Central Interbay Alternative (SIB-3)**

The appearance of this alternative would be very similar to Preferred Alternative SIB-1 from this location and would have the same influence on visual quality (Figure 3-5d). The primary differences between the two alternatives would be that this alternative would cross higher over West Dravus Street than Preferred Alternative SIB-1 and the elevated Interbay Station (which is in the Interbay/Ballard Segment) would be seen farther to the north in this view. The vividness would remain average and the unity would remain as high average, but the intactness would be lowered from high average to low average. Overall, the visual quality would lower from high average to average, which would not be a visual impact.

Figure 3-5d. KOP B-5: Prospect Street Station/Central Interbay Alternative (SIB-3)



## 3.2 Interbay/Ballard Segment

### 3.2.1 KOP B-6: Looking Northwest from West Emerson Street and 13th Avenue West

#### 3.2.1.1 Existing Condition

This location was selected to represent elevated views from residential areas looking toward the locations where alternatives would cross Salmon Bay (Figure 3-6a). From this location, the waters of Salmon Bay can be clearly seen, along with the lower parts of Ballard. The north end of the Ballard Bridge can also be seen, as can the maritime industrial/commercial areas that line both sides of Salmon Bay. The character of this view is a combination of single-family residential, maritime, and dense urban in the areas north of Salmon Bay. The view is fairly memorable and has high vividness. The intactness of the landscape would be high average, but the intruding presence of the utility pole and lines encroach on the view, making the intactness average. The unity of the view is high average, as is the visual quality (Table 3-6).

Figure 3-6a. KOP B-6: Existing Condition



Table 3-6. KOP B-6 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Elevated 14th Avenue (IBB-1a)	Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)	Elevated 15th Avenue (IBB-3)
Vividness	High	High Average	High Average	High
Intactness	Average	Low Average	Low Average	Low Average
Unity	High Average	Low Average	Low Average	High Average
<b>Visual Quality</b>	<b>High Average</b>	<b>Low Average</b>	<b>Low Average</b>	<b>Average</b>

Note: Preferred Alternative IBB-2a\* and Preferred Option IBB-2b\* would not be seen from this view and therefore were not simulated or included in this table.

### 3.2.1.2 Elevated 14th Avenue Alternative (IBB-1a)

The Preferred Alternative IBB-1a elevated guideway and bridge over Salmon Bay would be seen east of, in front of, and “over” the existing Ballard Bridge and would become the dominant element of the view (Figure 3-6b). The presence of this alternative’s bridge would change the overall view from this location. It would decrease the high vividness of the view to high average by placing an object into the view that would reduce the uninterrupted panoramic nature that contributes to its existing high vividness rating. Although the bridge’s arching guideways would present an attractive and delicate repetition of form, the three different types of columns (particularly the cylindrical columns supporting a standard horizontal support beam) would detract from the appearance of the bridge. The design of the bridge, along with its

encroachment on the view, would reduce the average intactness of the view to low average. The bridge would be silhouetted against the background sky from this location and interrupt the view of the far ridgeline and areas of Ballard north of Salmon Bay, both of which help create high unity. With the bridge in place, the unity would be reduced from high average to low average, as would the visual quality. This would not be considered an impact to visual quality.

**Figure 3-6b. KOP B-6: Preferred Elevated 14th Avenue Alternative (IBB-1a)**



**3.2.1.3 Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)**

This alternative’s alignment would be the same as with Preferred Alternative IBB-1a and have the same influence on visual conditions.

**3.2.1.4 Elevated 15th Avenue Alternative (IBB-3)**

The elevated guideway with Alternative IBB-3 would be visible “above and behind” the Ballard Bridge (Figure 3-6c). The portion of the elevated guideway that would pass through the southern part of Ballard would also be seen from this location. The removal of buildings along its route would be noticed by some viewers. The most visible components of this alternative would be the bridge’s four towers and the moveable portion of the bridge when in the raised position. The vividness of the view would remain high. The four towers would attract attention because their vertical orientation, form, color, and texture would be contrasting visual elements. The towers and elevated guideway passing above and beyond the Ballard Bridge would encroach on the view enough to reduce the average intactness to low average. The view of the bridge and elevated guideway would somewhat alter the existing harmonious visual pattern of the viewed landscape, but not enough to reduce the high average to low average. The visual quality of the view would be lowered from high average to average.

**Figure 3-6c. KOP B-6: Elevated 15th Avenue Alternative (IBB-3)**



### **3.2.2 KOP B-7: Looking East from Fishermen’s Terminal toward Ballard Bridge**

#### **3.2.2.1 Existing Condition**

This location was selected to represent views from Fishermen’s Terminal and similar low-elevation areas on both sides of the Ballard Bridge adjacent to Salmon Bay and the Lake Washington Ship Canal (Figure 3-7a). The view includes one of the buildings at Fishermen’s Terminal (housing a restaurant), a walkway, the edge of the moorage area, the Ballard Bridge, and Phinney Ridge in the background. The view is not particularly memorable and has an average degree of vividness. The presence of the Ballard Bridge (which from this location is a dark horizontal object that resembles an elevated overpass) reduces the integrity of the view from high to average. The view includes a number of elements that reinforce the maritime character of this view and create a high degree of unity. However, the presence of this portion of the Ballard Bridge reduces unity; therefore, the unity of the view is high average, as is the visual quality (Table 3-7).



Figure 3-7a. KOP B-7: Existing Condition



Table 3-7. KOP B-7 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Elevated 14th Avenue (IBB-1a)	Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)	Elevated 15th Avenue (IBB-3)
Vividness	Average	High Average	High Average	Average
Intactness	High Average	Low Average	Low Average	Low Average
Unity	High Average	Low Average	Low Average	Low
<b>Visual Quality</b>	<b>High Average</b>	<b>Low Average</b>	<b>Low Average</b>	<b>Low Average</b>

Notes:

Preferred Alternative IBB-2a\* and Preferred Option IBB-2b\* would not be seen from this view and therefore were not simulated or included in this table.

All waterway crossing simulations depicted below indicate a balanced cantilever segmental box girder type bridge. Sound Transit is studying multiple bridge types, which are not shown.

### 3.2.2.2 Elevated 14th Avenue Alternative (IBB-1a)

The Preferred Alternative IBB-1a elevated guideway and support structures on the east side of the Ballard Bridge would be silhouetted against the sky from this location and become a dominant element in this view (Figure 3-7b). As with views from other locations, the bridge's

arching guideways would present an attractive and delicate repetition of form. However, the three different types of columns (particularly the cylindrical columns supporting a standard horizontal support beam, which in this location is “behind” the statue on the walkway) would detract from the bridge’s appearance. The presence of the bridge above Salmon Bay and the scale of it would increase the memorability or vividness of the view from average to high average. The introduction of another transportation element to the view (although one that would be silhouetted against the sky throughout most of this view) would reduce the intactness from high average to low average. The bridge would be very different in scale, form, texture, and color compared to the viewed elements that contribute to a coherent and harmonious visual pattern, and the unity of the view would be reduced from high average to low average. The bridge would be “above” the ridgeline of Phinney Ridge in the background and would not block views of it, which would maintain the visual connection. The visual quality of the view would be reduced from high average to low average, which would not be a visual impact.

**Figure 3-7b. KOP B-7: Preferred Elevated 14th Avenue Alternative (IBB-1a)**



**3.2.2.3 Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)**

The Option IBB-1b alignment would be the same as with Preferred Alternative IBB-1a and have the same influence on visual conditions. The visual quality of the view would be reduced from high average to low average, which would not be a visual impact.

**3.2.2.4 Elevated 15th Avenue Alternative (IBB-3)**

This alternative would be located on the west side of the Ballard Bridge and would pass through part of Fishermen’s Terminal (Figure 3-7c). The bridge would appear “above” the existing Ballard Bridge but would be at an elevation where it would block views of most of the ridgeline

of Phinney Ridge. The presence of the bridge would not change the average vividness of the view. The bridge would be a second transportation element that would be larger in scale and more visible than the elevated portion of the Ballard Bridge. It would also encroach on views of Phinney Ridge. This alternative would reduce the average intactness to low average. The bridge would differ in scale, form, texture, and color with the existing viewed elements that contribute to the view's coherent and harmonious visual pattern. The high average unity of the view would be reduced to low. The visual quality of the view would be reduced from high average to low average, which would not be a visual impact.

**Figure 3-7c. KOP B-7: Elevated 15th Avenue Alternative (IBB-3)**



### **3.2.3 KOP B-8: Looking East from Side Dock North of Main Dock Street Dock toward Ballard Bridge**

#### **3.2.3.1 Existing Condition**

This location at the end of a dock in Salmon Bay was selected to represent views that people using the docks or traveling on boats (recreationists who are sensitive viewers) on Salmon Bay and the Lake Washington Ship Canal have when looking east toward the Ballard Bridge (Figure 3-8a). The Ballard Bridge is very visible from this location, as are the waters of Salmon Bay and Phinney Ridge in the background. The marine-oriented businesses that line Salmon Bay contribute to its working waterfront character. Ballard Bridge is a strong horizontal element in this view, and its two drawbridge support structures are prominent large-scale elements. From this viewing angle, the background presence of Phinney Ridge somewhat lessens the vividness of the bridge view when it is in the down position because the bridge is not silhouetted against the sky. When the bridge is in the upright position, it is partially silhouetted against the sky. The vividness of this view is high. Visual intactness and unity are also high as is visual quality (Table 3-8).

Figure 3-8a. KOP B-8: Existing Condition



Table 3-8. KOP B-8 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Elevated 14th Avenue (IBB-1a)	Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)	Elevated 15th Avenue (IBB-3)
Vividness	High	High	High	High Average
Intactness	High	Low Average	Low Average	Low Average
Unity	High	Average	Average	Low
<b>Visual Quality</b>	<b>High</b>	<b>Average</b>	<b>Average</b>	<b>Low Average</b>

Notes:

Preferred Alternative IBB-2a\* and Preferred Option IBB-2b\* would not be seen from this view and therefore were not simulated or included in this table.

All waterway crossing simulations depicted below indicate a balanced cantilever segmental box girder type bridge. Sound Transit is studying multiple bridge types, which are not shown.

**3.2.3.2 Elevated 14th Avenue Alternative (IBB-1a)**

The Preferred Alternative IBB-1a bridge over Salmon Bay and support structures would be seen east of and behind the Ballard Bridge (Figure 3-8b). The horizontal form of this alternative’s bridge would parallel and replicate the horizontal form of the Ballard Bridge, although it would be much higher in elevation. The arches of the bridge would somewhat mimic the arch of the drawbridge portion of the Ballard Bridge. Because this alternative’s bridge and its support columns would be silhouetted against the sky, they would become dominant visual elements in this view and the vividness would remain high. Although the bridge’s arching guideways would

present an attractive and “delicate” repetition of form, scale, and color, the encroachment of the bridge within this view and the presence of trains traveling across it would reduce the high intactness of the view to low average. The bridge would be silhouetted against the background sky from this location. Although it would not interrupt the view of Phinney Ridge, the presence of the bridge would reduce the high unity of the view to average. The visual quality of the view would be reduced from high to average, which would be a visual impact.

**Figure 3-8b. KOP B-8: Preferred Elevated 14th Avenue Alternative (IBB-1a)**



**3.2.3.3 Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)**

The Option IBB-1b alignment would be the same as with Preferred Alternative IBB-1a and have the same influence on visual conditions. The visual quality of the view would be reduced from high to average, which would be a visual impact.

**3.2.3.4 Elevated 15th Avenue Alternative (IBB-3)**

This alternative would be located west of the Ballard Bridge and interrupt views of the bridge from this location (Figure 3-8c). The alternative’s elevated structure and towers would appear in front of and above the existing Ballard Bridge and ridgeline of Phinney Ridge. The presence of this alternative’s bridge would change the high vividness of the view to high average. The strong vertical towers would place large-scale vertical elements into this view that would contrast strongly with the horizontal form of the Ballard Bridge and horizontal nature of Phinney Ridge. This alternative’s components would reduce high intactness of the view to low average. This alternative’s bridge would differ in scale, form, texture, and color, with the existing viewed elements that contribute to the view’s coherent and harmonious visual pattern and high unity. The bridge and four towers would interrupt views of the Ballard Bridge and Phinney Ridge that

contribute to the view's high unity and would reduce the reduce the unity to low. The visual quality of the view would be reduced from high to low average, which would be a visual impact.

**Figure 3-8c. KOP B-8: Elevated 15th Avenue Alternative (IBB-3)**



### **3.2.4 KOP B-9: Looking East from the Ballard Bridge**

#### **3.2.4.1 Existing Condition**

This view was selected to depict the view that people traveling on the Ballard Bridge have to the east (Figure 3-9a). The Ballard Bridge is a City of Seattle Designated Scenic Route. The view from the bridge is very memorable and includes Salmon Bay, the Lake Washington Ship Canal, the Cascade Mountains, Phinney Ridge, and Capitol Hill. Maritime businesses lining the shore, ships, docks, and other features contribute to a strong maritime character. The intactness and unity of this view are high, as is the visual quality (Table 3-9).

Figure 3-9a. KOP B-9: Existing Condition



Table 3-9. KOP B-9 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Elevated 14th Avenue (IBB-1a)	Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)
Vividness	High	High Average	High Average
Intactness	High	Low	Low
Unity	High	Low Average	Low Average
<b>Visual Quality</b>	<b>High</b>	<b>Low Average</b>	<b>Low Average</b>

Notes:

Preferred Alternative IBB-2a\*, Preferred Option IBB-2b\*, and Alternative IBB-3 would not be seen from this view and therefore were not simulated or included in this table.

All waterway crossing simulations depicted below indicate a balanced cantilever segmental box girder type bridge. Sound Transit is studying multiple bridge types, which are not shown.

**3.2.4.2 Elevated 14th Avenue Alternative (IBB-1a)**

The Preferred Alternative IBB-1a elevated guideway and passing trains would be silhouetted against the sky and become dominant visual elements (Figure 3-9b). Due to the height of the bridge, views of the visual elements that contribute to the view’s high visual quality would not be blocked. One of the bridge support columns would block the views of passing travelers on the Ballard Bridge of part the Cascade Mountains, Salmon Bay, and the Lake Washington Ship Canal from this location on bridge. The vividness of the view would lower slightly from high to

high average. The structure's presence would encroach on the view and introduce a large-scale visual element that would differ in character with its overall maritime character. The visual intactness would be reduced from high to low. The alternative's bridge would detract from the existing view's visually coherent and harmonious pattern, thus reducing its high unity to low average. The visual quality of the view would be reduced from high to low average. This would not be considered a visual impact because people traveling on the Ballard Bridge are not considered sensitive viewers.

**Figure 3-9b. KOP B-9: Preferred Elevated 14th Avenue Alternative (IBB-1a)**



**3.2.4.3 Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)**

The Option IBB-1b alignment would be the same as with Preferred Alternative IBB-1a and would have the same influence on visual conditions. The visual quality of the view would be reduced from high to low average. This would not be considered a visual impact because people traveling on the Ballard Bridge are not considered sensitive viewers.

**3.2.5 KOP B-10: Looking West from Ballard Bridge**

**3.2.5.1 Existing Condition**

This view to the west that people traveling southbound on the Ballard Bridge see is quite memorable (Figure 3-10a). The view depicts shoreline developments on both sides of Salmon Bay and the Lake Washington Ship Canal, as well as the Olympic Mountains in the distance. The Ballard Bridge is a City of Seattle Designated Scenic Route. From this viewpoint, the waters of Salmon Bay and the Lake Washington Ship Canal, along with the hills of Magnolia behind the far shoreline, are dominant visual elements. The viewed landscape has a working waterfront



character that is backed by a heavily vegetated residential hillside. The view is memorable, and its vividness is high. The view has a high degree of visual intactness and unity and its visual quality is high (Table 3-10).

**Figure 3-10a. KOP B-10: Existing Condition**



**Table 3-10. KOP B-10 Visual Quality Changes by Alternative**

Visual Quality Components	Existing	Elevated 15th Avenue (IBB-3)
Vividness	High	Average
Intactness	High	Low
Unity	High	Low
<b>Visual Quality</b>	<b>High</b>	<b>Low</b>

Notes:

Preferred Alternative IBB-1a, Option IBB-1b, Preferred Alternative IBB-2a\*, and Preferred Option IBB-2b\* would not be seen from this view and therefore were not simulated or included in this table.

All waterway crossing simulations depicted below indicate a balanced cantilever segmental box girder type bridge. Sound Transit is studying multiple bridge types, which are not shown.

### 3.2.5.2 Elevated 15th Avenue Alternative (IBB-3)

The presence of this alternative’s bridge would change this view to the west for people traveling on the Ballard Bridge (Figure 3-10b). At this location on the Ballard Bridge, the bridge constructed for Alternative IBB-3 would not block views of the Olympic Mountains or Salmon Bay but would be very obvious as it passes above those elements in the view. The portion of the view that would continue to be seen would be memorable, but the vividness of the view

would be reduced from high to average. The large scale, form, and color of this alternative's components would encroach on the view and reduce its intactness to low. This alternative's bridge would interrupt the unity of the view and reduce the unity of the view from high to low. The visual quality of the view would be reduced from high to low. This would not be considered a visual impact because travelers on the Ballard Bridge are not considered sensitive viewers.

**Figure 3-10b. KOP B-10: Elevated 15th Avenue Alternative (IBB-3)**



### **3.2.6 KOP B-11: Looking South along 14th Avenue Northwest near Northwest 58th Street**

#### **3.2.6.1 Existing Condition**

This location was selected to depict changes to views from a residential area of an elevated guideway that would be associated with an alternative (Figure 3-11a). In this view, street trees, single-family residences, parked vehicles, and a planting median are the primary visual elements. Queen Anne Hill can be seen in the background. This area has a single-family residential character and scale (although commercial buildings can be seen at the end of the street). The view is not particularly memorable, although the presence of a planted median is not common. The vividness is high average. Although the presence of utility poles and lines and an unmaintained planting median with vehicles parked along it somewhat decrease intactness, the intactness is average. The unity of this view is average, as is the visual quality (Table 3-11).

Figure 3-11a. KOP B-11: Existing Condition



Table 3-11. KOP B-11 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Elevated 14th Avenue (IBB-1a)	Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) Alternative (IBB-1b)
Vividness	High Average	High Average	High Average
Intactness	Average	Low Average	Low Average
Unity	Average	Average	Average
<b>Visual Quality</b>	<b>Average</b>	<b>Average</b>	<b>Average</b>

Note: Preferred Alternative IBB-2a\*, Preferred Option IBB-2b\*, and Alternative IBB-3 would not be seen from this view and therefore were not simulated or included in this table.

### 3.2.6.2 Elevated 14th Avenue Alternative (IBB-1a)

The high average vividness of this view would remain due to the unusual and memorable sight of the elevated guideway, which would be where Preferred Alternative IBB-1a would terminate (Figure 3-11b). The straddle bent at the end of the guideway as well as the end of the guideway itself would be large-scale elements that would encroach on the view, be larger than the single-family residential scale of the existing area, and reduce the intactness of the view from average to low average. Although residences and the landscaped median would be removed, this alternative’s alignment and treatments underneath and along its route would help to unify the visual characteristics of the view and maintain an average unity. The visual quality would remain average, which would not result in a visual impact.

Figure 3-11b. KOP B-11: Preferred Elevated 14th Avenue Alternative (IBB-1a)



### 3.2.6.3 Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)

The Option IBB-1b alignment would be the same as with Preferred Alternative IBB-1a and therefore would have the same influence on visual conditions. The visual quality would remain average, which would not result in a visual impact.

### 3.2.7 KOP B-12: Looking Southwest on Northwest 56th Street East of 14th Avenue Northwest

#### 3.2.7.1 Existing Condition

This location was selected to depict a view of changes along 14th Avenue Northwest that would be associated with Option IBB-1b (Figure 3-12a). A multi-story, multi-family residential complex on the west side of 14th Avenue Northwest is the dominant visual element in this view. Commercial buildings and a parking lot can be seen to the left of the residential building. This area has a mixed residential-commercial character. It is not a memorable view and has a low average vividness as well as low average integrity and unity. The visual quality of the view is low average (Table 3-12).

Figure 3-12a. KOP B-12: Existing Condition



Table 3-12. KOP B-12 Visual Quality Changes by Alternative

Visual Quality Components	Existing	Preferred Elevated 14th Avenue (IBB-1a)	Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)
Vividness	Average	High Average	High Average
Intactness	Low Average	Low Average	Low Average
Unity	Low Average	Average	Average
<b>Visual Quality</b>	<b>Low Average</b>	<b>Average</b>	<b>Average</b>

Note: Preferred Alternative IBB-2a\*, Preferred Option IBB-2b\*, and Alternative IBB-3 would not be seen from this view and therefore were not simulated or included in this table.

### 3.2.7.2 Elevated 14th Avenue Alternative (IBB-1a)

The entire streetscape of this area would change with Preferred Alternative IBB-1a. The parking area and commercial buildings on the east side of 14th Avenue Northwest would be replaced with the elevated station, its street level plaza, and the elevated guideway (Figure 3-12b). The height, bulk, and scale of the station would be similar to that of the multi-story, multi-family building on the west side of 14th Avenue Northwest. The scale and design of the station would increase the memorability or vividness of the view from average to high average but would not increase its intactness. The redevelopment of this portion of 14th Avenue Northwest from an area with a number of different uses and visual characteristics to one that would be transit oriented would increase the unity and visual quality of the view from low average to average.

Figure 3-12b. KOP B-12: Preferred Elevated 14th Avenue Alternative (IBB-1a)



### 3.2.7.3 Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)

The Option IBB-1b alignment would be the same as with Preferred Alternative IBB-1a and have the same influence on visual conditions.

### 3.2.8 KOP B-13: Looking Northwest at Intersection of 15th Avenue Northwest and Northwest Market Street

#### 3.2.8.1 Existing Condition

This location was selected to illustrate how potential alternatives would appear to residents in the general area of the Northwest Market Street/15th Avenue Northwest intersection (Figure 3-13a). Multi-family residential complexes have recently been (and are being) built near this intersection. These buildings give the area a dense multi-story, multi-family residential character. Commercial land uses are also still found in the area and lend a commercial character to parts of it. The parking lot in the foreground of the view, the gas station canopy, and the large multi-family, multi-story building on the northwest corner of the intersection are the views primary visual elements and are visible throughout this intersection. The view of the intersection is not memorable and has a low degree of vividness. The gas station canopy somewhat intrudes upon the otherwise residential character of the view and contributes to a low average degree of intactness. The unity of the view is low average, as is visual quality (Table 3-13).

Figure 3-13a. KOP B-13: Existing Condition



Table 3-13. KOP B-13 Visual Quality Changes by Alternative

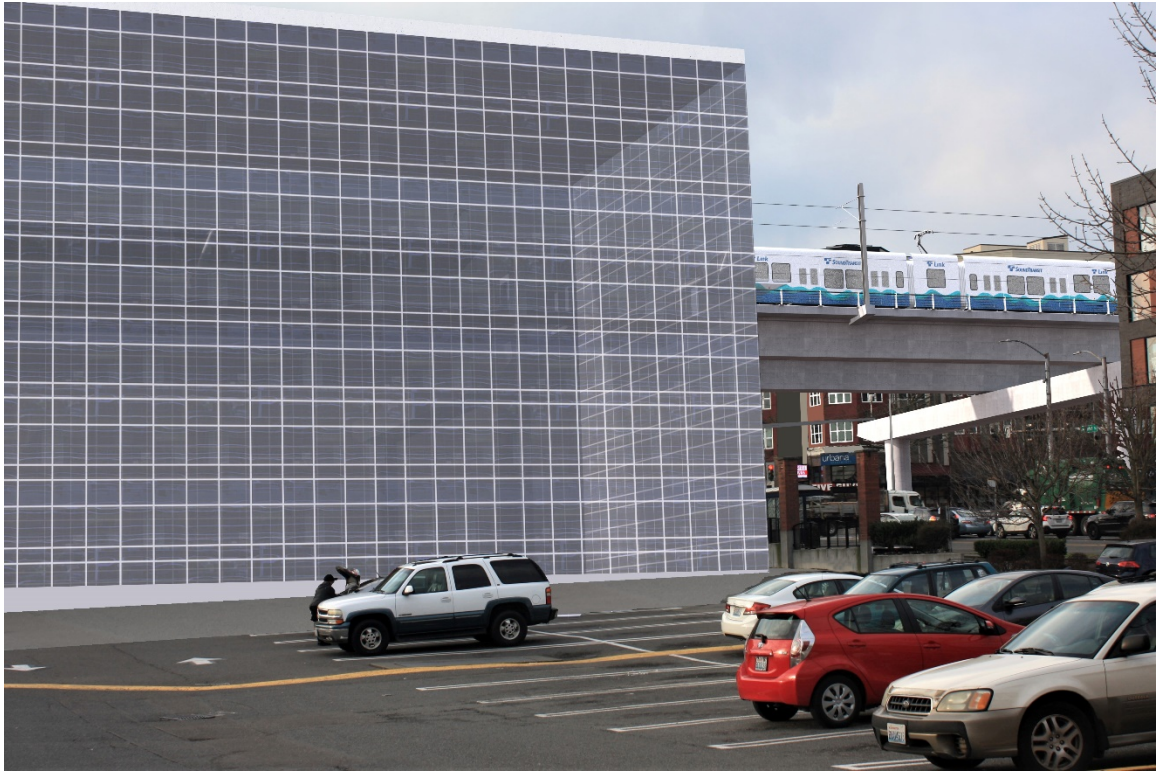
Visual Quality Components	Existing	Elevated 15th Avenue (IBB-3)
Vividness	Low	Average
Intactness	Low Average	Average
Unity	Low Average	Average
<b>Visual Quality</b>	<b>Low Average</b>	<b>Average</b>

Note: Preferred Alternative IBB-1a, Option IBB-1b, Preferred Alternative IBB-2a\*, and Preferred Option IBB-2b\* would not be seen from this view and therefore were not simulated or included in this table.

### 3.2.8.2 Elevated 15th Avenue Alternative (IBB-3)

With this alternative, the existing parking lot and Safeway gas station would be replaced with a station entrance (Figure 3-13b). The presence of the station would increase the ratings of all the visual quality components from low vividness and low average intactness and unity to average, as well as the visual quality.

**Figure 3-13b. KOP B-13: Elevated 15th Avenue Alternative (IBB-3)**





## **4 REFERENCES**

Federal Highway Administration. 1988. *Visual Assessment Methodology*.

Federal Highway Administration. 2015. *Guidelines for the Visual Impact Assessment of Highway Projects*.

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**Attachment N.2B**  
**Station 3D Views and Cross Sections**

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# **Attachment N.2B**

## **Station 3D Views and Cross Sections**

To show the height, bulk, and scale of the stations in Delridge, West Seattle Junction, South Interbay, and Interbay/Ballard segments, this attachment includes generalized cross sections of each station. In addition, 3D views of some of the stations are also shown as representative examples of the height, bulk, and scale for higher and lower alternatives. The 3D views also identify potential sites for transit-oriented development (TOD).

# 1 WEST SEATTLE LINK EXTENSION

## 1.1 Delridge Segment

Figure 1-1. Delridge Station 3D View for Preferred Alternative DEL-1a and Option DEL-1b

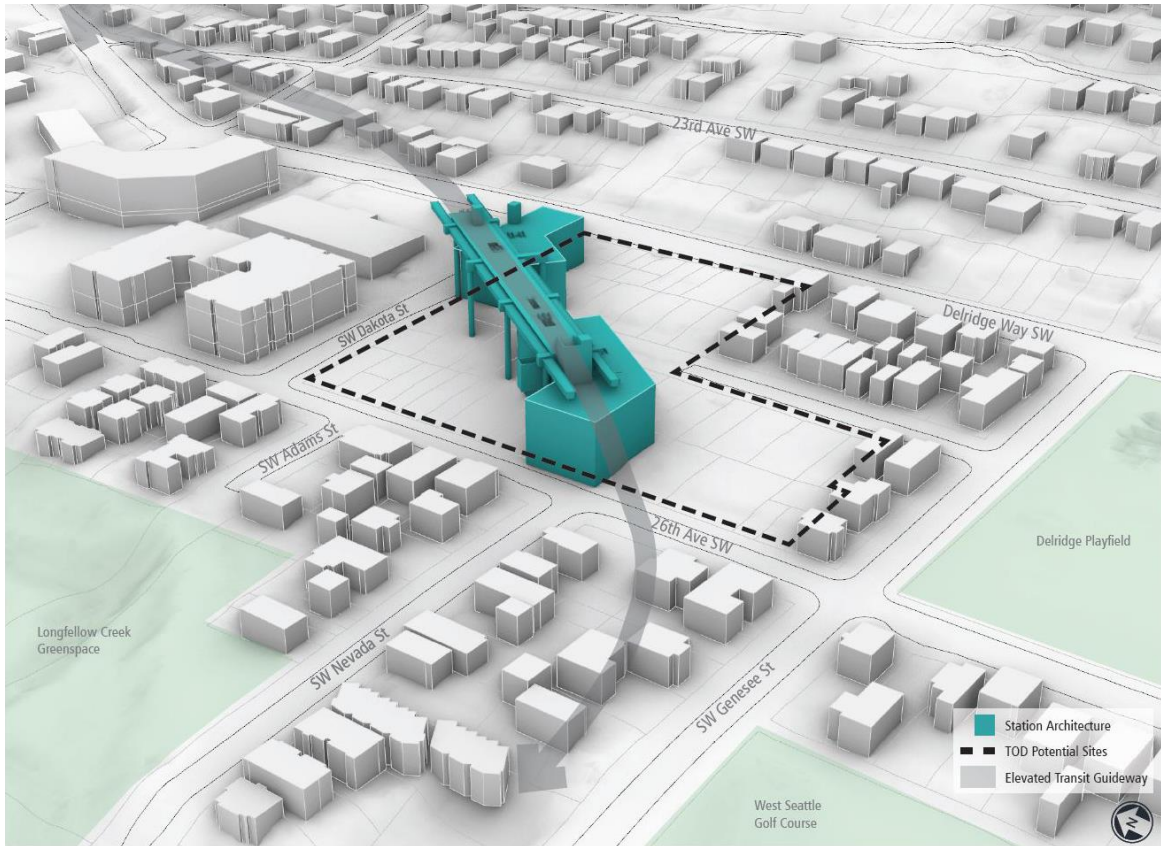


Figure 1-2. Delridge Station Cross Section for Preferred Alternative DEL-1a and Option DEL-1b

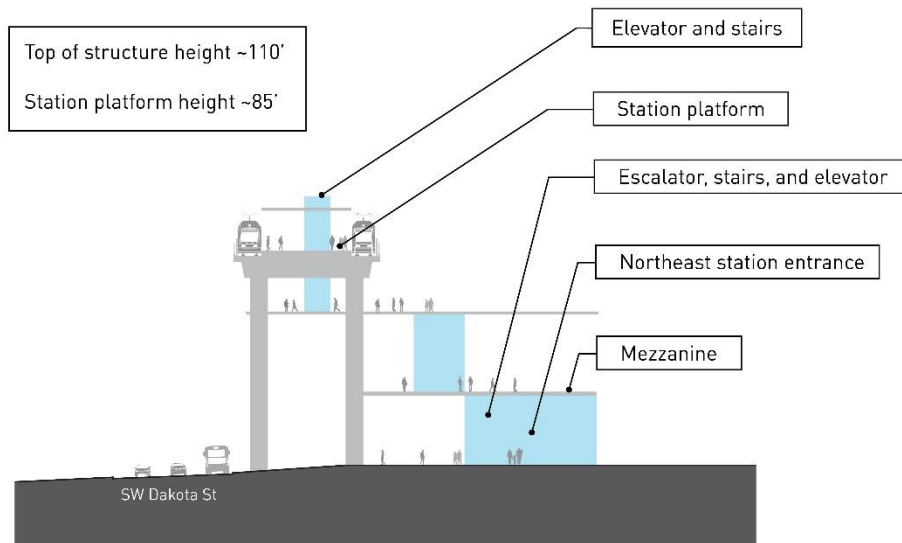


Figure 1-3. Delridge Station 3D View for Preferred Alternative DEL-2a\* and Option DEL-2b\*

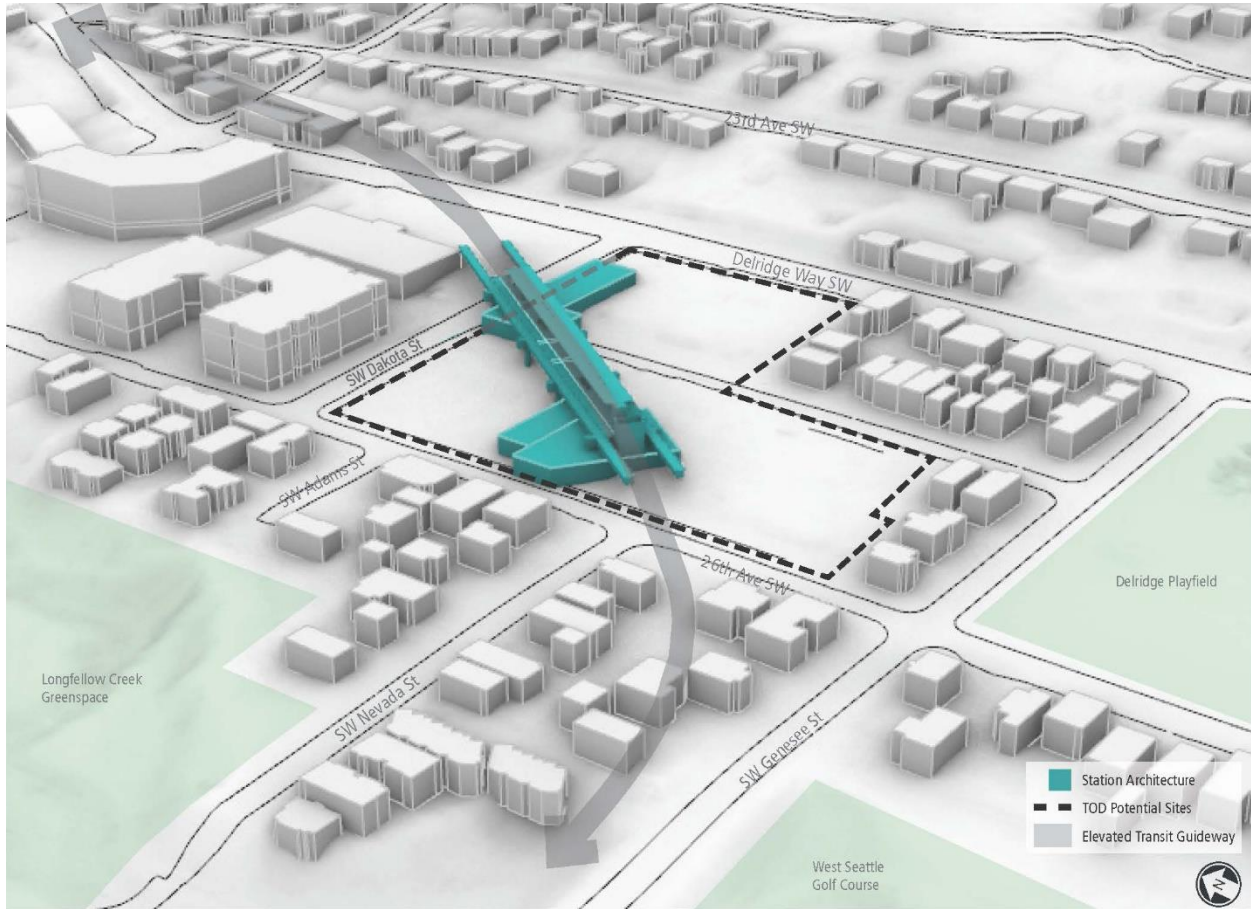


Figure 1-4. Delridge Station Cross Section for Preferred Alternative DEL-2a\* and Option DEL-2b\*

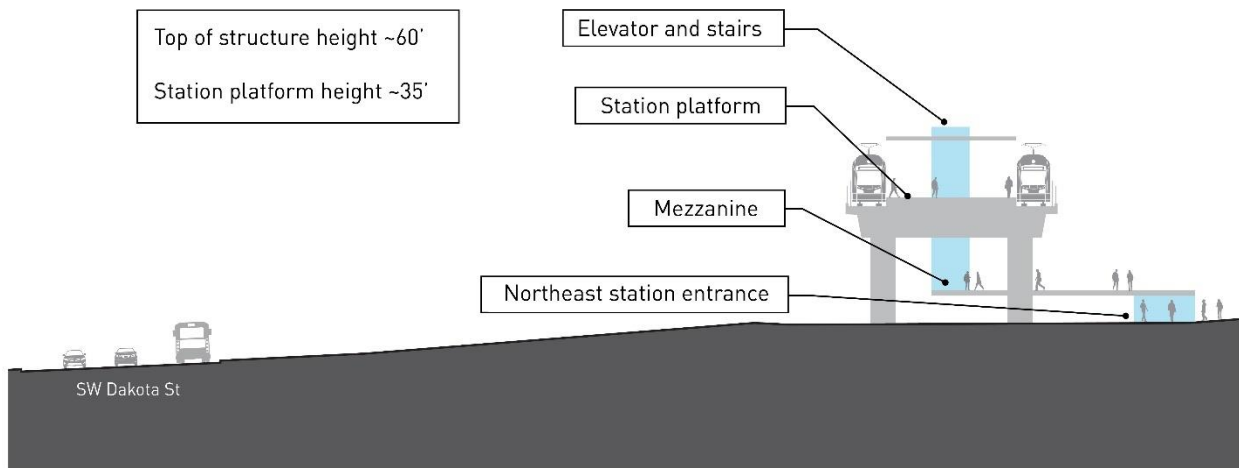
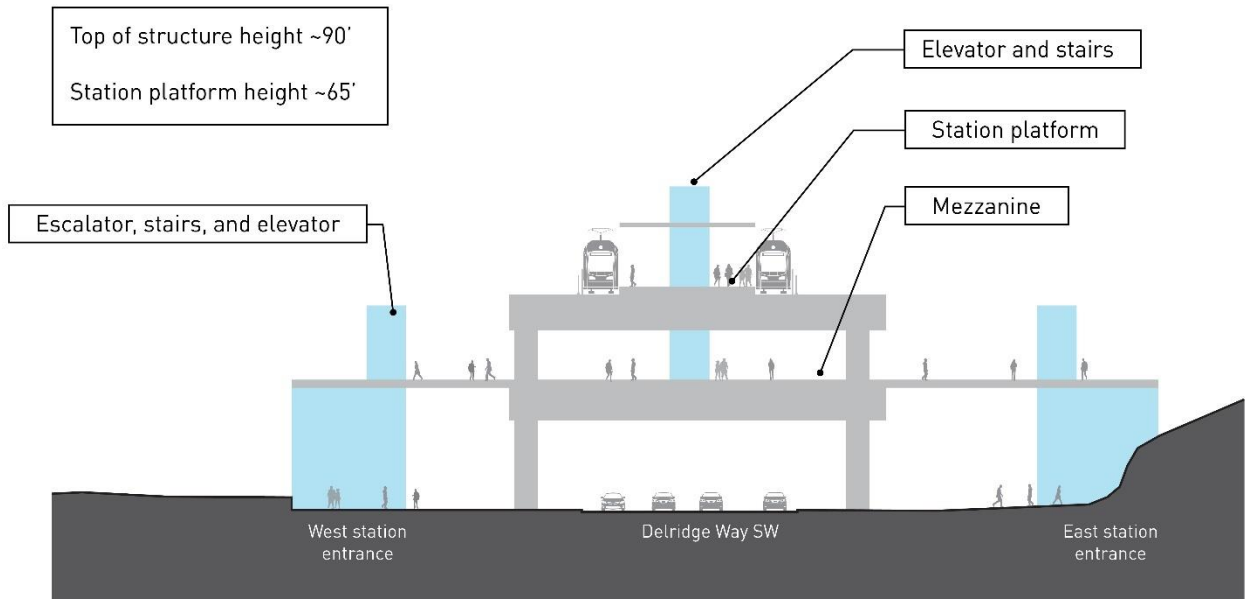


Figure 1-5. Delridge Station Cross Section for Alternative DEL-3 and Alternative DEL-4\*



Notes: There is no 3D view for Alternative DEL-3 and Alternative DEL-4\*.



Figure 1-6. Delridge Station 3D View for Alternative DEL-5 and Alternative DEL 6\*

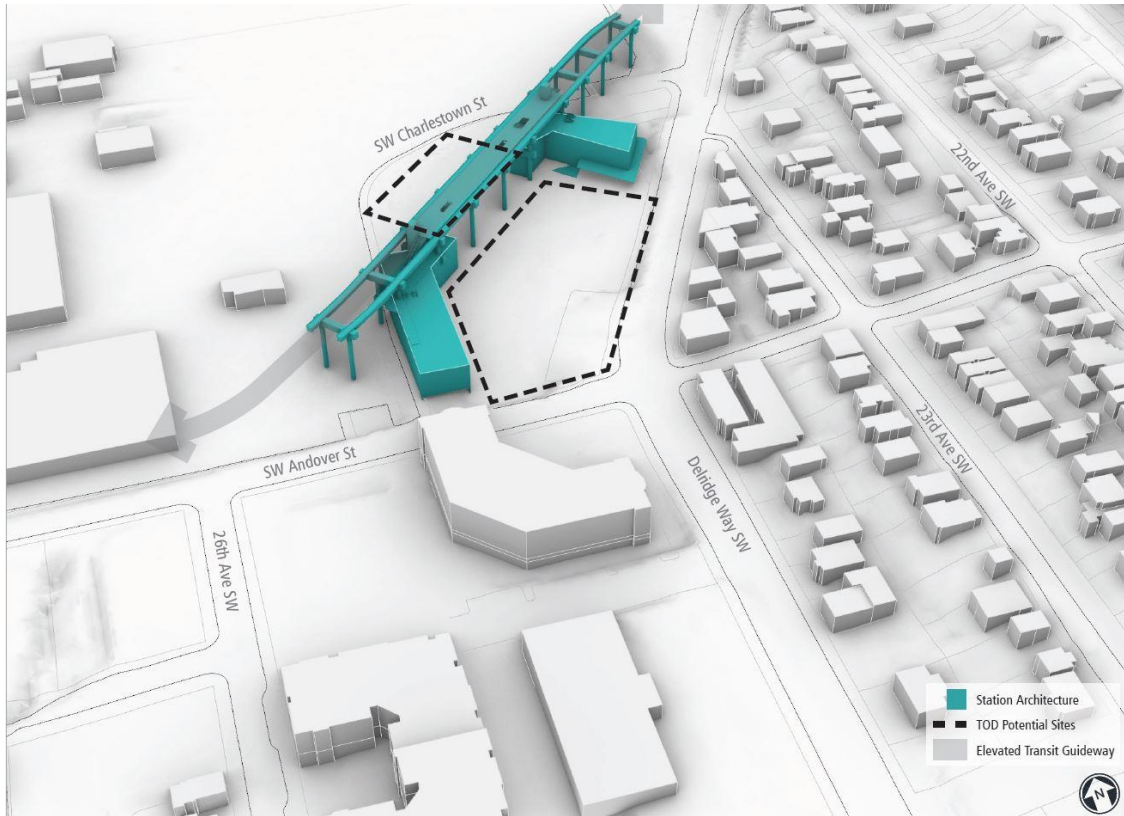
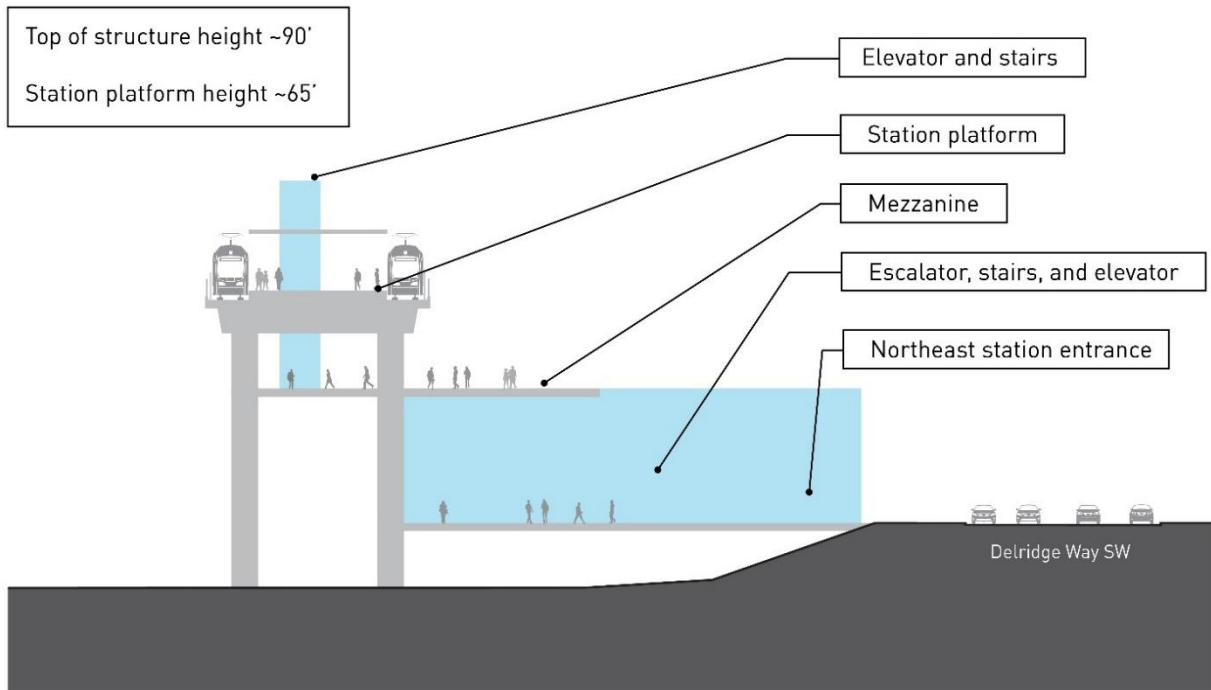


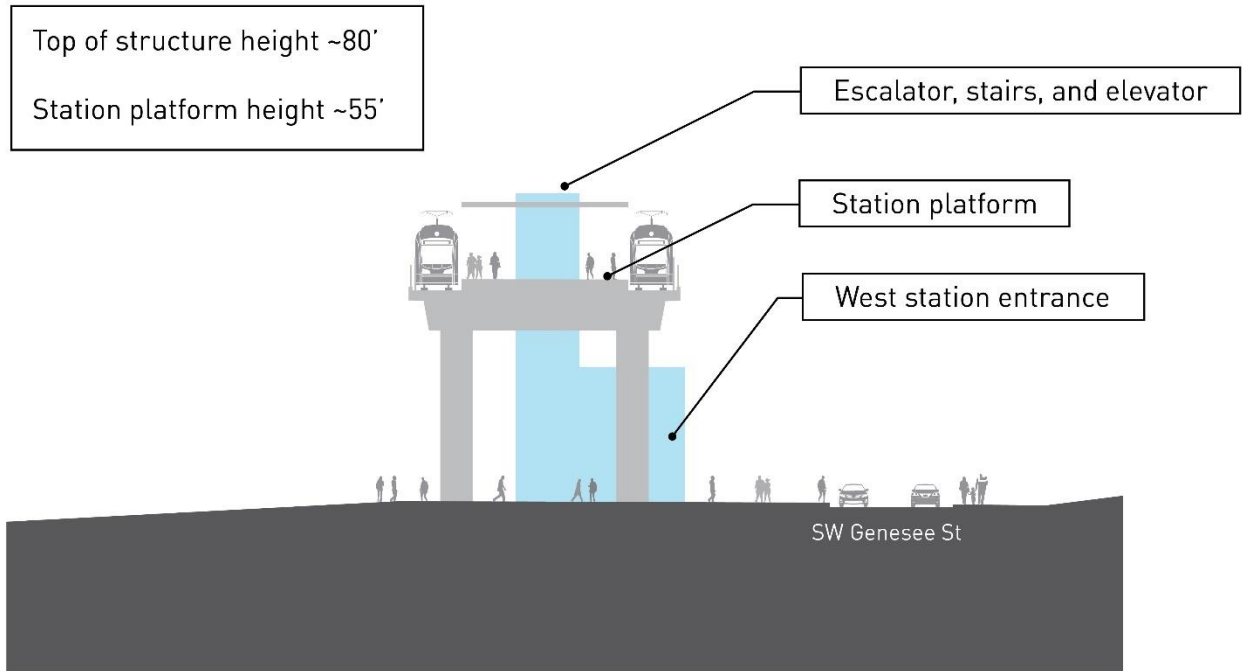
Figure 1-7. Delridge Station Cross Section for Alternative DEL-5 and Alternative DEL-6\*



Notes: Heights shown are for Alternative DEL-6\*. The top of the station height for Alternative DEL-5 would be about 100 feet.

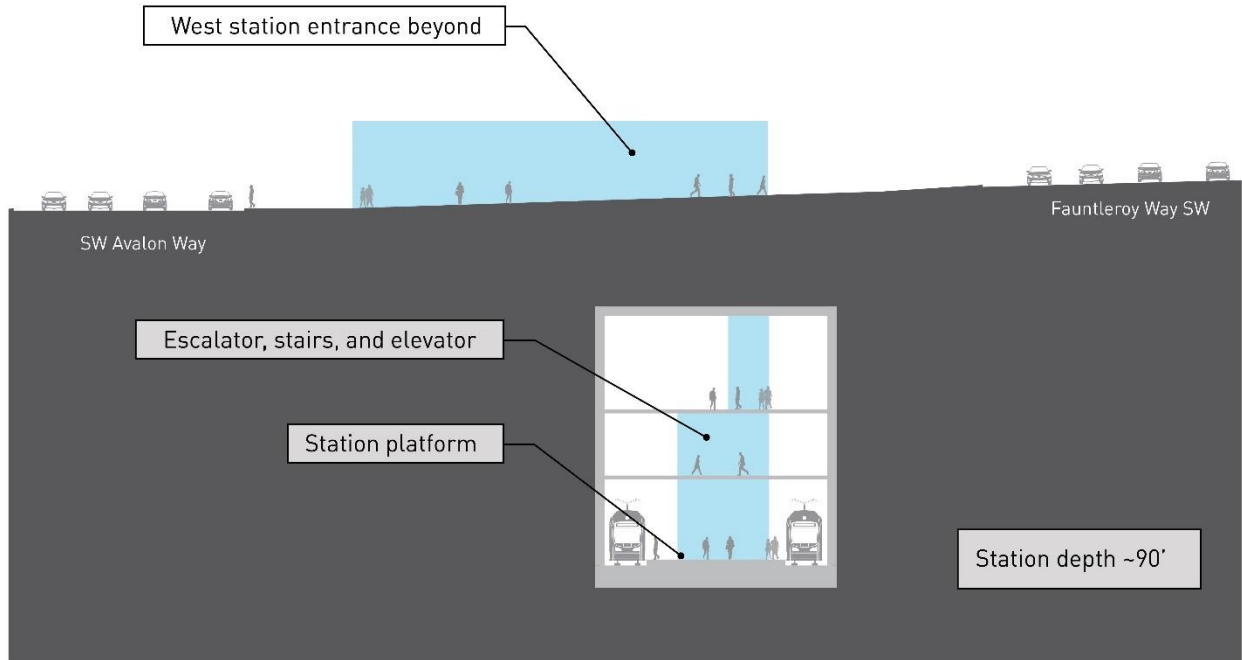
## 1.2 West Seattle Junction Segment

Figure 1-8. Avalon Station Cross Section for Preferred Alternatives WSJ-1 and WSJ-2



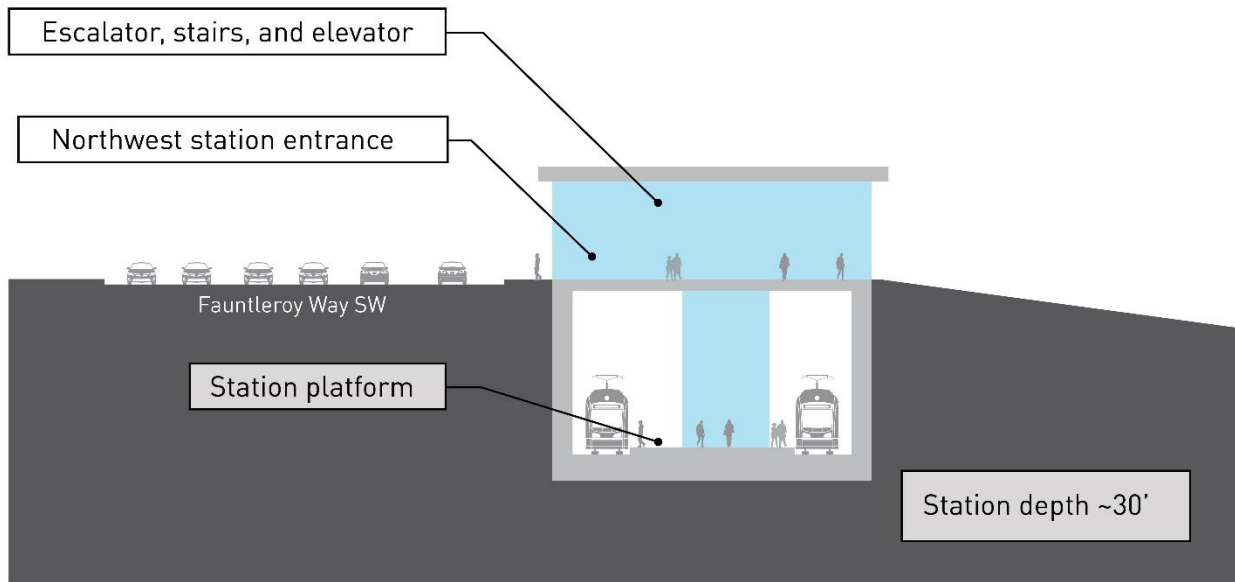
Note: There is no 3D view for Preferred Alternatives WSJ-1 and WSJ-2.

Figure 1-9. Avalon Station Cross Section for Preferred Alternative WSJ-3a\* and Preferred Option WSJ-3b\*



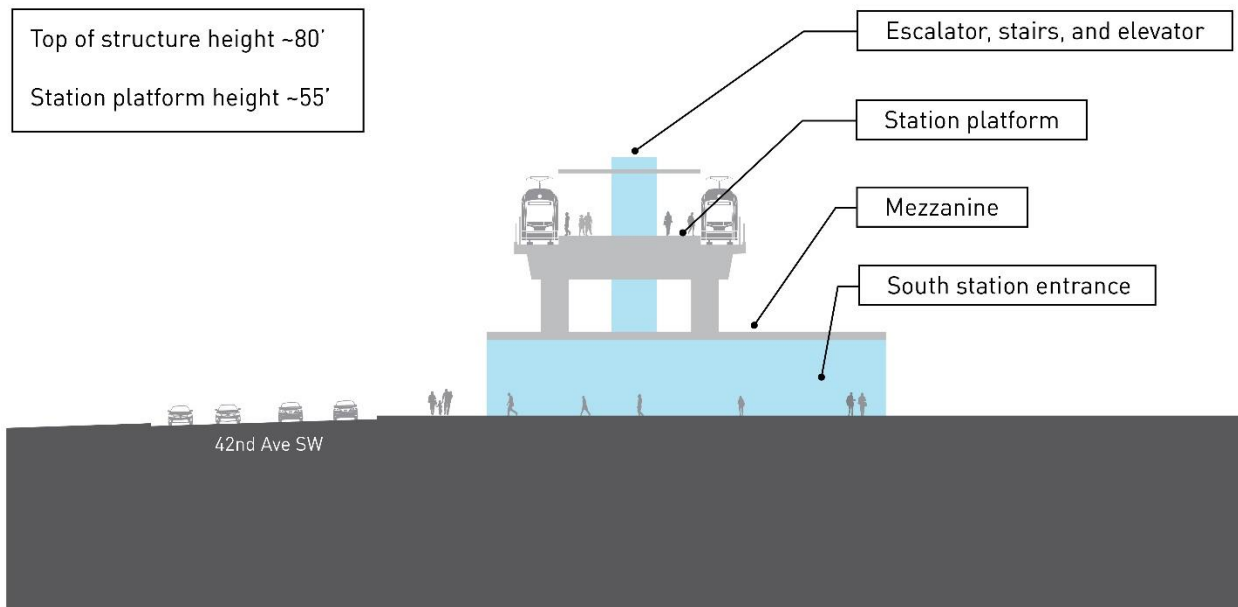
Note: There is no 3D view for Preferred Alternative WSJ-3a\* and Preferred Option WSJ-3b\*.

Figure 1-10. Avalon Station Cross Section for Alternative WSJ-5\*



Note: There is no 3D view for Alternative WSJ-5\*.

Figure 1-11. Alaska Junction Station Cross Section for Preferred Alternative WSJ-1



Note: There is no 3D view for Preferred Alternative WSJ-1.

Figure 1-12. Alaska Junction Station 3D View for Preferred Alternative WSJ-2

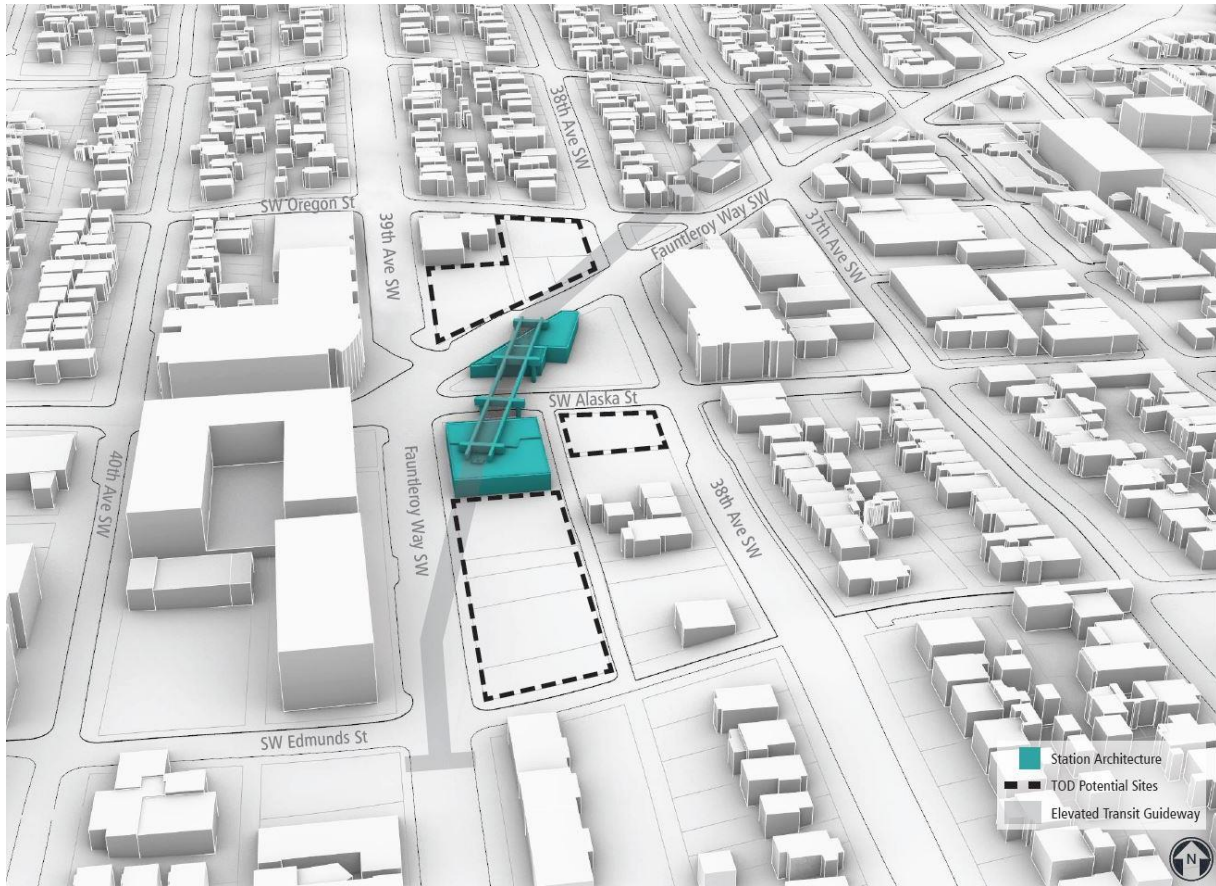


Figure 1-13. Alaska Junction Station Cross Section for Preferred Alternative WSJ-2

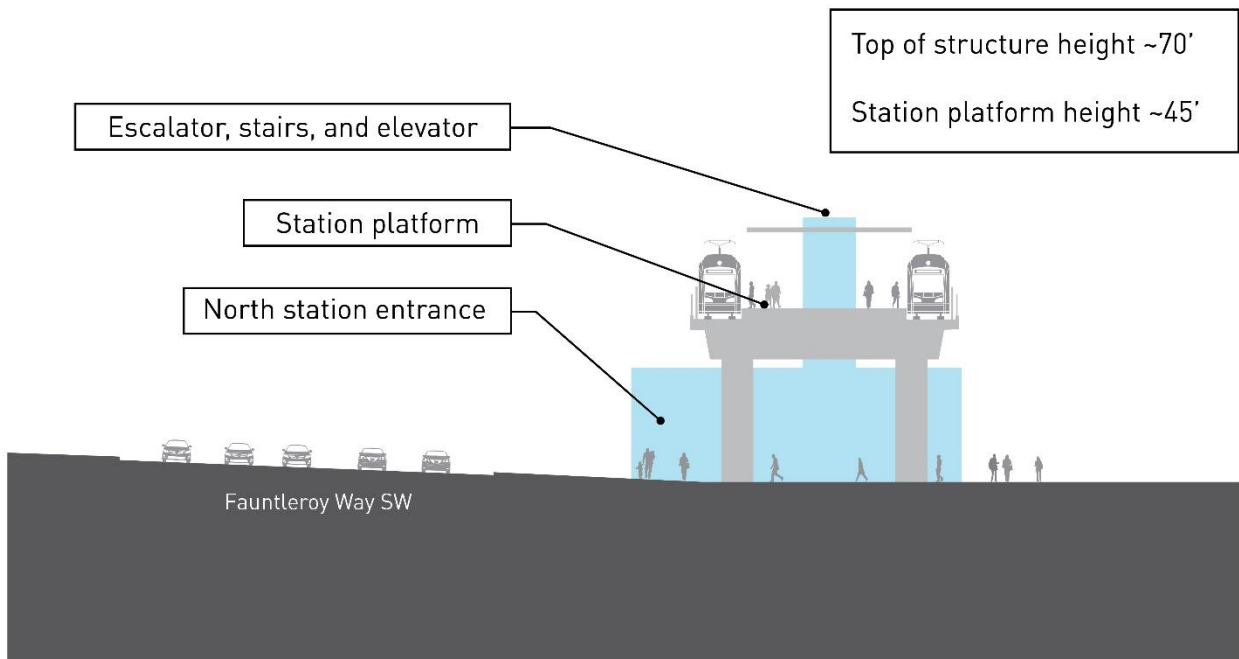


Figure 1-14. Alaska Junction Station 3D View for Preferred Alternative WSJ-3a\*

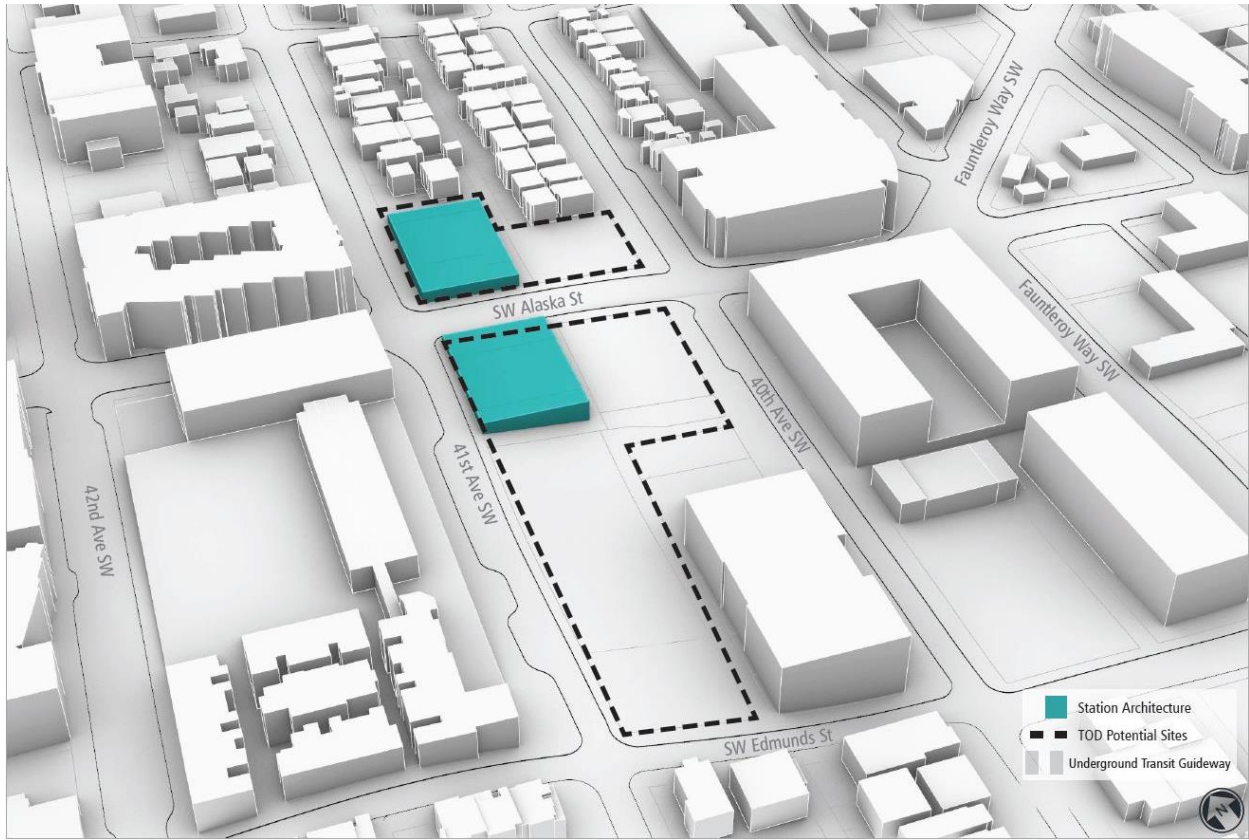


Figure 1-15. Alaska Junction Station Cross Section for Preferred Alternative WSJ-3a\*

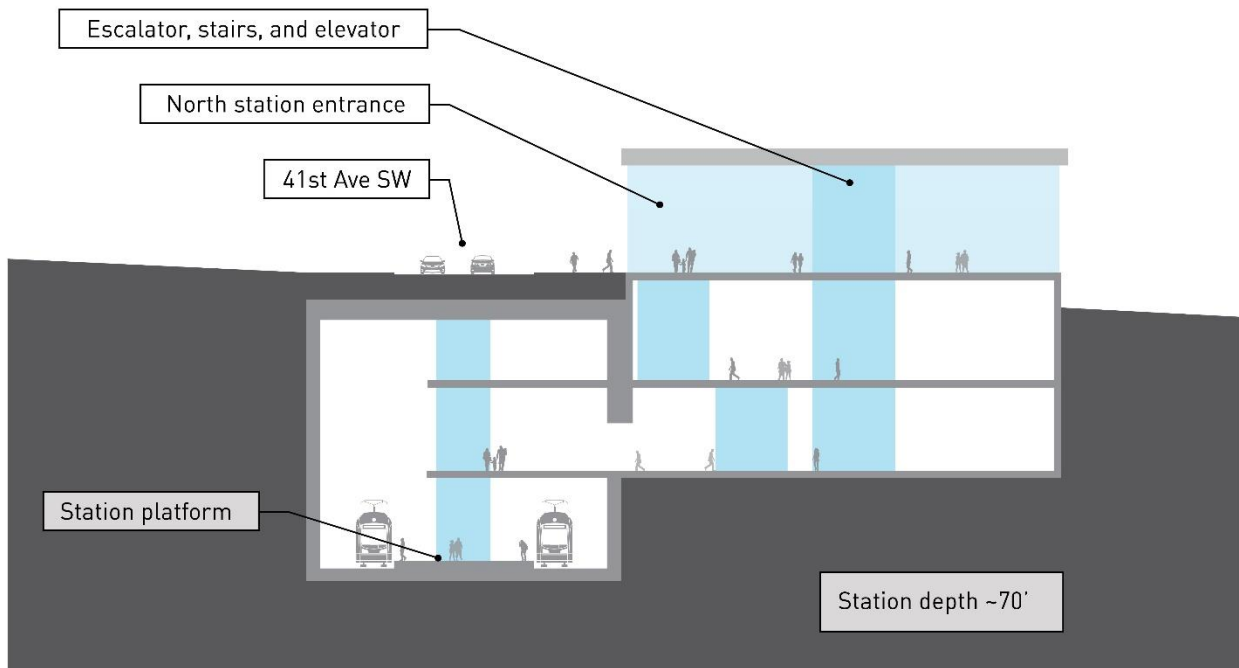
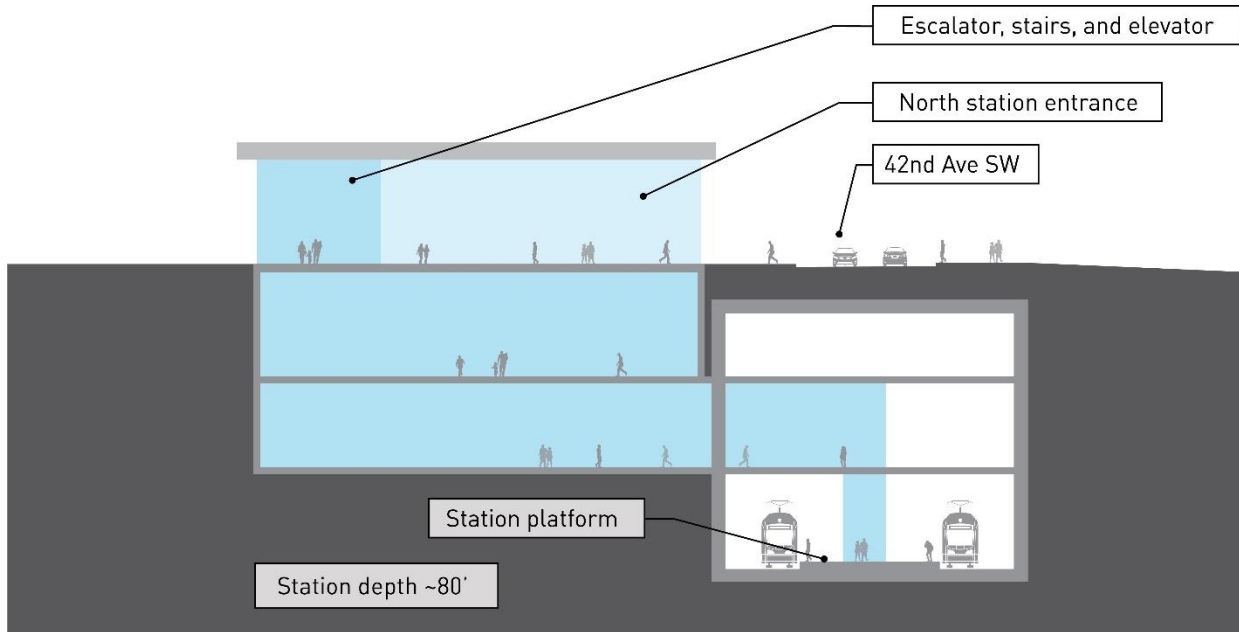
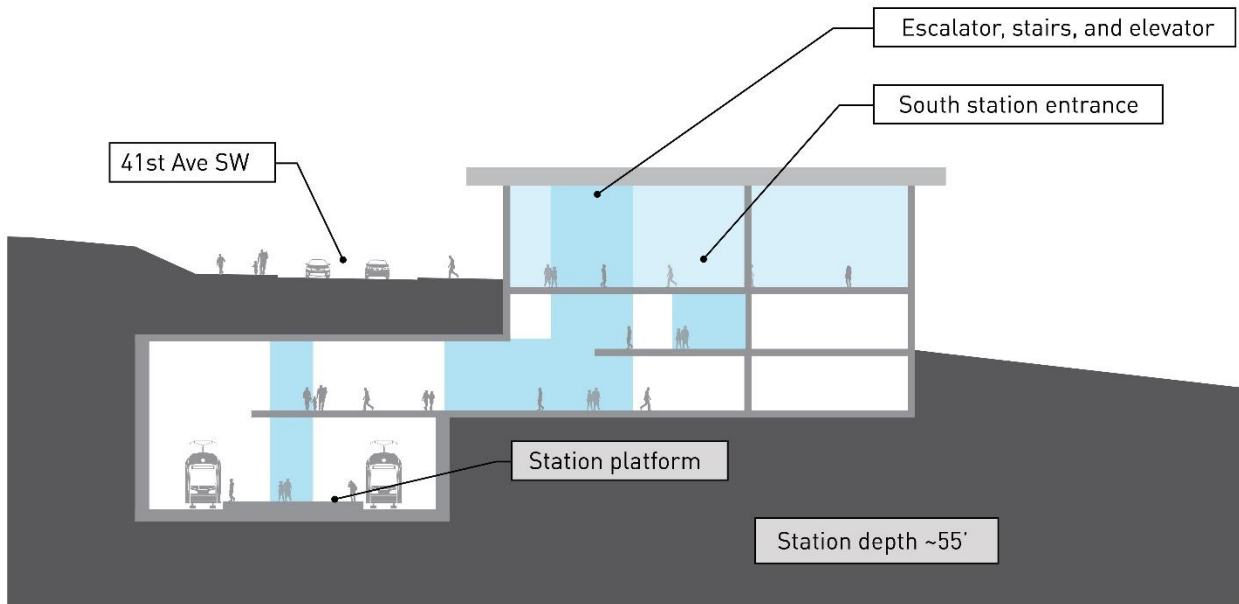


Figure 1-16. Alaska Junction Station Cross Section for Preferred Option WSJ-3b\*



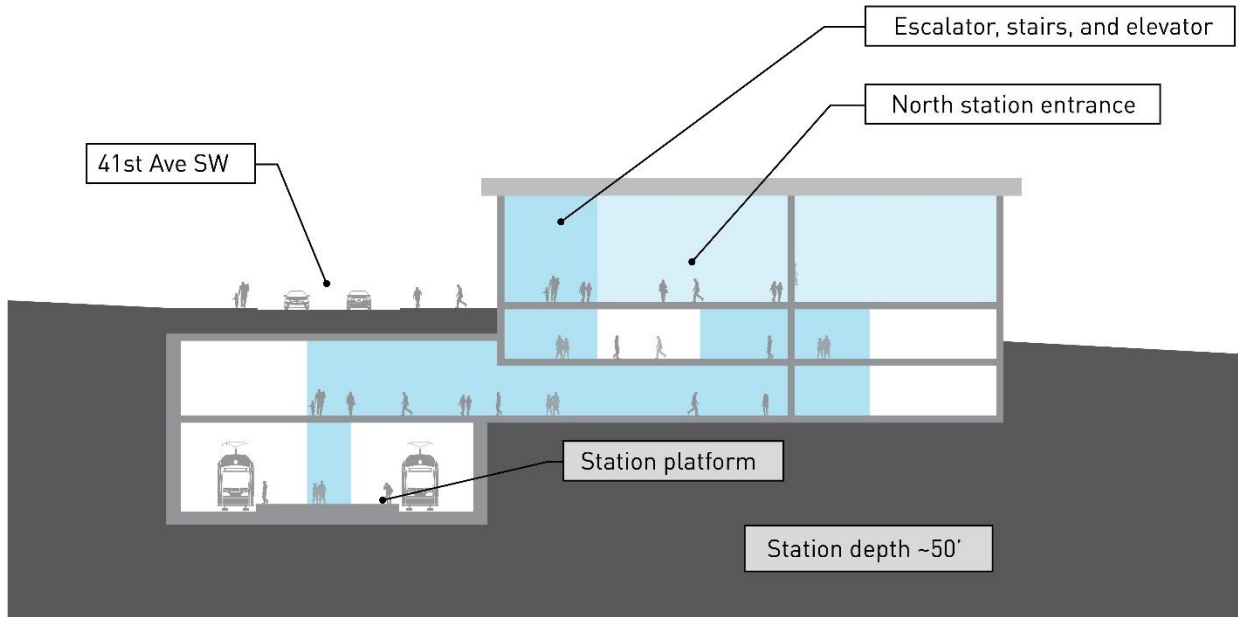
Note: There is no 3D view for Preferred Option WSJ-3b\*.

Figure 1-17. Alaska Junction Station Cross Section for Alternative WSJ-4\*



Note: There is no 3D view for Alternative WSJ-4\*.

Figure 1-18. Alaska Junction Station Cross Section for Alternative WSJ-5\*

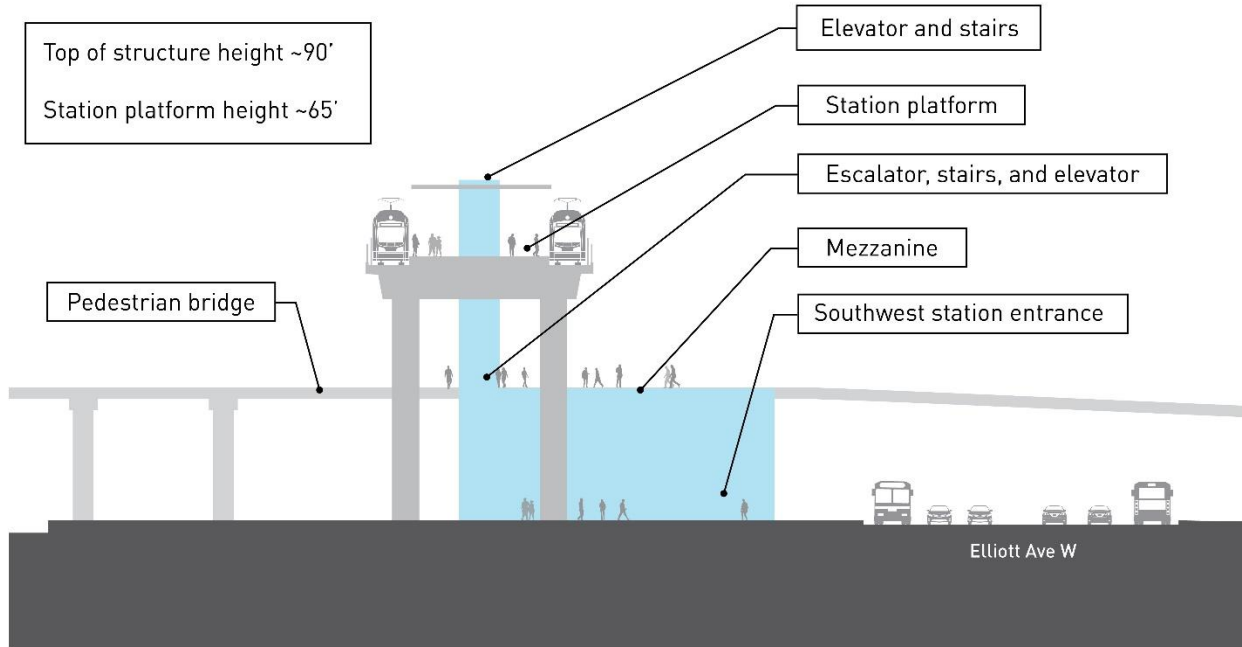


Note: There is no 3D view for Alternative WSJ-5\*.

## 2 BALLARD LINK EXTENSION

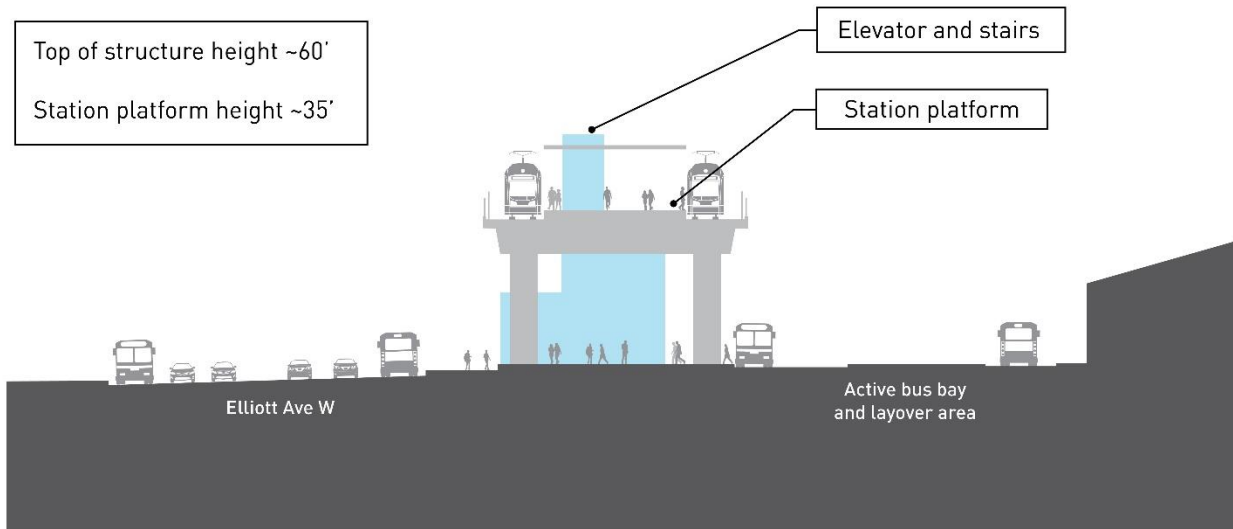
### 2.1 South Interbay Segment

Figure 2-1. Smith Cove Station Cross Section for Preferred Alternative SIB-1



Note: There is no 3D view for Alternative SIB-1.

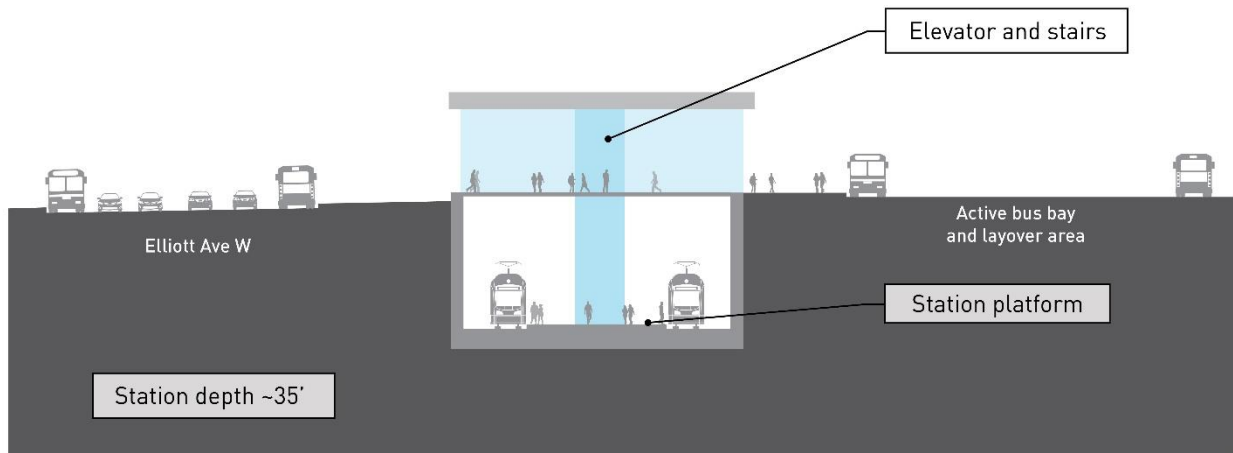
Figure 2-2. Smith Cove Station Cross Section for Alternative SIB-2



Note: There is no 3D view for Alternative SIB-2.



Figure 2-3. Smith Cove Station Cross Section for Alternative SIB-3



Note: There is no 3D view for Alternative SIB-3.

## 2.2 Interbay/Ballard Segment

Figure 2-4. Interbay Station 3D View for Preferred Alternative IBB-1a

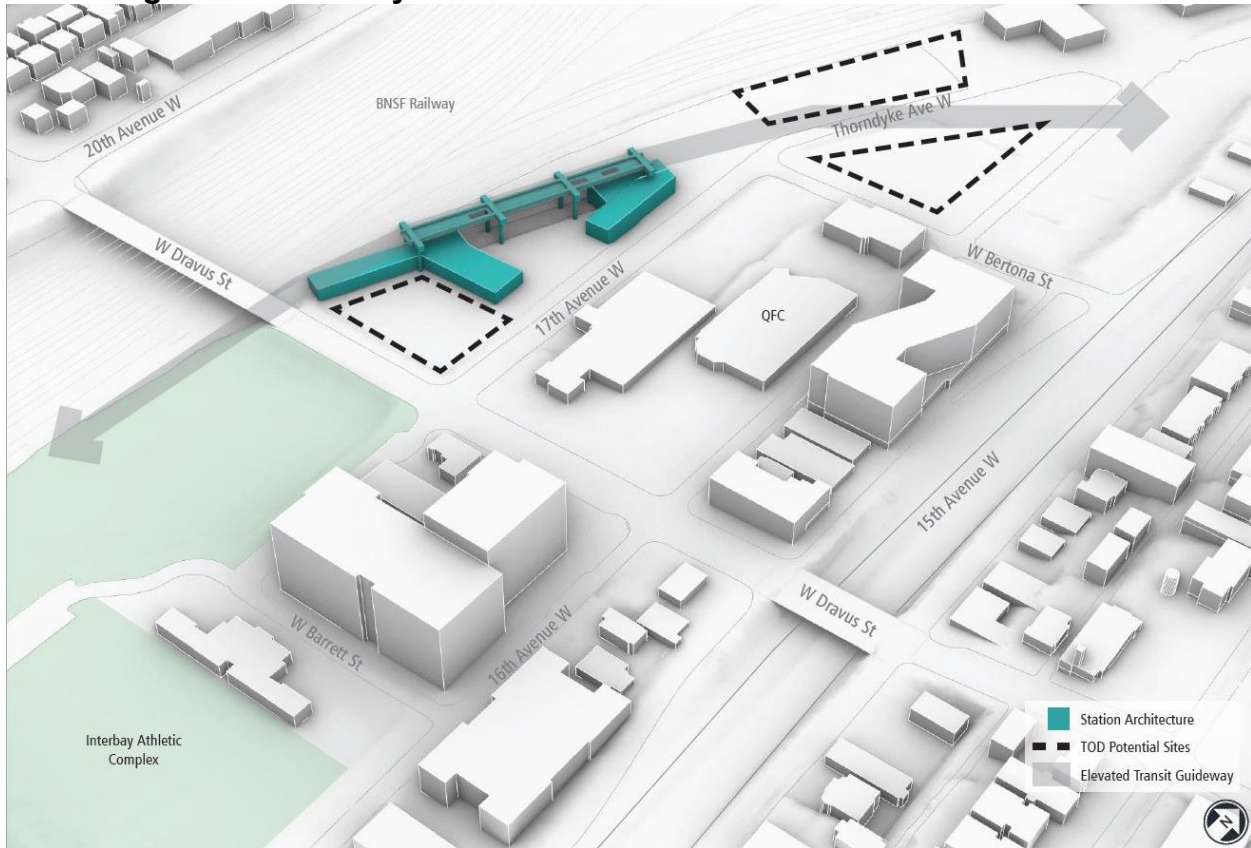


Figure 2-5. Interbay Station Cross Section for Preferred Alternative IBB-1a

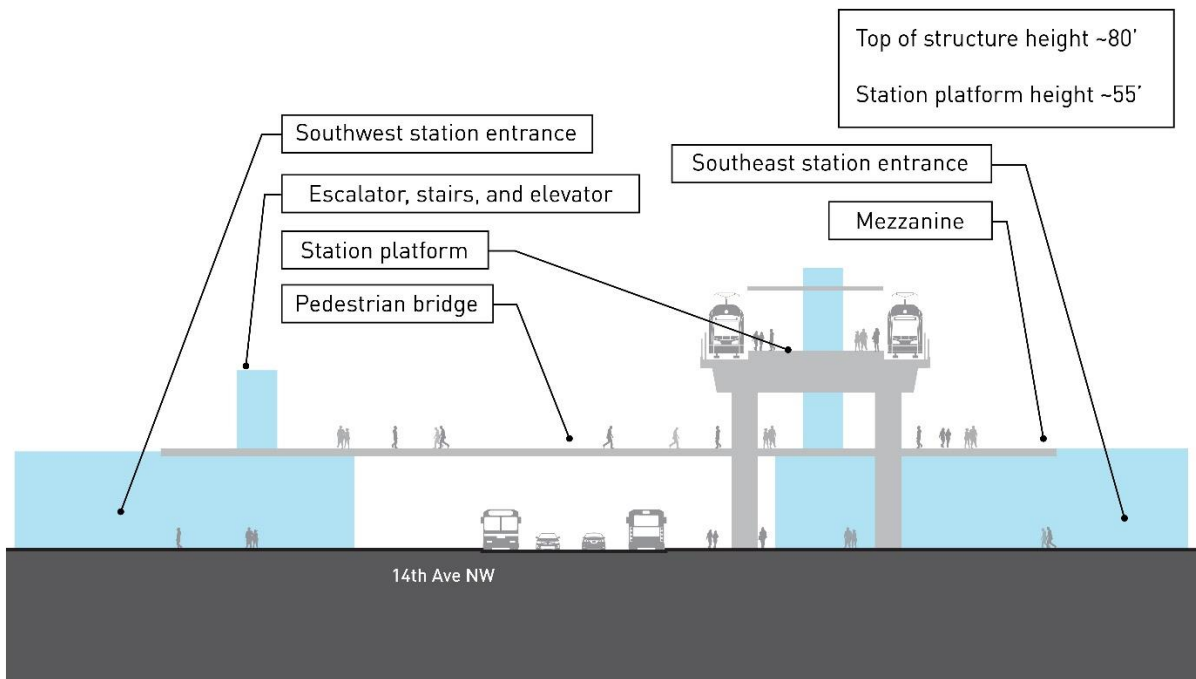


Figure 2-6. Interbay Station 3D View for Preferred Alternative IBB-2a and Preferred Option IBB-2b

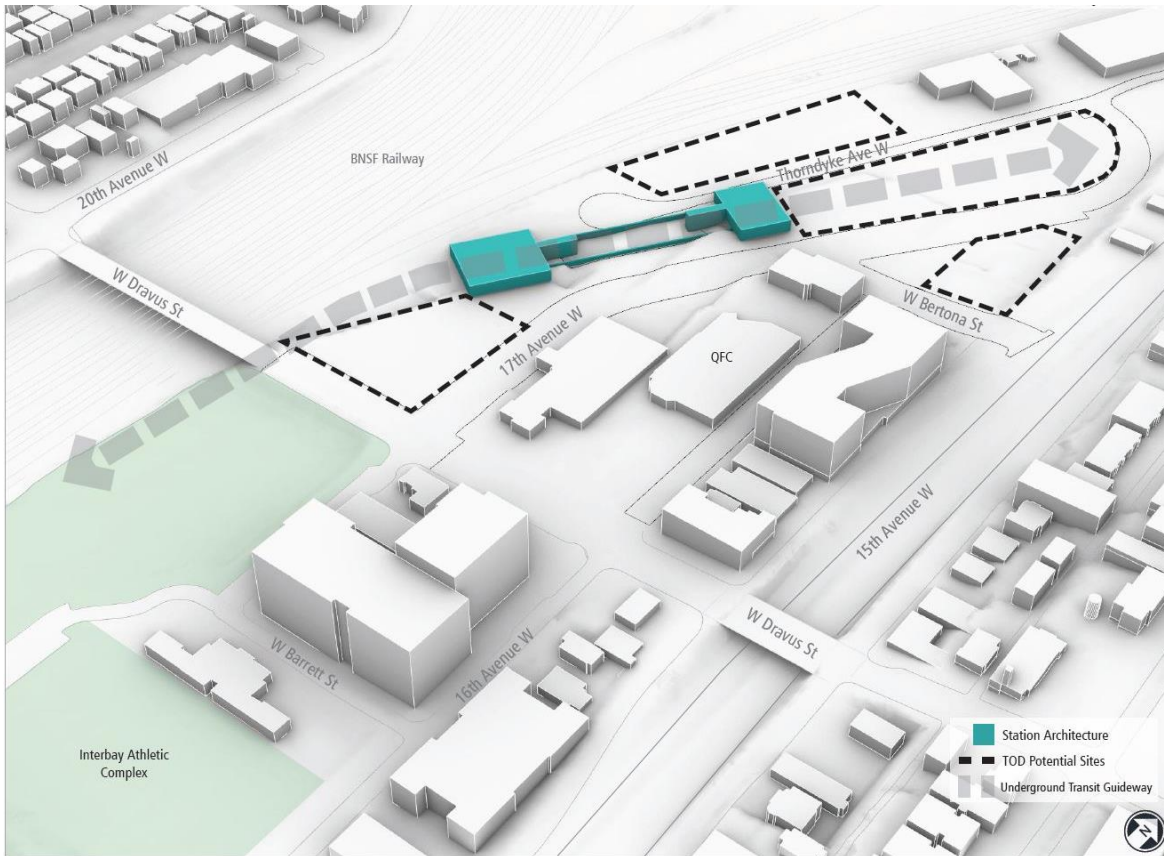


Figure 2-7. Interbay Station Cross Section for Preferred Alternative IBB-2a and Preferred Option IBB-2b

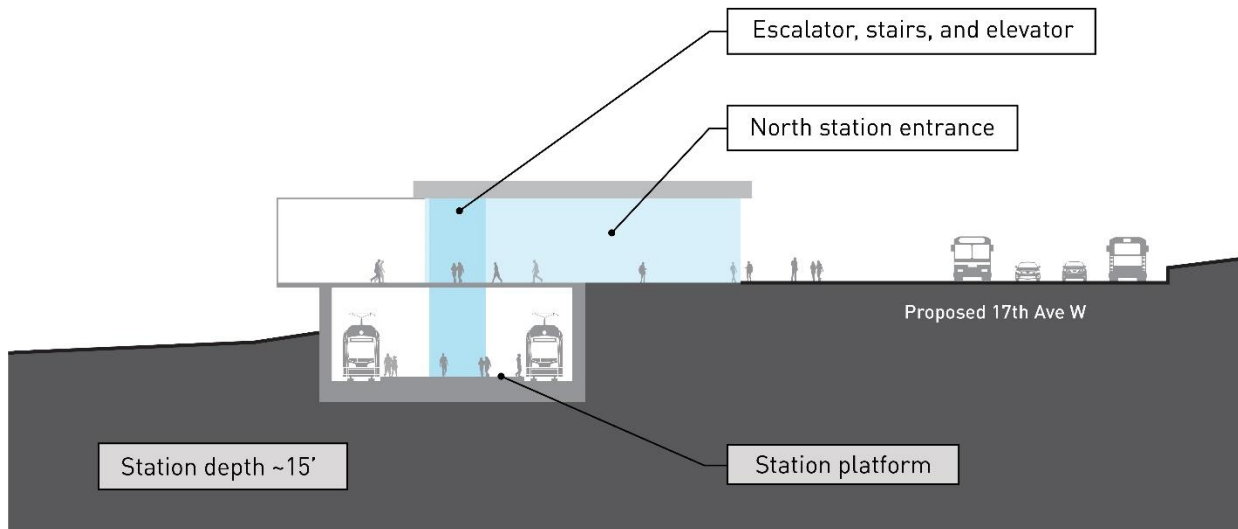


Figure 2-8. Interbay Station 3D View for Alternative IBB-3

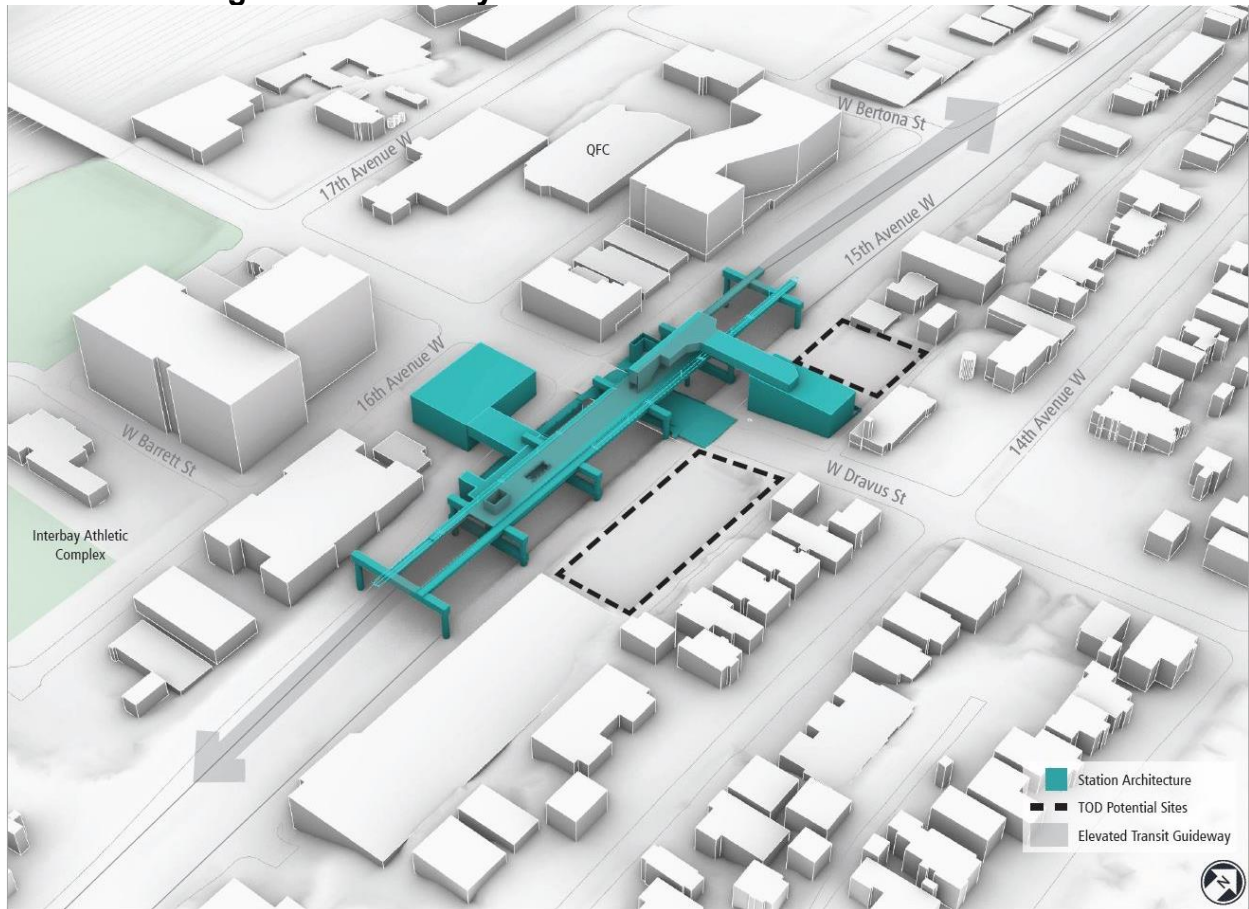


Figure 2-9. Interbay Station Cross Section for Alternative IBB-3

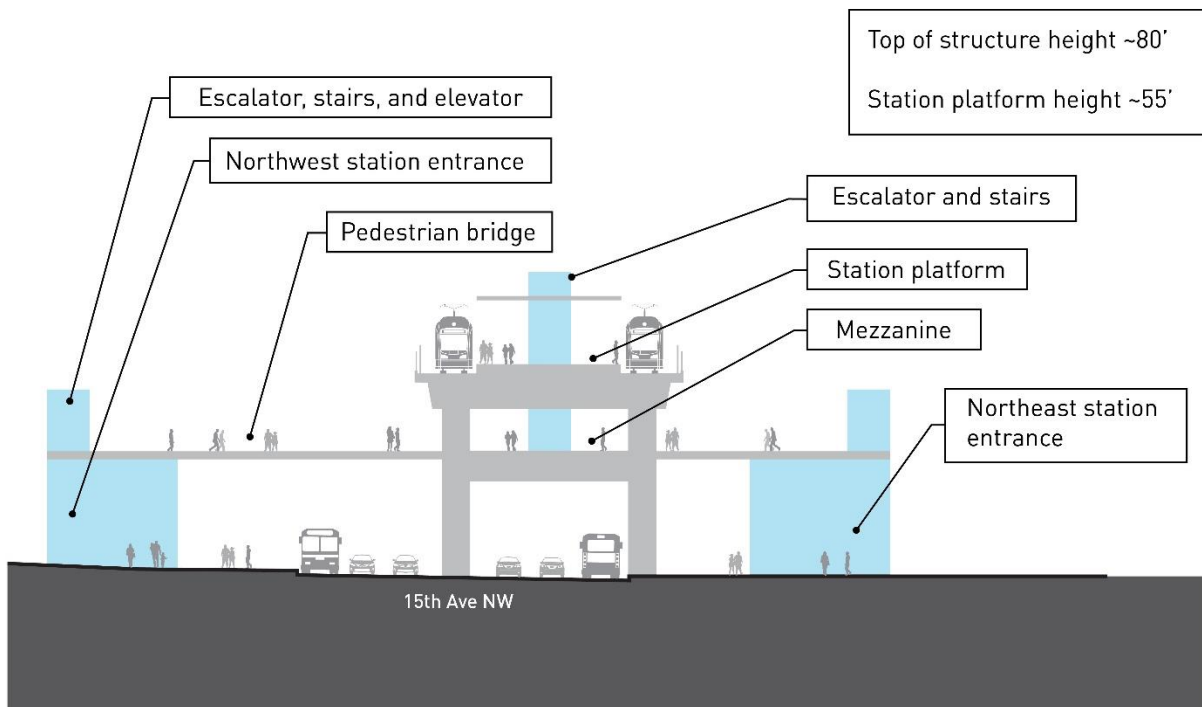


Figure 2-10. Ballard Station 3D View for Preferred Alternative IBB-1a and Option IBB-1b

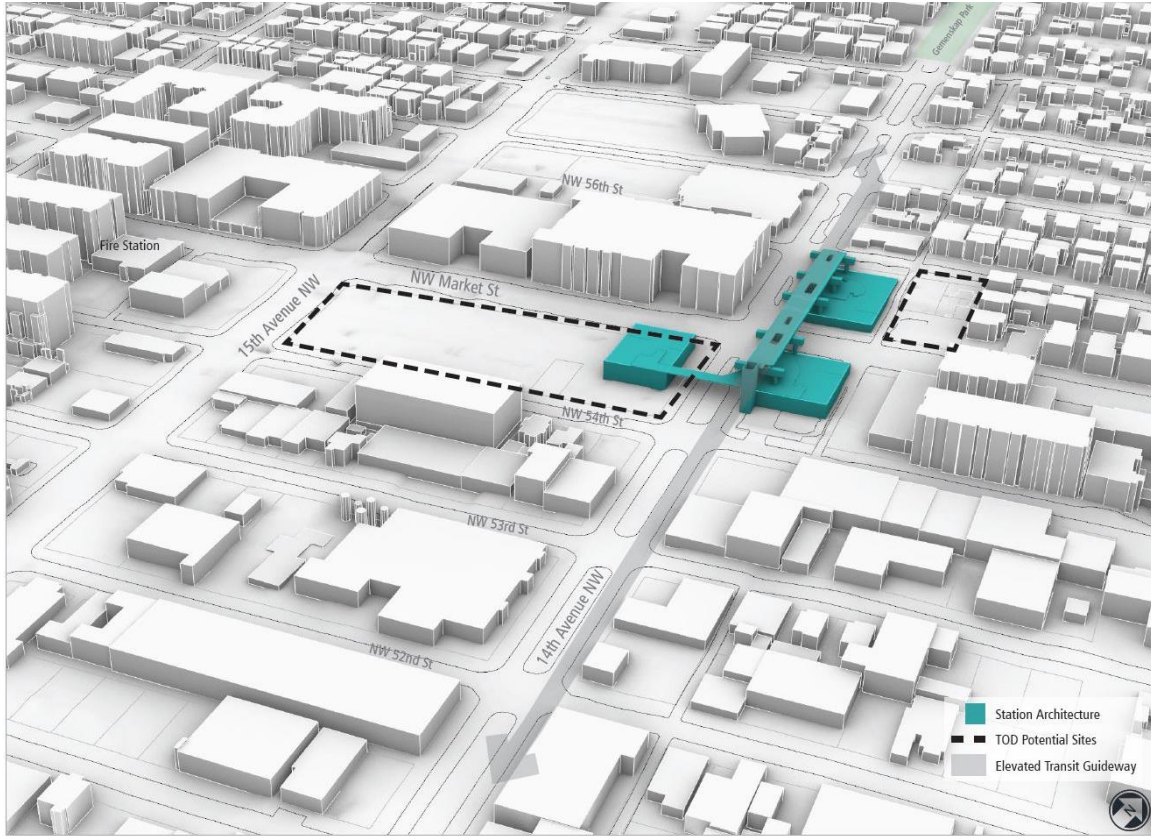


Figure 2-11. Ballard Station Cross Section for Preferred Alternative IBB-1a and Option IBB-1b

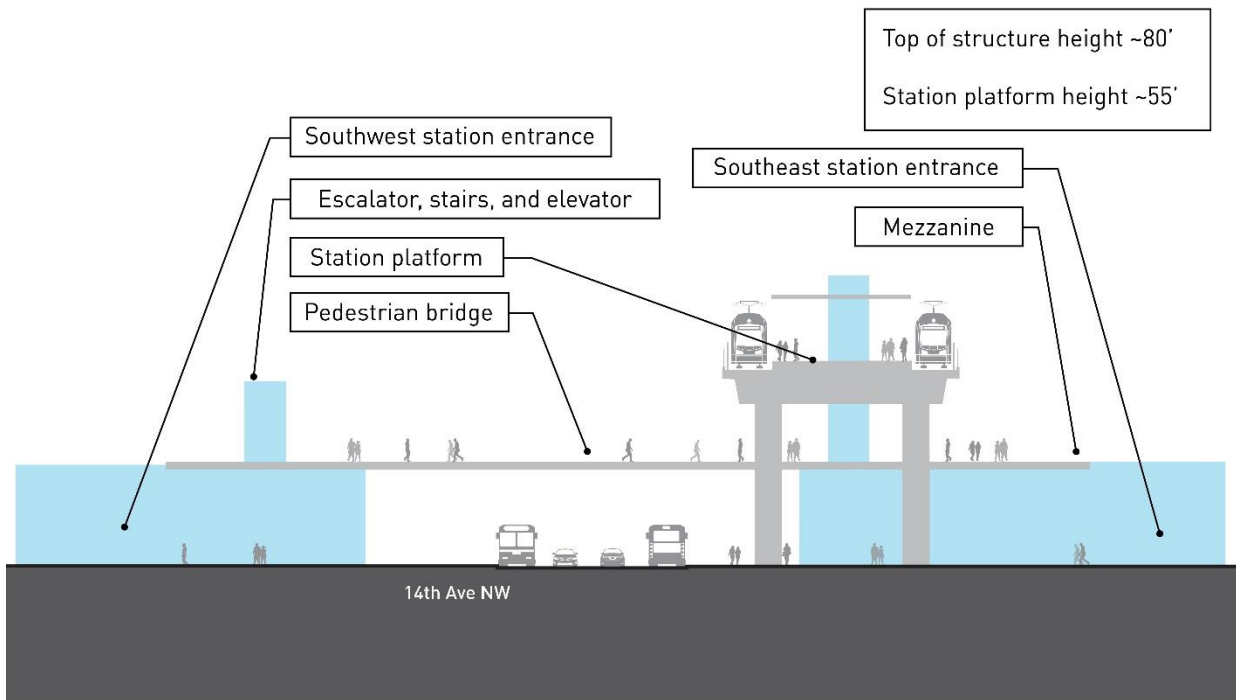


Figure 2-12. Ballard Station 3D View for Preferred Alternative IBB-2a

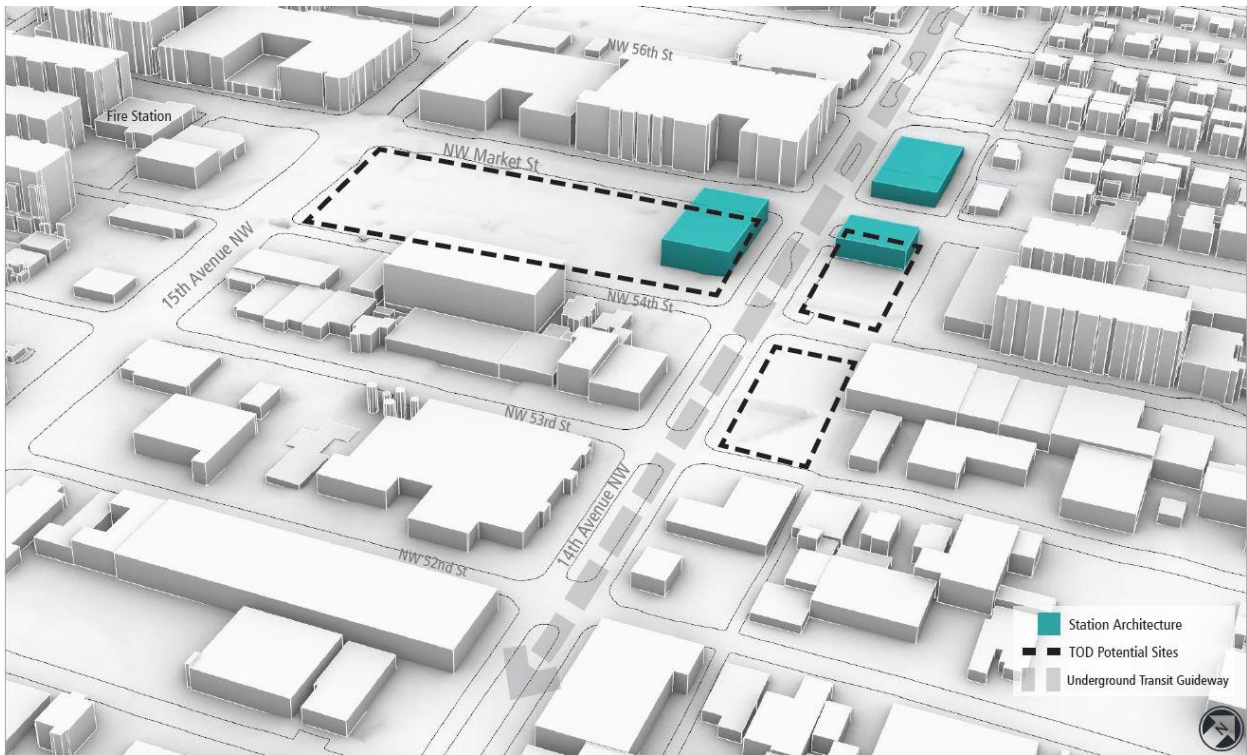


Figure 2-13. Ballard Station Cross Section for Preferred Alternative IBB-2a

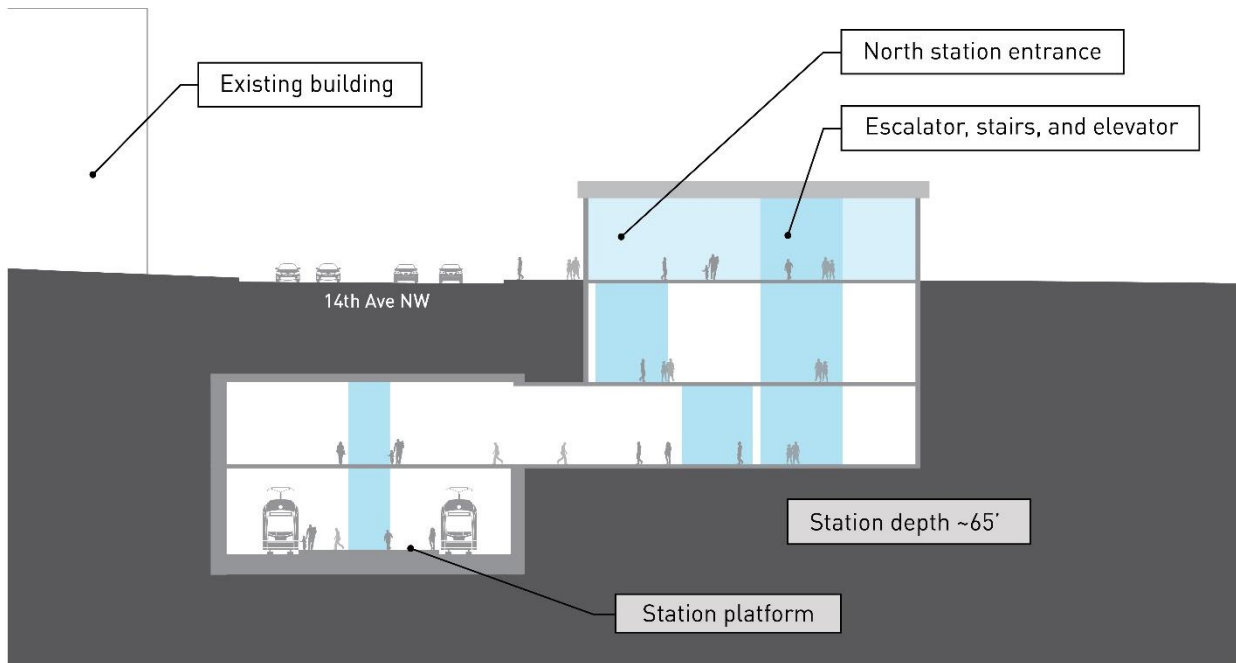


Figure 2-14. Ballard Station 3D View for Preferred Option IBB-2b

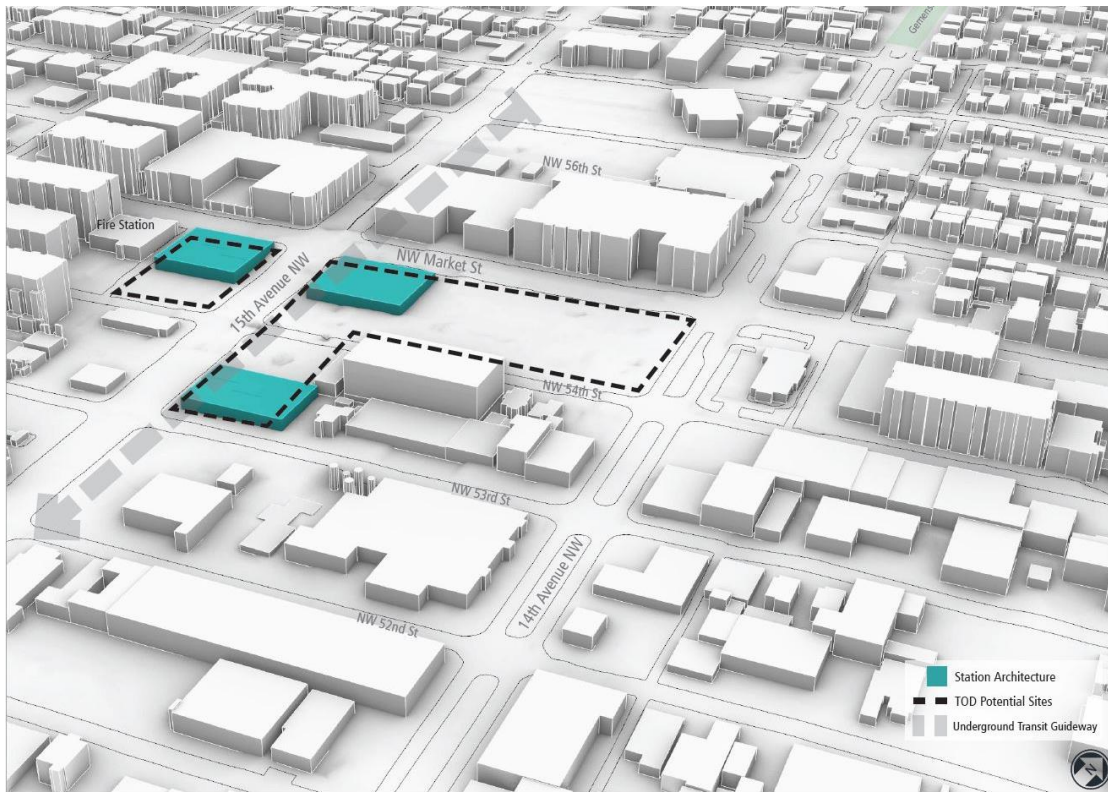


Figure 2-15. Ballard Station Cross Section for Preferred Option IBB-2b

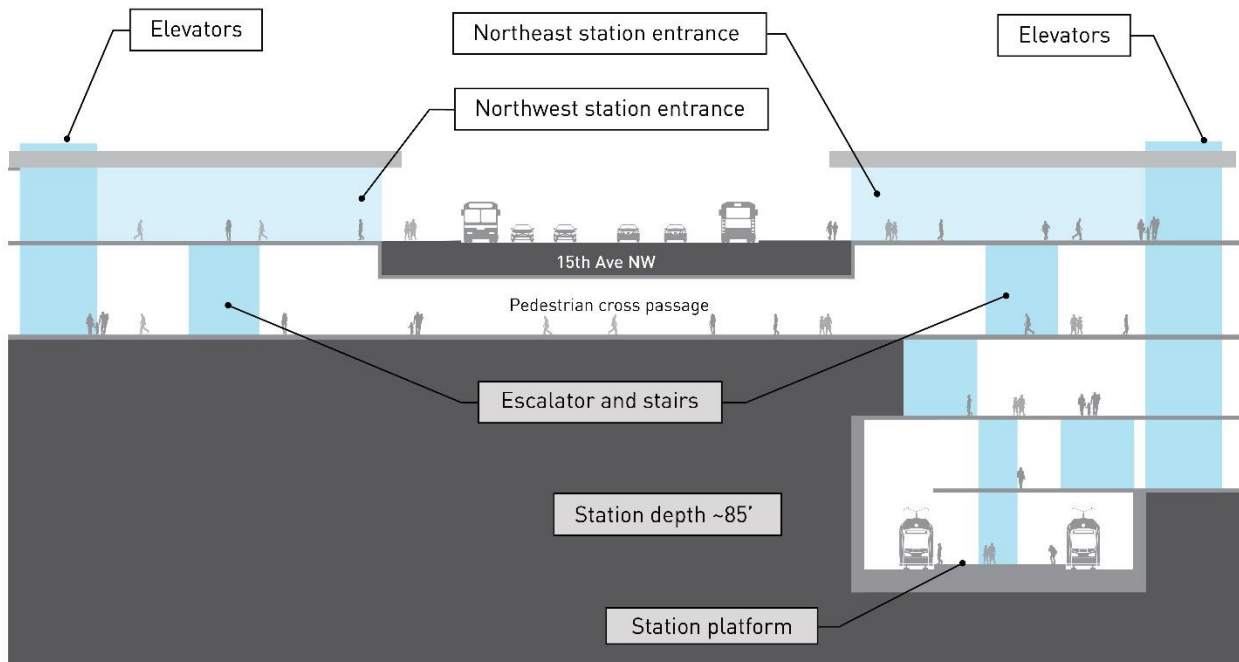
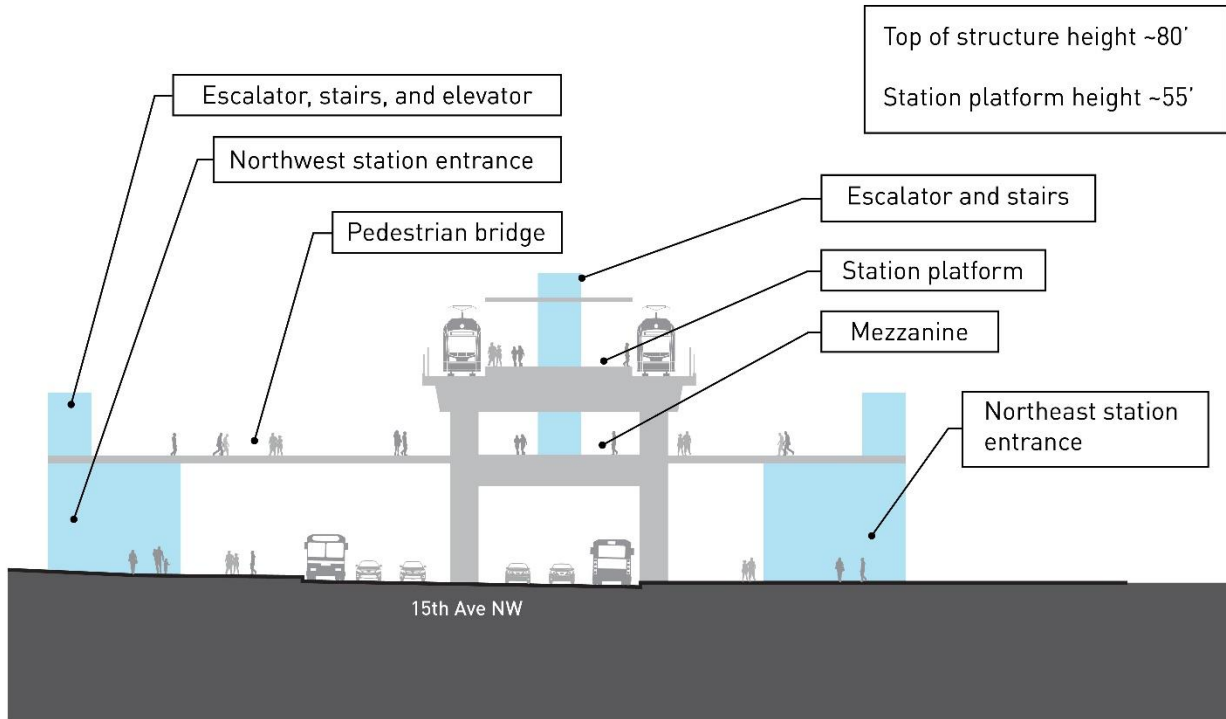


Figure 2-16. Ballard Station Cross Section for Alternative IBB-3



Note: There is no 3D view for Alternative IBB-3.