

# Appendix H

## **Final Section 4(f) Evaluation**

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# West Seattle Link Extension Final Section 4(f) Evaluation

September 2024

**Sound Transit**

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# Table of Contents

<b>ACRONYMS AND ABBREVIATIONS.....</b>	<b>V</b>
<b>EXECUTIVE SUMMARY.....</b>	<b>VII</b>
<b>1 SECTION 4(F) IMPACTS ASSESSMENT PROCESS .....</b>	<b>1-1</b>
<b>2 PROJECT DESCRIPTION .....</b>	<b>2-1</b>
2.1 Overview.....	2-1
2.2 Project Purpose and Need .....	2-6
2.3 Alternatives Definition .....	2-6
2.3.1 SODO Segment .....	2-7
2.3.2 Duwamish Segment .....	2-9
2.3.3 Delridge Segment.....	2-11
2.3.4 West Seattle Junction Segment.....	2-14
2.4 Study Area .....	2-17
<b>3 DESCRIPTION OF SECTION 4(F) RESOURCES AND ASSESSMENT OF POTENTIAL     USES.....</b>	<b>3-1</b>
3.1 Section 4(f) Resources in the Study Area.....	3-1
3.1.1 SODO Segment .....	3-10
3.1.2 Duwamish Segment .....	3-10
3.1.3 Delridge Segment.....	3-15
3.1.4 West Seattle Junction Segment.....	3-16
3.2 Section 4(f) Resources Potential Use Determinations.....	3-18
3.2.1 SODO Segment .....	3-19
3.2.2 Duwamish Segment .....	3-20
3.2.3 Delridge Segment.....	3-30
3.2.4 West Seattle Junction Segment.....	3-45
3.3 Summary of Use Determinations .....	3-52
3.3.1 SODO Segment .....	3-52
3.3.2 Duwamish Segment .....	3-52
3.3.3 Delridge Segment.....	3-52
3.3.4 West Seattle Junction Segment.....	3-52
3.4 Avoidance Alternatives.....	3-57
3.4.1 SODO Segment .....	3-59
3.4.2 Duwamish Segment .....	3-62
3.4.3 Delridge Segment.....	3-64
3.4.4 West Seattle Junction Segment.....	3-64

3.5	Measures to Minimize Harm.....	3-71
3.5.1	Minimization of Visual Effects .....	3-71
3.5.2	Minimization of Noise and Vibration Effects.....	3-72
3.5.3	Parks and Recreation Measures to Minimize Harm .....	3-73
3.5.4	Historic Resources Measures to Minimize Harm .....	3-82
3.6	Least Harm Analysis .....	3-83
3.6.1	Least Harm Alternatives Analysis .....	3-83
3.6.2	Avoidance and Least Harm Alternatives Conclusion.....	3-91
<b>4</b>	<b>COORDINATION .....</b>	<b>4-1</b>
<b>5</b>	<b>REFERENCES.....</b>	<b>5-1</b>

## Figures

Figure 2-1.	West Seattle Link Extension Project Corridor.....	2-2
Figure 2-2.	Link Light Rail System Expansion .....	2-3
Figure 2-3.	Project Section 4(f) Study Area .....	2-19
Figure 3-1a.	Section 4(f) Resources – SODO Segment .....	3-2
Figure 3-1b.	Section 4(f) Resources – Duwamish Segment (East).....	3-3
Figure 3-1c.	Section 4(f) Resources – Duwamish Segment (Central) .....	3-4
Figure 3-1d.	Section 4(f) Resources – Delridge Segment (West) .....	3-5
Figure 3-1e.	Section 4(f) Resources – Spokane Street Manufacturing Proposed Historic District.....	3-6
Figure 3-1f.	Section 4(f) Resources – Delridge Segment .....	3-7
Figure 3-1g.	Section 4(f) Resources – West Seattle Junction Segment (North) .....	3-8
Figure 3-1h.	Section 4(f) Resources – West Seattle Junction Segment (South).....	3-9
Figure 3-2.	West Duwamish Greenbelt Permanent and Construction Impacts – Duwamish Segment .....	3-21
Figure 3-3.	Delridge Playfield Impacts – Delridge Segment .....	3-30
Figure 3-4.	Longfellow Creek Natural Area and West Seattle Golf Course Permanent and Construction Impacts– Delridge Segment.....	3-34
Figure 3-5.	Limcrest Apartments Historic Property Impact: WSJ-3a and WSJ-3b Connection to DEL-2a; WSJ-3a and WSJ-3b Connection to DEL-2b .....	3-48
Figure 3-6.	Golden Tee Apartments Historic Property Impact: WSJ-1, WSJ-2, and WSJ-4 Connection to DEL-1a; WSJ-1, WSJ-2, and WSJ-4 Connection to DEL-2b....	3-50

## **Tables**

Table ES-1.	Summary of 4(f) Resources in the Project Study Area .....	viii
Table 2-1.	Summary of West Seattle Link Extension Build Alternatives .....	2-4
Table 3-1.	Section 4(f) Historic Resources in the SODO Segment.....	3-10
Table 3-2.	Section 4(f) Parks/Recreational Resources and Wildlife/Waterfowl Refuges in the Duwamish Segment .....	3-10
Table 3-3.	Section 4(f) Historic Resources in the Duwamish Segment.....	3-11
Table 3-4.	Section 4(f) Parks/Recreational Resources and Wildlife/Waterfowl Refuges in the Delridge Segment.....	3-15
Table 3-5.	Section 4(f) Historic Resources in the Delridge Segment.....	3-15
Table 3-6.	Section 4(f) Parks/Recreational Resources and Wildlife/Waterfowl Refuges in the West Seattle Junction Segment.....	3-16
Table 3-7.	Section 4(f) Historic Resources in the West Seattle Junction Segment .....	3-17
Table 3-8.	Summary of Section 4(f) Use Determinations by Alternative for the Duwamish Segment .....	3-53
Table 3-9.	Summary of Section 4(f) Use Determinations by Alternative for the Delridge Segment .....	3-54
Table 3-10.	Summary of Section 4(f) Use Determinations by Alternative for the West Seattle Junction Segment .....	3-56
Table 3-11.	Duwamish Segment Avoidance Alternatives - Location Alternatives .....	3-65
Table 3-12.	Duwamish Segment Avoidance Alternatives - Alignment Shifts .....	3-67
Table 3-13.	Proposed Measures to Minimize Harm by Section 4(f) Park Resource .....	3-74
Table 3-14.	Least Harm Analysis: SODO Segment Alternatives .....	3-84
Table 3-15.	Least Harm Analysis: Duwamish Segment Alternatives .....	3-87
Table 3-16.	Least Harm Alternatives by Segment.....	3-91
Table 3-17.	Potential West Seattle Link Extension Least Harm Alternative Scenarios .....	3-91
Table 4-1.	Section 4(f) Consultation Summary, Park and Recreational Facilities .....	4-1
Table 4-2.	Historic/Section 106 Consultation .....	4-2
Table 4-3.	Concurrences Requested .....	4-13

## **Attachments**

Attachment H.1 Section 4(f) Status of Parks and Recreational Resources in the Study Area  
Attachment H.2 Section 4(f) Concurrence Letter from City of Seattle  
Attachment H.3 City of Seattle Resolution 32055

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## ACRONYMS AND ABBREVIATIONS

Acronym	Definition
Carrier Annex/Terminal Post Office	Carrier Annex and Distribution Center/Terminal Post Office
EIS	Environmental Impact Statement
FTA	Federal Transit Administration
Metro	King County Metro Transit
National Register	National Register of Historic Places
Sound Transit	Central Puget Sound Regional Transit Authority
WSBLE	West Seattle and Ballard Link Extensions

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## EXECUTIVE SUMMARY

Section 4(f) of the United States Department of Transportation Act of 1966 (United States Code Title 49 Section 303[c]) protects publicly owned parks, recreation areas, and wildlife and waterfowl refuges, as well as historic sites. Section 4(f) requires consideration of the following:

- Parks and recreational areas of national, state, or local significance that are both publicly owned and open to the public.
- Wildlife and waterfowl refuges of national, state, or local significance that are publicly owned and open to the public to the extent that public access does not interfere with the primary purpose of the refuge.
- Historic sites of national, state, or local significance in public or private ownership, regardless of whether they are open to the public, that are listed in, or eligible for, the National Register of Historic Places (National Register) as identified according to Section 106 of the National Historic Preservation Act.
- Archaeological sites in or eligible for inclusion in the National Register, including those discovered during construction, except when the Federal Transit Administration (FTA) concludes that the archaeological resource is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place, and the official(s) with jurisdiction over the Section 4(f) resource have been consulted and have not objected (23 Code of Federal Regulations Section 774.13.b).

Under Section 4(f), the FTA cannot approve the “use” of a Section 4(f) resource unless it determines that:

- There is no feasible and prudent avoidance alternative to the use of land from the property; and
- The action includes all possible planning to minimize harm to the property resulting from such use; or
- The use of the property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures) committed to by the applicant, will have a *de minimis* impact on the property.

Potential Section 4(f) resources in the study area are described in Section 3.1 and are summarized in Table ES-1. Section 4(f) provides for some exceptions of certain types of uses when specific conditions are met. Otherwise, the use of a Section 4(f) property requires an evaluation of whether there would be a feasible and prudent avoidance alternative.

Section 4.18 in Chapter 4, Affected Environment and Environmental Consequences, of the Final Environmental Impact Statement (EIS) summarizes the use of Section 4(f) resources and consideration of avoidance alternatives within the project area.

### *De Minimis Impact*

An impact that, after taking into account any measures to minimize harm (such as avoidance, minimization, mitigation or enhancement measures), results in either:

1. A Section 106 finding of no adverse effect on a historic property or no historic properties affected; or
2. A determination that the project would not adversely affect the activities, features, or attributes qualifying a park, recreation area, or refuge for protection under Section 4(f).

Section 4(f) Policy Paper (United States Department of Transportation Federal Highway Administration 2012).

Table ES-1 summarizes the number of Section 4(f) resources within the project study area by segment.

**Table ES-1. Summary of 4(f) Resources in the Project Study Area**

Segment	Number of Park/Recreational Resources	Number of Historic Resources
SODO	0	7
Duwamish	3	58
Delridge	4	14
West Seattle Junction	3	31
Linear resources spanning multiple segments	0	1

The SODO and Duwamish segments are the only segments where a feasible and prudent avoidance alternative is not available. Section 3.4 of this Final Section 4(f) Evaluation includes a discussion of avoidance alternatives for these segments and explains that there is no feasible and prudent avoidance alternative for these segments that avoids any impact to any Section 4(f) resource.

Because all alternatives in the SODO and Duwamish segments would result in the use of at least one Section 4(f) resource, there is no full corridor (end-to-end) avoidance alternative for the project. Because no such alternative exists, the Section 4(f) regulations (23 Code of Federal Regulations 774.3.c) require analysis of which alternative would cause the least overall harm. This analysis appears in Section 3.6, Least Harm Analysis.

The Build Alternatives represent Sound Transit's best attempt to avoid and/or minimize Section 4(f) resources in the densely developed project corridor. The Build Alternatives balance the purpose and need of the project against potential impacts, while providing a range of alternatives for the public to consider and from which FTA and Sound Transit can choose. As design for the project progresses, Sound Transit continues to look for opportunities to reduce project impacts, including impacts on Section 4(f) resources.

# 1 SECTION 4(f) IMPACTS ASSESSMENT PROCESS

Section 4(f) of the United States Department of Transportation Act of 1966 (United States Code Title 49 Section 303.c) protects publicly owned parks, recreation areas, and wildlife and waterfowl refuges, as well as historic sites. Section 4(f) requires consideration of the following protected resources:

- **Parks and recreational areas** of national, state, or local significance that are both publicly owned and open to the public. Per the *Section 4(f) Policy Paper* (Federal Highway Administration 2012), the term “significant” under Section 4(f) means that in comparing the availability and function of the park, recreation area, or wildlife and waterfowl refuge with the park, recreation, or refuge objectives of the agency, community or authority, the property in question plays an important role in meeting those objectives. Significance determinations of publicly owned land considered to be a park, recreation area, or wildlife and waterfowl refuge are made by the official(s) with jurisdiction over the property. Per 23 Code of Federal Regulations 774.11.c, consideration under Section 4(f) is not required when the official(s) with jurisdiction over a park, recreation area, or wildlife and waterfowl refuge determines that the property, considered in its entirety, is not significant. Properties are assumed to be significant in the absence of a determination.
- **Wildlife and waterfowl refuges** of national, state, or local significance that are publicly owned and open to the public to the extent that public access does not interfere with the primary purpose of the refuge.
- **Historic sites** of national, state, or local significance in public or private ownership, regardless of whether they are open to the public, that are listed in, or eligible for, the National Register of Historic Places (National Register). Within a National Register-listed or -eligible historic district, Section 4(f) applies to those properties that are considered contributing to the eligibility of the historic district, as well as any individually eligible property within the district.

In addition, Section 4(f) applies to all archaeological sites on or eligible for inclusion on the National Register, including those discovered during construction, except when the Federal Transit Administration (FTA) concludes that the archaeological resource is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place, and the official(s) with jurisdiction over the Section 4(f) resource have been consulted and have not objected (23 Code of Federal Regulations Section 774.13.b).

Under Section 4(f), the FTA cannot approve the “use” of a Section 4(f) resource unless it determines that:

- There is no feasible and prudent avoidance alternative to the use of land from the property; and
- The action includes all possible planning to minimize harm to the property resulting from such use; or
- The use of the property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures) committed to by the applicant, will have a *de minimis* impact on the property.

## *De Minimis Impact*

An impact that, after taking into account any measures to minimize harm (such as avoidance, minimization, mitigation or enhancement measures), results in either:

- A Section 106 finding of no adverse effect on a historic property or no historic properties affected; or
- A determination that the project would not adversely affect the activities, features, or attributes qualifying a park, recreation area, or refuge for protection under Section 4(f).

Section 4(f) Policy Paper (United States Department of Transportation Federal Highway Administration 2012).

The potential Section 4(f) resources in the study area, which is described in 23 Code of Federal Regulations Section 2.4, were identified first, then FTA and Sound Transit proposed determinations for park and recreational resources deemed not significant and, therefore, are not Section 4(f) resources. FTA and Sound Transit have requested concurrence on the significance of resources from the officials with jurisdiction. The Port of Seattle has concurred that Bridge Gear Park in the Duwamish Segment is not significant for purposes of Section 4(f). For the remaining significant resources, FTA and Sound Transit proposed determinations about, whether, and the extent to which the project would use each property. Attachment H.1 lists the parks and recreational resources in the study area and identifies which are Section 4(f) resources. All the historic resources in the study area that are included in or eligible for inclusion in the National Register are Section 4(f) resources and are discussed in this document. There are no known archaeological sites affected by the project, but sites discovered during construction and determined eligible for the National Register will be evaluated pursuant to 23 Code of Federal Regulations Sections 774.9.e and 774.11.f. The proposed type of Section 4(f) use was determined in accordance with the following Section 4(f) use definitions, where required:

- **Permanent Use.** A permanent use occurs when land from a Section 4(f) property is permanently incorporated by a transportation project. This may occur as a result of acquiring the entire parcel or a portion of the Section 4(f) property, permanent easements, or temporary easements that exceed regulatory limits (23 Code of Federal Regulations Section 774.17). A permanent use in which impacts would be greater than *de minimis* necessitates an evaluation of whether there would be a feasible and prudent avoidance alternative.
- **Temporary Occupancy.** A temporary occupancy occurs when the project temporarily uses Section 4(f) property during construction. Temporary occupancy is not a Section 4(f) use if the following criteria, as outlined in 23 Code of Federal Regulations Section 774.17, are met:
  - Duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land;
  - Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal;
  - There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
  - The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and
  - There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.”

If these criteria are met, then the “temporary use exception” applies, meaning that the temporary occupancy of the land is so minimal that it does not constitute a use within the meaning of Section 4(f). If the criteria are not met, the use is considered to be permanent. A temporary use wherein impacts do not meet the exception criteria and are greater than *de minimis* necessitates an evaluation of whether there is a feasible and prudent avoidance alternative.

- **Constructive Use.** A constructive use occurs when a transportation project does not occupy a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a property for protection under Section 4(f) are substantially impaired (23 Code of Federal Regulations Section 774.15.a).
- **De Minimis Use.** A determination of *de minimis* use can be made if the use of Section 4(f) property would not adversely affect the features, attributes or activities that make the Section 4(f) property significant based on a consideration of impacts and mitigation measures. A *de minimis* determination for a park, recreation area, wildlife, or waterfowl refuge can only be made after receipt and consideration of public comment, and after FTA receives written concurrence from the official(s) with jurisdiction. A *de minimis* determination for a historic resource necessitates prior written concurrence from the applicable State Historic Preservation Officer (or Tribal Historic Preservation Officer) of "no adverse effect" or "no historic properties affected" under Section 106, and the State Historic Preservation Officer (or Tribal Historic Preservation Officer) must be informed of the project proponent's intent to make a *de minimis* impact determination. If a *de minimis* determination is made for a Section 4(f) resource, an assessment of potential avoidance alternatives is not required.

The Section 106 findings as discussed in this Section 4(f) evaluation are described in Appendix N.5, Historic and Archaeological Resources Technical Report, of the Final EIS. It should be noted that a finding of "adverse effect" for a particular historic property under Section 106 does not automatically result in a use determination under Section 4(f). Examples of the relationship between findings of effect under Section 106 and use determinations under Section 4(f) are as follows:

- If a project alternative **does not** permanently incorporate (or temporarily occupy) land from a Section 4(f)-eligible historic resource, but there is a finding of "adverse effect" under Section 106, then an assessment of constructive use must be conducted. If it is concluded that the project's proximity impacts are **not** so severe that the protected activities, features, or attributes that qualify a property for protection under Section 4(f) are substantially impaired, then there is no Section 4(f) use of that historic resource, notwithstanding the finding of "adverse effect" under Section 106.
- If a project alternative **does** permanently incorporate (or temporarily occupy) land from a Section 4(f)-eligible historic resource but there is a finding of "no adverse effect" under Section 106, then the determination under Section 4(f) would be *de minimis* in accordance with 23 Code of Federal Regulations Section 774.17, which states: "For historic sites, *de minimis* impact means that the Administration has determined, in accordance with 36 Code of Federal Regulations part 800 that no historic property is affected by the project or that the project will have 'no adverse effect' on the historic property in question."

Several project alternatives would require tunnel easements under Section 4(f) resources. The *Section 4(f) Policy Paper* (Federal Highway Administration 2012) provides guidance on how to assess the potential use of a Section 4(f) resource in this circumstance in Question 28A (excerpted below); Sound Transit conducted Section 4(f) use assessments presented in this Final EIS in accordance with this guidance.

**Question 28A: Is tunneling under a publicly owned public park, recreation area, wildlife or waterfowl refuge, or historic site subject to the requirements of Section 4(f)?**

**Answer:** Section 4(f) applies to tunneling only if the tunneling:

1. Disturbs archaeological sites that are on or eligible for the NR [National Register] which warrant preservation in place;

2. Causes disruption which would permanently harm the purposes for which the park, recreation, wildlife or waterfowl refuge was established;
3. Substantially impairs the historic values of a historic site; or
4. Otherwise does not meet the exception for temporary occupancy (See Question 7A).

This evaluation considers the potential to impact Section 4(f) resources that are located above proposed tunnel alignments. All the Section 4(f) park resources located above proposed tunnels would also have surface impacts and therefore are included in this analysis. Historic properties under which a project alternative would tunnel but which would not have surface impacts were reviewed to determine if a tunnel would substantially impair the historic value of the site.

## 2 PROJECT DESCRIPTION

### 2.1 Overview

Central Puget Sound Regional Transit Authority (Sound Transit) is proposing to expand Link light rail transit service from SODO to West Seattle. The West Seattle Link Extension Project (the project) is a 4.1-mile corridor in the city of Seattle in King County, Washington, the most densely populated county of the Puget Sound region (Figure 2-1). The project would include stations at SODO, Delridge, Avalon, and Alaska Junction. The 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.

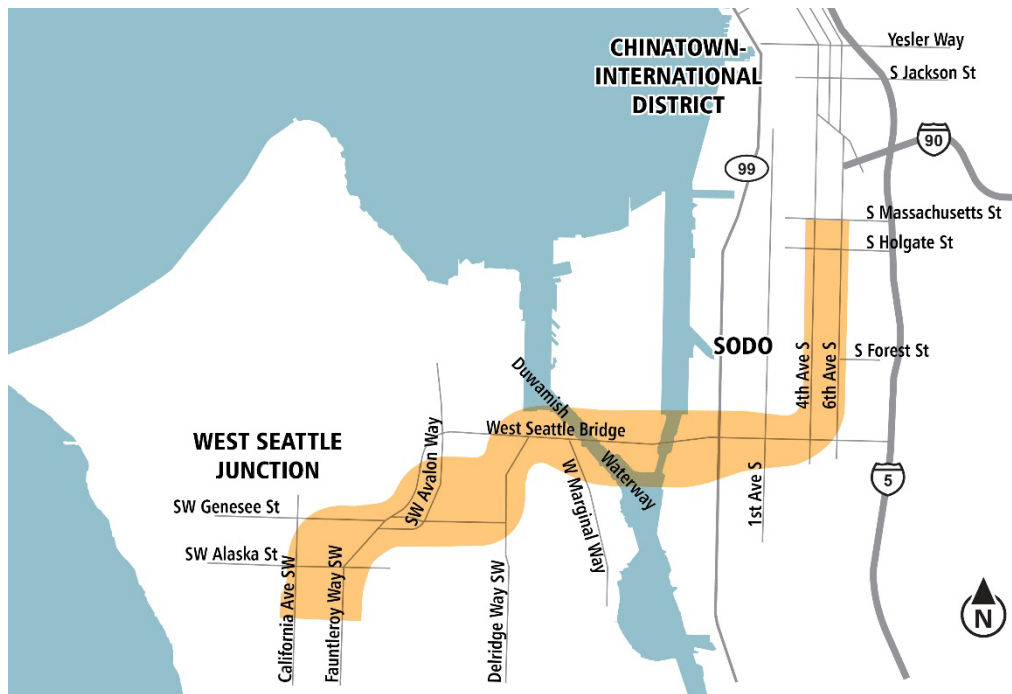
The Draft Environmental Impact Statement (EIS) published in January 2022 evaluated both the West Seattle Link Extension and the Ballard Link Extension together as one West Seattle and Ballard Link Extensions (WSBLE) Project. The extensions were evaluated together in the WSBLE Draft EIS because of their location, schedule, and review efficiencies for partner agencies.

In July 2022, the Sound Transit Board directed that further studies be prepared for the Ballard Link Extension, to evaluate additional station options and other refinements (Motion M2022-57). Some of these project options and refinements require additional conceptual engineering and environmental review. Rather than delay completion of the environmental review process for the West Seattle Link Extension while additional review is conducted for the Ballard Link Extension, Sound Transit and Federal Transit Administration (FTA) have decided to move forward under separate environmental reviews for each extension.

As described in the WSBLE Draft EIS, the two extensions will operate as separate lines, and the extensions are stand alone projects with independent utility. Proceeding with separate environmental review processes for each extension enables Sound Transit and FTA to minimize delay in delivering the West Seattle Link Extension while further analysis is undertaken on the Ballard Link Extension. Accordingly, this Final EIS is for the West Seattle Link Extension only. The Ballard Link Extension will undergo separate environmental review, building on the analysis that has already been completed.



Figure 2-1. West Seattle Link Extension Project Corridor



The West Seattle Link Extension would provide fast, frequent, and reliable light rail in Seattle and connect dense residential and job centers throughout the Puget Sound region. The Puget Sound Regional Council (the regional metropolitan planning organization) and the City of Seattle have designated the following Manufacturing/Industrial Center and urban village in the project corridor:

2. **Manufacturing/Industrial Center.** The project corridor includes the Duwamish Manufacturing/Industrial Center. SODO Station is in the Duwamish Manufacturing/Industrial Center.
3. **Urban Village.** West Seattle Junction is a neighborhood in the project corridor designated by the City of Seattle as an urban village. The Alaska Junction and Avalon stations are in the West Seattle Junction Urban Village.

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

Existing local transit connections in the project corridor include bus and light rail. The King County Metro Transit (Metro) RapidRide C bus line currently provides service between West Seattle, Downtown Seattle, and South Lake Union. The RapidRide H bus line provides service between Burien and Downtown Seattle via Delridge. Other local bus service also operates in the project corridor.

Regional transit service in the project corridor includes regional bus service, ferry service, light rail, Sounder commuter rail, and Amtrak passenger rail service. Light rail currently operates between the Angle Lake Station in the city of SeaTac and Northgate Station in Seattle, traveling

#### **Puget Sound Regional Council**

Puget Sound Regional Council, the regional metropolitan planning organization, develops policies and coordinates decisions about regional growth, transportation, and economic development planning within King, Kitsap, Pierce, and Snohomish counties. Puget Sound Regional Council is composed of over 80 jurisdictions, including all four counties; cities and towns; ports; state and local transportation agencies; and tribal governments within the region.



through the Downtown Seattle Transit Tunnel. There is an existing light rail station in SODO in the West Seattle Link Extension Corridor.

Extensions of light rail are under construction north to Lynnwood, east to Bellevue and Redmond, and south to Federal Way, all of which are anticipated to be operational by 2026. Additional planned light rail extensions would continue south to the Tacoma Dome, expected to begin service in 2035, and north to Everett, planned to begin service between 2037 and 2041. The Ballard Link Extension is scheduled to begin service between SODO and Ballard in 2039. The West Seattle Link Extension is scheduled to open in 2032 and would include a new SODO station where riders to and from West Seattle could transfer to the existing SODO station and light rail system until the Ballard Link Extension begins operation. The Ballard Link Extension would permanently connect the West Seattle Link Extension to the existing 1 Line, allowing riders to continue north to Everett. Figure 2-2 shows the full system planned for operation in 2042 under the target schedule. Table 2-1 lists the project Build Alternatives.

**Figure 2-2. Link Light Rail System Expansion**

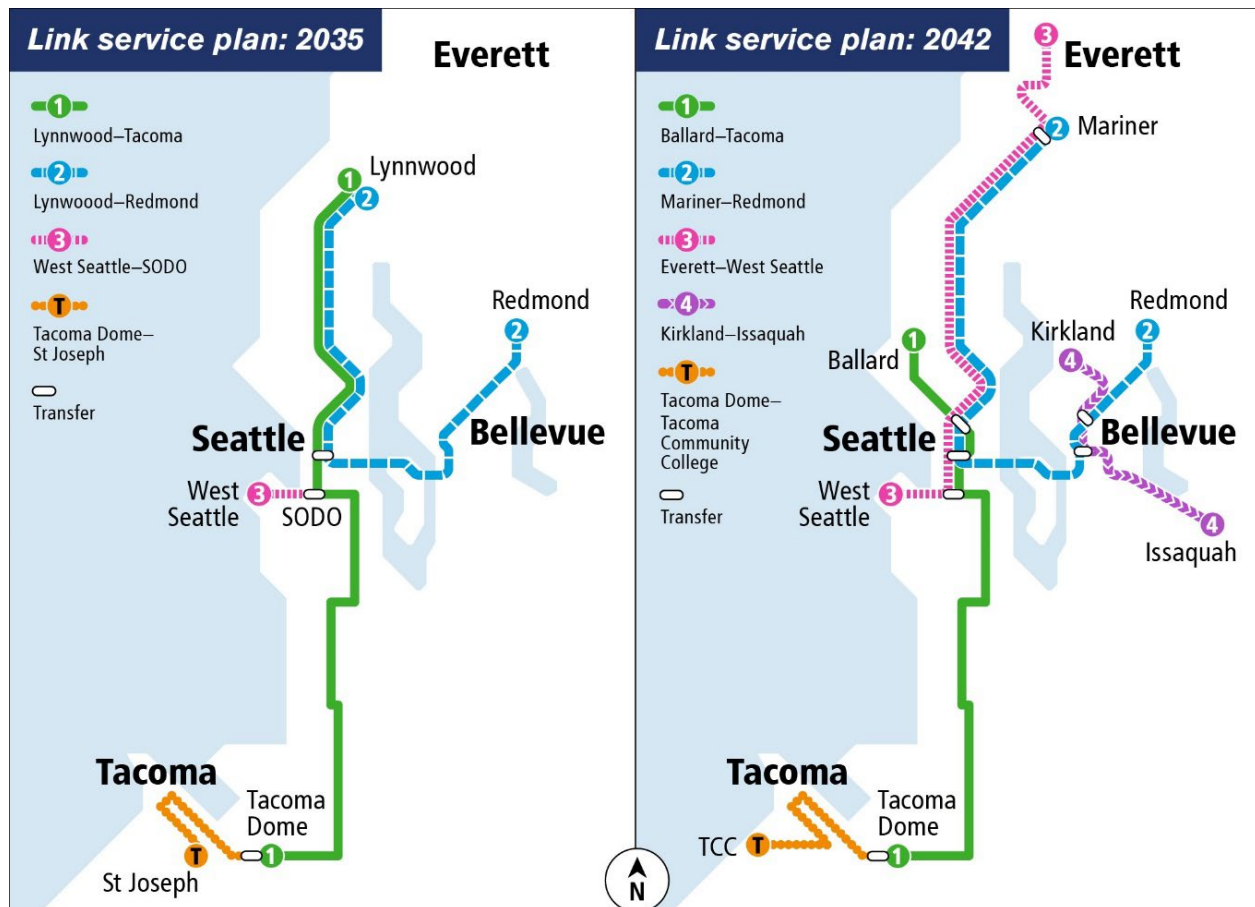


Table 2-1. Summary of West Seattle Link Extension Build Alternatives

Segment	Alternative or Design Option	Abbreviation	Stations (and Station Profile)	Connections
<b>SODO</b>	<b>Preferred At-Grade Lander Access Station Option</b>	<b>SODO-1c</b>	<b>SODO (At-Grade)</b>	<b>All Duwamish Segment alternatives.</b>
SODO	At-Grade Alternative	SODO-1a	SODO (At-Grade)	All Duwamish Segment alternatives.
SODO	At-Grade South Station Option	SODO-1b	SODO (At-Grade)	All Duwamish Segment alternatives.
SODO	Mixed Profile Alternative	SODO-2	SODO (Elevated)	All Duwamish Segment alternatives.
<b>Duwamish (DUW)</b>	<b>Preferred South Crossing Alternative</b>	<b>DUW-1a</b>	<b>None</b>	<b>All SODO Segment alternatives. All Delridge Segment alternatives.</b>
Duwamish (DUW)	South Crossing South Edge Crossing Alignment Option	DUW-1b	None	All SODO Segment alternatives. All Delridge Segment alternatives.
Duwamish (DUW)	North Crossing Alternative	DUW-2	None	All SODO Segment alternatives. All Delridge Segment alternatives.
<b>Delridge (DEL)</b>	<b>Preferred Andover Street Station Lower Height South Alignment Option</b>	<b>DEL-6b</b>	<b>Delridge (Elevated)</b>	<b>All Duwamish Segment alternatives. Connects to WSJ-5a and WSJ-5b.</b>
Delridge (DEL)	Dakota Street Station Alternative	DEL-1a	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-1, WSJ-2, and WSJ-4.
Delridge (DEL)	Dakota Street Station North Alignment Option	DEL-1b	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-1, WSJ-2, and WSJ-4.
Delridge (DEL)	Dakota Street Station Lower Height Alternative	DEL-2a	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-3a and WSJ-3b.
Delridge (DEL)	Dakota Street Station Lower Height North Alignment Option	DEL-2b	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-3a and WSJ-3b.
Delridge (DEL)	Delridge Way Station Alternative	DEL-3	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-1, WSJ-2, and WSJ-4.
Delridge (DEL)	Delridge Way Station Lower Height Alternative	DEL-4	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-3a and WSJ-3b.
Delridge (DEL)	Andover Street Station Alternative	DEL-5	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-1, WSJ-2, and WSJ-4.

Segment	Alternative or Design Option	Abbreviation	Stations (and Station Profile)	Connections
Delridge (DEL)	Andover Street Station Lower Height Alternative	DEL-6a	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-5a and WSJ-5b.
Delridge (DEL)	Andover Street Station Lower Height No Avalon Station Tunnel Connection Alternative	DEL-7	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-6.
<b>West Seattle Junction (WSJ)</b>	<b>Preferred Medium Tunnel 41st Avenue Station West Entrance Station Option</b>	<b>WSJ-5b</b>	<b>Avalon (Retained Cut), Alaska Junction (Tunnel)</b>	<b>Connects to DEL-6a and DEL-6b.</b>
West Seattle Junction (WSJ)	Elevated 41st/42nd Avenue Station Alternative	WSJ-1	Avalon (Elevated), Alaska Junction (Elevated)	Connects to DEL-1a, DEL-1b, DEL-3, and DEL-5.
West Seattle Junction (WSJ)	Elevated Fauntleroy Way Station Alternative	WSJ-2	Avalon (Elevated), Alaska Junction (Elevated)	Connects to DEL-1a, DEL-1b, DEL-3, and DEL-5.
West Seattle Junction (WSJ)	Tunnel 41st Avenue Station Alternative	WSJ-3a	Avalon (Tunnel), Alaska Junction (Tunnel)	Connects to DEL-2a, DEL-2b, and DEL-4.
West Seattle Junction (WSJ)	Tunnel 42nd Avenue Station Option	WSJ-3b	Avalon (Tunnel), Alaska Junction (Tunnel)	Connects to DEL-2a, DEL-2b, and DEL-4.
West Seattle Junction (WSJ)	Short Tunnel 41st Avenue Station Alternative	WSJ-4	Avalon (Elevated), Alaska Junction (Tunnel)	Connects to DEL-1a, DEL-1b, DEL-3, and DEL-5.
West Seattle Junction (WSJ)	Medium Tunnel 41st Avenue Station Alternative	WSJ-5a	Avalon (Retained Cut), Alaska Junction (Tunnel)	Connects to DEL-6a and DEL-6b.
West Seattle Junction (WSJ)	No Avalon Station Tunnel Alternative	WSJ-6	Alaska Junction (Tunnel)	Connects to DEL-7.

## 2.2 Project Purpose and Need

The purpose of the project is to expand the Sound Transit Link light rail system from Downtown Seattle to West Seattle, to make appropriate community investments to improve mobility, and to increase capacity and connectivity for regional connections to achieve the following:

- Provide high-quality rapid, reliable, and efficient light rail transit service to communities in the project corridor as defined through the local planning process and reflected in the Sound Transit 3 Plan (Sound Transit 2016).
- Improve regional mobility by increasing connectivity and capacity through Downtown Seattle to meet the projected transit demand.
- Connect regional centers as described in adopted regional and local land use, transportation, and economic development plans and Sound Transit's *Regional Transit Long-Range Plan* (Sound Transit 2014).
- Implement a system that is technically and financially feasible to build, operate, and maintain.
- Expand mobility for the corridor and the region's residents, which include transit-dependent residents, low-income people, and communities of color.
- Encourage equitable and sustainable urban growth in station areas through support of transit-oriented development and multi-modal integration in a manner that is consistent with local land use plans and policies, including Sound Transit's Equitable Transit Oriented Development Policy (Sound Transit 2018) and Sustainability Plan (Sound Transit 2019).
- Encourage convenient and safe non-motorized access to stations, such as bicycle and pedestrian connections, consistent with Sound Transit's *System Access Policy* (Sound Transit 2013).
- Preserve and promote a healthy environment and economy by minimizing adverse impacts on the natural, built, and social environments through sustainable practices.

In brief, the need for the project is as follows:

- When measured using national standards, existing transit routes between Downtown Seattle and West Seattle currently operate with poor reliability. Roadway congestion in the project corridor will continue to degrade transit performance and reliability as the city is expected to add about 135,000 people and about 150,000 jobs between 2015 and 2040 (Puget Sound Regional Council 2018).
- Increased ridership from regional population and employment growth will increase operational frequency in the existing Downtown Seattle Transit Tunnel, requiring additional tunnel capacity.
- Puget Sound Regional Council (the regional metropolitan planning organization) and local plans call for high-capacity transit in the corridor consistent with VISION 2050 (Puget Sound Regional Council 2020) and the *Regional Transit Long-Range Plan* (Sound Transit 2014).

## 2.3 Alternatives Definition

Chapter 2 of the Final EIS, Alternatives Considered, describes the project elements. This section of the Section 4(f) Evaluation provides a brief overview of the project.

The West Seattle Link Extension would travel south from the SODO Station across South Lander Street either at-grade or on an elevated guideway and would continue south from south of South Lander Street toward South Spokane Street on an elevated guideway. In the vicinity of South Spokane Street, it would turn west on an elevated guideway either on the north or south side of the West Seattle Bridge, where it would cross the Duwamish Waterway (also known as the Duwamish River) on a light-rail-only, high-level fixed bridge structure. On the west side of the Duwamish Waterway, the guideway would remain mostly elevated to the west side of the Delridge valley. In the West Seattle Junction area, the guideway could be elevated or below ground. Up to three stations would be constructed in West Seattle: Delridge, Avalon, and Alaska Junction. The Delridge Station would be elevated, and the Avalon and Alaska Junction stations could be elevated or below ground. There is one alternative in West Seattle that does not include the Avalon Station. This alternative was added for study at the direction of the Sound Transit Board as a potential cost-savings measure (Motion M2022-57).

Segment-level project elements are described in Sections 2.3.1 through 2.3.4. For greater detail on segment-level project elements, refer to the discussion in Section 2.1.3, Build Alternatives and Design Options, of the Final EIS.

### **2.3.1 SODO Segment**

The SODO Segment includes the area between approximately South Massachusetts Street and South Forest Street in the SODO neighborhood. The SODO Station is the only station proposed in this segment. There is an existing SODO light rail station, and a new SODO Station is proposed as part of the project. The new SODO Station would provide a transfer point to/from the 1 Line (future Ballard to Tacoma light rail line) via the existing SODO Station, and the two stations would therefore function as one SODO Station. One alternative and one design option include the relocation of the existing SODO Station. All SODO alternatives and options include relocation of a 230-kilovolt power line from the SODO Busway to 6th Avenue South between South Massachusetts Street and the Duwamish Segment boundary. All alternatives include the construction of a temporary track around the SODO Station construction area to minimize disruption to existing 1 Line operations.

#### **2.3.1.1 Preferred Alternative**

##### ***At-Grade Lander Access Station Option (SODO-1c)***

Preferred Option SODO-1c is a refinement of the WSBL Draft EIS Preferred Alternative SODO-1a staggered configuration. It reflects Sound Transit Board direction in Motion 2022-57 identifying the preferred alternative to explore opportunities to enhance access from the station platform to South Lander Street. Preferred Option SODO-1c would be similar to Alternative SODO-1a except for the station access. Heading south, Preferred Option SODO-1c would begin north of the existing SODO Station and travel at-grade west of and parallel to the existing Link light rail line in the SODO Busway. Preferred Option SODO-1c would continue south at-grade under South Lander Street, which would be reconstructed as an overpass of the light rail tracks. The light rail tracks would then transition to an elevated guideway; buses would be displaced from the SODO Busway. The height of the guideway would range between a retained-cut and approximately 20 feet high and would mostly be at-grade.

The new SODO Station would be at-grade, immediately west of the existing SODO Station, north of South Lander Street. The top of the station structure would be approximately 40 feet high. Station platforms would be side platforms, one of which would be shared between the future northbound connection of the project into the existing downtown tunnel and the existing

southbound platform on the existing light rail line to SeaTac, continuing to Federal Way (2026) and Tacoma (2035). Preferred Option SODO-1c has a staggered station configuration that was developed to avoid property owned by the United States Postal Service at 4th Avenue South and South Lander Street. This property is the location of the Carrier Annex and Distribution Center/Terminal Post Office (Carrier Annex/Terminal Post Office). The station design features a narrowed center platform and staggered side platforms, with the southbound platform shifted slightly north so that it is not on Carrier Annex/Terminal Post Office property. The existing driveway at the Carrier Annex/Terminal Post Office facility's southern access point would be connected under the new South Lander Street overpass to 4th Avenue South, which then maintains access to South Lander Street.

The existing at-grade pedestrian crossing of the light rail tracks at SODO Station would be closed, and a new pedestrian grade-separated crossing of both existing and new tracks would be used to access both stations. The station would not include the South Stacy Street cul-de-sac access to the west that is included in Alternative SODO-1a and instead would include an access point at South Lander Street. Access to 4th Avenue South would occur via South Lander Street. A new bus turnaround would be created from 6th Avenue South, east of the station. The SODO Trail would be relocated east of the station area, adjacent to the existing light rail line.

### **2.3.1.2 Other Build Alternatives and Design Options**

#### ***At-Grade Alternative (SODO-1a)***

Alternative SODO-1a is a refinement to the Alternative SODO-1a in the WSBLE Draft EIS. It includes the staggered station configuration described in the WSBLE Draft EIS as the base alternative. Heading south, Alternative SODO-1a would begin north of the existing SODO Station and travel at-grade west of and parallel to the existing Link light rail line in the SODO Busway. The height of the guideway would range between a retained cut and approximately 20 feet high and would mostly be at-grade.

The new SODO Station would be at-grade, immediately west of the existing SODO Station, north of South Lander Street. The top of the station structure would be approximately 40 feet high. Station platforms would be side platforms, one of which would be shared between the future northbound connection of the project into the existing downtown tunnel and existing southbound platform on the existing light rail line to SeaTac, continuing to Federal Way (2026) and Tacoma (2035). Alternative SODO-1a has a staggered station configuration that was developed to avoid the Carrier Annex/Terminal Post Office property owned by the United States Postal Service at 4th Avenue South and South Lander Street. The station design features a narrowed center platform and staggered side platforms, with the southbound platform shifted slightly north so that it is not on Carrier Annex/Terminal Post Office property. The existing driveway at the Carrier Annex/Terminal Post Office facility's southern access point would be connected under the new South Lander Street overpass to 4th Avenue South, which then maintains access to South Lander Street. The existing at-grade pedestrian crossing of the light rail tracks at SODO Station would be closed, and a new grade-separated pedestrian crossing of both existing and new tracks would be used to access both stations. South Stacy Street would be extended from 4th Avenue South to a cul-de-sac on the west side of the station. A new bus turnaround would be created from 6th Avenue South, east of the station. The SODO Trail would be relocated east of the station area, adjacent to the existing light rail line.

This alternative would continue south at-grade under South Lander Street, which would be reconstructed as an overpass of the light rail tracks. The overpass would remove the need for traffic to stop for light rail trains, the frequency of which would increase with the combination of



both the existing and new light rail lines. The light rail would transition to an elevated guideway within the SODO Busway south of South Lander Street. Buses would be displaced from the SODO Busway.

### ***At-Grade South Station Option (SODO-1b)***

Option SODO-1b would be similar to Alternative SODO-1a except for the SODO Station. A new at-grade station would be west of and approximately 200 feet south of the existing SODO Station, just north of South Lander Street. The top of the station structure would be approximately 40 feet high. The existing SODO Station would be relocated 200 feet south of its current location to be next to the new SODO Station. Pedestrian access would be from a new South Lander Street overcrossing. Station platforms would be side platforms, one of which would be shared between the future northbound connection of the project into the existing downtown tunnel and the existing southbound platform on the existing light rail line to SeaTac, continuing to Federal Way (2026) and Tacoma (2035). A new bus turnaround would be created off 4th Avenue South, west of the station. As with Alternative SODO-1a, buses would be displaced from the SODO Busway.

### ***Mixed Profile Alternative (SODO-2)***

Alternative SODO-2 would range between ground level and approximately 50 feet high. It would begin at-grade north of the existing SODO Station, west of and parallel to the existing Link light rail line in the existing SODO Busway. At South Walker Street, the alignment would transition to an elevated profile and would continue south over South Lander Street. The SODO Busway would be relocated to the west of the new rail line and new station and would be operational for buses after construction.

A new SODO Station would be in an elevated profile north of South Lander Street. The top of the station structure would be approximately 70 feet high. Because this alternative would be elevated over South Lander Street, the street would remain as it is today, with a gated at-grade crossing of the existing light rail line. The existing SODO Station would be relocated as described for Option SODO-1b) and would be at-grade adjacent to the new elevated station. Pedestrian access would be on the north side of South Lander Street and from 4th Avenue South and 6th Avenue South. A new pedestrian grade-separated crossing of both existing and new tracks would be used to access both the new and relocated station. The SODO Trail would be relocated east of the station area, adjacent to the existing light rail line.

## **2.3.2 Duwamish Segment**

The Duwamish Segment includes the area between South Forest Street in the SODO neighborhood and the intersection of Southwest Charlestown Street and Delridge Way Southwest in the North Delridge neighborhood. This segment does not include a station but does include a connection to the existing Operations and Maintenance Facility Central. All Duwamish Build Alternatives include relocation of a 230-kilovolt power line starting at the Duwamish Segment northern boundary at South Forest Street. The power line would be relocated from the SODO Busway to 6th Avenue South and Diagonal Avenue South or across the Department of Highways District No. 1 property to connect to 5th Avenue South. Either relocation route would lead to the Seattle City Light electrical substation south of South Spokane Street.

### **2.3.2.1 Preferred Alternative**

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

Preferred Alternative DUW-1a would continue south from South Forest Street along the west side of the existing light rail line on an elevated guideway, past the Operations and Maintenance Facility Central, before heading southwest to cross over to the south side of the Spokane Street Bridge and the West Seattle Bridge.

The alternative would continue west and to the south side of the West Seattle Bridge. It crosses State Route 99 and would gradually increase in height as it travels west, because light rail cannot travel on grades as steep as automobiles can. The alternative would cross over the East Duwamish Waterway, Harbor Island, and the West Duwamish Waterway on a fixed, light-rail-only bridge. The height of the guideway in this segment would range between a retained cut and approximately 170 feet high. It would be at its highest when crossing the West Duwamish Waterway, where it would be at approximately the same height as the West Seattle Bridge.

The bridge over the West Duwamish Waterway would have a clearance of approximately 140 feet over the navigation channel.

West of the Duwamish Waterway crossing, the alternative would cross the northern edge of Pigeon Point in a combination of elevated guideway and retained cut and fill before turning southwest on an elevated guideway that crosses Delridge Way Southwest.

A connection to the Operations and Maintenance Facility Central would be provided from tracks between South Forest Street and South Spokane Street. The northbound and southbound access tracks would be parallel to each other and would span over the BNSF Railway tracks and 6th Avenue South, then transition to at-grade to enter the operations and maintenance facility.

### **2.3.2.2 Other Build Alternatives and Design Options**

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

Option DUW-1b would be similar to Alternative DUW-1a except it would cross the East and West Duwamish waterways on the south edge of Harbor Island. The height of this option would be the same as Alternative DUW-1a.

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

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 between approximately 30 feet and 170 feet high. It would be at its highest when crossing the West Duwamish Waterway. The bridge over the West Duwamish Waterway would have a clearance of approximately 140 feet over the navigation channel.

Where it crosses State Route 99, the alignment would gradually increase in height as it travels west. At the West Duwamish Waterway, the bridge would be about the same height as the West Seattle Bridge. After crossing the West Duwamish Waterway, the alternative would cross over the West Seattle Bridge to run south on the west side of Delridge Way Southwest.

A connection to the Operations and Maintenance Facility Central would be provided from north and south access tracks between South Forest Street and South Spokane Street. Unlike the south crossing alternative and option, the access tracks would not be parallel to each other because of the curve of the main alignment and the distance to the operations and maintenance



facility. The northern access tracks south of South Forest Street would span 6th Avenue South and then transition to at-grade to enter the operations and maintenance facility. The southern access tracks would be elevated north of South Spokane Street and continue east from about 1st Avenue South to 6th Avenue South, and then transition to at-grade to enter the operations and maintenance facility.

### **2.3.3 Delridge Segment**

The Delridge Segment includes the area between Southwest Charlestown Street and a boundary line between 31st Avenue Southwest and Fauntleroy Way Southwest. This segment includes one station, the Delridge Station. Some alternatives in this segment only connect to tunnel alternatives in the adjacent West Seattle Junction Segment.

#### **2.3.3.1 Preferred Alternative**

##### ***Andover Street Station Lower Height South Alignment Option (DEL-6b)***

Preferred Option DEL-6b is a refinement of Alternative DEL-6 (now known as Alternative DEL-6a) developed in response to public and agency comments and Sound Transit Board direction in Motion 2022-57 to study refinement options to enhance station access, prioritize an integrated and well-designed transfer experience from buses to light rail, and address concerns over potential displacements of organizations serving low-income populations and communities of color.

Preferred Option DEL-6b would be on an elevated guideway on the west side of Delridge Way Southwest, south of Southwest Andover Street. The height of the guideway would range between approximately 40 feet and 80 feet high. The alignment would travel west along the north side of Southwest Yancy Street on an elevated guideway then cross Southwest Avalon Way in the vicinity of Southwest Yancy Street. Preferred Option DEL-6b would cross 32nd Avenue Southwest at-grade, resulting in the closure of a portion of 32nd Avenue Southwest and the construction of cul-de-sacs on the street to the north and south. Preferred Option DEL-6b would be similar to Alternative DEL-6a as it continues south along the east side of the West Seattle Bridge connection to Fauntleroy Way Southwest.

The station would be elevated north of Southwest Andover Street and west of Delridge Way Southwest, in a northeast-southwest orientation. The top of the station structure would be approximately 70 feet high. This design option includes roadway improvements at the intersection of Delridge Way Southwest and 23rd Avenue Southwest to allow vehicle access and pedestrian crossings into the station area and Nucor Steel. Southwest Charlestown Street would be reconfigured west of Delridge Way Southwest and north of Southwest Andover Street to provide a dedicated circulation pathway for buses separate from freight and general-purpose passenger vehicles.

#### **2.3.3.2 Other Build Alternatives and Design Options**

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

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 over Delridge Way Southwest.

The height of the guideway would range between approximately 70 feet and 150 feet high. The highest portion would be where the alignment climbs from the station in the Delridge valley up to the West Seattle Junction.

The station would be elevated between Delridge Way Southwest and 26th Avenue Southwest, south of Southwest Dakota Street, and oriented southwest-northeast. The top of the station structure would be approximately 110 feet high.

South of the station, the alternative would curve west and cross to the south side of the Southwest Genesee Street right-of-way, north of the West Seattle Golf Course. The guideway would continue west along the south edge of Southwest Genesee Street and connect to an elevated guideway in the West Seattle Junction Segment.

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

Option DEL-1b would be similar to 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 the guideway would range between approximately 60 feet and 150 feet high. The highest portion would be where the alignment climbs from the station in the Delridge valley up to the West Seattle Junction. The top of the station structure would be approximately 110 feet high.

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

Alternative DEL-2a would follow the same alignment as Alternative DEL-1a to the station but would be at a lower elevation to connect to tunnel alternatives in the West Seattle Junction Segment. The height of the guideway would range between a tunnel and approximately 60 feet high. The top of the station structure would be approximately 60 feet high.

To accommodate the station, 25th Avenue Southwest would be permanently closed between Southwest Dakota Street and Southwest Genesee Street. From the station, the alternative would continue south to cross Southwest Genesee Street and would run along the northern edge of the West Seattle Golf Course. A tunnel portal for connecting to tunnel alternatives in the West Seattle Junction Segment would be in the northwest corner of the West Seattle Golf Course, south of Southwest Genesee Street and east of 31st Avenue Southwest.

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

Option DEL-2b would be similar to Alternative DEL-2a except it would shift to the north side of Southwest Genesee Street west of 28th Avenue Southwest. The height of the guideway would range between a tunnel and approximately 60 feet high. The top of the station structure would be approximately 60 feet high.

To accommodate the station, 25th Avenue Southwest would be permanently closed between Southwest Dakota Street and Southwest Genesee Street. Access to Southwest Genesee Street from 30th Avenue Southwest would be permanently closed with a turnaround at the south end of the road. The tunnel portal to enter a tunnel in the West Seattle Junction Segment would be north of Southwest Genesee Street, between Southwest Avalon Way and 30th Avenue Southwest.

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

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, and the top of the station structure would be approximately 90 feet high. Station access would be from adjacent streets, including both sides of Delridge Way Southwest.

South of the station, the alternative would curve west and cross to the south side of the Southwest Genesee Street right-of-way, north of the West Seattle Golf Course. The guideway would continue west along the south edge of Southwest Genesee Street and connect to an elevated guideway in the West Seattle Junction Segment. The height of the guideway would range between approximately 50 feet and 150 feet high. The highest portion would be where the alignment climbs from the station in the Delridge valley up to the West Seattle Junction.

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

Alternative DEL-4 would follow the same alignment as Alternative DEL-3 to the station but would be at a lower elevation to connect to tunnel alternatives in the West Seattle Junction Segment. The height of the guideway would range between a tunnel and approximately 60 feet high. The top of the station would be approximately 90 feet high. Station access would be the same as Alternative DEL-3.

From the station, the alternative would continue south on the west side of Delridge Way Southwest and then turn west at Southwest Genesee Street, crossing Southwest Genesee Street to run along the northern edge of the West Seattle Golf Course. A tunnel portal for connecting to tunnel alternatives in the West Seattle Junction Segment would be in the northwest corner of the West Seattle Golf Course, south of Southwest Genesee Street and east of 31st Avenue Southwest.

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

Alternative DEL-5 would be on an elevated guideway on the west side of Delridge Way Southwest, north of Southwest Andover Street. The height of the guideway would range between approximately 50 feet and 130 feet high. The alignment would travel west along Southwest Andover Street on an elevated guideway then south along Southwest Avalon Way in the vicinity of Southwest Yancy Street. The guideway would continue south along Southwest Avalon Way and turn west on the north side of Southwest Genesee Street. The highest portion of the guideway would be where the alignment climbs from the station in the Delridge valley up to the West Seattle Junction.

The station would be elevated north of Southwest Andover Street and west of Delridge Way Southwest, in a northeast-southwest orientation. The top of the station structure would be approximately 100 feet high.

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

Alternative DEL-6a (previously Alternative DEL-6 in the WSBLE Draft EIS) would be similar to Alternative DEL-5 up to and including the station. The top of the station structure would be approximately 90 feet high. The height of the guideway would range between a retained cut and approximately 120 feet high. The elevated guideway would cross over Southwest Avalon Way and then turn south in the vicinity of 32nd Avenue Southwest to travel south along the east side of the West Seattle Bridge connection to Fauntleroy Way Southwest, transitioning from elevated

into a retained cut. The alignment would turn west in the vicinity of Southwest Genesee Street in a retained cut, passing below Southwest Genesee Street.

### ***Andover Street Station Lower Height No Avalon Station Tunnel Connection (DEL-7)***

Alternative DEL-7 is included at the direction of the Sound Transit Board (Motion 2022-57) to study elimination of the Avalon Station as a potential cost-savings measure. This refinement would be similar to Preferred Option DEL-6b up to and including the Delridge Station and reflects a more direct alignment between the Delridge Station and the West Seattle Junction Station with the elimination of an Avalon Station in the West Seattle Junction Segment. The top of the station structure would be approximately 70 feet high. The height of the guideway would range between approximately 30 feet and 80 feet. South of the station, the elevated guideway would continue west along Southwest Yancy Street and cross to the south side of Southwest Andover Street in an elevated guideway. A tunnel portal leading to Alternative WSJ-6 in the West Seattle Junction Segment would be in the vicinity of 32nd Avenue Southwest, east of the West Seattle Bridge. 32nd Avenue Southwest would no longer connect to Southwest Andover Street but would end in a cul-de-sac south of the tunnel portal. The tunnel would continue west under the West Seattle Bridge towards 35th Avenue Southwest.

## **2.3.4 West Seattle Junction Segment**

The West Seattle Junction Segment includes the area generally west of 31st Avenue Southwest, between Southwest Charleston Street and Southwest Hudson Street. Most alternatives and design options would have two stations: Avalon and Alaska Junction. One alternative would have only the Alaska Junction Station.

### **2.3.4.1 Preferred Alternative**

#### ***Medium Tunnel 41st Avenue Station West Entrance Station Option (WSJ-5b)***

Preferred Option WSJ-5b is a refinement of Alternative WSJ-5 as analyzed in the WSBLE Draft EIS and was refined based on the Sound Transit Board's direction to explore an option to shift a station entrance to 42nd Avenue Southwest at the Alaska Junction Station to improve access to the Alaska Junction. Preferred Option WSJ-5b begins in a retained cut south of Southwest Yancy Street and follows the east side of the West Seattle Bridge connection to Fauntleroy Way Southwest. Southwest Genesee Street would be permanently closed approaching 35th Avenue Southwest.

This alignment enters a tunnel at Southwest Genesee Street and 37th Avenue Southwest, then curves to the southwest between 37th Avenue Southwest to 41st Avenue Southwest. It terminates at Southwest Hudson Street, with tail tracks in a north-south orientation under 41st Avenue Southwest. Stations would be located as follows:

- **Avalon Station:** Avalon Station would be in a lidded retained cut south of Southwest Genesee Street, beneath 35th Avenue Southwest with the top of the station structure approximately 30 feet above the existing ground surface. Station entrances would be on either side of 35th Avenue Southwest.
- **Alaska Junction Station:** The Alaska Junction Station would be in a tunnel beneath 41st Avenue Southwest and Southwest Alaska Street. Station entrances would be on either side of Southwest Alaska Street. Preferred Option WSJ-5b is a station option to Alternative WSJ-5a and would be the same as Alternative WSJ-5a, except the entrance south of Southwest

Alaska Street would be on the west side of 41st Avenue Southwest, closer to the Alaska Junction. The entrance north of Southwest Alaska Street would not change.

### 2.3.4.2 Other Build Alternatives and Design Options

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

Alternative WSJ-1 would be elevated along the south side of Southwest Genesee Street between 31st Avenue Southwest and Fauntleroy Way Southwest. The height of the guideway would range between approximately 30 feet and 80 feet high. The alternative would turn southwest to the west side of Fauntleroy Way Southwest. The guideway would turn south in the vicinity of 41st Avenue Southwest and Southwest Alaska Street and continue south to Southwest Hudson Street. The guideway would end on the west side of 42nd Avenue Southwest and would include tail tracks south of the Alaska Junction Station. Stations would be located as follows:

- **Avalon Station:** Avalon Station would be elevated along the south side of Southwest Genesee Street, east of 35th Avenue Southwest. The top of the station structure would depend on which alternative it connects with in the Delridge Segment but would be approximately 70 to 80 feet high.
- **Alaska Junction:** The Alaska Junction Station would be elevated between 41st Avenue Southwest and 42nd Avenue Southwest, south of Southwest Alaska Street. The top of the station structure would depend on which alternative it connects with in the Delridge Segment but would be approximately 70 to 80 feet high.

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

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 the guideway would range between approximately 30 feet and 70 feet high.

The alignment would head southwest on Fauntleroy Way Southwest and continue along the west side of Fauntleroy Way Southwest. The guideway would cross to the east side of Fauntleroy Way Southwest south of Southwest Oregon Street.

Elevated tail tracks would begin south of the Alaska Junction Station and end within the Fauntleroy Way Southwest right-of-way just past Southwest Edmunds Street. Stations would be located as follows:

- **Avalon Station:** Avalon Station would be elevated along the south side of Southwest Genesee Street and east of 35th Avenue Southwest. The top of the station structure would depend on which alternative it connects with in the Delridge Segment, but it would be approximately 60 to 70 feet high.
- **Alaska Junction Station:** This station would be elevated southeast of Fauntleroy Way Southwest straddling Southwest Alaska Street. The top of the station structure would be approximately 60 feet high.

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

Alternative WSJ-3a would be in a tunnel under Southwest Genesee Street heading west from 31st Avenue Southwest, then curve to the southwest between 37th Avenue Southwest and 41st Avenue Southwest. The tunnel would end in the vicinity of Southwest Hudson Street, with tail tracks in a north-south orientation under 41st Avenue Southwest. The guideway would be entirely in a tunnel. Stations would be located as follows:



- **Avalon Station:** The Avalon Station would be beneath Fauntleroy Way Southwest. Station entrances would be on the west side of Fauntleroy Way Southwest and on the east side of 35th Avenue Southwest.
- **Alaska Junction Station:** The Alaska Junction Station would be beneath 41st Avenue Southwest and Southwest Alaska Street. Station entrances would be on either side of Southwest Alaska Street along the east side of 41st Avenue Southwest.

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

Option WSJ-3b would be the same as Alternative WSJ-3a except the tunnel would extend to 42nd Avenue Southwest instead of 41st Avenue Southwest. The tunnel would end in the vicinity of Southwest Hudson Street, with tail tracks in a north-south orientation under 42nd Avenue Southwest. The Avalon Station would be the same as described for Alternative WSJ-3a. The Alaska Junction Station would be in a tunnel beneath 42nd Avenue Southwest and Southwest Alaska Street. Station entrances would be on either side of Southwest Alaska Street, with one on the east side and one on the west side of 42nd Avenue Southwest.

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

Alternative WSJ-4 would be on elevated guideway along the south side of Southwest Genesee Street from 31st Avenue Southwest to the west side of Fauntleroy Way Southwest. It would continue along the west side of Fauntleroy Way Southwest on elevated guideway before transitioning to at-grade near 37th Avenue Southwest. 37th Avenue Southwest and 38th Avenue Southwest would be modified to end in a turnaround between Southwest Genesee Street and Fauntleroy Way Southwest. The guideway would turn west near Southwest Oregon Street and transition into a tunnel with a portal in the vicinity of Southwest Oregon Street and 38th Avenue Southwest. The tunnel would turn south and end south of Southwest Hudson Street, with tail tracks in a north-south orientation along and under 41st Avenue Southwest. The height of the guideway would range between a tunnel and approximately 40 feet high. Stations would be located as follows:

- **Avalon Station:** Avalon Station would be elevated along the south side of Southwest Genesee Street and east of 35th Avenue Southwest. The top of the station structure would be approximately 60 to 70 feet high.
- **Alaska Junction Station:** The Alaska Junction Station would be in a tunnel beneath 41st Avenue Southwest and south of Southwest Alaska Street. Station entrances would be on Southwest Alaska Street and Southwest Edmunds Street.

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

Alternative WSJ-5a (previously Alternative WSJ-5 in the WSBLE Draft EIS) begins in a retained cut south of Southwest Yancy Street and follows the east side of the West Seattle Bridge connection to Fauntleroy Way Southwest. Southwest Genesee Street would be permanently closed approaching 35th Avenue Southwest. This alignment enters a tunnel at Southwest Genesee Street and 37th Avenue Southwest. The alignment then curves southwest west of 37th Avenue Southwest to 41st Avenue Southwest. It terminates at Southwest Hudson Street, with tail tracks in a north-south orientation under 41st Avenue Southwest. Stations would be located as follows:

- **Avalon Station:** Avalon Station would be in a lidded retained cut south of Southwest Genesee Street beneath 35th Avenue Southwest, with the top of the station structure approximately 30 feet above the existing ground surface. Station entrances would be on either side of 35th Avenue Southwest.

- **Alaska Junction Station:** The Alaska Junction Station would be in a tunnel beneath 41st Avenue Southwest and Southwest Alaska Street. Station entrances would be on either side of Southwest Alaska Street along the east side of 41st Avenue Southwest.

### ***No Avalon Station Tunnel Alternative (WSJ-6)***

Alternative WSJ-6 is included at the direction of the Sound Transit Board (Motion 2022-57) to study elimination of the Avalon Station as a cost-savings measure. Alternative WSJ-6 would continue in a tunnel from where it would connect to Alternative DEL-7 in the Delridge Segment at 35th Avenue Southwest between Southwest Andover Street and Southwest Dakota Street. The tunnel would curve southwest to 41st Avenue Southwest. It would terminate at Southwest Hudson Street, with tail tracks in a north-south orientation under 41st Avenue Southwest. The guideway would be entirely in a tunnel. This alternative does not include an Avalon Station. The station would be located as follows:

- **Alaska Junction Station:** The Alaska Junction Station would be same as the station described for Alternative WSJ-5a.

## **2.4 Study Area**

The study area for the Section 4(f) evaluation, shown on Figure 2-3, includes both the direct impact study area used for the parks and recreational resources analysis, which is 250 feet around the alternatives, construction staging areas, and ancillary facilities, and the area of potential effects for historic and archaeological resources, which was established in accordance with Section 106 of the National Historic Preservation Act. The State Historic Preservation Officer concurred with FTA's area of potential effects for the WSBLE Project in February 2020. On March 25, 2021, FTA, in cooperation with Sound Transit, defined a revised area of potential effects that includes proposed station locations, staging areas, and other project elements that had not previously been identified; the State Historic Preservation Officer concurred with the revised area of potential effects on March 26, 2021. Since then, Sound Transit identified new construction elements that required additional revisions to the area of potential effects. On September 7, 2021, FTA, in consultation with the State Historic Preservation Officer defined the area of potential effects based on these additional revisions. On October 5, 2021, the State Historic Preservation Officer conditionally concurred with FTA's revised area of potential effects.

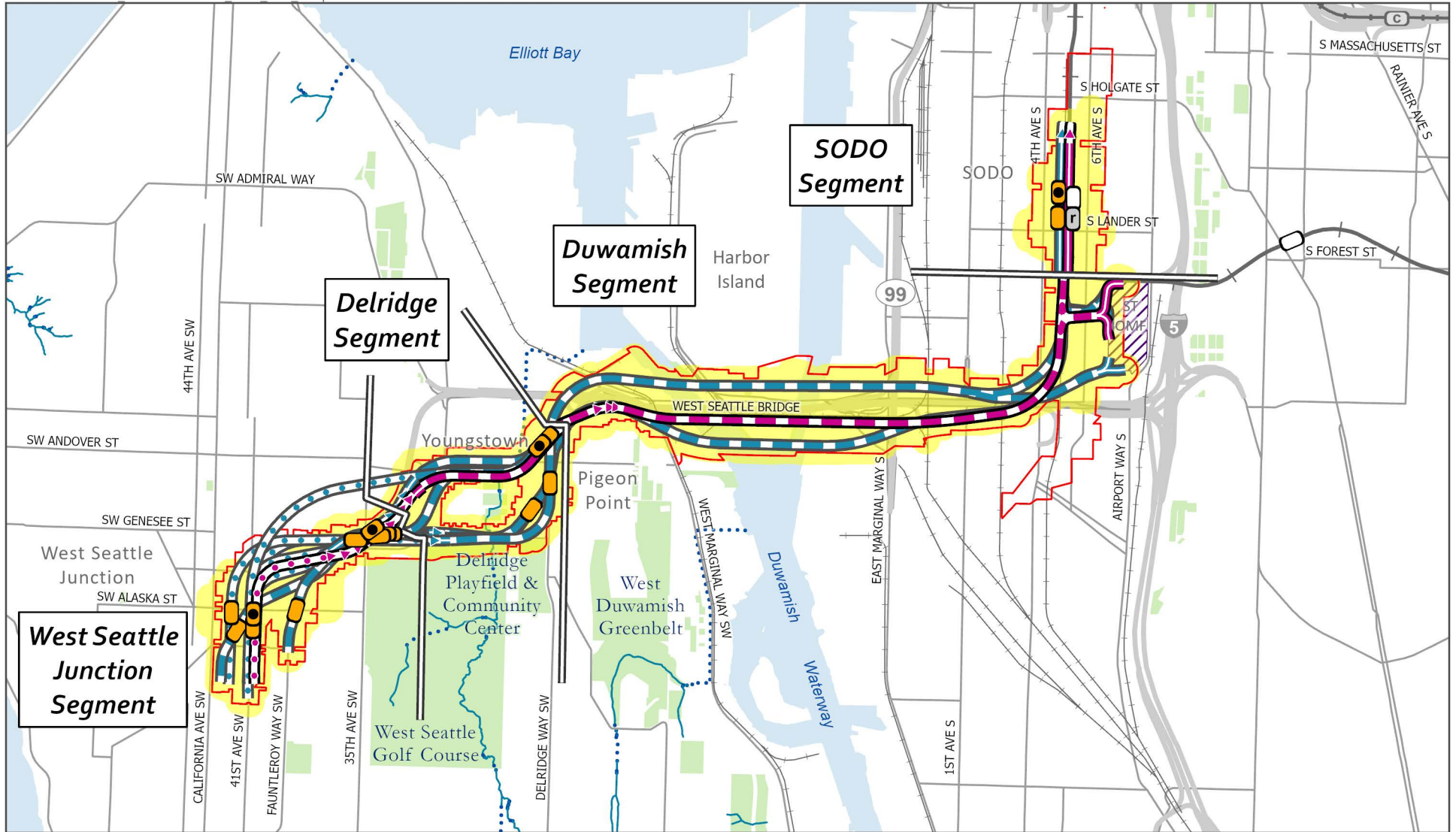
Subsequently, the State Historic Preservation Officer, FTA, and Sound Transit met on November 18, 2021, to discuss conditional concurrence and area of potential effects concerns voiced by consulting parties and the State Historic Preservation Officer. FTA and Sound Transit consulted with the State Historic Preservation Officer and other consulting parties on the area of potential effects to address specific concerns regarding historic districts and individual resources. On August 3, 2023, FTA and Sound Transit continued to consult with the State Historic Preservation Officer, Tribes, and consulting parties to solicit feedback on the revised area of potential effects. This consultation included removing the portion of the area of potential effects associated with the Ballard Link Extension and also incorporated areas where new design elements had been identified for the West Seattle Link Extension. The State Historic Preservation Officer concurred with this area of potential effect definition on August 14, 2023.

The area of potential effects to historic and archaeological resources for each alternative extends from elements of the project alternatives (e.g., guideway, stations, and construction staging areas) to the nearest tax parcel or a maximum of 200 feet where large tax parcels are adjacent to project elements. One parcel is a standard area of potential effect extent for linear transportation projects because potential direct and indirect effects to historic properties typically

do not extend beyond one parcel. The area of potential effects is larger in the following areas to account for potential visual effects:

- SODO Segment: The area of potential effects is extended one additional parcel from the guideway where project alternatives would reconstruct South Lander Street to cross over the existing and new light rail alignments.
- Delridge Segment: On Southwest Genesee Street between 26th Avenue Southwest and 30th Avenue Southwest, the high guideway height of alternatives extends the area of potential effects to two parcels to the north of Southwest Genesee Street.





Source: City of Seattle, King County (2023).

#### Preferred Alternative

- Elevated
- At-Grade
- Tunnel
- Retained Cut

#### Other Alternatives

- Elevated
- At-Grade
- Tunnel
- Retained Cut

**Station** (● Indicates Preferred Alternative)

- New
- Relocated
- Existing

Segment Line

Sound Transit Operations and Maintenance Facility (ST OMF)

Existing Link Light Rail

East Link Light Rail (Under Construction)

Railroad

Stream

Piped Stream

Park

Area of Potential Effects

Parks Study Area

**FIGURE 2-3**  
**West Seattle Link Extension**  
**Section 4(f) Study Area**

*West Seattle Link Extension*



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## 3 DESCRIPTION OF SECTION 4(f) RESOURCES AND ASSESSMENT OF POTENTIAL USES

### 3.1 Section 4(f) Resources in the Study Area

The Section 4(f) resources in the project study area are mapped on Figures 3-1a through 3-1h. Attachment H.1, Section 4(f) Status of Parks and Recreational Resources in the Study Area, lists the parks and recreational facilities in the study area and whether they are considered Section 4(f) resources and why (or why not). More information about the parks and recreational resources in the study area can be found in Section 4.17, Parks and Recreational Resources, of the Final EIS. More information about historic and archaeological resources can be found in Section 4.16, Historic and Archaeological Resources, and Appendix N.5, Historic and Archaeological Resources Technical Report, of the Final EIS. Historic properties included in this evaluation reflect FTA's determinations of eligibility (September 3, 2021); the State Historic Preservation Officer concurred on eligibility for all historic properties in the area of potential effects on April 16, 2024. The official with jurisdiction for each Section 4(f) park and recreational resource is the resource owner identified in the parks and recreational resources tables in this section; the official with jurisdiction for Section 4(f) historic resources is the State Historic Preservation Officer. For individual properties that are eligible for Section 4(f) protection as both a park resource and a historic resource, Sound Transit has consulted with the resource's official with jurisdiction as well as the State Historic Preservation Officer.

There are five trails in the project study area that are used by both commuters and recreationists:

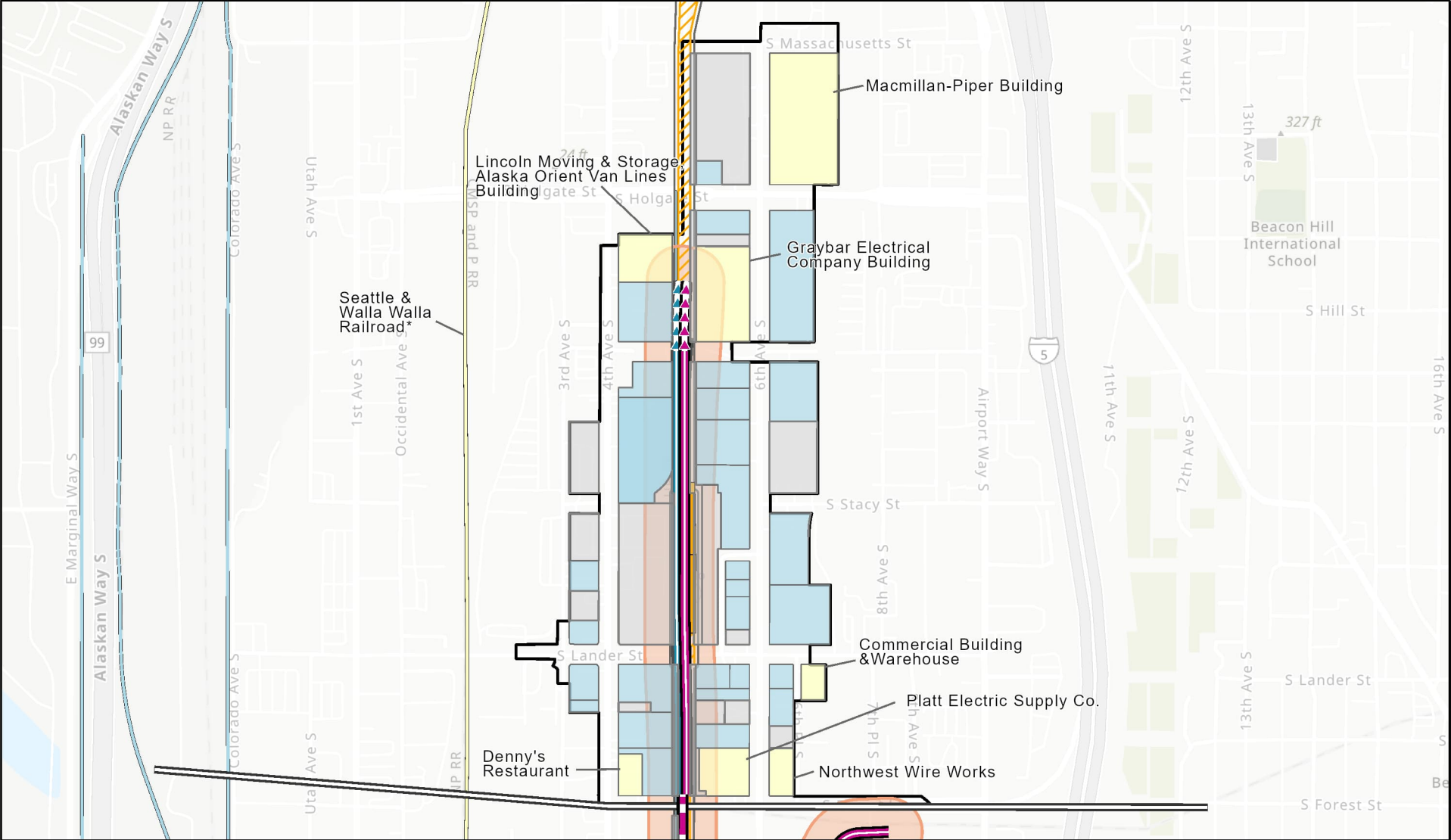
- SODO Trail
- West Seattle Bridge Trail
- Duwamish Trail
- Delridge Connector Trail
- Alki Trail

However, FTA has determined that these trails are part of the transportation system and function primarily for transportation based on the Seattle Department of Transportation's inclusion of these trails in its Bicycle Master Plan (City of Seattle 2014). These multi-use, paved trails are entirely or mostly within public right-of-way, and are part of the existing bicycle network, which is considered an extension of the city's transportation network by the City of Seattle. Therefore, these trails are not subject to Section 4(f) protection in accordance with 23 Code of Federal Regulations Section 774.13.f.4. Potential impacts to these trails under the National Environmental Policy Act are discussed in Section 3.7, Affected Environment and Impacts during Operation – Non-motorized Facilities, in Chapter 3, Transportation Environment and Consequences, of the Final EIS.

#### National Register Eligibility Criteria

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of persons significant in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That have yielded, or may be likely to yield, information important in prehistory or history.



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

**Preferred Alternative**

- Elevated
- At-Grade
- Tunnel
- Retained Cut

**Other Alternatives**

- Elevated
- At-Grade
- Tunnel
- Retained Cut

**Station**

- New

**Segment Line**

- Area of Potential Effects
- Parcel

**Park**

- SODO Busway

- Section 4(f) Parks and Recreation Facilities Study Area

**National Register Eligibility Status**

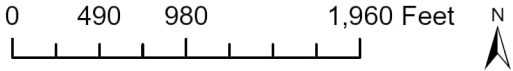
- Eligible
- Not Eligible
- Constructed after 1980 or Undeveloped

**\* Linear Resources:**

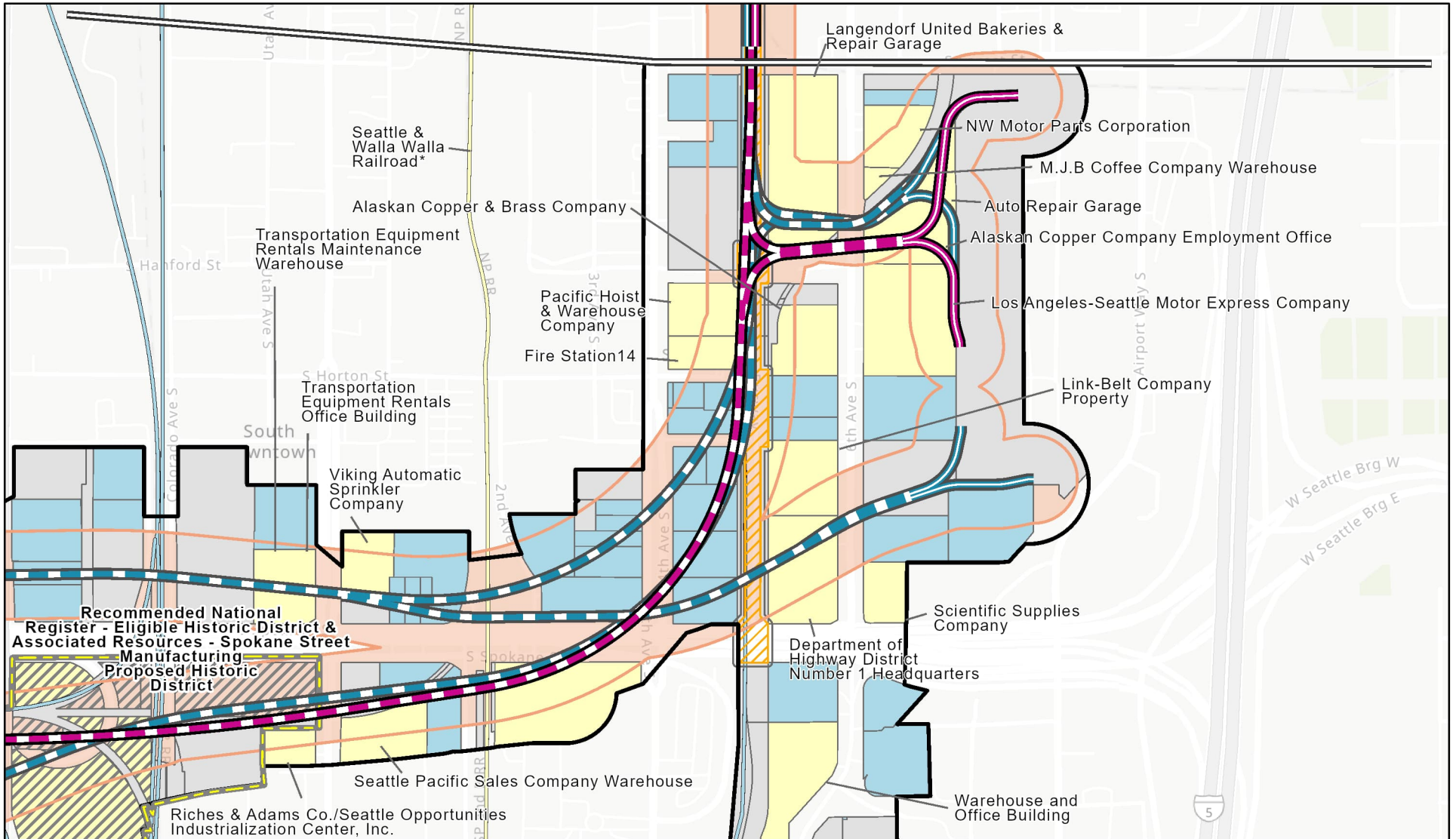
Seattle and Walla Walla Railroad/Puget Sound Shore Railroad Company/Seattle, Lake Shore and Eastern Railroad/North Pacific Railway Black River Junction to the Lake Washington Ship Canal

**FIGURE 3-1a**  
**Section 4(f) Resources**  
**West Seattle Link Extension -**  
**SODO Segment**

*West Seattle Link Extension*







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

FIGURE 3-1b  
Section 4(f) Resources  
West Seattle Link Extension -  
Duwamish Segment (East)

- Preferred Alternative**
- Elevated
  - At-Grade
  - Tunnel
  - Retained Cut
- Other Alternatives**
- Elevated
  - At-Grade
  - Tunnel
  - Retained Cut
- Station**
- New
- Segment Line**
- Segment Line
  - Area of Potential Effects
  - Parcel
  - Park
  - SODO Busway
  - Section 4(f) Parks and Recreation Facilities Study Area

**National Register Eligibility Status**

- Eligible
- Not Eligible
- Constructed after 1980 or Undeveloped
- Eligible Historic District Boundary
- Eligible and Contributing Resources
- Contributing Resources

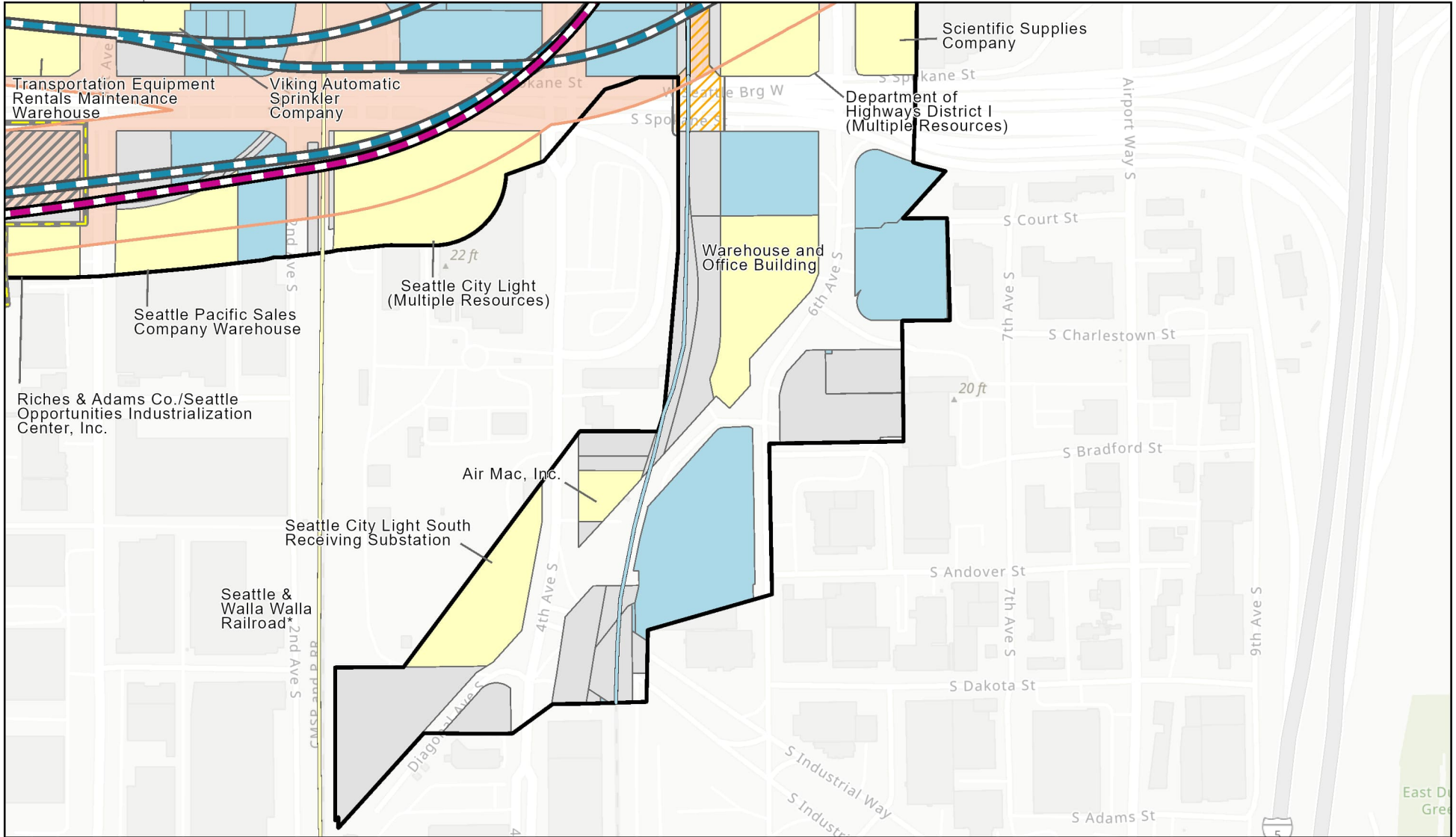
\* Linear Resources:

Seattle and Walla Walla Railroad/Puget Sound Shore Railroad Company/Seattle, Lake Shore and Eastern Railroad/North Pacific Railway Black River Junction to the Lake Washington Ship Canal

0 375 750 1,500 Feet



West Seattle Link Extension



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

#### Preferred Alternative

- Elevated
- At-Grade
- Tunnel
- Retained Cut

#### Other Alternatives

- Elevated
- At-Grade
- Tunnel
- Retained Cut

#### Station

- New

#### Segment Line

- Area of Potential Effects
- Parcel
- Park
- SODO Busway

- Section 4(f) Parks and Recreation Facilities Study Area

#### National Register Eligibility Status

- Eligible
- Not Eligible
- Constructed after 1980 or Undeveloped
- Eligible Historic District Boundary
- Contributing Resources

\* Linear Resources:

Seattle and Walla Walla Railroad/Puget Sound Shore Railroad Company/Seattle, Lake Shore and Eastern Railroad/North Pacific Railway Black River Junction to the Lake Washington Ship Canal

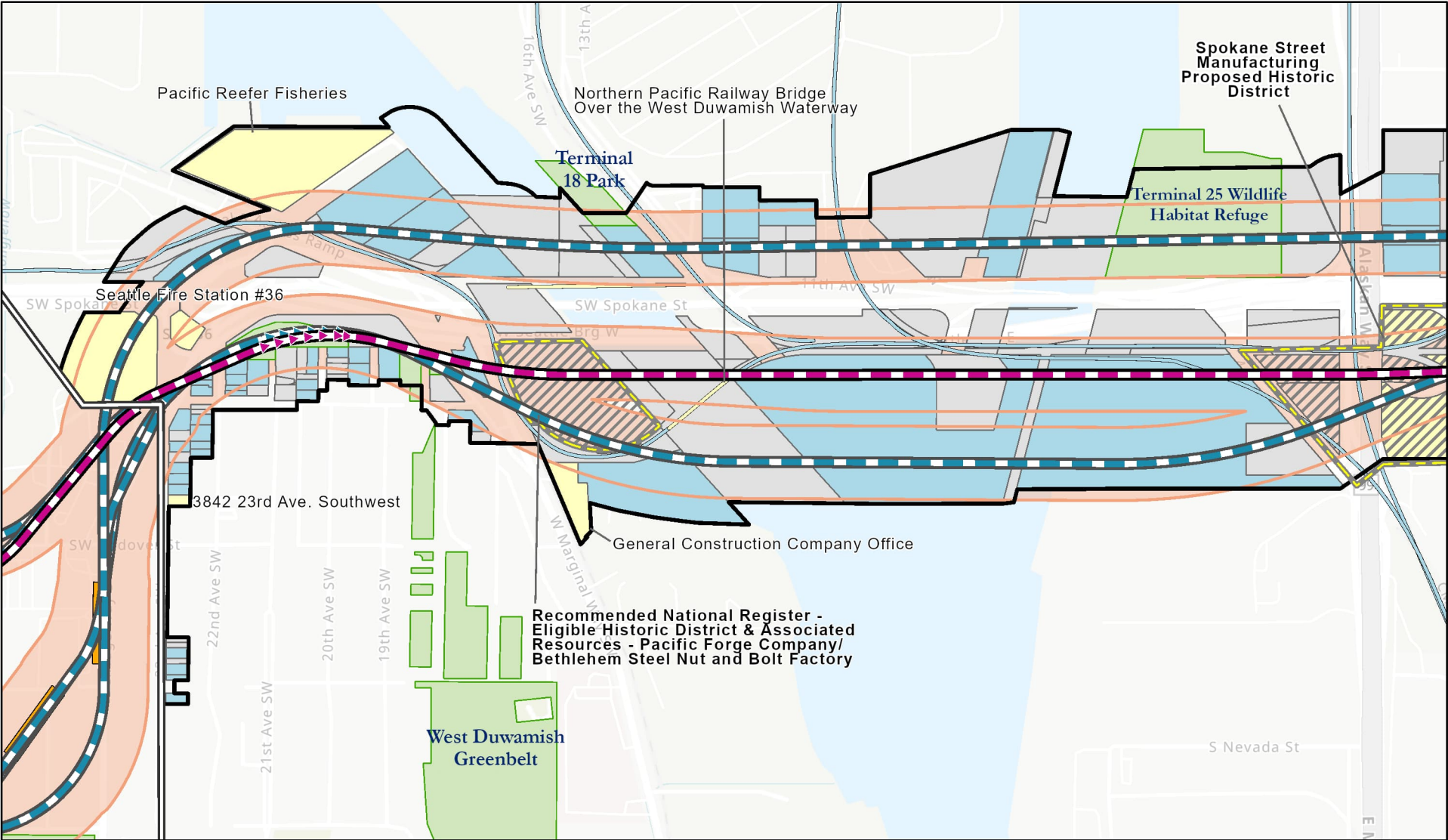
FIGURE 3-1c

### Section 4(f) Resources West Seattle Link Extension - Duwamish Segment (Central)

West Seattle Link Extension







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

**Preferred Alternative**

- Elevated
- At-Grade
- Tunnel
- Retained Cut

**Other Alternatives**

- Elevated
- At-Grade
- Tunnel
- Retained Cut

**Station**

- New

**Segment Line**

- Area of Potential Effects
- Parcel

**Park**

- Section 4(f) Parks and Recreation Facilities Study Area

**National Register Eligibility Status**

- Eligible
- Not Eligible
- Constructed after 1980 or Vacant
- Eligible Historic District Boundary
- Eligible and Contributing Resources
- Contributing Resources

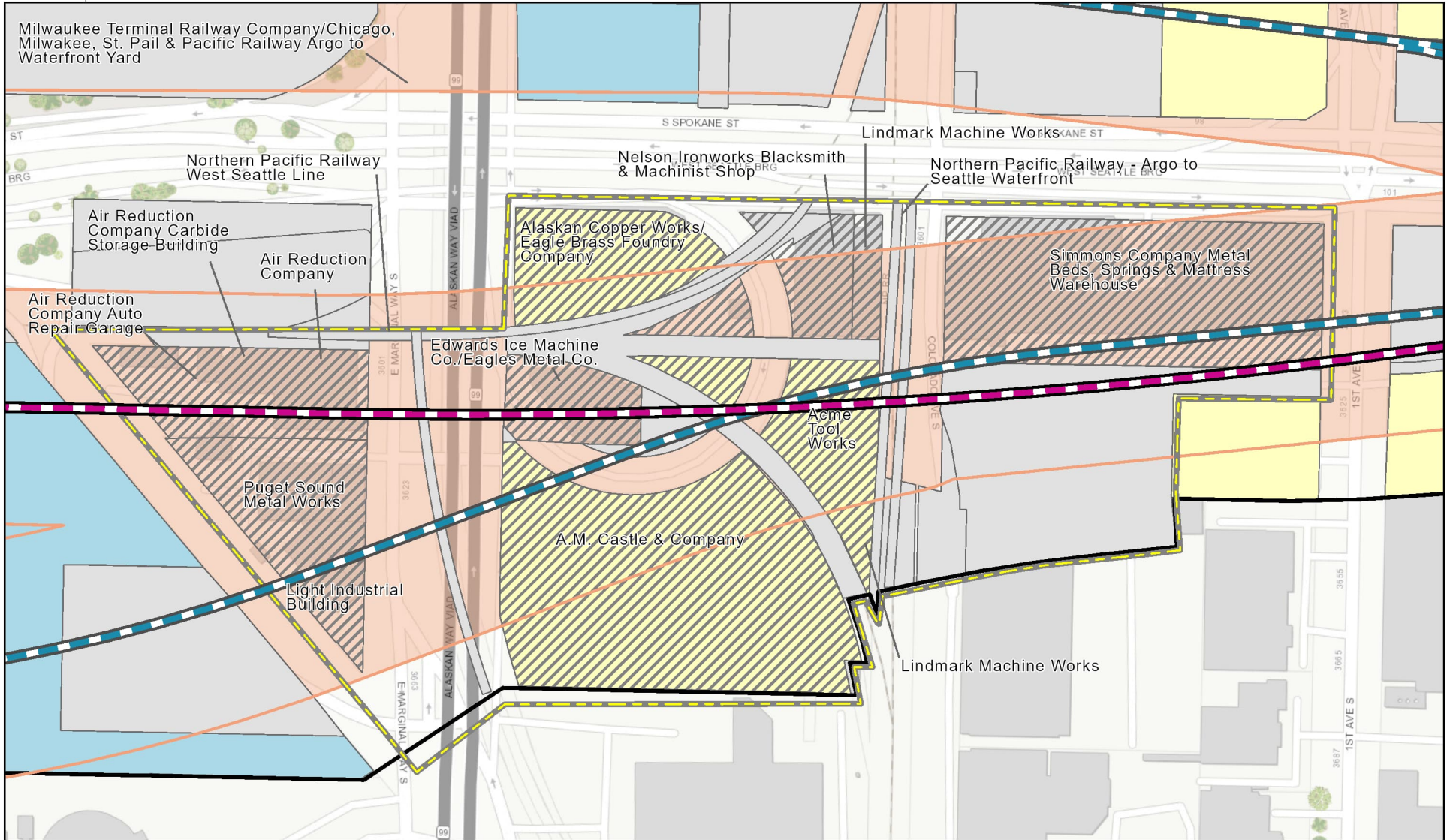
\* Linear Resources:

Seattle and Walla Walla Railroad/Puget Sound Shore Railroad Company/Seattle, Lake Shore and Eastern Railroad/North Pacific Railway Black River Junction to the Lake Washington Ship Canal

**FIGURE 3-1d**  
**Section 4(f) Resources**  
West Seattle Link Extension - Duwamish Segment (West)

West Seattle Link Extension





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

#### Preferred Alternative

- Elevated
- At-Grade
- Tunnel
- Retained Cut

#### Other Alternatives

- Elevated
- At-Grade
- Tunnel
- Retained Cut

#### Station

- New

#### Segment Line

- Area of Potential Effects
- Parcel
- Park
- Section 4(f) Parks and Recreation Facilities Study Area

#### National Register Eligibility Status

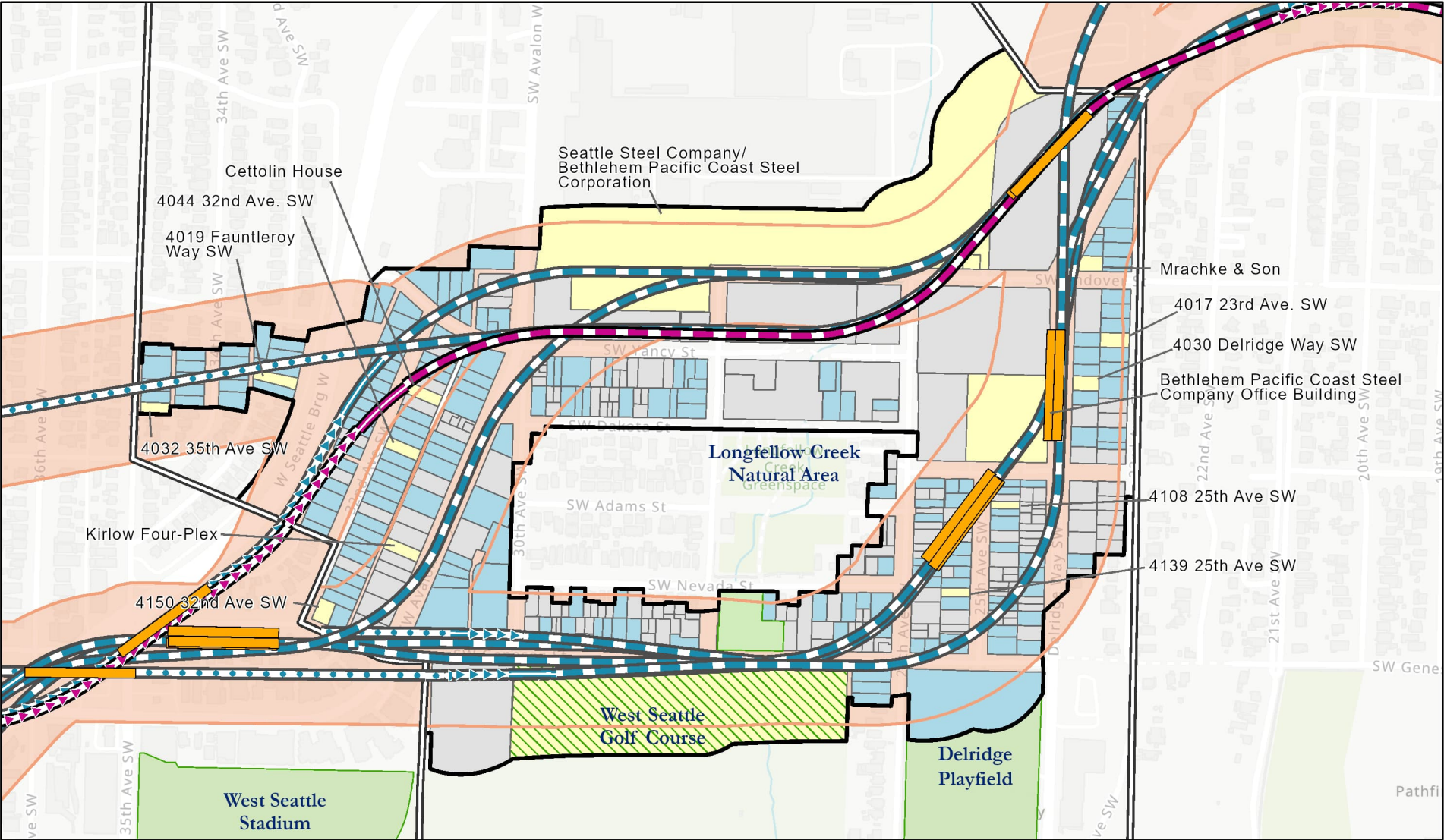
- Eligible
- Not Eligible
- Contributing after 1980 or Vacant
- Spokane Street Manufacturing Historic District Boundary
- Eligible and Contributing Resources
- Contributing Resources

**FIGURE 3-1e**  
**Section 4(f) Resources**  
West Seattle Link Extension -  
Spokane Street Manufacturing  
Proposed Historic District

West Seattle Link Extension



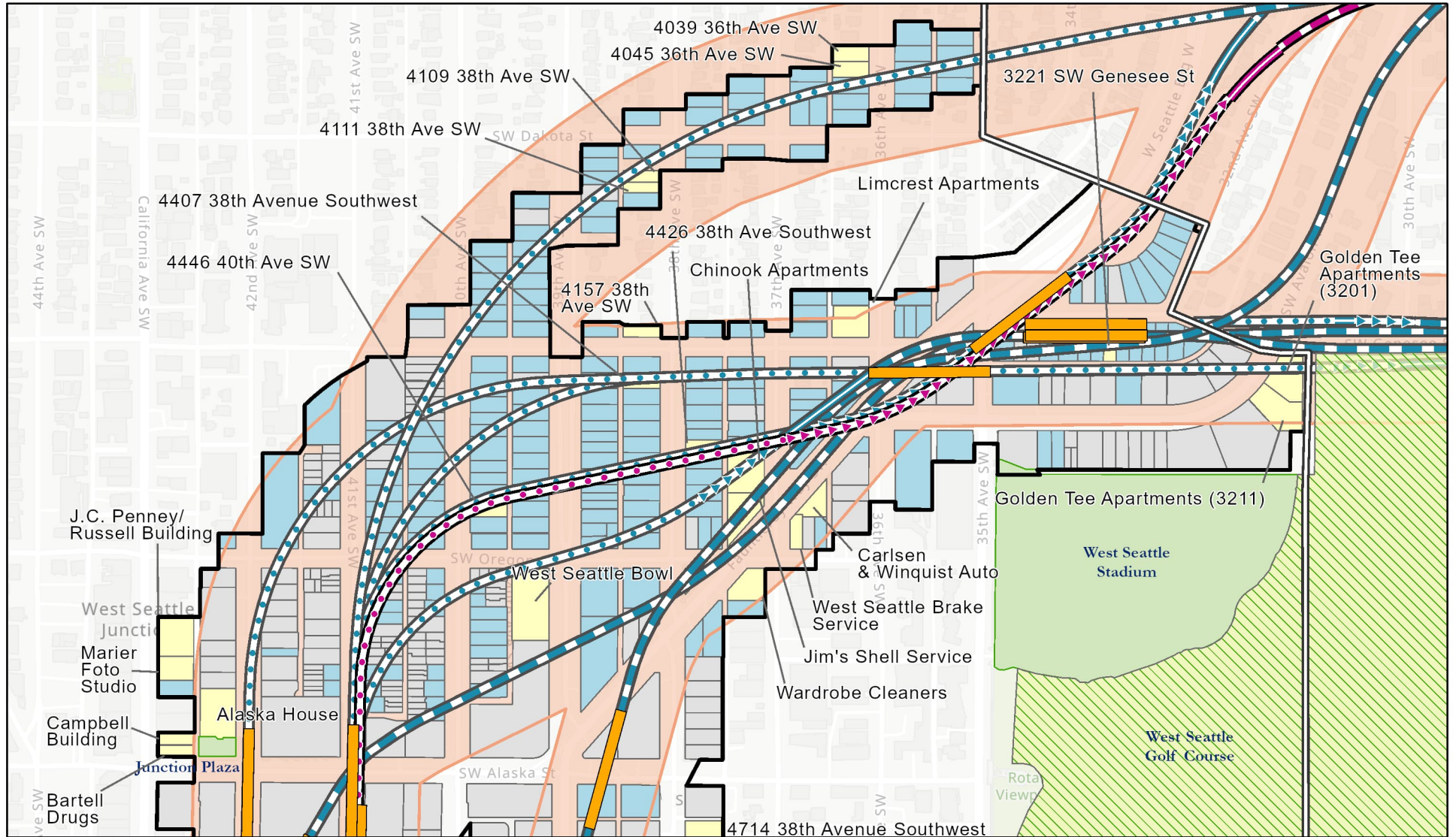




Source: City of Seattle, King County (2019, 2020, 2021).







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

#### Preferred Alternative

- Elevated
- - - At-Grade
- ... Tunnel
- - - Retained Cut

#### Other Alternatives

- Elevated
- - - At-Grade
- ... Tunnel
- - - Retained Cut

#### Station

- New

#### Segment Line

- Area of Potential Effects
- Parcel
- Park
- Section 4(f) Parks and Recreation Facilities Study Area

#### National Register Eligibility Status

- Eligible
- Eligible Park
- Not Eligible
- Constructed after 1980 or Vacant

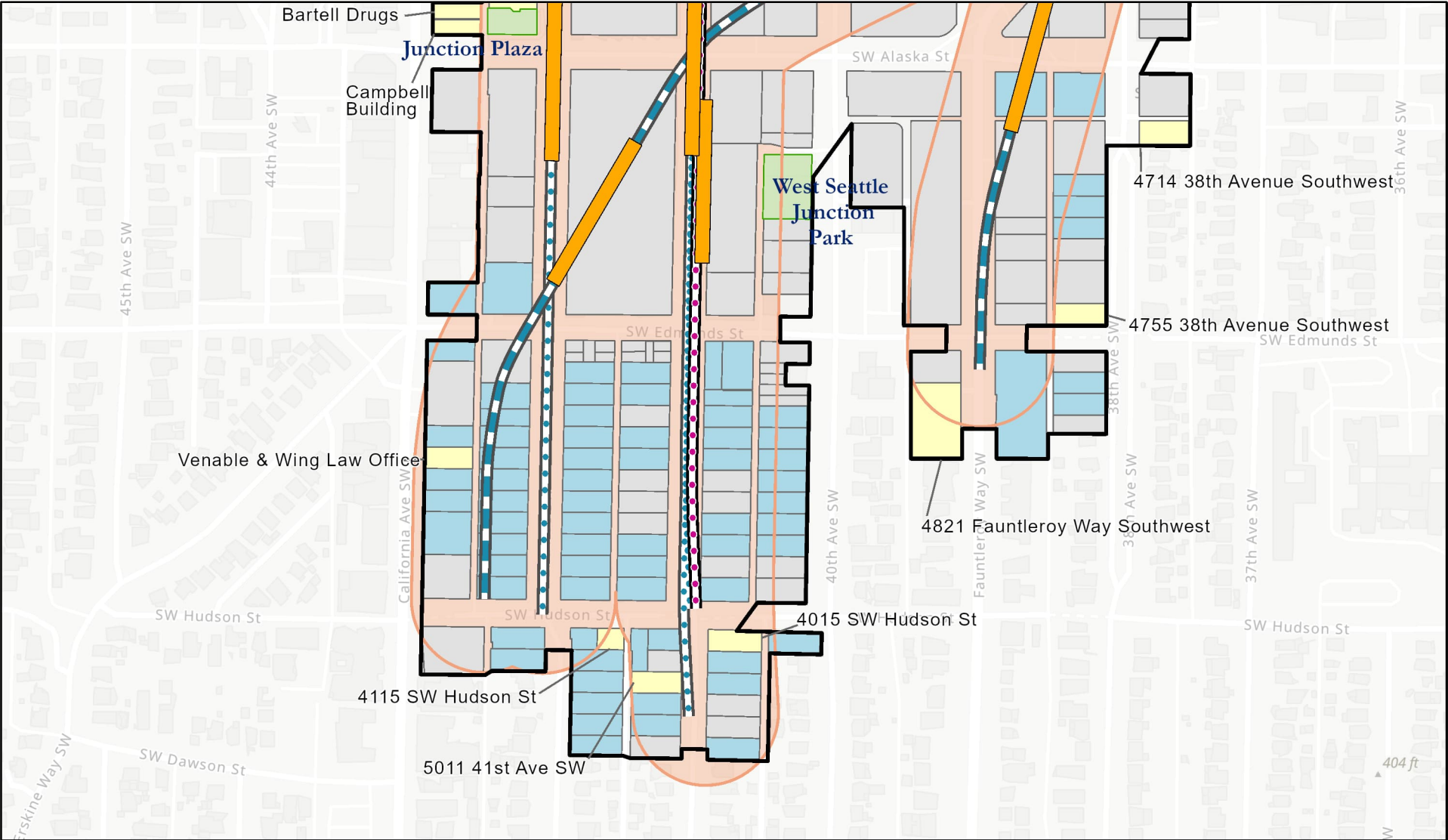
FIGURE 3-1g

### Section 4(f) Resources West Seattle Link Extension - West Seattle Junction Segment (North)

West Seattle Link Extension

0 250 500 1,000 Feet





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

**Preferred Alternative**

- Elevated
- At-Grade
- Tunnel
- Retained Cut

**Other Alternatives**

- Elevated
- At-Grade
- Tunnel
- Retained Cut

**Station**

- New

**Segment Line**

- Area of Potential Effects
- Parcel

**Park**

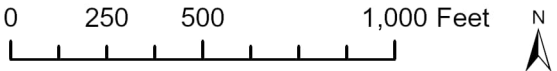
- Section 4(f) Parks and Recreation Facilities Study Area

**National Register Eligibility Status**

- Eligible
- Not Eligible
- Constructed after 1980 or Vacant

**FIGURE 3-1h**  
**Section 4(f) Resources**  
West Seattle Link Extension -  
West Seattle Junction Segment (South)

West Seattle Link Extension



### 3.1.1 SODO Segment

#### 3.1.1.1 Parks/Recreational Resources and Wildlife/Waterfowl Refuges

There are no Section 4(f) parks and recreational resources in the SODO Segment.

#### 3.1.1.2 Historic Resources

Section 4(f) historic resources in the SODO Segment are described in Table 3-1.

**Table 3-1. Section 4(f) Historic Resources in the SODO Segment**

Property	Address	Built Date	National Register Eligibility Status	Figure
Lincoln Moving & Storage, Alaska Orient Van Lines Building	1924 4th Avenue South	1966	Eligible (Criterion C)	3-1a
Denny's	2742 4th Avenue South	1968	Eligible (Criterion C)	3-1a
Graybar Electric Company Building	1919 6th Avenue South	1960	Eligible (Criterion C)	3-1a
Platt Electric Supply Co.	2757 6th Avenue South	1970	Eligible (Criterion C)	3-1a
Holgate Terminals Incorporated	1762 6th Avenue South	1960	Eligible (Criterion C)	3-1a
Mill & Mine Supply Co. Building and Warehouse	625 South Lander Street	1953	Eligible (Criteria A and C)	3-1a
Northwest Wire Works	2752 6th Avenue South	1947	Eligible (Criteria A and C)	3-1a

Note: Property names correspond with the resource names documented on the Historic Property Inventory forms on WISAARD. Property names typically reflect historic names of businesses or individuals that occupied the building in the past.

### 3.1.2 Duwamish Segment

#### 3.1.2.1 Parks/Recreational Resources and Wildlife/Waterfowl Refuges

Section 4(f) parks and recreational resources in the Duwamish Segment are described in Table 3-2.

**Table 3-2. Section 4(f) Parks/Recreational Resources and Wildlife/Waterfowl Refuges in the Duwamish Segment**

Resource Name	Official with Jurisdiction	Location	Resource Activities, Features, and Attributes	Figure
Terminal 25 Wildlife Habitat Refuge	Port of Seattle	2917 East Marginal Way South (north of South Spokane Street)	Approximately 10-acre planned wildlife habitat refuge (anticipated to be constructed in 2027).	3-1c
Terminal 18 Park	Port of Seattle	3401 Klickitat Avenue Southwest	A 1.1-acre shoreline park with a walking path, picnic table, and benches.	3-1c
West Duwamish Greenbelt	Seattle Parks and Recreation	West Marginal Way Southwest and Highland Park Way Southwest	A 197-acre urban forest comprised of multiple parcels that contain trails for walking and hiking and wildlife habitat. This area of the greenbelt in the study area has a steep grade and does not contain any recreational amenities nor is it designed for public access.	3-1c



### 3.1.2.2 Historic Resources

Section 4(f) historic resources in the Duwamish Segment are described in Table 3-3.

**Table 3-3. Section 4(f) Historic Resources in the Duwamish Segment**

Property	Address	Built Date	National Register Eligibility Status	Figure
Seattle Pacific Sales Company Warehouse	3800 1st Avenue South	1968	Eligible (Criterion C)	3-1b and 3-1c
Alaskan Copper and Brass Company	3223 6th Avenue South	1950	Eligible (Criteria A and C)	3-1b
Alaskan Copper Company Employment Office	2958 6th Avenue South	1941	Eligible (Criterion C)	3-1b
Auto Repair Garage	2958 6th Avenue South	1948	Eligible (Criterion A)	3-1b
Los Angeles-Seattle Motor Express Company	3200 6th Avenue South	1945	Eligible (Criteria A and C)	3-1b
Department of Highways District No. 1 Headquarters/Maintenance Facility - Car/Paint Building	450 South Spokane Street	1931	Previously Determined Eligible (Criteria A and C)	3-1b and 3-1c
Department of Highways District No. 1 Headquarters/Maintenance Facility - Maintenance Building	450 South Spokane Street	1931	Previously Determined Eligible (Criteria A and C)	3-1b and 3-1c
Department of Highways District No. 1 Headquarters/Maintenance Facility – Maintenance/Garage Building	450 South Spokane Street	1959	Previously Determined Eligible (Criteria A and C)	3-1b and 3-1c
Department of Highways District No. 1 Headquarters/Maintenance Facility - Office/Administrative Building	450 South Spokane Street	1931	Previously Determined Eligible (Criteria A and C)	3-1b and 3-1c
Department of Highways District No. 1 Headquarters/Maintenance Facility - Storage Building	450 South Spokane Street	1931	Previously Determined Eligible (Criteria A and C)	3-1b and 3-1c
Transportation Equipment Rentals Office Building	3443 1st Avenue South	1968	Eligible (Criterion C)	3-1b and 3-1c
Transportation Equipment Rentals Maintenance Warehouse	3443 1st Avenue South	1968	Eligible (Criterion C)	3-1b and 3-1c
Fire Station 14	3224 4th Avenue South	1922	Previously Determined Eligible; Designated Seattle Landmark	3-1b
Langendorf United Bakeries	2901 6th Avenue South	1952	Eligible (Criteria A and C)	3-1b
Langendorf United Bakeries Repair Garage	2901 6th Avenue South	1955	Eligible (Criteria A and C)	3-1b

Property	Address	Built Date	National Register Eligibility Status	Figure
Link-Belt Company Property	3405 6th Avenue South	1946	Eligible (Criterion C)	3-1b
NW Motor Parts Corporation Building	2930 6th Avenue South	1951	Eligible (Criterion C)	3-1b
M.J.B. Coffee Company Warehouse	2940 6th Avenue South	1954	Eligible (Criteria A and C)	3-1b
Pacific Hoist and Warehouse Company	3200 4th Avenue South	1931	Eligible (Criterion C)	3-1b
Riches and Adams Co./Seattle Opportunities Industrialization Center, Inc.	3627 1st Avenue South	1954	Eligible (Criterion A)	3-1b
Seattle and Walla Walla Railroad/Puget Sound Shore Railroad Company/Seattle, Lake Shore and Eastern Railroad/Northern Pacific Railway Black River Junction to the Lake Washington Ship Canal	Railroad right-of-way from Black River Junction near Renton to Lake Washington Ship Canal in Interbay	1883	Previously Determined Eligible (Criterion A)	3-1b
Scientific Supplies Company	600 South Spokane Street	1954	Eligible (Criterion C)	3-1b and 3-1c
Viking Automatic Sprinkler Company	3434 1st Avenue South	1964	Eligible (Criteria A and C)	3-1b and 3-1c
Warehouse and Office Building	3623 6th Avenue South	1961	Eligible (Criterion C)	3-1b and 3-1c
Air Mac, Inc.	3838 4th Avenue South	1953	Eligible (Criterion C)	3-1c
Seattle City Light South Receiving Substation	3839 4th Avenue South	1938	Eligible (Criteria A and C)	3-1b and 3-1c
Seattle City Light South Receiving Substation Switchyard	3839 4th Avenue South	1924	Eligible (Criterion A)	3-1b and 3-1c
Seattle City Light Warehouse and Office Building	400 South Spokane Street	1965	Eligible (Criterion A and C)	3-1b and 3-1c
Seattle City Light South Rectifier Substation	400 South Spokane Street	1952	Eligible (Criteria A and C)	3-1b and 3-1c
General Construction Company Office	3840 West Marginal Way Southwest	1931	Eligible (Criteria A and C)	3-1d
Northern Pacific Railway Bridge over the West Duwamish Waterway	South of Spokane Street, near Klickitat Way Southwest	1911	Eligible (Criterion C); Designated Seattle Landmark	3-1d
Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory East Warehouse	3800 West Marginal Way Southwest	1968	Contributes to eligible Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory historic district (Criteria A and C)	3-1d
Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District	3800 West Marginal Way Southwest	1917 to 1968	Eligible Historic District (Criteria A and C)	3-1d

Property	Address	Built Date	National Register Eligibility Status	Figure
Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic Office	3800 West Marginal Way Southwest	1968	Contributes to eligible Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory historic district (Criteria A and C)	3-1d
Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory North Warehouse	3800 West Marginal Way Southwest	1968	Contributes to eligible Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory historic district (Criteria A and C)	3-1d
Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Pacific Coast Forge Building	3800 West Marginal Way Southwest	1917	Contributes to eligible Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory historic district (Criteria A and C)	3-1d
Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory South Warehouse	3800 West Marginal Way Southwest	1948	Contributes to eligible Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory historic district (Criteria A and C)	3-1d
Seattle Fire Station 36	3600 23rd Avenue Southwest	1972	Eligible (Criteria A and C)	3-1d
Single-Family Residence	3842 23rd Avenue Southwest	1914	Eligible (Criterion C)	3-1d
Spokane Street Manufacturing Historic District	Multiple	1918-1968	Eligible Historic District (Criterion A)	3-1b, 3-1c, and 3-1e
Edwards Ice Machine Co./Eagle Metals Co.	3628 East Marginal Way South	1924	Contributes to Spokane Street Manufacturing Historic District (Criterion A)	3-1e
The Simmons Company Metal Beds, Springs & Mattress Warehouse	99 South Spokane Street	1929	Contributes to eligible Spokane Street Manufacturing Historic District (Criterion A)	3-1e
Nelson Iron Works Blacksmith & Machinist Shop	45 South Spokane Street	1918	Contributes to eligible Spokane Street Manufacturing Historic District (Criterion A)	3-1e
Acme Tool Works	3626 East Marginal Way South	1941	Individually Eligible (Criterion A), contributes to eligible Spokane Street Manufacturing Historic District (Criterion A)	3-1e
Lindmark Machine Works	3626 East Marginal Way South	1947	Contributes to eligible Spokane Street Manufacturing Historic District (Criterion A)	3-1e
Lindmark Machine Works	49 South Spokane Street	1920	Contributes to eligible Spokane Street Manufacturing Historic District (Criterion A)	3-1e
Air Reduction Company	3623 East Marginal Way South	1916	Contributes to eligible Spokane Street Manufacturing Historic District (Criterion A)	3-1d
Air Reduction Company Carbide Storage Building	3621 East Marginal Way South	1951	Contributes to eligible Spokane Street Manufacturing Historic District (Criterion A)	3-1d

Property	Address	Built Date	National Register Eligibility Status	Figure
Air Reduction Company Auto Repair Garage	3621 East Marginal Way South	1951	Contributes to eligible Spokane Street Manufacturing Historic District (Criterion A)	3-1d
Puget Sound Sheet Metal Works	3651 East Marginal Way South	1942	Contributes to eligible Spokane Street Manufacturing Historic District (Criterion A)	3-1d
Light Industrial Building	3633 East Marginal Way South	1968	Contributes to eligible Spokane Street Manufacturing Historic District (Criterion A)	3-1d
A.M. Castle and Company	3640 to 60 East Marginal Way South	1945	Individually Eligible (Criteria A and C), contributes to eligible Spokane Street Manufacturing Historic District (Criterion A)	3-1d
Pacific Reefer Fisheries	3480 West Marginal Way Southwest	1964	Eligible (Criteria A and C)	3-1d
Alaskan Copper Works/Eagle Brass Foundry Company	3600 East Marginal Way South	1918	Eligible (Criterion A), contributes to the Spokane Street Manufacturing Historic District (Criterion A)	3-1d
Northern Pacific Railway-Argo to Seattle Waterfront	Seattle, Washington	1909	Contributes to the Spokane Street Manufacturing Historic District (Criterion A)	3-1e
Milwaukee Terminal Railway Company/Chicago, Milwaukee, St. Paul & Pacific Railway-Argo to Waterfront Yard	Seattle, Washington	1909	Contributes to the Spokane Street Manufacturing Historic District (Criterion A)	3-1e
Northern Pacific Railway West Seattle Line	Seattle, Washington	1909	Contributes to the Spokane Street Manufacturing Historic District (Criterion A)	3-1e
Spokane Street East and West Towers, Harbor Island-Delridge-West Seattle 230-kilovolt Transmission Line	West Marginal Way Southwest and Spokane Street Southwest	1922	Eligible (Criteria A and C)	3-1e

Note: Property names correspond with the resource names documented on the Historic Property Inventory forms on WISAARD. Property names typically reflect historic names of businesses or individuals that occupied the building in the past.



### 3.1.3 Delridge Segment

#### 3.1.3.1 Parks/Recreational Resources and Wildlife/Waterfowl Refuges

Section 4(f) parks and recreational resources in the Delridge Segment are described in Table 3-4.

**Table 3-4. Section 4(f) Parks/Recreational Resources and Wildlife/Waterfowl Refuges in the Delridge Segment**

Resource Name	Official with Jurisdiction	Location	Resource Activities, Features, and Attributes	Figure
Delridge Playfield	Seattle Parks and Recreation	4458 Delridge Way Southwest	Playfield for soccer, baseball, softball, skate park, tennis courts, and playground. 14 acres and includes the Delridge Community Center.	3-1f
Longfellow Creek Natural Area	Seattle Parks and Recreation	35th Avenue Southwest	5.9-acre protected conservation area in the Longfellow Creek watershed; contains part of the Longfellow Legacy Trail (see below) and Dragonfly Pavilion and Garden.	3-1f
Longfellow Creek Legacy Trail	Seattle Parks and Recreation	Trail extends from Roxhill Park to the south to Southwest Yancy Street to the north	A 4.2-mile trail connecting the Delridge and Westwood neighborhoods and multiple parks. In the project study area, the trail is located on 26th Avenue Southwest and Southwest Genesee Street paved roadways and connects via staircase to the Longfellow Creek Natural Area, where the trail is gravel and dirt.	3-1f
West Seattle Golf Course	Seattle Parks and Recreation	35th Avenue Southwest	Public golf course. 138 acres, and one of five public golf courses in the City of Seattle.	3-1f

#### 3.1.3.2 Historic Resources

Section 4(f) historic resources in the Delridge Segment are described in Table 3-5.

**Table 3-5. Section 4(f) Historic Resources in the Delridge Segment**

Historic Property	Address	Built Date	National Register Eligibility Status	Figure
Bethlehem Pacific Coast Steel Company Office Building	4045 Delridge Way Southwest	1960	Eligible (Criteria A and C)	3-1f
Cettolin House	4022 32nd Avenue Southwest	1928	Eligible (Criterion C)	3-1f
Contemporary Ranch House	4150 32nd Avenue Southwest	1959	Eligible (Criterion C)	3-1f
Kirlow Four-Plex	3074 Southwest Avalon Way	1967	Eligible (Criterion C)	3-1f
Mrachke & Son	3860 to 3864 Delridge Way Southwest	1930	Eligible (Criteria A and C)	3-1f
Residence	4030 Delridge Way Southwest	1906	Eligible (Criteria A and C)	3-1f
Residence	4017 23rd Avenue Southwest	1907	Eligible (Criteria A and C)	3-1f
Residence	4044 32nd Avenue Southwest	1925	Eligible (Criterion C)	3-1f

Historic Property	Address	Built Date	National Register Eligibility Status	Figure
Seattle Steel Company/Bethlehem Pacific Coast Steel Corporation	2424 Southwest Andover Street	1966	Previously Determined Eligible (Criterion A)	3-1f
Single-family Craftsman Residence	4108 25th Avenue Southwest	1907	Eligible (Criteria A and C)	3-1f
Single-family Craftsman Residence	4139 25th Avenue Southwest	1909	Eligible (Criterion C)	3-1f
West Seattle Golf Course	4600 35th Avenue Southwest	1936	Eligible (Criteria A and C)	3-1f
Residence	4019 Fauntleroy Way Southwest	1931	Eligible (Criterion C)	3-1f
Residence	4032 35th Avenue Southwest	1932	Eligible (Criterion C)	3-1f

Note: Property names correspond with the resource names documented on the Historic Property Inventory forms on WISAARD. Property names typically reflect historic names of businesses or individuals that occupied the building in the past.

### 3.1.4 West Seattle Junction Segment

#### 3.1.4.1 Parks/Recreational Resources and Wildlife/Waterfowl Refuges

Section 4(f) parks and recreational resources in the West Seattle Junction Segment are described in Table 3-6. Fauntleroy Place is in this segment, but FTA and Sound Transit propose that it does not play an important role in meeting the City of Seattle's park and recreation objectives because it is a small, grassy street triangle with one bench and is not used for recreational purpose by the public.

The City of Seattle concurred that Fauntleroy Place is not a significant park resource and is therefore not subject to Section 4(f) approval in accordance with 23 Code of Federal Regulations Section 774.11.c (see Attachment H.2).

**Table 3-6. Section 4(f) Parks/Recreational Resources and Wildlife/Waterfowl Refuges in the West Seattle Junction Segment**

Resource Name	Official with Jurisdiction	Location	Resource Activities, Features, and Attributes	Figure
West Seattle Stadium	Seattle Parks and Recreation	4432 35th Avenue Southwest	The stadium contains a 11.6-acre recreational area that includes a football field, a track, and two sets of stands, one of which is historic.	3-1g
Junction Plaza Park	Seattle Parks and Recreation	4545 42nd Avenue Southwest	A 0.2-acre neighborhood park, with a grass lawn, benches, plaza and walking path.	3-1g and 3-1h
West Seattle Junction Park	Seattle Parks and Recreation	Mid-block of 40th Avenue Southwest between Southwest Edmunds Street and Southwest Alaska Street	A 0.4-acre planned future park with a proposed design that includes several play elements, gathering spaces, café seating, benches, picnic lawn, and pathways. <sup>a</sup>	3-1h

<sup>a</sup> The Seattle Parks and Recreation Department purchased the land for this park in 2012. City Ordinance 124078 authorized the acceptance and recording of the deed for the purpose of open space, park and recreation. The City has begun conceptual design for the park and has engaged the community in park planning.

### 3.1.4.2 Historic Resources

Section 4(f) historic resources in the West Seattle Junction Segment are listed in Table 3-7.

**Table 3-7. Section 4(f) Historic Resources in the West Seattle Junction Segment**

Property	Address	Built Date	National Register Eligibility Status	Figure
Residence	4407 38th Avenue Southwest	1924	Eligible (Criterion C)	3-1g
Carlsen & Winqvist Auto	4480 Fauntleroy Way Southwest	1946	Eligible (Criteria A and C)	3-1g
Chinook Apartments	4431 37th Avenue Southwest	1959	Eligible (Criterion C)	3-1g
Contemporary Ranch House	3221 Southwest Genesee Street	1959	Eligible (Criterion C)	3-1g
Golden Tee Apartments	3201 Southwest Avalon Way	1967	Eligible (Criterion C)	3-1g
Golden Tee Apartments	3211 Southwest Avalon Way	1967	Eligible (Criterion C)	3-1g
J.C. Penney/Russell Building	4520 California Avenue Southwest	1926	Eligible (Criteria A and C)	3-1g
Limcrest Apartments	3600 Southwest Genesee Street	1956	Eligible (Criterion C)	3-1g
Marier Foto Studio	4528 California Avenue Southwest	1928	Eligible (Criteria A and C)	3-1g
Residence	4446 40th Avenue Southwest	1908	Eligible (Criterion A)	3-1g
Residence	4426 38th Avenue Southwest	1932	Eligible (Criterion C)	3-1g
Single-Family Residence	4157 38th Avenue Southwest	1956	Eligible (Criterion C)	3-1g
Wardrobe Cleaners	4500 Fauntleroy Way Southwest	1949	Eligible (Criterion C)	3-1g
West Seattle Bowl	4505 39th Avenue Southwest	1948	Eligible (Criterion A)	3-1g
West Seattle Brake Service	4464 37th Avenue Southwest	1948	Eligible (Criteria A and C)	3-1g
Jim's Shell Service	4457 Fauntleroy Way Southwest	1965	Eligible (Criterion A)	3-1g
Alaska House	4545 42nd Avenue Southwest	1979	Eligible (Criterion C)	3-1g
Bartell Drugs	4548 California Avenue Southwest	1929	Eligible (Criteria A and C)	3-1g and 3-1h
Campbell Building	4554 California Avenue Southwest	1918	Eligible (Criteria A and C); Designated Seattle Landmark	3-1g and 3-1h
Single-Family Residence	4714 38th Avenue Southwest	1939	Eligible (Criterion C)	3-1h

Property	Address	Built Date	National Register Eligibility Status	Figure
Residence	4115 Southwest Hudson Street	1913	Eligible (Criterion C)	3-1h
Apartment Complex (two buildings)	4821 Fauntleroy Way Southwest	1957	Eligible (Criterion C)	3-1h
Craftsman Bungalow	4015 Southwest Hudson Street	1906	Eligible (Criteria A and C)	3-1h
Residence	5011 41st Avenue Southwest	1925	Eligible (Criterion C)	3-1h
Single-Family Residence	4755 38th Avenue Southwest	1957	Eligible (Criterion C)	3-1h
Venable and Wing Law Office	4826 California Avenue Southwest	1963	Eligible (Criterion C)	3-1h
Single-Family Residence	4039 36th Avenue Southwest	1953	Eligible (Criterion C)	3-1g
Single-Family Residence	4045 36th Avenue Southwest	1948	Eligible (Criterion C)	3-1g
Single-Family Residence	4109 38th Avenue Southwest	1919	Eligible (Criteria A and C)	3-1g
Single-Family Residence	4111 38th Avenue Southwest	1919	Eligible (Criteria A and C)	3-1g

Note: Property names correspond with the resource names documented on the Historic Property Inventory forms on WISAARD. Property names typically reflect historic names of businesses or individuals that occupied the building in the past.

### 3.2 Section 4(f) Resources Potential Use Determinations

This section assesses impacts to Section 4(f) resources in the project study area by segment alternatives and provides determinations as to whether impacts would result in a use of that resource under Section 4(f). Summary tables of the findings in this section are presented in Section 3.3, Summary of Use Determinations.

For the discussion in this section, if a Section 4(f) resource is referred to as “not impacted,” it means that the particular resource would not have property permanently incorporated or temporarily occupied by any alternative, nor would there be a constructive use.

FTA requested concurrence from the City of Seattle on *de minimis* and temporary occupancy findings of 4(f) resources under their jurisdiction on April 15, 2024. The City of Seattle concurred with determinations that applied to the West Duwamish Greenbelt for Preferred Alternative DUW-1a and Option DUW-1b, based on coordination that has occurred to date with Sound Transit. The City declined to concur with findings on other resources that are only affected by other alternatives at this time, as their review focused on the preferred alternative.

In instances where an alternative would permanently incorporate land from a historic resource but that alternative’s impacts were found to **not** to cause an adverse effect under Section 106, this definitively results in a *de minimis* determination per 23 Code of Federal Regulations 774.17; as such, no further description of impacts is warranted in this Section 4(f) Evaluation. With respect to discussions of potential constructive use for historic resources in this evaluation, it is important to note that the bar for making a constructive use determination under Section 4(f) is

much higher than making a finding of adverse effect under Section 106. According to 23 Code of Federal Regulations 774.15, a constructive use only occurs when the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished; in contrast, a project would have an adverse effect under Section 106 if it would alter, directly or indirectly, any of the characteristics of a historic property that qualify it for inclusion in the National Register.

Considerations of "use" at a historic resource are linked to the finding of adverse effect under Section 106. The State Historic Preservation Officer provided a letter concurring with FTA's findings of effect for all historic properties in the area of potential effects on April 16, 2024. FTA and Sound Transit are developing a programmatic agreement to resolve adverse effects to historic properties.

### **3.2.1 SODO Segment**

#### **3.2.1.1 Parks/Recreational Resources and Wildlife/Waterfowl Refuges**

There are no Section 4(f) parks and recreational resources in the SODO Segment.

#### **3.2.1.2 Historic Resources**

The following Section 4(f) historic resources would not be impacted by any SODO Segment alternatives:

- Lincoln Moving & Storage, Alaska Orient Van Lines Building
- Denny's
- Platt Electric Supply Co.
- Holgate Terminals Incorporated
- Mill & Mine Supply Co. Building and Warehouse
- Northwest Wire Works

One Section 4(f) historic resource (the Graybar Electric Company Building), discussed below, would be impacted by at least one SODO Segment alternative. Greater detail on impacts to historic resources in this segment is provided in Appendix N.5, Historic and Archaeological Resources Technical Report, of the Final EIS.

#### ***Graybar Electric Company Building***

*Preferred Option SODO-1c, Alternative SODO-1a, Option SODO-1b, and Alternative SODO-2*

Each of the SODO Segment alternatives would result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Preferred Option SODO-1c, Alternative SODO-1a, Option SODO-1b, and Alternative SODO-2 would result in a use of the Graybar Electric Company Building under Section 4(f).

### 3.2.2 Duwamish Segment

#### 3.2.2.1 Parks/Recreational Resources and Wildlife/Waterfowl Refuges

Terminal 18 Park would not be impacted by any Duwamish Segment alternatives. Impacts to the West Duwamish Greenbelt and the Terminal 25 wildlife refuge from Duwamish Segment alternatives are discussed below.

##### **West Duwamish Greenbelt**

Alternative DUW-2 would not impact this resource.

Figure 3-2 shows the impacts to the West Duwamish Greenbelt described below. Figure 3-2 shows the northernmost parcels of the greenbelt only.

##### **Preferred Alternative DUW-1a**

Preferred Alternative DUW-1a would permanently incorporate approximately 1.2 acres of the northernmost parcels of the greenbelt and convert this area to a transportation use; approximately 0.6 percent of total area of the greenbelt would be permanently impacted. The area that would be impacted is at the north end of the greenbelt, adjacent to the south side of the West Seattle Bridge. This area of the greenbelt has a steep grade and does not contain recreational activities, features, or attributes, nor is it designed for public access. While a public staircase connects Southwest Marginal Place to Southwest Charlestown Street in this area, it does not connect to or provide access to the trail system within the greenbelt. The permanent incorporation of land under Preferred Alternative DUW-1a would not affect the greenbelt's recreational trails, which are south of the study area. In accordance with a local regulation (City of Seattle Ordinance 118477), Sound Transit would purchase replacement land (with similar characteristics) to offset the land being acquired from the West Duwamish Greenbelt; it is assumed that replacement park land would be purchased by Sound Transit and conveyed to the City as agreed to by the City. However, if agreed to by the City and consistent with Ordinance 118477, Sound Transit would provide funds for purchase of replacement property.

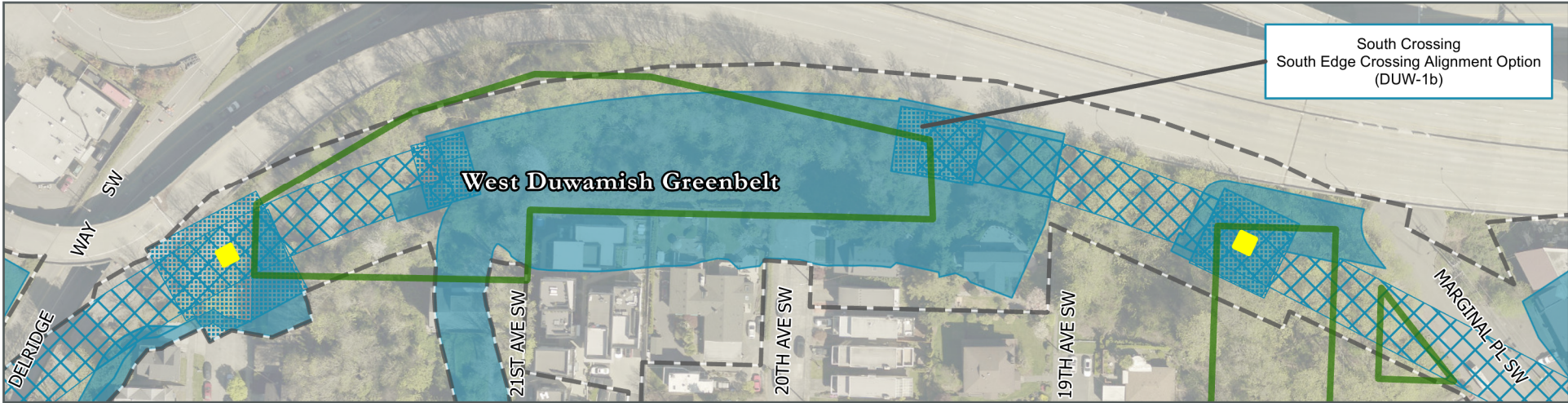
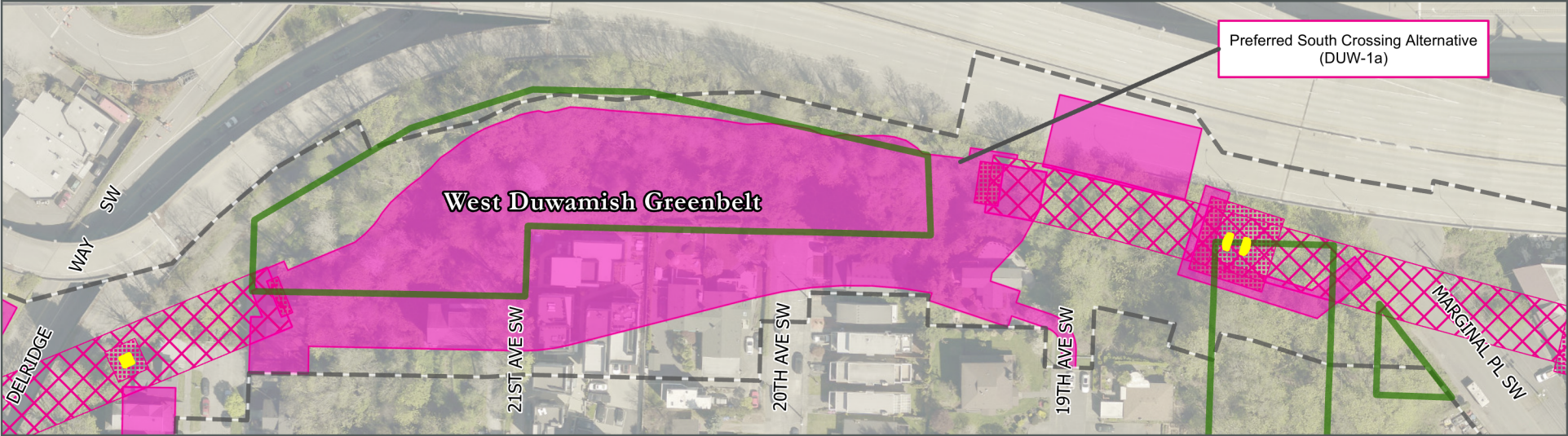
No land would be temporarily occupied at this resource (outside of the land to be permanently acquired).

Preferred Alternative DUW-1a could impact the wildlife habitat function of the greenbelt in that area by removing large trees, which support wildlife species such as great blue heron and peregrine falcon. The wildlife habitat temporarily impacted during construction would be replanted with low-growing vegetation, but large trees would not be allowed near the guideway.

Preferred Alternative DUW-1a would not result in noise, visual, or access impacts to the remainder of the greenbelt.

**Conclusion.** Based on the above discussion, although land would be permanently incorporated at this resource and some of its wildlife habitat would lose mature trees, Preferred Alternative DUW-1a would not adversely affect the recreational activities, features, or attributes of this resource that qualify it for protection under Section 4(f). The project includes vegetation restoration and replacement property of equal function and value to minimize harm. Therefore, impacts to the West Duwamish Greenbelt under Preferred Alternative DUW-1a have been determined to be *de minimis*. Based on the nature of the impact discussed above and the mitigation measures Sound Transit will perform (as described in Section 3.5.3, Parks and Recreation Measures to Minimize Harm), the City of Seattle has concurred with this *de minimis* determination (Attachment H.2).





Source: EagleView Technologies, Inc.(2021), City of Seattle (2023).

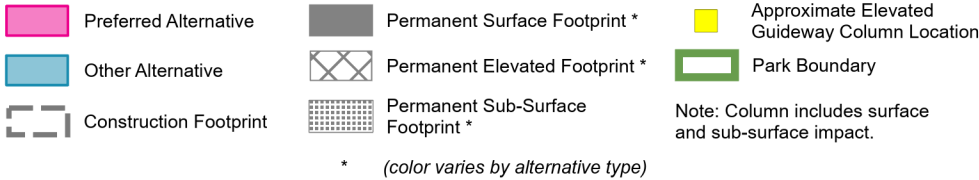
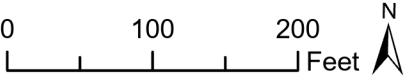


FIGURE 3-2  
**West Duwamish Greenbelt  
Permanent and Construction Impacts  
Duwamish Segment**  
*West Seattle Link Extension*



#### *Option DUW-1b*

Option DUW-1b would permanently incorporate approximately 1 acre of the West Duwamish Greenbelt; approximately 0.6 percent of the total area of the greenbelt would be permanently impacted. The area that would be impacted is at the north end of the greenbelt, adjacent to the south side of the West Seattle Bridge. This area of the greenbelt has a steep grade and does not contain recreational amenities or features, nor is it publicly accessible. The permanent incorporation of land under Option DUW-1b would not affect the greenbelt's recreational trails, which are south of the study area. In accordance with a local regulation (City of Seattle Ordinance 118477), Sound Transit would purchase replacement land (with similar characteristics) to offset the land being acquired from the West Duwamish Greenbelt; it is assumed that replacement park land would be purchased by Sound Transit and conveyed to the City as agreed to by the City. However, if agreed to by the City and consistent with Ordinance 118477, Sound Transit would provide funds for purchase of replacement property.

No land would be temporarily occupied at this resource (outside of the land to be permanently acquired).

Option DUW-1b could impact the wildlife habitat function of the greenbelt in that area by removing large trees, which support wildlife species such as great blue heron and peregrine falcon. The wildlife habitat temporarily impacted during construction would be replanted with low-growing vegetation, but large trees would not be allowed near the guideway. Option DUW-1b would not result in noise, visual, or access impacts to the remainder of the greenbelt.

**Conclusion.** Based on the above discussion, although land would be permanently incorporated at this resource and some of its wildlife habitat would lose mature trees, Option DUW-1b would not adversely affect the recreational activities, features, or attributes of this resource that qualify it for protection under Section 4(f). The project includes vegetation restoration and replacement property of equal function and value to minimize harm. Therefore, impacts to the West Duwamish Greenbelt under Option DUW-1b have been determined to be *de minimis*. Based on the nature of the impact discussed above and the mitigation measures Sound Transit will perform (as described in Section 3.5.3, Parks and Recreation Measures to Minimize Harm), the City of Seattle has concurred with this *de minimis* determination (Attachment H.2).

#### ***Terminal 25 Wildlife Refuge***

Preferred Alternative DUW-1a and Option DUW-1b would not impact this resource.

#### *Alternative DUW-2*

Alternative DUW-2 would permanently incorporate approximately 0.01 acre of the planned approximately 10-acre Terminal 25 wildlife refuge to accommodate guideway support columns; approximately 0.1 percent of the planned refuge would be permanently impacted. This wildlife refuge has been in development with the Elliott Bay Natural Resources Trustee Council, which includes multiple Tribes and federal and state agencies, for several years. The creation of this refuge will include cleanup of contamination at this site; removal of approximately 950 creosote piles, debris, fill, and riprap; excavation of intertidal and subtidal elevations; and installation of anchored large woody debris to support intertidal marsh and riparian buffer plantings. Conceptual design for this site was completed in 2021, design authorization for this refuge was approved by the Port of Seattle in February 2022, and construction is expected to begin in 2025. The National Oceanic and Atmospheric Administration has confirmed the ecological value of the Terminal 25 wildlife refuge site to be used for habitat mitigation. The Terminal 25 wildlife refuge project is a component of a natural resource damages settlement and will have a restrictive



covenant conveyed by the Port of Seattle to the Washington Department of Ecology on behalf of itself, federal resource agencies, and Tribes.

Per coordination with the Port of Seattle, the placement of columns would adversely impact planned future wildlife features and attributes by eliminating planned redevelopment and habitat restoration efforts intended to support the recovery of Chinook salmon and southern resident killer whales (*Orcinus orca*), which are listed under the Endangered Species Act as threatened and endangered, respectively. Any impacts to this site would require redesign of the site to achieve the same benefits and would require approval by all parties to the natural resources damage settlement. This would extend the schedule for restoration of this site and delay benefits to these species.

Sound Transit would coordinate with the Port of Seattle to identify potential modifications to the planned wildlife refuge if this alternative is selected. Redesigning the planned refuge to achieve the same intended benefit would delay both the construction of the wildlife refuge project and the opportunity to realize the intended benefits to wildlife in this area, including threatened and endangered species.

**Conclusion.** Based on the above discussion, Alternative DUW-2 would adversely affect the planned wildlife refuge activities, features, and attributes of this resource that qualify it for protection under Section 4(f); as such, Alternative DUW-2 would result in an individual use of the planned Terminal 25 wildlife refuge.

#### 3.2.2.2 Historic Resources

The following Section 4(f) historic resources would not be impacted by any Duwamish Segment alternatives:

- Seattle Pacific Sales Company Warehouse
- Link-Belt Company Property
- Alaskan Copper Works/Eagle Brass Foundry Company
- Alaskan Copper and Brass Company
- NW Motor Parts Corporation Building
- Scientific Supplies Company
- Riches & Adams Co./Seattle Opportunities Industrialization Center, Inc.
- General Construction Company Office
- Northern Pacific Railway Bridge over the West Duwamish Waterway
- Los Angeles-Seattle Motor Express Company
- Air Mac, Inc.
- Warehouse and Office Building
- Seattle City Light South Receiving Substation
- Seattle City Light South Receiving Substation Switchyard
- Seattle City Light Warehouse and Office Building
- Seattle City Light South Rectifier Substation
- M.J.B. Coffee Company Warehouse

- Single-Family Residence, 3842 23rd Avenue Southwest
- Northern Pacific Railway-Argo to Seattle Waterfront
- Milwaukee Terminal Railway Company/Chicago, Milwaukee, St. Paul & Pacific Railway-Argo to Waterfront Yard
- Northern Pacific Railway West Seattle Line
- Seattle and Walla Walla Railroad/Puget Sound Shore Railroad Company/Seattle, Lake Shore and Eastern Railroad/Northern Pacific Railway Black River Junction to the Lake Washington Ship Canal
- Pacific Reefer Fisheries
- Spokane Street East and West Towers, Harbor Island-Delridge-West Seattle 230-kilovolt Transmission Line

Section 4(f) historic resources that would be impacted by at least one Duwamish Segment alternative are discussed below. Greater detail on impacts to historic resources in this segment is provided in Appendix N.5, Historic and Archaeological Resources Technical Report, of the Final EIS.

#### ***Viking Automatic Sprinkler Company***

Preferred Alternative DUW-1a and Option DUW-1b would not impact this resource.

#### ***Alternative DUW-2***

Alternative DUW-2 would result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DUW-2 would result in a use of the Viking Automatic Sprinkler Company historic resource under Section 4(f).

#### ***Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District***

Alternative DUW-2 would not impact this resource.

#### ***Preferred Alternative DUW-1a and Option DUW-1b***

Preferred Alternative DUW-1a and Option DUW-1b would both result in the demolition of one or more buildings within this historic district, which would cause an adverse effect under Section 106 to the district and its contributing resources (Historic Office, Pacific Coast Forge Building, North Warehouse, South Warehouse, and East Warehouse). The exact buildings to be demolished would be determined during final design once the structural integrity of buildings can be evaluated, as some buildings may be connected. Sound Transit would minimize the number of buildings demolished as much as possible. As described in Final EIS Section 4.16, Historic and Archaeological Resources, and Appendix N.5, Historic and Archaeological Resources Technical Report, the buildings within the historic district are not individually eligible for the National Register.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Preferred Alternative DUW-1a and Option DUW-1b would result in a use of the Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District and its contributing resources under Section 4(f).

### **Fire Station 14**

Option DUW-1b would not impact this resource.

#### ***Preferred Alternative DUW-1a***

Preferred Alternative DUW-1a would permanently incorporate land from this historic resource but was found **not** to cause an adverse effect under Section 106. There would be no additional temporary occupancy of land at this resource during construction.

#### ***Alternative DUW-2***

Alternative DUW-2 would permanently incorporate land from this historic resource but was found **not** to cause an adverse effect under Section 106. There would be no additional temporary occupancy of land at this resource during construction.

**Conclusion.** Although land would be permanently incorporated from this historic resource, Preferred Alternative DUW-1a and Alternative DUW-2 would **not** result in an adverse effect under Section 106. As such, impacts to the Fire Station 14 historic resource under Alternative DUW-2 are determined to be *de minimis* under Section 4(f).

### **Pacific Hoist and Warehouse Company**

Preferred Alternative DUW-1a and Option DUW-1b would not impact this resource.

#### ***Alternative DUW-2***

Alternative DUW-2 would permanently incorporate land from this historic resource but was found **not** to cause an adverse effect under Section 106. There would be no additional temporary occupancy of land at this resource during construction.

**Conclusion.** Although land would be permanently incorporated from this historic resource, Alternative DUW-2 would **not** result in an adverse effect under Section 106. As such, impacts to the Pacific Hoist and Warehouse Company historic resource under Alternative DUW-2 are determined to be *de minimis* under Section 4(f).

### **Langendorf United Bakeries**

#### ***Preferred Alternative DUW-1a, Option DUW-1b, and Alternative DUW-2***

Preferred Alternative DUW-1a, Option DUW-1b, and Alternative DUW-2 would permanently incorporate land from this historic resource but were found **not** to cause an adverse effect under Section 106. There would be no additional temporary occupancy of land at this resource during construction.

**Conclusion.** Although land would be permanently incorporated from this historic resource, Preferred Alternative DUW-1a, Option DUW-1b, and Alternative DUW-2 would **not** result in an adverse effect under Section 106. As such, impacts to the Langendorf United Bakeries historic resource under Preferred Alternative DUW-1a, Option DUW-1b, and Alternative DUW-2 are determined to be *de minimis* under Section 4(f).

### **Langendorf United Bakeries Repair Garage**

#### ***Preferred Alternative DUW-1a, Option DUW-1b, and Alternative DUW-2***

Preferred Alternative DUW-1a, Option DUW-1b, and Alternative DUW-2 would permanently incorporate land from this historic resource but were found **not** to cause an adverse effect under

Section 106. There would be no additional temporary occupancy of land at this resource during construction.

**Conclusion.** Although land would be permanently incorporated from this historic resource, Preferred Alternative DUW-1a, Option DUW-1b, and Alternative DUW-2 would **not** result in an adverse effect under Section 106. As such impacts to the Langendorf United Bakeries Garage under Preferred Alternative DUW-1a, Option DUW-1b, and Alternative DUW-2 are determined to be *de minimis* under Section 4(f).

#### ***A.M. Castle and Company***

Alternative DUW-2 would not impact this resource.

##### ***Preferred Alternative DUW-1a***

Preferred Alternative DUW-1a would not permanently incorporate land from the A.M. Castle historic resource nor would there be a temporary occupancy of land at this resource during construction under this alternative.

Although land would not be permanently incorporated, this alternative was found to cause an adverse effect under Section 106 to the A.M. Castle and Company historic resource because the resource would experience a diminishment of setting, feeling, and association due to the demolition of other buildings within the Spokane Street Manufacturing Historic District. Under Section 106, the A.M. Castle and Company historic resource is recommended as individually eligible for listing in the NRHP under Criteria A and C. Architecturally, the property is a distinct example of an industrial property with an office in front and warehouse in back, and thus embodies distinctive characteristics of its type and period. Additionally, it represents the work of a master; for these reasons, it meets Criterion C. Based on this, the A.M. Castle and Company historic resource's setting is not what qualifies it for Section 4(f) protection. As such, the project's impact to the visual setting of this resource would **not** result in a constructive use of this resource because there would not be a substantial impairment of the protected activities, features, or attributes of the A.M. Castle and Company historic resource under Section 4(f). 23 CFR 774.15(2) provides further guidance in this matter: "*Examples of substantial impairment to visual or esthetic qualities would be the location of a proposed transportation facility in such proximity that it obstructs or eliminates the primary views of an architecturally significant historical building, or substantially detracts from the setting of a Section 4(f) property which derives its value in substantial part due to its setting.*"

**Conclusion.** Based on the above discussion, there would be no use of the A.M. Castle historic resource under Section 4(f) for Preferred Alternative DUW-1a.

##### ***Option DUW-1b***

Option DUW-1b would result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Option DUW-1b would result in a use of the A.M. Castle and Company historic resource under Section 4(f).

#### ***Alaskan Copper Company Employment Office***

##### ***Preferred Alternative DUW-1a, Option DUW-1b, and Alternative DUW-2***

Preferred Alternative DUW-1a, Option DUW-1b, and Alternative DUW-2 would result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Preferred Alternative DUW-1a, Option DUW-1b, and Alternative DUW-2 would result in a use of the Alaskan Copper Company Employment Office historic resource under Section 4(f).

#### ***Auto Repair Garage***

Alternative DUW-2 would not impact this resource.

#### ***Preferred Alternative DUW-1a and Option DUW-1b***

Preferred Alternative DUW-1a and Option DUW-1b would result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Preferred Alternative DUW-1a and Option DUW-1b would result in a use of the Auto Repair Garage historic resource under Section 4(f).

#### ***Department of Highways District No. 1 Headquarters – Office/Administrative Building***

Preferred Alternative DUW-1a and Option DUW-1b would not impact this resource.

#### ***Alternative DUW-2***

Alternative DUW-2 would permanently incorporate land from this historic resource and would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DUW-2 would result in a use of the Department of Highways District Number 1 Headquarters – Office/Administrative Building historic resource under Section 4(f).

#### ***Department of Highways District No. 1 Headquarters – Maintenance Building***

Preferred Alternative DUW-1a and Option DUW-1b would not impact this resource.

#### ***Alternative DUW-2***

Alternative DUW-2 would permanently incorporate land from this historic resource and would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DUW-2 would result in a use of the Department of Highways District Number 1 Headquarters – Maintenance Building historic resource under Section 4(f).

#### ***Department of Highways District No. 1 Headquarters – Storage Building***

Preferred Alternative DUW-1a and Option DUW-1b would not impact this resource.

#### ***Alternative DUW-2***

Alternative DUW-2 would permanently incorporate land from this historic resource and would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DUW-2 would result in a use of

the Department of Highways District Number 1 Headquarters – Storage Building historic resource under Section 4(f).

***Department of Highways District No. 1 Headquarters – Car/Paint Building***

Preferred Alternative DUW-1a and Option DUW-1b would not impact this resource.

***Alternative DUW-2***

Alternative DUW-2 would result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DUW-2 would result in a use of the Department of Highways District No. 1 Headquarters Car/Paint Building historic resource under Section 4(f).

***Department of Highways District No. 1 Headquarters – Maintenance/Garage Building***

Preferred Alternative DUW-1a and Option DUW-1b would not impact this resource.

***Alternative DUW-2***

Alternative DUW-2 would result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DUW-2 would result in a use of the Department of Highways District No. 1 Headquarters Maintenance/Garage Building historic resource under Section 4(f).

***Spokane Street Manufacturing Historic District***

Alternative DUW-2 would not impact this resource.

***Alternative DUW-1a***

Preferred Alternative DUW-1a would result in the demolition of the following contributing resources:

- Acme Tool Works
- Edwards Ice Machine Co./Eagle Metals Co.
- Simmons Company Metal Beds, Springs, & Mattress Warehouse at 99 South Spokane Street
- Lindmark Machine Works at 3626 East Marginal Way South
- Air Reduction Company at 3623 East Marginal Way South
- Air Reduction Company Carbide Storage Building at 3621 East Marginal Way South
- Air Reduction Company Auto Repair Garage at 3621 East Marginal Way South
- Light Industrial Building at 3633 East Marginal Way South
- Nelson Iron Works Blacksmith & Machinist Shop

The demolition of these resources would cause an adverse effect under Section 106 to the district and its contributing resources.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DUW-1a would result in a use of the Spokane Street Manufacturing Historic District resource under Section 4(f).



#### *Option DUW-1b*

Option DUW-1b would result in the demolition of the same historic resources in the Spokane Street Manufacturing Historic District as Preferred Alternative DUW-1a. This option would also result in demolition of the following additional contributing resources in this district:

- A.M. Castle and Company Building
- Puget Sound Sheet Metal Works

The demolition of these resources would cause an adverse effect under Section 106 to the district and its contributing resources.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Option DUW-1b would result in a use of the Spokane Street Manufacturing Historic District resource under Section 4(f).

#### ***Acme Tool Works***

Alternative DUW-2 would not impact this resource.

#### *Preferred Alternative DUW-1a and Option DUW-1b*

Preferred Alternative DUW-1a and Option DUW-1b would result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Preferred Alternative DUW-1a and Option DUW-1b would result in a use of the Acme Tool Works historic resource under Section 4(f).

#### ***Transportation Equipment Rentals Office Building***

Preferred Alternative DUW-1a and Option DUW-1b would not impact this resource.

#### *Alternative DUW-2*

Alternative DUW-2 would result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DUW-2 would result in a use of the Transportation Equipment Rentals Office Building historic resource under Section 4(f).

#### ***Transportation Equipment Rentals Maintenance Warehouse***

Preferred Alternative DUW-1a and Option DUW-1b would not impact this resource.

#### *Alternative DUW-2*

Alternative DUW-2 would result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DUW-2 would result in a use of the Transportation Equipment Rentals Maintenance Warehouse historic resource under Section 4(f).

### 3.2.3 Delridge Segment

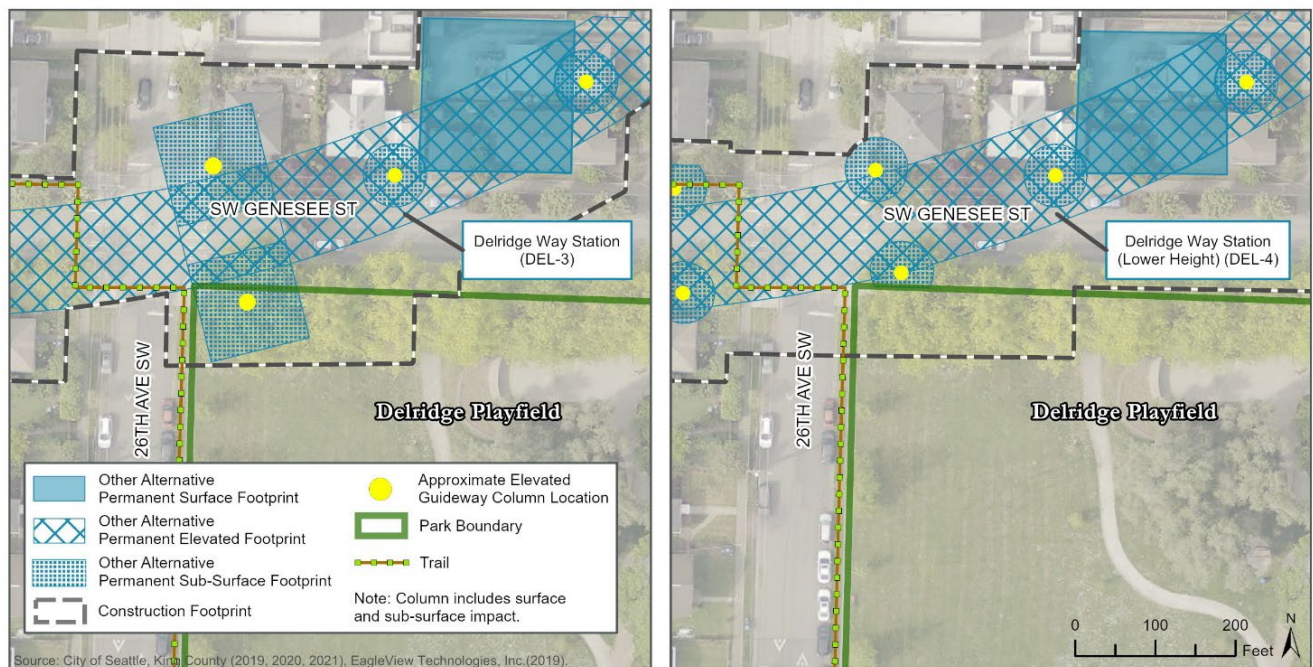
#### 3.2.3.1 Parks/Recreational Resources and Wildlife/Waterfowl Refuges

The Section 4(f) parks and recreational resources in the Delridge Segment (Delridge Playfield, Longfellow Creek Natural Area, and West Seattle Golf Course) that would be impacted by a Delridge Segment alternative are described below. Preferred Option DEL-6b, Alternative DEL-2a, Alternative DEL-5, Alternative DEL-6a, and Alternative DEL-7 would not impact Section 4(f) parks and recreational resources.

##### ***Delridge Playfield***

Figure 3-3 shows the impacts to Delridge Playfield described in the following sections. Preferred Option DEL-6b, Alternative DEL-1a, Option DEL-1b, Option DEL-2b, Alternative DEL-5, Alternative DEL-6a, and Alternative DEL-7 would not impact the Delridge Playfield.

**Figure 3-3. Delridge Playfield Impacts – Delridge Segment**



##### ***Alternative DEL-3***

This alternative would permanently incorporate less than 0.1 acre of the playfield to accommodate an elevated guideway column; approximately less than 1 percent of the total area of the playfield would be permanently impacted. The area that would be permanently incorporated is adjacent to Southwest Genesee Street and does not contain recreational activities, features, or attributes. An additional 0.1 acre of the Delridge Playfield property adjacent to Southwest Genesee Street would be temporarily occupied during construction. The area that would be temporarily occupied is adjacent to Southwest Genesee Street and does not contain recreational amenities or features, but the alternative could temporarily impact access to the pathway within the park from Southwest Genesee Street for short periods of time.

The area disturbed during construction would be fully restored when construction is completed. There would be no adverse effect to the activities, features, or attributes that qualify the Delridge Playfield for protection under Section 4(f) as a result of the permanent incorporation of land or



during construction. There would be no noise, visual, or access impacts to the recreational part of this resource.

**Conclusion.** Although land would be permanently incorporated, Alternative DEL-3 would not adversely affect the recreational activities, features, or attributes of this resource either permanently or temporarily; therefore, impacts to the Delridge Playfield under Alternative DEL-3 are determined to be *de minimis*. As described above, the City has not provided concurrence on this finding.

#### *Alternative DEL-4*

There would be no permanent incorporation of land at Delridge Playfield under this alternative. However, 0.1 acre of the Delridge Playfield property adjacent to Southwest Genesee Street would be temporarily occupied during construction. The area that would be temporarily occupied is adjacent to Southwest Genesee Street and does not contain any recreational activities, features, or attributes, but the alternative could temporarily impact access to the pathway within the park from Southwest Genesee Street for short periods of time. The temporary occupancy exception criteria and findings are as follows:

1. **Criterion:** *Duration must be temporary (i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land).*

**Finding:** Although the overall duration of project construction would be approximately 5 years, the project would be constructed in phases, and the duration of the temporary occupancy of Delridge Playfield would be approximately 1.5 years, so less than the time needed to construct the whole project. There would be no change in ownership of this resource.

2. **Criterion:** *Scope of work must be minor (i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal).*

**Finding:** The area of the Delridge Playfield that would be temporarily occupied is at the northwest corner of the park. Trees and grass would be removed from this corner for construction of the guideway, but there are no recreational features or amenities in the area of the park that would be impacted. As such, the magnitude of changes to this Section 4(f) resource would be minor.

3. **Criterion:** *There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis.*

**Finding:** None of the activities, features, or attributes of the Delridge Playfield would incur permanent adverse physical impacts, nor would there be temporary or permanent interference with visitors using the playfield as they currently do. The Delridge Playfield is a 14-acre property with amenities located throughout. The area of temporary occupancy is a small area of lawn with a few street trees at the northern edge of the property, adjacent to a busy roadway; there are no recreational activities, features, or attributes in this part of the park. Although the construction of this alternative could temporarily impact access to the pathway within the park from Southwest Genesee Street for short periods of time, there are alternate pathways and access points for visitors.

There would be no temporary or permanent visual, or access impacts that interfere with the protected activities, features, or attributes of the property.

4. **Criterion:** *The land being used must be fully restored (i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project).*

**Finding:** The approximate 0.1 acre of vegetated land disturbed during temporary occupancy would be restored to existing conditions or better after construction.

5. **Criterion:** *There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.*

**Finding:** FTA and Sound Transit have requested documented agreement from the City of Seattle that the above temporary occupancy exception criteria are met for this resource.

**Conclusion.** Alternative DEL-4 would not adversely affect the recreational activities, features, or attributes of the Delridge Playfield either permanently or during temporary occupancy. The temporary occupancy is determined to be minimal and would not constitute a use because it satisfies the temporary use exception conditions. As described above, the City has not provided concurrence on this finding.

#### **Longfellow Creek Natural Area**

Figure 3-4 shows project impacts to the Longfellow Creek Natural Area, which are described below by alternative. Preferred Option DEL-6b, Alternative DEL-2a, Alternative DEL-3, Alternative DEL-4, Alternative DEL-5, Alternative DEL-6a, and Alternative DEL-7 would not impact this resource.

#### **Alternative DEL-1a**

There would be no permanent incorporation of land at Longfellow Creek Natural Area under this alternative. However, Alternative DEL-1a would temporarily occupy 0.1 acre of the Longfellow Creek Natural Area during construction. The impacts would include removal of trees and construction of a temporary work trestle in the natural area to provide additional space on Southwest Genesee Street for equipment to maneuver. The temporarily occupied area is on the south end of the natural area. The temporary occupancy exception criteria and findings are as follows:

1. **Criterion:** *Duration must be temporary (i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land).*

**Finding:** Although the overall duration of project construction would be approximately 5 years, the project would be constructed in phases, so the duration of the temporary occupancy of Longfellow Creek Natural Area (3 to 4 years) would be less than the time needed to construct the whole project. There would be no change in ownership of this resource.

2. **Criterion:** *Scope of work must be minor (i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal).*

**Finding:** The part of the Longfellow Creek Natural Area that would be temporarily occupied is vegetated with plants and trees but does not contain recreational amenities or features and is not used for recreational purposes by the public. Access to the Longfellow Creek Legacy Trail (which travels through the natural area) from Southwest Genesee Street would be temporarily restricted, but construction would not inhibit the public's ability to visit the trail or the natural area because there are other points of access nearby. Visitors would still have easy access to the trail in the natural area throughout the construction period (impacts to the greater trail resource are described separately). As such, the magnitude of changes to this Section 4(f) resource would be minor.

3. **Criterion:** *There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis.*

**Finding:** None of the activities, features, or attributes of the Longfellow Creek Natural Area would incur permanent adverse physical impacts, nor would there be temporary or permanent interference with visitors using the natural area via the trail as they currently do. Although the southern access point to the trail would be temporarily closed, visitors would still be able to use the trail and enjoy the natural area from other points of access. There would be no temporary or permanent noise, visual, or access impacts that interfere with the protected activities, features, or attributes of the property.

4. **Criterion:** *The land being used must be fully restored (i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project).*

**Finding:** The approximate 0.1 acre of vegetated land disturbed during temporary occupancy would be restored to existing conditions or better after construction.

5. **Criterion:** *There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.*

**Finding:** FTA and Sound Transit have requested documented agreement from the City of Seattle that the above temporary occupancy exception criteria are met for this resource.

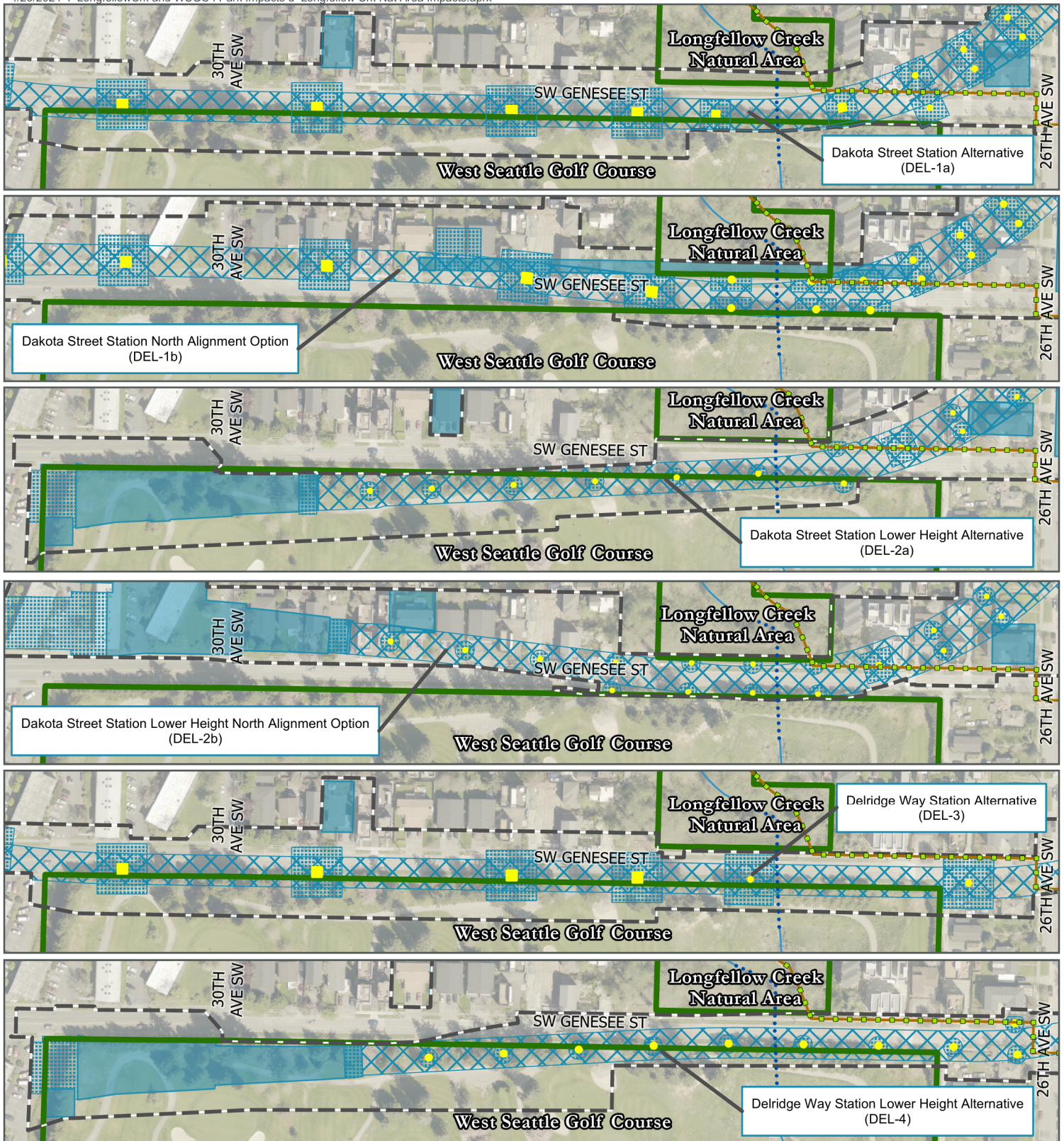
**Conclusion.** Alternative DEL-1a would not adversely affect the recreational activities, features, or attributes of the Longfellow Creek Natural Area either permanently or during temporary occupancy. The temporary occupancy is determined to be minimal and would not constitute a use because it satisfies the temporary use exception conditions. As described above, the City has not provided concurrence on this finding.

#### *Option DEL-1b*

Option DEL-1b would permanently incorporate approximately 0.1 acre of the south end of the natural area, adjacent to Southwest Genesee Street; approximately 2 percent of the total area of the natural area would be permanently incorporated. The area that would be permanently incorporated is vegetated with plants and trees; does not contain any recreational activities, features, or attributes; and is not used by the public for recreation. Access to the Longfellow Creek Legacy Trail (which travels through the natural area) would not be impacted. Option DEL-1b would also temporarily occupy less than 0.1 acre of the south end of the natural area to construct the project. Access to the Longfellow Legacy Trail from Southwest Genesee Street would be temporarily restricted, but construction would not inhibit use of the trail or the natural area from other points of access. Therefore, visitors would still have easy access to enjoy the trail in the natural area throughout the construction period (impacts to the greater trail resource are described separately). The area disturbed during construction would be restored, including planting trees when construction is completed. As such, there would be no adverse effect on the activities, features, or attributes that qualify the natural area for protection under Section 4(f) as a result of the permanent incorporation of land or during construction.

**Conclusion.** Based on the above discussion, Option DEL-1b would not adversely affect the recreational activities, features, or attributes of this resource either permanently or temporarily during construction; therefore, impacts to the Longfellow Creek Natural Area under this option are determined to be *de minimis*. As described above, the City has not provided concurrence on this finding.





Source: EagleView Technologies, Inc.(2021), City of Seattle (2023).

- Other Alternative Permanent Surface Footprint
- Other Alternative Permanent Elevated Footprint
- Other Alternative Permanent Sub-Surface Footprint
- Construction Footprint
- Approximate Elevated Guideway Column Location
- Park Boundary
- Trail
- Stream
- Piped Stream

Note: Column includes surface and sub-surface impact.

**FIGURE 3-4**  
**Longfellow Creek Natural Area, Longfellow Creek**  
**Legacy Trail and West Seattle Golf Course**  
**Permanent and Construction Impacts**  
**Delridge Segment**

West Seattle Link Extension





**Option DEL-2b**

There would be no permanent incorporation of land at Longfellow Creek Natural Area under this alternative. However, Option DEL-2b would temporarily occupy 0.1 acre of the Longfellow Creek Natural Area during construction. The impacts would include removal of trees and construction of a temporary work trestle in the natural area to provide additional space on Southwest Genesee Street for equipment to maneuver. The temporarily occupied area is on the south end of the natural area. The temporary occupancy exception criteria and findings are as follows:

1. **Criterion:** *Duration must be temporary (i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land).*

**Finding:** Although the overall duration of project construction would be approximately 5 years, the project would be constructed in phases, so the duration of the temporary occupancy of Longfellow Creek Natural Area (3 to 4 years) would be less than the time needed to construct the whole project. There would be no change in ownership of this resource.

2. **Criterion:** *Scope of work must be minor (i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal).*

**Finding:** The part of the Longfellow Creek Natural Area that would be temporarily occupied is vegetated with plants and trees but does not contain recreational amenities or features and is not used for recreational purposes by the public. Access to the Longfellow Creek Legacy Trail (which travels through the natural area) from Southwest Genesee Street would be temporarily restricted, but construction would not inhibit the public's ability to visit the trail or the natural area because there are other points of access nearby. Visitors would still have easy access to the trail in the natural area throughout the construction period.

(Impacts to the greater trail resource are described separately). As such, the magnitude of changes to this Section 4(f) resource would be minor.

3. **Criterion:** *There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis.*

**Finding:** None of the activities, features, or attributes of the Longfellow Creek Natural Area would incur permanent adverse physical impacts, nor would there be temporary or permanent interference with visitors using the natural area via the trail as they currently do. Although the southern access point to the trail would be temporarily closed, visitors would still be able to use the trail and enjoy the natural area from other points of access. There would be no temporary or permanent noise, visual, or access impacts that interfere with the protected activities, features, or attributes of the property.

4. **Criterion:** *The land being used must be fully restored (i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project).*

**Finding:** The approximate 0.1 acre of vegetated land disturbed during temporary occupancy would be restored to existing conditions or better after construction.

5. **Criterion:** *There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.*

**Finding:** FTA and Sound Transit have requested documented agreement from the City of Seattle that the above temporary occupancy exception criteria are met for this resource.



**Conclusion.** Option DEL-2b would not adversely affect the recreational activities, features, or attributes of the Longfellow Creek Natural Area either permanently or during temporary occupancy. The temporary occupancy is determined to be minimal and would not constitute a use because it satisfies the temporary use exception conditions. As described above, the City has not provided concurrence on this finding.

#### ***Longfellow Creek Legacy Trail***

Figure 3-4 shows project impacts to the Longfellow Creek Legacy Trail, which are described below by alternative. Preferred Option DEL-6b, Alternative DEL-5, Alternative DEL-6a, and Alternative 7 would not impact this resource.

#### ***Alternative DEL-1a, Alternative DEL-2a, Alternative DEL-3, and Alternative DEL-4***

These alternatives would all construct an elevated guideway over portions of Southwest Genesee Street in the vicinity of the Longfellow Creek Trail, but they would avoid placing guideway columns on the trail inside the Longfellow Creek Natural Area. These alternatives would all avoid a permanent incorporation or temporary occupancy of the Longfellow Creek Legacy Trail resource, as well as any impacts to the trail access from Southwest Genesee Street. Each of these alternatives would result in the visible removal of trees along the south side of Southwest Genesee Street near the trail and the visual presence of an elevated guideway from areas of the trail, but these visual impacts would not substantially impair the ability of users to recreationally use the trail in the manner they do today.

**Conclusion.** Based on the above discussion, these alternatives would not adversely affect the recreational activities, features, or attributes of the Longfellow Creek Legacy Trail either permanently or temporarily, and there would be no substantial impairment to the resource as a result of proximity impacts. As such, there would be no constructive use of the Longfellow Creek Legacy Trail under Alternative DEL-1a, Alternative DEL-2a, Alternative DEL-3, and Alternative DEL-4.

#### ***Option DEL-1b and Option DEL-2b***

Option DEL-1b and Option DEL-2b would result in a permanent incorporation of the trail because the trail connection stairway to the sidewalk on Southwest Genesee Street would need to be relocated slightly northward due to widening of the roadway to the north by about 20 feet. However, the relocated trail access would provide the same function as the current trail, and trail users would be able to use the trail in the same manner they do today.

These options would also result in the temporary detour of the trail at the trail's access point from Southwest Genesee Street during construction. About 600 feet of trail between Southwest Nevada Street and Southwest Genesee Street would continue to be accessible, but the staircase to connect to Southwest Genesee Street would not be accessible. A signed detour would be provided via 26th Avenue Southwest and Southwest Nevada Street and via Southwest Dakota Street during temporary closures of 26th Avenue Southwest to maintain continuity of the trail.

**Conclusion.** Based on the above discussion, Option DEL-1b and Option DEL-2b would not adversely affect the recreational activities, features, or attributes of this resource either permanently or temporarily during construction; therefore, impacts to the Longfellow Creek Natural Area under this option are determined to be *de minimis*. As described above, the City has not provided concurrence on this finding.

### West Seattle Golf Course

Figure 3-4 shows project impacts to the West Seattle Golf Course, which are described below by alternative. Preferred Option DEL-6b, Alternative DEL-5, Alternative DEL-6a, and Alternative DEL-7 would not impact this resource.

#### Alternative DEL-1a

There would be no permanent incorporation of land at the West Seattle Golf Course with this alternative. The project would require a 0.5-acre aerial easement along the north edge of the park property. The guideway would be approximately 150 feet high adjacent to the golf course, and the area underneath the guideway would remain open and the aerial easement would not extend over the playable area. Trees in this area would be removed. Within the same area of the aerial easement, there would also be an underground easement for guideway column foundations, but the columns would be outside of the golf course property, in the right-of-way. However, construction of the Alternative DEL-1a would result in the temporary occupancy of approximately 1 acre of the north end of the golf course property, impacting up to three greens (holes 13, 14 and 16) and the cart path in the golf course. The affected greens would be modified, and the cart path rerouted to avoid the construction area. Although nearby play may be impacted during some construction activities involving large cranes (such as girder placement), these construction activities would have short time durations (less than an hour); therefore, play on nearby holes would only be restricted during those times. The area temporarily occupied would be fully restored after construction. Sound Transit would coordinate with Seattle Parks and Recreation to determine the final mitigation to ensure the golf course is still playable throughout construction. With the course modification to avoid impacts during construction, the course would be playable similar to how it is played today; the adverse effect to the golf course would be mitigated prior to construction. The temporary occupancy exception criteria and findings are as follows:

1. **Criterion:** *Duration must be temporary (i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land).*

**Finding:** Although the overall duration of project construction would be approximately 5 years, the project would be constructed in phases, so the duration of the temporary occupancy of West Seattle Golf Course (up to 3 years) would be less than the time needed to construct the whole project. There would be no change in ownership of this resource.

2. **Criterion:** *Scope of work must be minor (i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal).*

**Finding:** Although a portion of the golf course would be modified to keep two greens playable during construction, it would continue to be used in the same manner it is currently (for playing golf); as such, the existing features and attributes that qualify the golf course for protection under Section 4(f) would be minimally impacted by project actions.

3. **Criterion:** *There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis.*

**Finding:** None of the activities, features, or attributes of the West Seattle Golf Course would incur permanent adverse physical impacts, nor would there be temporary or permanent interference with visitors using the golf course as they currently do. The impacted greens would be modified, and the cart path re-aligned prior to construction to ensure that the course remains playable. Although there would be periodic temporary interruptions to nearby play during some construction activities involving large cranes, these construction activities would

have short time durations (less than an hour) and only play on nearby holes would be restricted during those times. This would not result in temporary interference because the golf course itself would remain open and the activity of golf would remain available to visitors at other areas of the course.

4. **Criterion:** *The land being used must be fully restored (i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project).*

**Finding:** The approximate 1 acre of vegetated land disturbed during temporary occupancy would be restored to existing conditions or better after construction.

5. **Criterion:** *There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.*

**Finding:** FTA and Sound Transit have requested documented agreement from the City of Seattle that the above temporary occupancy exception criteria are met for this resource.

There would be visual impacts associated with the installation of an elevated guideway adjacent to the golf course, which has views of Downtown Seattle, Elliott Bay, and Mount Rainier from various locations. While these views are a feature of the golf course, the golf course as a park/recreation Section 4(f) resource is primarily valued for providing an opportunity for the general public to actively recreate by playing golf and the golf course does not derive its purpose or significance from the quality of its views. It is the active recreational element from which the golf course derives its significance as a recreational resource and its subsequent protection under Section 4(f); an impact to views from some parts of the golf course would not substantially impair this recreational element. As such, there would be no adverse effect on the activities, features, or attributes that qualify the golf course for protection under Section 4(f).

**Conclusion.** Based on the above discussion, Alternative DEL-1a would not adversely affect the recreational activities, features, or attributes of the West Seattle Golf Course either permanently or during temporary occupancy. The temporary occupancy is determined to be minimal and would not constitute a use because it satisfies the temporary use exception conditions. As described above, the City has not provided concurrence on this finding.

#### *Option DEL-1b and Option DEL-2b*

There would be no permanent incorporation of land at the West Seattle Golf Course with these options. These options would require a less than 0.1-acre aerial easement for guideway overhang, and the columns and foundations would be outside of the golf course property, in the right-of-way. However, Option DEL-1b and Option DEL-2b would temporarily occupy a small portion of land (approximately 0.2 acre) on the north side of the golf course for up to 3 years during construction. This would require temporarily re-aligning a cart path for about 2 years for a short distance along the north end of the golf course where it parallels Southwest Genesee Street, to retain its functionality. Sound Transit would coordinate with Seattle Parks and Recreation to re-align the cart path prior to construction. The temporary occupancy exception criteria and findings are as follows:

1. **Criterion:** *Duration must be temporary (i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land).*

**Finding:** Although the overall duration of project construction would be approximately 5 years, the project would be constructed in phases, so the duration of the temporary occupancy of West Seattle Golf Course (up to 3 years) would be less than the time needed to construct the whole project. There would be no change in ownership of this resource.

2. **Criterion:** *Scope of work must be minor (i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal).*

**Finding:** The portion of the West Seattle Golf Course that would be temporarily occupied contains trees, grass, and a golf cart path. The cart path would be temporarily re-aligned for a short distance so that golfers can use it during project construction; the recreational features and amenities of the golf course would not be impacted. Therefore, the magnitude of the changes to the golf course property is minimal.

3. **Criterion:** *There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis.*

**Finding:** None of the activities, features, or attributes of the West Seattle Golf Course would incur permanent adverse physical impacts, nor would there be temporary or permanent interference with visitors using the golf course as they currently do. The impacted cart path would be re-aligned before construction begins to maintain its use by visitors. There would be no temporary or permanent noise, visual, or access impacts that interfere with the protected activities, features, or attributes of the property.

4. **Criterion:** *The land being used must be fully restored (i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project).*

**Finding:** The up to 0.2 acre of vegetated land disturbed during temporary occupancy would be restored to existing conditions or better after construction.

5. **Criterion:** *There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.*

**Finding:** FTA and Sound Transit have requested documented agreement from the City of Seattle that the above temporary occupancy exception criteria are met for this resource.

**Conclusion.** Based on the above discussion, neither Option DEL-1b nor Option DEL-2b would adversely affect the recreational activities, features, or attributes of the West Seattle Golf Course either permanently or during temporary occupancy. The temporary occupancy is determined to be minimal and would not constitute a use because it satisfies the temporary use exception conditions. As described above, the City has not provided concurrence on this finding.

#### *Alternative DEL-2a*

This alternative would permanently incorporate approximately 0.7 acre of the West Seattle Golf Course because it would transition from an elevated guideway to a tunnel at the northwest corner of the property. Approximately 1 percent of the total area of the golf course would be permanently impacted. This alternative would remove some playable area along the northern property boundary and permanently impact five holes of the golf course (holes 13, 14, 15, 17, and 18). To mitigate for this permanent incorporation, the golf course could be modified to retain full functionality. However, the modified holes would need to have a minimum yardage; mitigation could include shortening a hole or reconfiguring part of the golf course. Protective fencing would need to be installed for this alternative between the course and the guideway to prevent golf balls from falling on the guideway or striking a train. After mitigation, there would still be an adverse effect on the features, attributes, or activities that qualify the golf course for protection under Section 4(f). As such, Alternative DEL-2a would result in a use of the West Seattle Golf Course. In addition to the permanent incorporation impacts, Alternative DEL-2a would also temporarily occupy an additional 1.2 acres of the golf course for construction and would impact the same playable area as impacted by the permanent incorporation.

**Conclusion.** Alternative DEL-2a would incorporate land from the West Seattle Golf Course and permanently adversely affect the features, attributes, or activities of the golf course. As such, impacts to the West Seattle Golf Course under Alternative DEL-2a would be a use under Section 4(f).

#### *Alternative DEL-3*

There would be no permanent incorporation of land at the West Seattle Golf Course with this alternative. Alternative DEL-3 would require a 0.6-acre aerial easement along the north edge of the park property. The guideway would be approximately 140 feet along the golf course, and the area underneath the guideway would remain open and the aerial easement would not extend over the playable area. Trees in this area would be removed. Within the same area of the aerial easement, there would also be an underground easement for guideway column foundations, but the columns would be outside of park property in the right-of-way. However, construction of Alternative DEL-3 would result in the temporary occupancy of approximately 1.2 acre of the north end of the golf course property, impacting up to three greens (holes 13, 14 and 16) and the cart path in the golf course. The impacted greens would be modified, and the cart path rerouted to avoid the construction area. Although nearby play could be impacted during some construction activities involving large cranes (such as girder placement), these construction activities would have short time durations (less than an hour); therefore, play on nearby holes would only be restricted during those times. The area temporarily occupied would be restored after construction. Sound Transit would coordinate with Seattle Parks and Recreation to determine the final mitigation to ensure the golf course is still playable throughout construction. With the course modification to avoid impacts during construction, the course would be playable similar to how it is played today; the adverse effect to the golf course would be mitigated prior to construction.

The temporary occupancy exception criteria and findings are as follows:

1. **Criterion:** *Duration must be temporary (i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land).*

**Finding:** Although the overall duration of project construction would be approximately 5 years, the project would be constructed in phases, so the duration of the temporary occupancy of West Seattle Golf Course (up to 3 years) would be less than the time needed to construct the whole project. There would be no change in ownership of this resource.

2. **Criterion:** *Scope of work must be minor (i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal).*

**Finding:** Although a portion of the golf course would be modified to keep two greens playable during construction, it would continue to be used in the same manner as it is currently (for playing golf); as such, the existing features and attributes that qualify the golf course for protection under Section 4(f) would be minimally impacted by project actions.

3. **Criterion:** *There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis.*

**Finding:** None of the activities, features, or attributes of the West Seattle Golf Course would incur permanent adverse physical impacts, nor would there be temporary or permanent interference with visitors using the golf course as they currently do. The impacted greens would be modified, and the cart path re-aligned prior to construction to ensure that the course remains playable. Although there would be periodic temporary interruptions to nearby play during some construction activities involving large cranes, these construction activities would have short time durations (less than an hour) and only play on nearby holes would be



restricted during those times. This would not result in temporary interference because the golf course itself would remain open and the activity of golf would remain available to visitors at other areas of the course.

4. **Criterion:** *The land being used must be fully restored (i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project).*

**Finding:** The approximate 1.2 acre of vegetated land disturbed during temporary occupancy would be restored to existing conditions or better after construction.

5. **Criterion:** *There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.*

**Finding:** FTA and Sound Transit have requested documented agreement from the City of Seattle that the above temporary occupancy exception criteria are met for this resource.

There would be visual impacts associated with the installation of an elevated guideway adjacent to the golf course, which has views of Downtown Seattle, Elliott Bay, and Mount Rainier from various locations. While these views are a feature of the golf course, the golf course is valued for providing an opportunity for the general public to actively recreate by playing golf and is the attribute from which the golf course derives its significance as a recreational resource and its subsequent protection under Section 4(f). The golf course does not derive its purpose or significance from the quality of its views. An impact to views from some parts of the golf course would not substantially impair the active recreational element. As such, there would be no adverse effect on the activities, features, or attributes that qualify the golf course for protection under Section 4(f).

**Conclusion.** Based on the above discussion, Alternative DEL-3 would not adversely affect the recreational activities, features, or attributes of the West Seattle Golf Course either permanently or during temporary occupancy. The temporary occupancy is determined to be minimal and would not constitute a use because it satisfies the temporary use exception conditions. As described above, the City has not provided concurrence on this finding.

#### *Alternative DEL-4*

Alternative DEL-4 would permanently incorporate approximately 0.8 acre of the golf course because it would transition from an elevated guideway to a tunnel at the northwest corner of the golf course property. Approximately 1 percent of the total area of the golf course would be permanently impacted. This alternative would remove some playable area along the northern property boundary and impact five holes of the golf course (holes 13, 14, 15, 17, and 18). To mitigate for this permanent incorporation, the golf course could be modified to retain full functionality. However, the modified holes would need to have a minimum yardage; mitigation could include shortening a hole or reconfiguring part of the golf course. Protective fencing would need to be installed for this alternative between the course and the guideway to prevent golf balls from falling on the guideway or striking a train. After mitigation, there would still be an adverse effect on the features, attributes, or activities that qualify the golf course for protection under Section 4(f). As such, Alternative DEL-4 would result in a use of the West Seattle Golf Course. In addition to the permanent incorporation of land impacts, this alternative would also temporarily occupy an additional 1.2 acres of the golf course for construction and would impact the same playable area as impacted by the permanent incorporation.

**Conclusion.** Alternative DEL-4 would incorporate land from the West Seattle Golf Course and permanently adversely affect the features, attributes, or activities of the golf course. As such, impacts to the West Seattle Golf Course under this alternative would be a use under Section 4(f).

### **3.2.3.2 Historic Resources**

The following Section 4(f) historic resources would not be impacted by any Delridge Segment alternatives:

- Residence, 4017 23rd Avenue Southwest
- Residence, 4044 32nd Avenue Southwest
- Residence, 4019 Fauntleroy Way Southwest
- Residence, 4032 35th Avenue Southwest

Section 4(f) historic resources that would be impacted by at least one Delridge Segment alternative are discussed below. Greater detail on impacts to historic resources in this segment is provided in Appendix N.5, Historic and Archaeological Resources Technical Report.

#### **West Seattle Golf Course**

Preferred Option DEL-6b, Alternative DEL-5, Alternative DEL-6a, and Alternative 7 would not impact this resource.

#### *Alternative DEL-1a, Option DEL-1b, Option DEL-2b, and Alternative DEL-3*

Alternative DEL-1a, Option DEL-1b, Option DEL-2b, and Alternative DEL-3 would not permanently incorporate land from the West Seattle Golf Course resource. There would be no additional temporary occupancy of land at this resource during construction under any of these alternatives.

Although land would not be permanently incorporated, these alternatives would cause an adverse effect under Section 106 as a result of the introduction of a new elevated guideway adjacent to the golf course, which is an historic resource. This resource is historic because it is a public works project representative of 1930s public works projects and it represents the work of a master golf course architect. People using the West Seattle Golf Course would experience visual impacts from the new elevated guideway; however, the golf course's visual setting is not what qualifies it for Section 4(f) protection. Under Section 106, the golf course is eligible for the National Register of Historic Places under Criterion A for its association with Works Progress Administration-era public works projects, particularly related to recreation, and Criterion C for representing the work of a master; subsequently, the golf course qualifies for protection under Section 4(f) because it is a historic public works project designed by a master golf course architect. As such, the project's visual impact would **not** result in a constructive use of this resource because there would not be a substantial impairment of the protected activities, features, or attributes of the West Seattle Golf Course. 23 CFR 774.15(2) provides further guidance in this matter: *"Examples of substantial impairment to visual or esthetic qualities would be the location of a proposed transportation facility in such proximity that it obstructs or eliminates the primary views of an architecturally significant historical building, or substantially detracts from the setting of a Section 4(f) property which derives its value in substantial part due to its setting."*

**Conclusion.** Based on the above discussion, there would be no use of the West Seattle Golf Course historic resource under Section 4(f) for Alternative DEL-1a, Option DEL-1b, Option DEL-2b, or Alternative DEL-3.

#### *Alternative DEL-2a and Alternative DEL-4*

Alternative DEL-2a and Alternative DEL-4 would permanently incorporate land from this historic resource and would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DEL-2a and Alternative DEL-4 would each result in a use of the West Seattle Golf Course historic resource under Section 4(f).

#### ***Bethlehem Pacific Coast Steel Company Office Building***

Preferred Option DEL-6b, Alternative DEL-5, Alternative DEL-6a, and Alternative 7 would not impact this resource.

*Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, Option DEL-2b, Alternative DEL-3, and Alternative DEL-4*

Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, Option DEL-2b, Alternative DEL-3, and Alternative DEL-4 would each result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, Option DEL-2b, Alternative DEL-3, and Alternative DEL-4 would result in a use of the Bethlehem Pacific Coast Steel Company Office Building historic resource under Section 4(f).

#### ***Cettolin House***

Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, Option DEL-2b, Alternative DEL-3, Alternative DEL-4, Alternative DEL-5, and Alternative DEL-6a would not impact this resource.

*Preferred Option DEL-6b and Alternative DEL-7*

Preferred Option DEL-6b and Alternative DEL-7 would not permanently incorporate land from this historic resource nor would they necessitate temporary occupancy at the resource during construction.

The Cettolin House at 4022 32nd Avenue Southwest would be adversely affected under Section 106 by Preferred Option DEL-6b and Alternative DEL-7. Although the property would not be directly used (no portion of the parcel would be acquired by the project), the permanent proximity impacts of the project would diminish integrity of setting, feeling, and association of this resource; integrity of location, design, materials, and workmanship would not be altered or diminished.

This would not result in a constructive use under Section 4(f) because the main reason for this resource's National Register's eligibility is not its setting but rather its distinctive modified Italian Renaissance Revival style. Therefore, setting and feeling are not substantially contributing to the historic value of the resource; as such, the diminishment of setting and feeling would not result in a substantial impairment of this resource under Section 4(f).

**Conclusion.** Based on the above discussion, there would be no use of the Cettolin House historic resource under Preferred Option DEL-6b and Alternative DEL-7.

#### ***Residence, 4030 Delridge Way Southwest***

Preferred Option DEL-6b, Alternative DEL-5, Alternative DEL-6a, and Alternative DEL-7 would not impact this resource.

*Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, Option DEL-2b, Alternative DEL-3, and Alternative DEL-4*

Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, Option DEL-2b, Alternative DEL-3, and Alternative DEL-4 would each result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, Option DEL-2b, Alternative DEL-3, and Alternative DEL-4 would result in a use of the 4030 Delridge Way historic resource under Section 4(f).

***Seattle Steel Company/Bethlehem Pacific Coast Steel Corporation***

Preferred Option DEL-6b, Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, Option DEL-2b, Alternative DEL-3, and Alternative DEL-4, and Alternative DEL-7 would not impact this resource.

*Alternative DEL-5 and Alternative DEL-6a*

Alternative DEL-5 and Alternative DEL-6a would both permanently incorporate land from this historic resource. However, both alternatives were found **not** to cause an adverse effect under Section 106. There would be no additional temporary occupancy of land at this resource during construction.

**Conclusion.** Although land would be permanently incorporated from this historic resource, Alternative DEL-5 and Alternative DEL-6a would **not** result in an adverse effect under Section 106. As such, impacts to the Seattle Steel Company/Bethlehem Pacific Coast Steel Corporation historic resource under both Alternative DEL-5 and Alternative DEL-6a are determined to be *de minimis* under Section 4(f).

***Mrachke & Son***

Preferred Option DEL-6b, Alternative DEL-5, Alternative DEL-6, and Alternative 7 would not impact this resource.

*Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, Option DEL-2b, Alternative DEL-3, and Alternative DEL-4*

Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, Option DEL-2b, Alternative DEL-3, and Alternative DEL-4 would each result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, Option DEL-2b, Alternative DEL-3, and Alternative DEL-4 would result in a use of the Mrachke & Son historic resource under Section 4(f).

***Single-Family Craftsman Residence, 4108 25th Avenue Southwest***

Preferred Option DEL-6b, Alternative DEL-3, Alternative DEL-4, Alternative DEL-5, Alternative DEL-6a, and Alternative 7 would not impact this resource.

*Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, and Option DEL-2b*

Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, and Option DEL-2b would each result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, and Option DEL-2b would result in a use of the 4108 25th Avenue Southwest historic resource under Section 4(f).

#### ***Single-Family Craftsman Residence, 4139 25th Avenue Southwest***

Preferred Option DEL-6b, Alternative DEL-3, Alternative DEL-4, Alternative DEL-5, Alternative DEL-6a, and Alternative 7 would not impact this resource.

#### ***Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, and Option DEL-2b***

Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, and Option DEL-2b would each result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, and Option DEL-2b would result in a use of the 4139 25th Avenue Southwest historic resource under Section 4(f).

#### ***Contemporary Ranch House, 4150 32nd Avenue Southwest***

Preferred Option DEL-6b, Alternative DEL-1a, Alternative DEL-2a, Option DEL-2b, Alternative DEL-3, Alternative DEL-4, Alternative DEL-6a, and Alternative 7 would not impact this resource.

#### ***Option DEL-1b and Alternative DEL-5***

Option DEL-1b and Alternative DEL-5 would both result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Option DEL-1b and Alternative DEL-5 would result in a use of the 4150 32nd Avenue Southwest historic resource under Section 4(f).

#### ***Kirlow Four-Plex***

Preferred Option DEL-6b, Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, Option DEL-2b, Alternative DEL-3, Alternative DEL-4, Alternative DEL-6a, and Alternative 7 would not impact this resource.

#### ***Alternative DEL-5***

Alternative DEL-5 would result in the demolition of this historic building, which would cause an adverse effect under Section 106.

#### **Conclusion.**

Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative DEL-5 would result in a use of the Kirlow Four-Plex historic resource under Section 4(f).

### **3.2.4 West Seattle Junction Segment**

Some project alternatives in the West Seattle Junction Segment would require tunnel easements under Section 4(f) resources. All the Section 4(f) park resources located above a proposed tunnel would also have surface impacts and therefore are included in this analysis. Historic



properties under which a project alternative would tunnel but which would not have surface impacts were reviewed to determine if a tunnel would substantially impair the historic value of the site. No historic properties were identified that would be substantially impaired by a tunnel underneath; therefore, those properties are not discussed further.

#### 3.2.4.1 Parks and Recreational Resources

The West Seattle Stadium and West Seattle Junction Park would not be impacted by any West Seattle Junction Segment alternatives.

Preferred Option WSJ-5b, Alternative WSJ-1, Alternative WSJ-2, Alternative WSJ-3a, Alternative WSJ-4, Alternative WSJ-5a, and Alternative WSJ-6 would not impact any Section 4(f) parks and recreational resources. The impact to Junction Plaza Park from Option WSJ-3b is discussed below.

##### ***Junction Plaza Park***

Preferred Option WSJ-5b, Alternative WSJ-1, Alternative WSJ-2, Alternative WSJ-3a, Alternative WSJ-4, Alternative WSJ-5a, and Alternative WSJ-6 would not impact this resource.

##### ***Option WSJ-3b***

Option WSJ-3b would permanently acquire the entire park for a station entrance; this would result in a use of Junction Plaza Park.

**Conclusion.** Option WSJ-3b would permanently acquire the entire Junction Plaza Park, which would result in a use under Section 4(f).

#### 3.2.4.2 Historic Resources

The following Section 4(f) historic resources would not be impacted by any West Seattle Junction Segment alternatives:

- Residence, 4407 38th Avenue Southwest
- Campbell Building
- Wardrobe Cleaners
- Craftsman Bungalow, 4015 Southwest Hudson Street
- Single-Family Residence, 4157 38th Avenue Southwest
- Bartell Drugs
- Residence, 4446 40th Avenue Southwest
- West Seattle Bowl
- Venable and Wing Law Office
- Residence, 4115 Southwest Hudson
- J.C. Penney/Russell Building
- Marier Foto Studio
- Single-Family Residence, 4714 38th Avenue Southwest
- Single-Family Residence, 4755 38th Avenue Southwest
- Apartment Complex (two buildings), 4821 Fauntleroy Way Southwest
- Alaska House
- Single-Family Residence, 4039 36th Avenue Southwest
- Single-Family Residence, 4045 36th Avenue Southwest
- Single-Family Residence, 4109 39th Avenue Southwest
- Single-Family Residence, 4111 38th Avenue Southwest

Section 4(f) historic resources that would be impacted by at least one West Seattle Junction Segment alternative are discussed below. Greater detail on impacts to historic resources in this segment is provided in Appendix N.5, Historic and Archaeological Resources Technical Report.

#### ***Limcrest Apartments***

Preferred Option WSJ-5b, Alternative WSJ-1, Alternative WSJ-2, Alternative WSJ-3a (when connecting to Alternative DEL-2a), Option WSJ-3b (when connecting to Alternative DEL-2a), Alternative WSJ-4, Alternative WSJ-5a, and Alternative WSJ-6 would not impact this resource.

#### ***Alternative WSJ-3a and Option WSJ-3b (when connecting to Option DEL-2b)***

Alternative WSJ-3a and Option WSJ-3b would result in the demolition of this historic building, which would cause an adverse effect under Section 106. Preferred Option WSJ-3b would have this impact only when connecting to Option DEL-2b (Figure 3-5).

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative WSJ-3a and Option WSJ-3b would result in a use of the Limcrest Apartments historic resource under Section 4(f).

#### ***Carlsen & Winquist Auto***

Preferred Option WSJ-5b, Alternative WSJ-2, Alternative WSJ-3a, Option WSJ-3b, Alternative WSJ-4, Alternative WSJ-5a, and Alternative WSJ-6 would not impact this resource.

#### ***Alternative WSJ-1***

This alternative would result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative WSJ-1 would result in a use of the Carlsen & Winquist Auto historic resource under Section 4(f).

#### ***West Seattle Brake Service***

Preferred Option WSJ-5b, Alternative WSJ-2, Alternative WSJ-3a, Option WSJ-3b, Alternative WSJ-4, Alternative WSJ-5a, and Alternative 6 would not impact this resource.

#### ***Alternative WSJ-1***

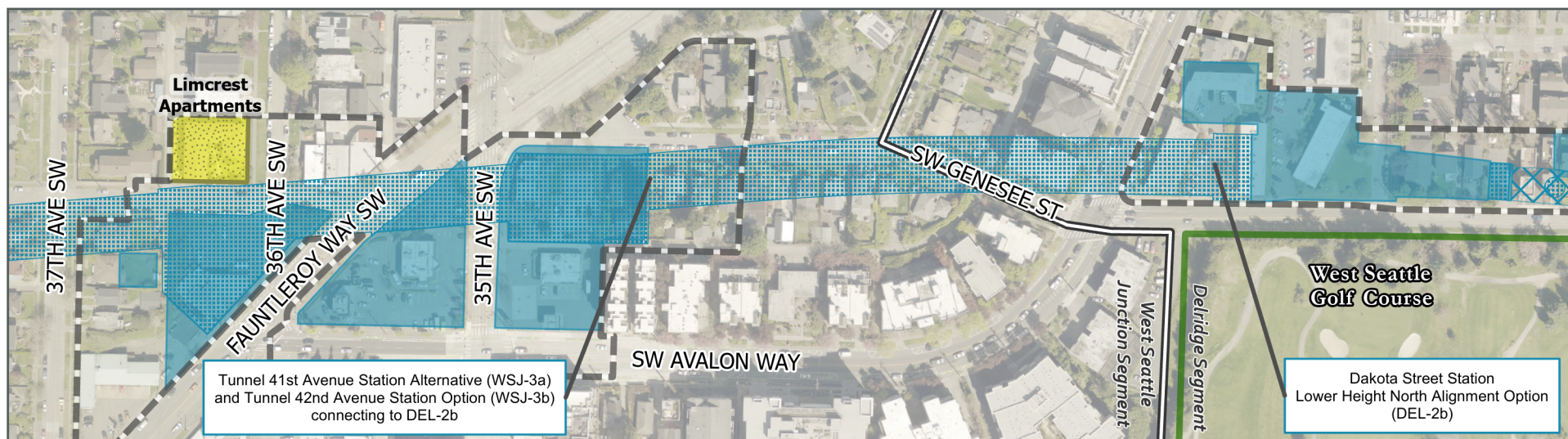
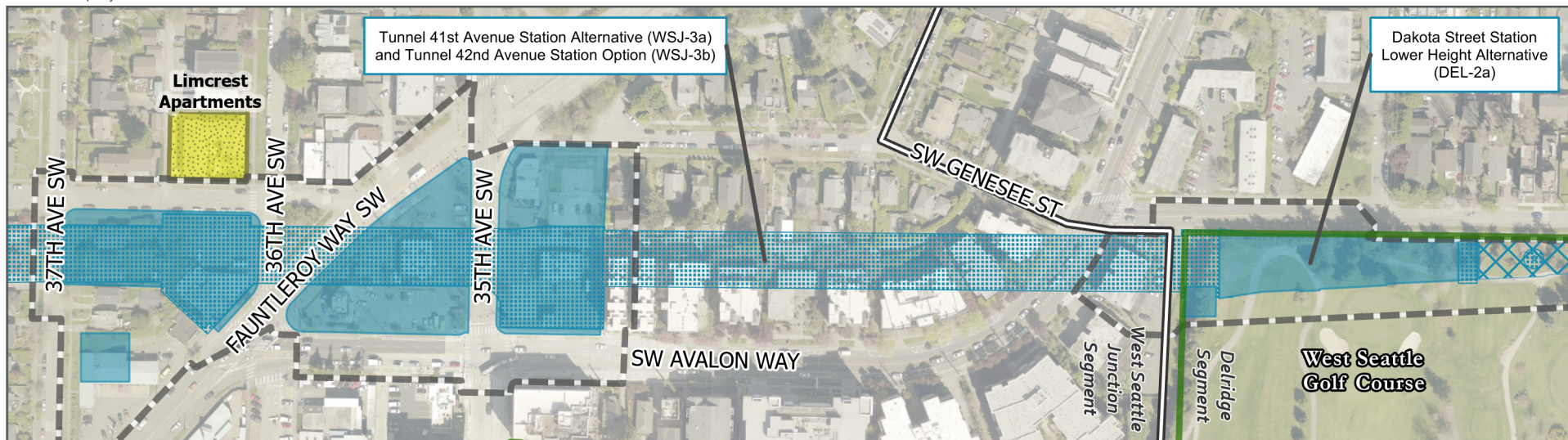
This alternative would permanently incorporate land from this historic resource; however, it was found **not** to cause an adverse effect under Section 106. There would be no additional temporary occupancy of land at this resource during construction.

**Conclusion.** Although land would be permanently incorporated from this historic resource, Alternative WSJ-1 would **not** result in an adverse effect under Section 106. As such, impacts to the West Seattle Brake Service historic resource under Alternative WSJ-1 are determined to be *de minimis* under Section 4(f).

#### ***Contemporary Ranch House, 3221 Southwest Genesee Street***

Preferred Option WSJ-5b, Alternative WSJ-3a, Option WSJ-3b, Alternative WSJ-5a, and Alternative WSJ-6 would not impact this resource.



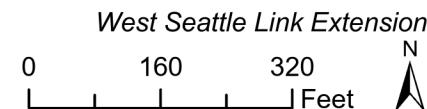


Source: EagleView Technologies, Inc. (2021), King County (2022), City of Seattle (2023).



\* (color varies by alternative type)

**FIGURE 3-5**  
**Limcrest Apartments Historic Property Impact**  
**WSJ-3a and WSJ-3b connection to DEL-2a**  
**WSJ-3a and WSJ-3b connection to DEL-2b**  
**West Seattle Junction and Delridge Segments**



***Alternative WSJ-1, Alternative WSJ-2, and Alternative WSJ-4***

These alternatives would each result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative WSJ-1, Alternative WSJ-2, and Alternative WSJ-4 would result in a use of the 3221 Southwest Genesee Street historic resource under Section 4(f).

***Golden Tee Apartments (3201 Avalon Way Southwest)***

Preferred Option WSJ-5b, Alternative WSJ-1 (when connecting to Option DEL-1b or Alternative DEL-5), Alternative WSJ-2 (when connecting to Option DEL-1b or Alternative DEL-5), Alternative WSJ-3a (when connecting to Option DEL-2b), Option WSJ-3b (when connecting to Option DEL-2b), Alternative WSJ-4, Alternative WSJ-5a, and Alternative WSJ-6 would not impact this resource.

*Alternative WSJ-1 (when connecting to Alternative DEL-1a or Alternative DEL-3), Alternative WSJ-2 (when connecting to Alternative DEL-1a or Alternative DEL-3), Alternative WSJ-3a (when connecting to Alternative DEL-2a), Option WSJ-3b (when connecting to Alternative DEL-2a), and Alternative WSJ-4 (when connecting to Alternative DEL-1a or Alternative DEL-3)*

Alternative WSJ-1 and Alternative WSJ-2 would result in a permanent incorporation of land at this resource and would result in an adverse effect under Section 106. Alternative WSJ-3a, Option WSJ-3b, and Alternative WSJ-4 would result in the demolition of this historic building, which would cause an adverse effect under Section 106 (Figure 3-6).

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative WSJ-1, Alternative WSJ-2, Alternative WSJ-3a, Option WSJ-3b, and Alternative WSJ-4 would result in a use of the Golden Tee Apartments (3201 Southwest Genesee Street) historic resource under Section 4(f).

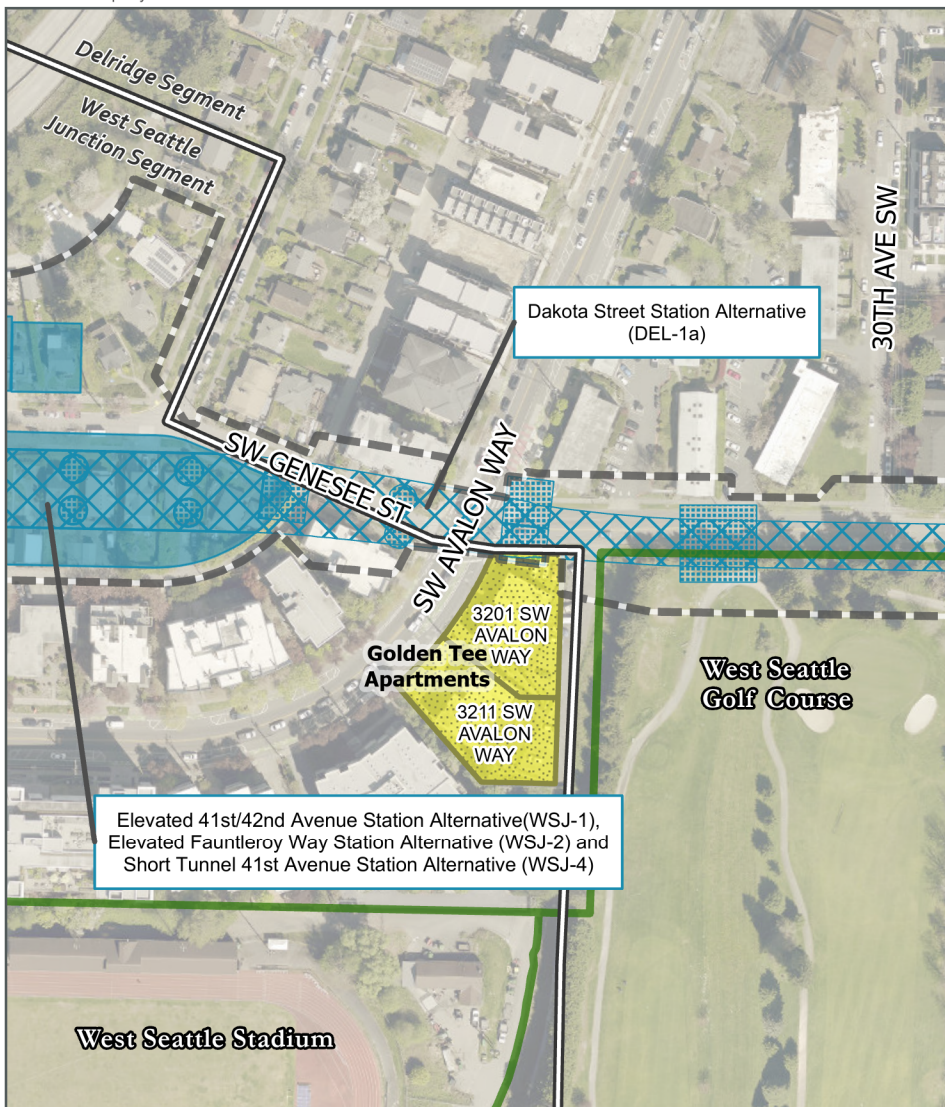
***Golden Tee Apartments, 3211 Southwest Avalon Way***

Preferred Option WSJ-5b, Alternative WSJ-1, Alternative WSJ-2, Alternative WSJ-5, and Alternative WSJ-6 would not impact this resource.

***Alternative WSJ-3a, Option WSJ-3b, and Alternative WSJ-4***

These alternatives would not permanently incorporate land from the Golden Tee Apartments (3211 Southwest Avalon Way) historic resource; however, a finding of adverse effect under Section 106 has been made for these alternatives with respect to this historic resource. The Section 106 finding of adverse effect for this historic resource is associated with the demolition of its twin building next door at 3201 Southwest Avalon Way. The two buildings were built as one overall complex, and removal of one of the buildings (3201 Avalon Way Southwest) would result in a diminishment of integrity of design, feeling, and setting of the other (3211 Southwest Avalon Way). However, the remaining building at 3211 Southwest Avalon Way would continue to function as it presently does after the building at 3201 Avalon Way was demolished. This would not result in a constructive use under Section 4(f) because the main reason for the resource's National Register's eligibility is not its setting but its architectural style, which would not be impacted. Therefore, the setting and feeling are not substantially contributing to the historic value of the resource and it would retain its National Register eligibility. The diminishment of setting and feeling would not result in a substantial impairment of this resource under Section 4(f).





Source: EagleView Technologies, Inc. (2021), King County (2022), City of Seattle (2023).

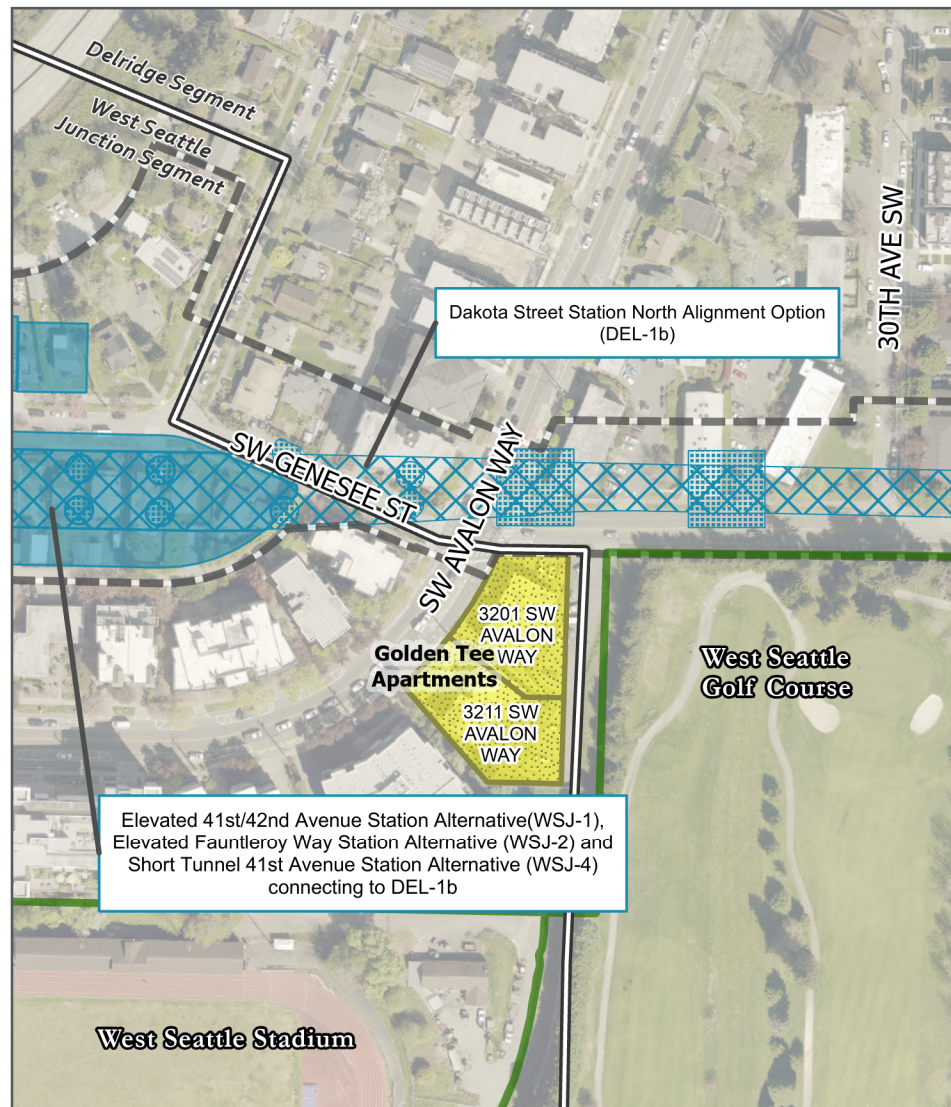
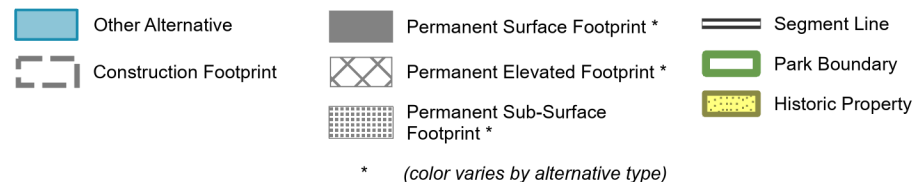
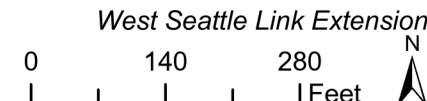


FIGURE 3-6  
Golden Tee Apartments Historic Property Impact  
WSJ-1, WSJ-2 and WSJ-4 connection to DEL-1a  
WSJ-1, WSJ-2 and WSJ-4 connection to DEL-1b  
West Seattle Junction and Delridge Segments





There would be no additional temporary occupancy of land at this resource during construction.

**Conclusion.** Although there would be an adverse effect under Section 106 related to proximity impacts, these proximity impacts would not result in a constructive use under Section 4(f) because they would not result in substantial impairment of the resource. As such, there would not be a Section 4(f) use of the Golden Tee Apartments (3211 Southwest Avalon Way) historic resource.

#### ***Chinook Apartments***

Preferred Option WSJ-5b, Alternative WSJ-1, Alternative WSJ-3a, Option WSJ-3b, Alternative WSJ-5a, and Alternative 6 would not impact this resource.

#### ***Alternative WSJ-2 and Alternative WSJ-4***

Alternative WSJ-2 and Alternative WSJ-4 would each result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative WSJ-2 and Alternative WSJ-4 would result in a use of the Chinook Apartments historic resource under Section 4(f).

#### ***Residence, 5011 41st Avenue Southwest***

Preferred Option WSJ-5b, Alternative WSJ-1, Alternative WSJ-2, Alternative WSJ-3a, Option WSJ-3b, Alternative WSJ-5a, and Alternative 6 would not impact this resource.

#### ***Alternative WSJ-4***

Alternative WSJ-4 would result in the demolition of this historic building, which would cause an adverse effect under Section 106.

**Conclusion.** Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative WSJ-4 would result in a use of the 5011 41st Avenue Southwest historic resource under Section 4(f).

#### ***Residence, 4426 38th Avenue Southwest***

Preferred Option WSJ-5b, Alternative WSJ-1, Alternative WSJ-2, Alternative WSJ-3a, Option WSJ-3b, Alternative WSJ-5a, and Alternative WSJ-6 would not impact this resource.

#### ***Alternative WSJ-4***

Alternative WSJ-4 would result in the demolition of this historic building, which would cause an adverse effect under Section 106.

#### **Conclusion.**

Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative WSJ-4 would result in a use of the 4426 38th Avenue Southwest historic resource under Section 4(f).

#### ***Jim's Shell Service***

Preferred Option WSJ-5b, Alternative WSJ-3a, Option WSJ-3b, Alternative WSJ-5a, and Alternative WSJ-6 would not impact this resource.

#### *Alternative WSJ-1, Alternative WSJ-2, and Alternative WSJ-4*

Alternative WSJ-1, Alternative WSJ-2, and Alternative WSJ-4 would all result in the demolition of this historic building, which would cause an adverse effect under Section 106.

#### **Conclusion.**

Because land would be permanently incorporated from this historic resource and there would be an adverse effect under Section 106, Alternative WSJ-1, Alternative WSJ-2, and Alternative WSJ-4 would result in a use of the Jim's Shell Service historic resource under Section 4(f).

### **3.3 Summary of Use Determinations**

If a Section 4(f) resource is not mentioned in this section, there is no use of that resource under any alternative.

#### **3.3.1 SODO Segment**

There would be one Section 4(f) use under all SODO Segment alternatives: Graybar Electric Company Building.

#### **3.3.2 Duwamish Segment**

Table 3-8 summarizes the Section 4(f) use determinations for the Duwamish Segment alternatives.

#### **3.3.3 Delridge Segment**

Table 3-9 summarizes the Section 4(f) uses for the Delridge Segment alternatives.

#### **3.3.4 West Seattle Junction Segment**

Table 3-10 summarizes the Section 4(f) uses for the West Seattle Junction Segment alternatives.

Table 3-8. Summary of Section 4(f) Use Determinations by Alternative for the Duwamish Segment

Resource	Preferred South Crossing Alternative (DUW-1a)	South Crossing South Edge Crossing Alignment Option (DUW-1b)	North Crossing Alternative (DUW-2)
West Duwamish Greenbelt	<i>de minimis</i>	<i>de minimis</i>	No use
Terminal 25 Wildlife Refuge	No use	No use	Use
Viking Automatic Sprinkler Company	No use	No use	Use
Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District	Use	Use	No use
Fire Station 14	<i>de minimis</i>	No use	<i>de minimis</i>
Pacific Hoist and Warehouse Company	No use	No use	<i>de minimis</i>
Langendorf United Bakeries	<i>de minimis</i>	<i>de minimis</i>	<i>de minimis</i>
Langendorf United Bakeries Repair Garage	<i>de minimis</i>	<i>de minimis</i>	<i>de minimis</i>
A.M. Castle and Company	No use	Use	No use
Alaskan Copper Co. Employment Office	Use	Use	Use
Auto Repair Garage	Use	Use	No use
Department of Highway District No. 1 Headquarters/Maintenance Facility – Office/Administrative Building	No use	No use	Use
Department of Highway District No. 1 Headquarters/Maintenance Facility – Maintenance Building	No use	No use	Use
Department of Highway District No. 1 Headquarters/Maintenance Facility – Storage Building	No use	No use	Use
Department of Highway District No. 1 Headquarters/Maintenance Facility – Car/Paint Building	No use	No use	Use
Department of Highway District No. 1 Headquarters/Maintenance Facility – Maintenance/Garage Building	No use	No use	Use
Spokane Street Manufacturing Historic District	Use	Use	No use
Acme Tool Works	Use	Use	No use
Transportation Equipment Rentals Office Building	No use	No use	Use
Transportation Equipment Rentals Maintenance Warehouse	No use	No use	Use

Table 3-9. Summary of Section 4(f) Use Determinations by Alternative for the Delridge Segment

Resource	Preferred Andover Street Station Lower Height South Alignment Option (DEL-6b)	Dakota Street Station Alternative (DEL-1a)	Dakota Street Station North Alignment Option (DEL-1b)	Dakota Street Station Lower Height Alternative (DEL-2a)	Dakota Street Station Lower Height North Alignment Option (DEL-2b)	Delridge Way Station Alternative (DEL-3)	Delridge Way Station Lower Height Alternative (DEL-4)	Andover Street Station Alternative (DEL-5)	Andover Street Station Lower Height Alternative (DEL-6a)	Andover Street Station Lower Height No Avalon Station Tunnel Connection Alternative (DEL-7)
Delridge Playfield	No use	No use	No use	No use	No use	<i>de minimis</i>	No use: Temporary Occupancy	No use	No use	No use
Longfellow Creek Natural Area	No use	No use: Temporary Occupancy	<i>de minimis</i>	No use	No use: Temporary Occupancy	No use	No use	No use	No use	No use
Longfellow Creek Legacy Trail	No use	No use	<i>de minimis</i>	No use	<i>de minimis</i>	No use	No use	No use	No use	No use
West Seattle Golf Course (park)	No use	No use: Temporary Occupancy	No use: Temporary Occupancy	Use	No use: Temporary Occupancy	No use: Temporary Occupancy	Use	No use	No use	No use
West Seattle Golf Course (historic property)	No use	No use	No use	Use	No use	No use	Use	No use	No use	No use
Bethlehem Pacific Coast Steel Company Office Building	No use	Use	Use	Use	Use	Use	Use	No use	No use	No use
Residence, 4030 Delridge Way Southwest	No use	Use	Use	Use	Use	Use	Use	No use	No use	No use
Seattle Steel Company/Bethlehem Pacific Coast Steel Corporation	No use	No use	No use	No use	No use	No use	No use	<i>de minimis</i>	<i>de minimis</i>	No use

Resource	Preferred Andover Street Station Lower Height South Alignment Option (DEL-6b)	Dakota Street Station Alternative (DEL-1a)	Dakota Street Station North Alignment Option (DEL-1b)	Dakota Street Station Lower Height Alternative (DEL-2a)	Dakota Street Station Lower Height North Alignment Option (DEL-2b)	Delridge Way Station Alternative (DEL-3)	Delridge Way Station Lower Height Alternative (DEL-4)	Andover Street Station Alternative (DEL-5)	Andover Street Station Lower Height Alternative (DEL-6a)	Andover Street Station Lower Height No Avalon Station Tunnel Connection Alternative (DEL-7)
Mrachke & Son	No use	Use	Use	Use	Use	Use	Use	No use	No use	No use
Single-family Craftsman Residence, 4108 25th Avenue Southwest	No use	Use	Use	Use	Use	No use	No use	No use	No use	No use
Single-family Craftsman Residence, 4139 25th Avenue Southwest	No use	Use	Use	Use	Use	No use	No use	No use	No use	No use
Contemporary Ranch House, 4150 32nd Avenue Southwest	No use	No use	Use	No use	No use	No use	No use	Use	No use	No use
Kirlow Four-Plex	No use	No use	No use	No use	No use	No use	No use	Use	No use	No use



Table 3-10. Summary of Section 4(f) Use Determinations by Alternative for the West Seattle Junction Segment

Resource	Preferred Medium Tunnel 41st Avenue Station West Entrance Station Option (WSJ-5b)	Elevated 41st/42nd Avenue Station Alternative (WSJ-1)	Elevated Fauntleroy Way Station Alternative (WSJ-2)	Tunnel 41st Avenue Station Alternative (WSJ-3a)	Tunnel 42nd Avenue Station Option (WSJ-3b)	Short Tunnel 41st Avenue Station Alternative (WSJ-4)	Medium Tunnel 41st Avenue Station Alternative (WSJ-5a)	No Avalon Station Tunnel Alternative (WSJ-6)
Junction Plaza Park	No use	No use	No use	No use	Use	No use	No use	No use
Limcrest Apartments	No use	No use	No use	Use <sup>a</sup>	Use <sup>a</sup>	No use	No use	No use
Carlsen & Winqvist Auto	No use	Use	No use	No use	No use	No use	No use	No use
West Seattle Brake Service	No use	<i>de minimis</i>	No use	No use	No use	No use	No use	No use
Contemporary Ranch House, 3221 Southwest Genesee Street	No use	Use	Use	No use	No use	Use	No use	No use
Golden Tee Apartments (3201 Avalon Way Southwest)	No use	Use <sup>b</sup>	Use <sup>b</sup>	Use <sup>c</sup>	Use <sup>c</sup>	Use <sup>b</sup>	No use	No use
Chinook Apartments	No use	No use	Use	No use	No use	Use	No use	No use
Residence, 5011 41st Avenue Southwest	No use	No use	No use	No use	No use	Use	No use	No use
Residence, 4426 38th Avenue Southwest	No use	No use	No use	No use	No use	Use	No use	No use
Jim's Shell Service	No use	Use	Use	No use	No use	Use	No use	No use

<sup>a</sup> Use would only occur when connecting to Option DEL-2b. No use would occur with other connections.

<sup>b</sup> Use would only occur when connecting to Alternative DEL-1a or Alternative DEL-3 in the Delridge Segment. No use would occur with other connections.

<sup>c</sup> Use would only occur when connecting to Alternative DEL-2a. No use would occur with other connections.

### 3.4 Avoidance Alternatives

In accordance with 23 Code of Federal Regulations Section 774.3, this section examines (where applicable) whether there is a feasible and prudent avoidance alternative, as defined in 23 Code of Federal Regulations Section 774.17 (and excerpted below), to the use of a Section 4(f) resource.

***Feasible and prudent avoidance alternative.***

*(1) A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property. In assessing the importance of protecting the Section 4(f) property, it is appropriate to consider the relative value of the resource to the preservation purpose of the statute.*

*(2) An alternative is not feasible if it cannot be built as a matter of sound engineering judgment.*

*(3) An alternative is not prudent if:*

*(i) it compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;*

*(ii) it results in unacceptable safety or operational problems;*

*(iii) after reasonable mitigation, it still causes:*

*(A) Severe social, economic, or environmental impacts;*

*(B) Severe disruption to established communities;*

*(C) Severe disproportionate impacts to minority or low-income populations; or*

*(D) Severe impacts to environmental resources protected under other Federal statutes;*

*(iv) it results in additional construction, maintenance, or operational costs of an extraordinary magnitude;*

*(v) it causes other unique problems or unusual factors; or*

*(vi) it involves multiple factors in paragraphs (3)(i) through (3)(v) of this definition, that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.*

The *Section 4(f) Policy Paper* (Federal Highway Administration 2012)<sup>1</sup> states that, along with the No Build Alternative, potential alternatives to avoid the individual use of Section 4(f) property must be considered and may include one or more of the following avoidance categories:

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<sup>1</sup> FTA adopted the Federal Highway Administration Policy Paper per the FTA November 9, 2012, Memorandum <https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/november-9-2012-memorandum>.

- **Location Alternatives.** A location alternative refers to rerouting the entire project along a different alignment.
- **Alternative Actions.** An alternative action could be a different mode of transportation, such as rail transit or bus service, or some other action that does not involve construction such as the implementation of transportation management systems or similar measures.
- **Alignment Shifts.** An alignment shift is rerouting a portion of the project to a different alignment to avoid a specific resource. An example of an alignment shift alternative would be redesigning a proposed freeway exit ramp so that it loops around a Section 4(f) resource (such as a park) on a revised alignment footprint rather than intersecting with the park itself as a way of attempting to avoid a Section 4(f) use of the park.
- **Design Changes.** A design change is a modification of the proposed design in a manner that would avoid impacts, such as reducing the planned median width, building a retaining wall, or incorporating design exceptions. To differentiate from the alignment shift alternative while using the previous freeway exit ramp example, a design change alternative would stay in the same proposed exit ramp footprint but would fly over the park (via an elevated structure) as a way of attempting to avoid a Section 4(f) use of the park.

A discussion of avoidance alternatives is provided when all the project alternatives in a segment would result in the use of an individual Section 4(f) resource; with respect to the Final EIS alternatives, this is only the case for the Duwamish Segment. The discussion of avoidance alternatives is organized in the same order as the four avoidance categories above, with the discussion becoming more specific in each subsequent category. For example, location alternatives that would avoid many resources at once are discussed first, followed by alternative actions that consider other modes. Next is alignment shifts to avoid single resources or clusters of resources, and last is design changes to avoid or reduce impacts on a specific resource.

As described in Chapter 1, Purpose and Need for West Seattle Link Extension, in the Final EIS, and in Section 2.1 of this appendix, the project corridor, including mode and markets served, was defined during the Sound Transit 3 planning process, and the project as defined in the Sound Transit 3 Plan was incorporated into Puget Sound Regional Council's 2018 Regional Transportation Plan (Puget Sound Regional Council 2018). Funding to serve these corridors and markets was approved by voters in 2016. Chapter 2, Alternatives Considered, and Appendix M, Summary of Alternatives Development and Initial Assessment Process, in the Final EIS describe the Alternatives Development and screening process for the project, including the alternatives that were considered but not carried forward into the WSBLE Draft EIS. The project alternatives discussed in the Final EIS represent Sound Transit's best attempt to balance the purpose and need of the project against potential impacts, while providing a range of alternatives for the public to consider and from which FTA and Sound Transit can choose. Much of the study area is in a highly developed, urban area. There are also many design constraints unique to light rail that must be considered when evaluating avoidance alternatives. These include a maximum grade of 6 percent, a minimum radius of 625 feet for horizontal curves (which means the guideway cannot make sharp turns), and stations must be on a straight section of track that is at least 500 feet long. For elevated guideway, the typical column spacing is 130 feet, with a maximum span of 600 feet for long-span bridges. Column size and type can be impacted by guideway height and the span between columns, with higher guideways and columns farther apart requiring larger columns and underground foundations. Sound Transit has sought to locate the project within existing public transportation right-of-way to reduce impacts to public and private property (including Section 4(f) resources), and to reduce the cost associated with property acquisition.

There is not a full-length avoidance alternative for the project because all alternatives in the Duwamish Segment would result in the use of an individual Section 4(f) resource.

As design for the project progresses, Sound Transit continues to look for opportunities to reduce project impacts, including impacts on Section 4(f) resources. The following discussion describes how the project Build Alternatives represent Sound Transit's best attempt at minimizing and avoiding Section 4(f) resources in the densely developed project corridor. Avoidance alternatives are described for individual resources or collections of resources, and the reasons these were not found to be feasible or prudent are provided. The avoidance alternatives are not feasible and prudent generally because they would result in other severe social, economic, or environmental impacts; engineering challenges; and/or costs of extraordinary magnitude. Alternatives that would avoid certain resources but still result in impacts on other Section 4(f) resources (due to the density of these resources in the study area) would not be considered avoidance alternatives.

When considering impacts to historic resources, designers first considered all possible measures to avoid and minimize impacts to the resource. Demolition is only proposed when no options exist to avoid or minimize impacts. As such, design changes were not considered for resources where the entire resource would be displaced because in such situations all potential design changes on the same alignment would not be prudent per 23 Code of Federal Regulations Section 774.17.3.iii under the definition of feasible and prudent avoidance alternatives, which states:

*after reasonable mitigation, it still causes:*

- (A) Severe social, economic, or environmental impacts;*
- (B) Severe disruption to established communities;*
- (C) Severe disproportionate impacts to minority or low-income populations; or*
- (D) Severe impacts to environmental resources protected under other Federal statutes;*

and 23 Code of Federal Regulations Section 774.17.3.vi, which states:

*It involves multiple factors in paragraphs (3)(i) through (3)(v) of this definition, that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude*

Avoidance for demolished historic resources is evaluated for location alternatives, alternative actions, and alignment shifts.

#### **3.4.1 SODO Segment**

Because none of the Final EIS Build Alternatives in the SODO Segment would avoid an individual Section 4(f) use of all Section 4(f) resources, an analysis of potential avoidance alternatives is required for this segment.

The following discussion of avoidance alternatives for the SODO Segment addresses each of the four avoidance categories described in the introduction to Section 3.4, which includes identifying location alternatives, alternative actions, alignment shifts, and design changes where applicable. This analysis considers these four avoidance categories at decreasing scales, from segment-wide to site-specific.

##### **3.4.1.1 No Build Alternative**

The No Build Alternative is required by the National Environmental Policy Act process and includes all existing and committed transportation infrastructure, facilities, and services

contained in the region's fiscally constrained and federally approved Regional Transportation Plan (Puget Sound Regional Council 2018) as well as the Sound Transit 3 Plan (Sound Transit 2016). The No Build Alternative would avoid a use of all Section 4(f) resources.

As per 23 Code of Federal Regulations Section 774.17 of the Section 4(f) regulations, an alternative is not feasible if it cannot be built as a matter of sound engineering judgment. FTA has determined that the No Build Alternative would be feasible from an engineering perspective because no construction would be required to implement the alternative.

The No Build Alternative would not adequately support the purpose and need of the project as described in Section 2.3 of this appendix. The No Build Alternative would not improve mobility nor increase transit capacity and connectivity for regional connections, nor achieve any of the project needs listed in Section 2.3. The No Build Alternative would be inconsistent with local and regional comprehensive plans, which include or are consistent with implementation of the project.

Based on the above discussion, the No Build Alternative would not be prudent per paragraph (3)(i) under the definition of feasible and prudent avoidance alternative in 23 Code of Federal Regulations Section 774.17, which states that an alternative is not prudent if:

*it compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;*

#### **3.4.1.2 Location Alternatives**

To meet the project purpose and need, the project must construct the SODO Station to provide access to the West Seattle Link Extension in the SODO community and to other destinations on the light rail system reached by transferring at the SODO Station. All of the SODO Segment alternatives carried into consideration in the WSBLE Draft EIS and the West Seattle Link Extension Final EIS included a SODO Station along the SODO Busway slightly north of South Lander Street for the purpose of being in close proximity to the existing SODO Station for transferring. To construct the SODO Station in this location requires additional right-of-way to accommodate a temporary track around the construction area of the existing SODO Station to minimize disruption to the existing 1 Line; it is this need for additional right-of-way that results in the acquisition of the Graybar Electric Company Building under all the SODO Segment alternatives. Sound Transit considered other alternatives for the location of the SODO Station but they were not carried forward into the Final EIS because they were found to not meet the purpose and need of the project or had operational challenges or additional impacts associated with connecting to the Operations and Maintenance Facility Central.

Therefore, location alternatives would not be prudent per 23 Code of Federal Regulations Section 774.17.3.i under the definition of feasible and prudent avoidance alternative, which states that an alternative is not prudent if:

*it compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;*

#### **3.4.1.3 Alternative Actions**

Not constructing a temporary track to bypass the SODO Station during construction would result in the following:

- Construction of the SODO Station elements and trackwork for the project would require full closure of existing 1 Line service for over a year, which would have a severe impact and disruption to transit users region-wide.



- Completing project construction during off-peak train service periods without the temporary track would substantially increase costs and schedule delays due to the limited work windows. This would also result in closures during off-peak periods, causing substantial disruption to transit users region-wide.

Based on the discussion above, alternative modes or actions would not be prudent per 23 Code of Federal Regulations Section 774.17.3.i, 774.17.3.iii.(A and B), and 774.17.3.1v under the definition of feasible and prudent avoidance alternative, which states that an alternative is not prudent if:

*it compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;*

*after reasonable mitigation, it still causes:*

*Severe social, economic, or environmental impacts;*

*Severe disruption to established communities*

*it results in additional construction, maintenance, or operational costs of an extraordinary magnitude;*

#### **3.4.1.4 Alignment Shifts**

To meet the project purpose and need, the project must construct the SODO Station to provide access to the West Seattle Link Extension in the SODO community and to other destinations on the light rail system reached by transferring at the SODO Station. The SODO Segment alternative alignments carried into consideration in the project EIS included a SODO Station along the SODO Busway slightly north of South Lander Street for the purpose of being in close proximity to the existing SODO Station for transferring. To construct the SODO Station in this location requires additional right-of-way to accommodate a temporary track around the construction area of the existing SODO Station to minimize disruption to the existing 1 Line; it is this need for additional right-of-way that results in the acquisition of the Graybar Electric Company Building under all the SODO Segment alternatives. Sound Transit considered other full SODO Segment alignments but they were not carried forward into this Final EIS because they were found to not meet the purpose and need of the project or had substantial additional impacts. Therefore, full SODO Segment alignment alternatives would not be prudent per 23 Code of Federal Regulations Section 774.17.3.i under the definition of feasible and prudent avoidance alternative, which states that an alternative is not prudent if:

*it compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;*

In addition to the consideration of a full SODO Segment alignment shift, there was also consideration of an alignment shift of just the temporary track; however, this was found to be not prudent for the following reasons:

- Adjusting the length of the shoofly, to tie-in to the 1 Line further south and avoid the Graybar Electric Company historic property, would not provide the necessary area for station construction and would require full closure of 1 Line service for over a year to complete the work.
- Shifting the temporary track further east would cut off access to the Graybar Electric Company historic property, likely resulting in an adverse effect under Section 106 and associated use under Section 4(f); in which case it would not be an avoidance alternative. This shift would also result in the following:

- Additional property acquisition and building demolition north of South Holgate Street
- Impacts to 6th Avenue South where electric utility lines need to be relocated
- Potential effect to relocating the SODO Trail to 6th Avenue South
- Operational challenges and increased travel times for riders on the 1 Line, as the temporary track in to connect back to the 1 Line would need to be longer and therefore would require slower speeds for a longer length of track and sharper curves
- Connecting back to the 1 Line prior to the existing pocket track (south of Stadium Station), to ensure ongoing operation of 1 Line; would also require sharper curves
- Shifting the temporary track to the west side of SODO Busway would negate the benefit of the temporary track because it would require crossing back through the area where new track would be under construction; this would still require closure(s) of the 1 Line (which is the intent of the temporary track). In addition, it could require displacement of the Carrier Annex/Terminal Post Office, a federal facility that could be difficult to relocate, and Lincoln Moving & Storage, Alaska Orient Van Lines Building, an eligible historic resource.

Based on the above discussion, an alignment shift of the proposed temporary shoofly track (or eliminating the use of a temporary shoofly track) would not be prudent per 23 Code of Federal Regulations Section 774.17.3.i, 774.17.3.iii.(A and B), and 774.17.3.1v under the definition of feasible and prudent avoidance alternative, which states that an alternative is not prudent if:

*it compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;*

*after reasonable mitigation, it still causes:*

*Severe social, economic, or environmental impacts;*

*Severe disruption to established communities*

*it results in additional construction, maintenance, or operational costs of an extraordinary magnitude;*

#### **3.4.1.5 Design Changes**

As design for the project progresses, Sound Transit continues to look for opportunities to reduce project impacts, including impacts on Section 4(f) resources. As noted earlier, design changes were not considered for resources where the entire resource would be displaced because in such situations all potential design changes on the same alignment would not be prudent per 23 Code of Federal Regulations Section 774.17 paragraph 3.iii and 3.v under the definition of feasible and prudent avoidance alternatives. Information on property-specific design changes to minimize impacts that were incorporated into the alternative design are discussed further in Section 3.5, Measures to Minimize Harm.

#### **3.4.2 Duwamish Segment**

Because none of the Final EIS Build Alternatives in the Duwamish Segment would avoid an individual Section 4(f) use of all Section 4(f) resources, an analysis of potential avoidance alternatives is required for this segment.

The following discussion of avoidance alternatives for the Duwamish Segment addresses each of the four avoidance categories described in the introduction to Section 3.4, which includes identifying location alternatives, alternative actions, alignment shifts, and design changes where applicable. This analysis considers these four avoidance categories at decreasing scales, from segment-wide to site-specific.

#### **3.4.2.1 No Build Alternative**

The No Build Alternative is required by the National Environmental Policy Act process and includes all existing and committed transportation infrastructure, facilities, and services contained in the region's fiscally constrained and federally approved Regional Transportation Plan (Puget Sound Regional Council 2018) as well as the Sound Transit 3 Plan (Sound Transit 2016). The No Build Alternative would avoid a use of all Section 4(f) resources.

As per 23 Code of Federal Regulations Section 774.17 of the Section 4(f) regulations, an alternative is not feasible if it cannot be built as a matter of sound engineering judgment. FTA has determined that the No Build Alternative would be feasible from an engineering perspective because no construction would be required to implement the alternative.

The No Build Alternative would not adequately support the purpose and need of the project as described in Section 2.3 of this appendix. The No Build Alternative would not improve mobility nor increase transit capacity and connectivity for regional connections, nor achieve any of the project needs listed in Section 2.3. The No Build Alternative would be inconsistent with local and regional comprehensive plans, which include or are consistent with implementation of the project.

Based on the above discussion, the No Build Alternative would not be prudent per paragraph (3)(i) under the definition of feasible and prudent avoidance alternative in 23 Code of Federal Regulations Section 774.17, which states that an alternative is not prudent if:

*it compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;*

#### **3.4.2.2 Location Alternatives**

To meet the project purpose and need, the project must cross the Duwamish Waterway either to the north or south of the existing West Seattle Bridge to serve the markets identified in the Sound Transit 3 Plan. Sound Transit considered other alternatives in this area during the Alternatives Development process, but they were not carried forward into this Final EIS. Table 3-11 describes the location alternatives considered and why they are not prudent.

#### **3.4.2.3 Alternative Actions**

Alternative actions, such as other modes of transportation, were evaluated and not carried forward during Sound Transit 3 Plan development, which defined the mode for this project as light rail. Therefore, alternative modes or actions would not be prudent per 23 Code of Federal Regulations Section 774.17.3.i under the definition of feasible and prudent avoidance alternative, which states that an alternative is not prudent if:

*it compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;*

#### **3.4.2.4 Alignment Shifts**

Alignment shifts were considered to avoid Section 4(f) resources that would have an individual use from one or more alternatives in the Duwamish Segment. Table 3-12 describes the alignment shifts considered and why they are not prudent.

#### **3.4.2.5 Design Changes**

As design for the project progresses, Sound Transit continues to look for opportunities to reduce project impacts, including impacts on Section 4(f) resources. As noted earlier, design changes were not considered for resources where the entire resource would be displaced because in such situations all potential design changes on the same alignment would not be prudent per 23 Code of Federal Regulations Section 774.17 paragraph 3.iii and 3.v under the definition of feasible and prudent avoidance alternatives. Information on property-specific design changes to minimize impacts that were incorporated into the alternative design are discussed further in Section 3.5, Measures to Minimize Harm.

Permanent project elements that would result in a use of the West Duwamish Greenbelt include guideway foundations; slope stabilization (retaining walls or cut slopes and anchors); stabilized slope treatment, including low-height vegetation, drainage improvements for surface flow collection and conveyance, and subsurface slope drains; and access roads for construction and maintenance of guideway and slope. Trees that could result in damage to the guideway would also be cleared. To minimize impacts to the West Duwamish Greenbelt with Preferred Alternative DUW-1a and Option DUW-1b, the alignment approaching the greenbelt from the east would be offset from the slope as much as practical to minimize the impacts within the greenbelt while maintaining the minimum required distance from the West Seattle Bridge.

The degree of impacts within the greenbelt would vary based on the alternative that it would connect to in the Delridge Segment, but impacts would be minimized by having the section of guideway at-grade and benched into the slope with retaining walls when connecting to Alternative DEL-1a, Alternative DEL-2a, Option DEL-1b, Option DEL-2b, Alternative DEL-3, or Alternative DEL-4. Constructing the guideway in this manner would require an approximately 80-foot-tall, anchored cut slope. Minimizing an impact to the park by using a retaining wall was considered, but a wall of this height is not feasible as a matter of sound engineering judgment and would not be feasible per paragraph (2) under the definition of feasible and prudent avoidance alternative in 23 Code of Federal Regulations Section 774.17.

#### **3.4.3 Delridge Segment**

Preferred Option DEL-6b, Alternative DEL-6a, and Alternative DEL-7 would each avoid an individual use of Section 4(f) resources in the Delridge Segment.

#### **3.4.4 West Seattle Junction Segment**

Preferred Option WSJ-5b, Alternative WSJ-5a, and Alternative WSJ-6 would avoid an individual use of Section 4(f) resources in the West Seattle Junction Segment.

**Table 3-11. Duwamish Segment Avoidance Alternatives - Location Alternatives**

Resource	Location Alternatives	Assessment
<ul style="list-style-type: none"> <li>• Viking Auto Sprinkler Company</li> <li>• Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District</li> <li>• A.M. Castle and Company</li> <li>• Alaskan Copper Co. Employment Office</li> <li>• Auto Repair Garage</li> <li>• Department of Highway District No. 1 Headquarters/Maintenance Facility: <ul style="list-style-type: none"> <li>○ Office/Administrative Building</li> <li>○ Maintenance Building</li> <li>○ Storage Building</li> <li>○ Car/Paint Building</li> <li>○ Maintenance/Garage Building</li> </ul> </li> <li>• Spokane Street Manufacturing Historic District</li> <li>• Acme Tool Works</li> <li>• Transportation Equipment Rentals Office Building</li> <li>• Transportation Equipment Rentals Maintenance Warehouse</li> </ul>	<p>There would be an individual use of these resources under Preferred Alternative DUW-1a, Option DUW-1b, or DUW-2.</p> <p>A tunnel for the entire alignment between the SODO Station and the West Seattle Junction Station could avoid most of these historic resources. However, this would likely not avoid an individual use of the Alaskan Copper Co. Employment Office, which would be impacted by the connection to the existing Operations and Maintenance Facility Central as identified for the existing Final EIS alternatives. Therefore, it would not be an avoidance alternative. A tunnel was also not considered due to technical feasibility and cost issues, as described below:</p> <ul style="list-style-type: none"> <li>• Technical feasibility issues are primarily related to the impractical tunnel length, which is related to the depth that would have been required under the Duwamish Waterway. To meet the operation grade requirements for light rail, the tunnel would need to begin in the SODO Segment to be deep enough to go under the Duwamish Waterway at the necessary depth and would not be able to exit the ground until the Delridge valley. The location and depth of the tunnel in the SODO area could make connecting to the Sound Transit Operations and Maintenance Facility Central not possible. Connecting to this facility is necessary for maintenance and storage of light rail vehicles. Poor soil conditions in both the SODO and Duwamish segments would require continuous ground improvements along the alignment and require the depth of the tunnel under the Duwamish Waterway to be approximately 300 feet deep to avoid ground improvements in the waterway. These ground improvements would require property acquisition or easements along the length of the tunnel, which could result in greater business displacements. Connecting to the Operations and Maintenance Facility Central would require an even longer tunnel that would require ground improvements on the Union Pacific Rail Argo railyard and Port of Seattle Terminal 106, which would further increase business displacements and could affect regional freight mobility.</li> <li>• The length of the tunnel between the SODO Station and the West Seattle Junction Station would also make the cost for this alternative more than \$2 billion more than the elevated alternatives. It would result in construction costs of extraordinary magnitude greater than the segment alternatives being evaluated in the Final EIS and would involve multiple factors that would cumulatively cause unique problems or impacts of extraordinary magnitude.</li> </ul>	<p>This location alternative would not be prudent under the definition of feasible and prudent avoidance alternative in 23 Code of Federal Regulations Section 774.17, which states:</p> <p>It results in additional construction, maintenance, or operational costs of an extraordinary magnitude (paragraph 3.iv).</p> <p>It causes other unique problems or unusual factors (paragraph 3.v).</p> <p>It results in additional construction, maintenance, or operational costs of an extraordinary magnitude (paragraph 3.v).</p> <p>It causes other unique problems or unusual factors. (paragraph 3.v).</p>



Resource	Location Alternatives	Assessment
<ul style="list-style-type: none"> <li>Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District</li> <li>A.M. Castle and Company</li> <li>Alaskan Copper Co. Employment Office</li> <li>Auto Repair Garage</li> <li>Spokane Street Manufacturing Historic District</li> </ul>	<p>There would be an individual use of these resources under Preferred Alternative DUW-1a and Option DUW-1b.</p> <p>A more southerly alignment that would cross the Duwamish Waterway in the Georgetown vicinity and followed a more gradual slope to reach Alaska Junction and connect areas south of Alaska Junction, was suggested during scoping. Some alignment suggestions included using the approximate corridors of Myers Way South, Southwest Roxbury Way, and 35th Avenue Southwest. Routes to Georgetown were considered in Level 1 but were not carried forward because they would not meet the purpose of the project, which is to provide light rail transit service to communities in the project corridor as defined through the local planning process and reflected in the Sound Transit 3 Plan (Sound Transit 2016; see Chapter 1, Purpose and Need for West Seattle Link Extension, of the Final EIS). Georgetown and the areas south of Alaska Junction listed in these suggested alternatives were not communities identified in the project corridor in Sound Transit 3. This alignment would not have avoided the West Duwamish Greenbelt because the greenbelt extends to this area, but the more southerly alignment would have avoided the identified historic properties. Therefore, it is not an avoidance alternative.</p>	<p>This location alternative would not be prudent under the definition of feasible and prudent avoidance alternative in 23 Code of Federal Regulations Section 774.17, which states:</p> <p>It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need (paragraph 3.i).</p> <p>It causes other unique problems or unusual factors (paragraph 3.v).</p>

Table 3-12. Duwamish Segment Avoidance Alternatives - Alignment Shifts

Resource	Alignment Shifts	Assessment
Alaskan Copper Company Employment Office, Auto Repair Garage	<p>There would be an individual use of these resources under Preferred Alternative DUW-1a, Option DUW-1b, and Alternative DUW-2.</p> <p>These resources would be impacted by all Duwamish Segment alternatives by the track that would connect the project to the Sound Transit Operations and Maintenance Facility Central, which is directly east of the Alaskan Copper property that includes both the employment office and auto repair garage buildings. These resources are located on the east side of 6th Avenue South, between South Forest Street and South Horton Street. Due to the size of the Alaskan Copper property and the configuration of the existing Operations and Maintenance Facility Central, avoiding this property would require accessing the Central maintenance facility from either the far north end or far south end, where integrating into the existing trackwork would require reconfiguration of the maintenance facility, which was completed in 2009. Proposed track connection locations to the Operations and Maintenance Facility Central for the project were established in coordination with Sound Transit operations and based on existing track constraints (train turnout locations need to be on flat/tangent track) and the requirement for multiple connection locations. All proposed Duwamish Segment alternatives would connect on the north side of the maintenance facility, connecting to an at-grade circulating track.</p> <p>Locating the mainline connection farther south is not feasible as a matter of sound engineering judgment due to the horizontal curve from the south (from Duwamish Waterway crossing to the SODO Busway) and the space needed for special trackwork elements. Locating the mainline connection farther north is also not feasible due to the track profile transitioning to at-grade at South Lander Street. Also, reconfiguration of the maintenance facility to allow a connection without impacting either building would be cost-prohibitive, especially because the facility is still relatively new. Reconfiguration would also result in substantial disruption to existing operations. For these same reasons, the Auto Repair Garage on the Alaskan Copper property cannot be avoided by Preferred Alternative DUW-1a or Option DUW-1b, which have slightly different connections to the maintenance facility due to the different alignment from Alternative DUW-2.</p>	<p>This alignment shift alternative would not be feasible per paragraph 2 under the definition of feasible and prudent avoidance alternative in 23 Code of Federal Regulations Section 774.17, which states:</p> <p style="padding-left: 40px;">An alternative is not feasible if it cannot be built as a matter of sound engineering judgment.</p> <p>This alignment shift alternative would also not be prudent under paragraph 3.iii, which states:</p> <p style="padding-left: 40px;">It results in unacceptable safety or operational problems.</p> <p>or under paragraph 3.v, which states:</p> <p style="padding-left: 40px;">It causes other unique problems or unusual factors.</p>

Resource	Alignment Shifts	Assessment
<ul style="list-style-type: none"> <li>• Viking Automatic Sprinkler Company</li> <li>• A.M. Castle and Company</li> <li>• Department of Highway District No. 1 Headquarters/Maintenance Facility: <ul style="list-style-type: none"> <li>○ Office/Administrative Building</li> <li>○ Maintenance Building</li> <li>○ Storage Building</li> <li>○ Car/Paint Building</li> <li>○ Maintenance/Garage Building</li> </ul> </li> <li>• Spokane Street Manufacturing Historic District</li> <li>• Acme Tool Works</li> </ul>	<p>There would be an individual use of these resources under Preferred Alternative DUW-1a, Option DUW-1b, or Alternative DUW-2.</p> <p>To avoid all of these Section 4(f) resources, an alignment was evaluated that would cross the Duwamish Waterway primarily on the south side of the West Seattle Bridge and then transition to the north side of the bridge after the crossing, on the west side of the waterway. This alignment would have to cross over the West Seattle Bridge three times to avoid all of these resources:</p> <p>(1) crossing to the south side of the bridge to avoid the historic resources on the north side of the bridge, which are all east of the Duwamish Waterway,</p> <p>(2) crossing to the north side of the bridge to avoid the West Duwamish Greenbelt, on the west side of the Duwamish Waterway, and</p> <p>(3) crossing back to the south side to reach the Delridge Station.</p> <p>Crossing over the West Seattle Bridge multiple times would require even taller structures than the Draft Environmental Impact State alternatives, would have longer water crossings, and would have longer spans with more curvature, which is structurally less desirable. These spans would also require larger, more expensive foundations and have more constrained locations for the larger foundations. These spans could also require additional in-water columns, which would have additional severe ecosystem impacts to federally protected environmental resources and could affect navigation in the Duwamish Waterway.</p>	<p>This alignment shift alternative would not be prudent per paragraph 3.iii under the definition of feasible and prudent avoidance in 23 Code of Federal Regulations Section 774.17, which states:</p> <p>After reasonable mitigation, it still causes:</p> <p>(A) Severe social, economic, or environmental impacts;</p> <p>(B) Severe disruption to established communities;</p> <p>(C) Severe disproportionate impacts to minority or low-income populations; or</p> <p>(D) Severe impacts to environmental resources protected under other federal statutes.</p>

Resource	Alignment Shifts	Assessment
<ul style="list-style-type: none"> <li>Viking Automatic Sprinkler Company</li> <li>Department of Highway District No. 1 Headquarters/Maintenance Facility: <ul style="list-style-type: none"> <li>Office/Administrative Building</li> <li>Maintenance Building</li> <li>Storage Building</li> <li>Car/Paint Building</li> <li>Maintenance/Garage Building</li> </ul> </li> <li>Transportation Equipment Rentals Office Building</li> <li>Transportation Equipment Rentals Maintenance Warehouse</li> </ul>	<p>There would be an individual use of these resources under Alternative DUW-2.</p> <p>To avoid these historic resources on the north side of the West Seattle Bridge, an alignment shift farther north than Alternative DUW-2 than what is currently proposed in this Final EIS was considered but would have greater impacts on Port of Seattle and Northwest Seaport Alliance terminals. It would directly cross Terminal 18, which is the largest container facility in the Pacific Northwest and would permanently affect operations of this facility. Impacts to operation of this container facility would have regional economic impacts. A crossing farther north would also likely require longer over-water spans of the Duwamish Waterway because it widens to the north, which could result in more in-water impacts. An alignment shift to the south to avoid these resources was not considered because Preferred Alternative DUW-1a is already located to the south.</p>	<p>This alignment shift alternative would not be prudent per paragraph 3.iii under the definition of feasible and prudent avoidance alternative in 23 Code of Federal Regulations Section 774.17, which states:</p> <p>After reasonable mitigation, it still causes:</p> <p>(A) Severe social, economic, or environmental impacts;</p> <p>(B) Severe disruption to established communities;</p> <p>(C) Severe disproportionate impacts to minority or low-income populations; or</p> <p>(D) Severe impacts to environmental resources protected under other federal statutes;</p>
<ul style="list-style-type: none"> <li>A.M. Castle and Company Building</li> </ul>	<p>There would be an individual use of this resource under Option DUW-1b.</p> <p>An alignment shift to the north to avoid these resources was not considered because Preferred Alternative DUW-1a is already located to the north of these resources. An alignment shift to the south was not considered because impacts would result in an individual use of <i>tu?əlatxw</i> Village Park and Shoreline Habitat (formerly known as Terminal 105 Park) and is therefore not an avoidance alternative. This shift would require crossing a wider section of the Duwamish Waterway, thereby increasing in-water impacts.</p>	<p>This alignment shift alternative would not be prudent per paragraph 3.iii under the definition of feasible and prudent avoidance alternative in 23 Code of Federal Regulations Section 774.17, which states:</p> <p>After reasonable mitigation, it still causes:</p> <p>(A) Severe social, economic, or environmental impacts;</p> <p>(B) Severe disruption to established communities;</p> <p>(C) Severe disproportionate impacts to minority or low-income populations; or</p> <p>(D) Severe impacts to environmental resources protected under other federal statutes;</p>

Resource	Alignment Shifts	Assessment
<ul style="list-style-type: none"> <li>Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District</li> <li>A.M. Castle and Company</li> <li>Alaskan Copper Co. Employment Office</li> <li>Auto Repair Garage</li> <li>Spokane Street Manufacturing Historic District</li> </ul>	<p>There would be an individual use of this resource under Preferred Alternative DUW-1a and Option DUW-1b.</p> <p>An alignment shift to the north to avoid these resources was not considered because Alternative DUW-2 is already located to the north. An alignment shift to the south to avoid this resource was not considered because the West Duwamish Greenbelt extends several miles to the south, and an alignment farther to the south of these historic resources and the greenbelt is discussed under Section 3.4.2.2, Location Alternatives.</p>	<p>This alignment shift alternative would not be feasible per paragraph 2 under the definition of feasible and prudent avoidance alternative in 23 Code of Federal Regulations Section 774.17, which states:</p> <p>An alternative is not feasible if it cannot be built as a matter of sound engineering judgment It results in unacceptable safety or operational problems.</p> <p>This alignment shift alternative would not be feasible per paragraph 3.ii under the definition of feasible and prudent avoidance alternative in 23 Code of Federal Regulations Section 774.17, which states:</p> <p>It results in unacceptable safety or operational problems;</p>



### **3.5 Measures to Minimize Harm**

As described in Section 3.4, Avoidance Alternatives, Sound Transit has looked for opportunities to reduce project impacts, including impacts on Section 4(f) resources, throughout the design development for the project. The Build Alternatives evaluated in this Section 4(f) Evaluation incorporate Sound Transit's best attempt at minimizing and avoiding Section 4(f) resources in the densely developed project corridor. Methods of minimization and avoidance included adjustments to the horizontal alignment, vertical profile, and placement of stations and support facilities. These design adjustments are included in the Build Alternatives that are being evaluated.

Sections 3.5.1 and 3.5.2 describe minimization measures for visual effects and noise and vibration impacts, respectively, that could apply to both parks and historic resources. Section 3.5.3, Parks and Recreation Measures to Minimize Harm, describes measures to minimize harm specific to parks, and Section 3.5.4, Historic Resources Measures to Minimize Harm, describes measures to minimize harm specific to historic resources.

#### **3.5.1 Minimization of Visual Effects**

Specific measures to minimize visual effects during construction include the implementation of design guidelines. The following describes the design guidelines that would be incorporated where practical:

- Sound Transit would develop specific design criteria for the West Seattle Link Extension 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 will work collaboratively with applicable City of Seattle agencies and adjacent communities throughout the design process to minimize visual impacts and develop a civic aesthetic for each station that is aligned with the community vision.
- Through design review in coordination with the City of Seattle, Sound Transit would consider measures to minimize impacts to visual quality from the Duwamish Waterway crossings, 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 provide screening for sensitive visual environments and/or sensitive viewers. New plantings would be consistent with Sound Transit operations and maintenance requirements and would be low-maintenance-type plant material for the long-term growth and health of the plantings. The planting design would emphasize the use of native, adaptive, hardy, drought tolerant, low-maintenance material that can attract bees and butterflies and exist without supplemental water in the local climate after the establishment period.

- 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.

### **3.5.2 Minimization of Noise and Vibration Effects**

Section 7 of Appendix N.3, Noise and Vibration Technical Report, of the Final EIS provides a description of means to reduce and monitor potential noise and vibration effects during light rail construction and operation. Key noise and vibration minimization strategies are summarized below.

#### **3.5.2.1 Noise**

Although noise-related adverse effects to Section 4(f) resources are not anticipated, for locations where Sound Transit has identified potential noise impacts, mitigation measures would be considered and reviewed using Sound Transit's light rail Noise and Vibration Mitigation Policy (Sound Transit 2023). Under this policy, potential mitigation measures would be considered for all noise impacts.

Sound Transit's noise mitigation policy is to mitigate both moderate and severe impacts beginning with source treatment, followed by treatments in the noise path. If source and path treatments are not sufficient to mitigate the impact, Sound Transit would evaluate and implement sound insulation at affected properties where the existing building does not already achieve sufficient exterior-to-interior reduction of noise levels.

For most of the identified noise impacts, sound walls were the selected method of reducing noise levels, consistent with Sound Transit's Link Noise and Vibration Mitigation Policy (Sound Transit 2023). Sound walls are effective at eliminating most predicted noise impacts for the project.

All construction activities would be required to comply with codified sound limits. Nighttime construction would require a noise variance from the City of Seattle. Noise mitigation would likely be required for construction activities to comply with Seattle Municipal Code or variance sound level limits.

#### **3.5.2.2 Vibration**

The primary means of mitigating vibration from construction activities is to require the contractor to prepare a detailed construction vibration control plan. A noise and vibration control engineer or acoustician would work with the contractor to prepare the plan in conjunction with the contractor's specific equipment and methods of construction. Key elements of a plan include the following:

- Contractor's specific equipment types
- Schedule and methods of construction
- Identification of all Category 1 and special buildings near construction sites

- Methods for projecting construction vibration levels
- Construction vibration limits
- Specific vibration control measures where predicted levels exceed the limits
- Methods for responding to community complaints

Construction would be carried out in compliance with Sound Transit specifications and all applicable local regulations. Specific construction vibration mitigation measures would be developed during the design phase, when more detailed construction means and methods information is available. The following mitigation measures would be applied as needed to minimize construction vibration impacts:

- **Pre-construction survey.** Prior to the start of construction, a survey of buildings including inspection and photographs of building foundations would be completed near construction areas.
- **Construction timing.** Nighttime construction in residential neighborhoods would be avoided and would be arranged with businesses to avoid interfering with sensitive daytime activities. Local ordinances would be followed unless variances are obtained.
- **Equipment location.** Stationary construction equipment would be located as far as possible from vibration-sensitive sites.
- **Continuous vibration monitoring.** Monitoring can be implemented at particularly sensitive receivers if needed.
- **Alternative construction methods.** Alternative construction methods would be used to minimize the use of impact and vibratory equipment (e.g., pile-drivers and compactors).

#### 3.5.3 Parks and Recreation Measures to Minimize Harm

According to City of Seattle Ordinance 118477, any City park land permanently acquired by the project must be replaced with land of equivalent or better size, value, location, and usefulness. Sound Transit would coordinate with Seattle Parks and Recreation to find suitable replacement property for acquired park land and displaced parks. Where replacement property is included as a general measure to minimize harm, the property would be replaced with property that has the same features, attributes, and activities as the displaced resource.

Table 3-13 summarizes the resource-specific measures to minimize harm to Section 4(f) park resources.

Table 3-13. Proposed Measures to Minimize Harm by Section 4(f) Park Resource

Alternative	Use Determination	Potential Impacts	Proposed Measures to Minimize Harm
<b>West Duwamish Greenbelt</b>			
DUW-1a	<i>de minimis.</i>	<p>This alternative would permanently incorporate 1.2 acres (approximately 0.6 percent of the total area) and temporarily occupy up to an additional 0.3 acre of greenbelt land. The total area of the two parcels affected is 3.05 acres.</p> <p>This alternative would impact the wildlife habitat function of the greenbelt in the study area by removing large trees, which support wildlife species such as great blue heron and peregrine falcon.</p> <p>This alternative would result in closure of the Delridge Connector Trail to the West Seattle Bridge Trail during construction.</p>	<p>Sound Transit would provide replacement park land consistent with City of Seattle Ordinance 118477 with such modifications as approved by Seattle City Council. Replacement park land would have similar recreational functions and characteristics, and would serve the same geographic area. Sound Transit would provide improvements as necessary for property to be of equivalent recreational use as the acquired greenbelt property.</p> <p>Replacement park land would be purchased by Sound Transit and conveyed to the City as mutually agreed to by Sound Transit and the City. However, if agreed to by the City, Sound Transit could provide funds for purchase of replacement property, demolition of any structures thereon, cleanup of any contamination, and necessary improvements for property to be of equivalent use as the acquired greenbelt property.</p> <p>The temporarily impacted area would be replanted with low-growing vegetation when construction is completed, but large trees would not be allowed near the guideway.</p> <p>For trees permanently removed in the West Duwamish Greenbelt and elsewhere along the project, Sound Transit will replace them or provide payment in lieu fees in compliance with governing City regulations, Seattle Department of Construction &amp; Inspections Director's Rules, and Executive Orders, or as agreed upon in the West Seattle Link Extension Tree and Vegetation Management Plan.</p> <p>Sound Transit will provide a detour of the Delridge Connector Trail to the West Seattle Bridge Trail and associated improvements for the detour. This detour route and associated improvements were developed jointly by the City of Seattle and Sound Transit. There are several areas where the City and Sound Transit will continue to refine the detour as appropriate and as agreed to by both parties.</p> <p>Based on mutual agreement by the City and Sound Transit, Sound Transit will provide a detour for the 22nd Avenue Southwest connection to the Delridge Connector Trail and associated improvements for the detour.*</p>

Alternative	Use Determination	Potential Impacts	Proposed Measures to Minimize Harm
DUW-1b	<i>de minimis.</i>	<p>This alternative would permanently incorporate 1.3 acres (approximately 0.7 percent of the total area) and temporarily occupy up to an additional 0.3 acre of greenbelt land. The total area of the three parcels affected is 3.22 acres.</p> <p>This alternative could impact the wildlife habitat function of the greenbelt in the study area by removing large trees, which support wildlife species such as great blue heron and peregrine falcon.</p> <p>This alternative would result in closure of the Delridge Connector Trail to the West Seattle Bridge Trail during construction.</p>	<p>Sound Transit would provide replacement park land consistent with City of Seattle Ordinance 118477 with such modifications as approved by Seattle City Council. The replacement area needed is assumed to be equivalent to the total areas of parcels affected. Sound Transit would provide improvements as necessary for property to be of equivalent use as the acquired greenbelt property.</p> <p>Replacement park land would be purchased by Sound Transit and conveyed to the City as mutually agreed to by Sound Transit and the City. However, if agreed to by the City, Sound Transit could provide funds for purchase of replacement property, demolition of any structures thereon, cleanup of any contamination and necessary improvements for property to be of equivalent use as the acquired greenbelt property.</p> <p>The temporarily impacted area would be replanted with low-growing vegetation when construction is completed, but large trees would not be allowed near the guideway.</p> <p>For trees permanently removed in the West Duwamish Greenbelt and elsewhere along the project, Sound Transit will replace them or provide payment in lieu fees in compliance with governing City regulations, Seattle Department of Construction &amp; Inspections Director's Rules, and Executive Orders, or as agreed upon in the West Seattle Link Extension Tree and Vegetation Management Plan. <sup>a</sup></p> <p>Sound Transit will provide a detour of the Delridge Connector Trail to the West Seattle Bridge Trail and associated improvements for the detour as depicted on Figure 1. This detour route and associated improvements were developed jointly by the City of Seattle and Sound Transit. There are several areas where the City and Sound Transit will continue to refine the detour as appropriate and as agreed to by both parties.</p> <p>Based on mutual agreement by the City and Sound Transit, Sound Transit will provide a detour for the 22nd Avenue Southwest connection to the Delridge Connector Trail and associated improvements for the detour.*</p>
DUW-2	No use.		



Alternative	Use Determination	Potential Impacts	Proposed Measures to Minimize Harm
<b>Terminal 25 Wildlife Refuge</b>			
DUW-1a	No use.		
DUW-1b	No use.		
DUW-2	Use.	This alternative would permanently incorporate approximately 600 square feet of this planned wildlife refuge and adversely affect planned wildlife habitat and restoration features intended to support the recovery of Chinook salmon and Southern Resident killer whales.	Sound Transit would coordinate with the Port of Seattle to identify potential modifications to the restoration site design if this alternative were to be selected to be built.
<b>Delridge Playfield</b>			
DEL-6b	No use.		
DEL-1a	No use.		
DEL-1b	No use.		
DEL-2a	No use.		
DEL-2b	No use.		
DEL-3	<i>de minimis.</i>	This alternative would permanently incorporate less than 0.1 acre (approximately less than 1 percent of the total area) of the playfield to accommodate an elevated guideway column and would temporarily occupy an additional 0.1 acre during construction.	The temporarily impacted area would be fully restored when construction is completed. Sound Transit would provide replacement park land consistent with City of Seattle Ordinance 118477, as appropriate.
DEL-4	No use. Temporary occupancy exception conditions would be satisfied.	This alternative would temporarily occupy 0.1 acre of the playfield during construction.	The temporarily occupied area would be fully restored when construction is completed.
DEL-5	No use.		
DEL-6a	No use.		
DEL-7	No use.		

Alternative	Use Determination	Potential Impacts	Proposed Measures to Minimize Harm
<b>Longfellow Creek Natural Area</b>			
DEL-6b	No use.		
DEL-1a	No use. Temporary occupancy exception conditions would be satisfied.	This alternative would temporarily occupy 0.1 acre of the natural area during construction. Some trees at the south edge along Southwest Genesee Street on the west end of the park may need to be removed.	The temporarily occupied area would be fully restored when construction is completed, including replacing any trees removed.
DEL-1b	<i>de minimis</i> .	This alternative would permanently incorporate 0.1 acre (approximately 2 percent of the total area) of the south end of the natural area and would temporarily occupy less than 0.1 acre during construction. Some trees at the south edge along Southwest Genesee Street on the west end of the park may need to be removed.	The temporarily impacted area would be fully restored when construction is completed, including replacing any trees removed. Sound Transit would provide replacement park land consistent with City of Seattle Ordinance 118477, as appropriate.
DEL-2a	No use.		
DEL-2b	No use. Temporary occupancy exception conditions would be satisfied.	This alternative would temporarily occupy 0.1 acre of the natural area during construction. The impacts would include removal of trees and construction of a temporary work trestle in the natural area to provide additional space on Southwest Genesee Street for equipment to maneuver. The temporarily occupied area is on the south end of the natural area.	The temporarily occupied area would be fully restored when construction is completed, including replacing any trees removed.
DEL-3	No use.		
DEL-4	No use.		
DEL-5	No use.		
DEL-6a	No use.		
DEL-7	No use.		

Alternative	Use Determination	Potential Impacts	Proposed Measures to Minimize Harm
<b>Longfellow Creek Legacy Trail</b>			
DEL-6b	No use.		
DEL-1a	No use. Temporary occupancy exception conditions would be satisfied.	Access to trail from Southwest Genesee Street temporarily disrupted.	Provide signed detour via 26th Avenue Southwest and Southwest Nevada Street and via Southwest Dakota Street during temporary closures of 26th Avenue Southwest to maintain continuity.  The temporarily occupied area would be fully restored when construction is completed.
DEL-1b	<i>de minimis</i> .	Trail connection to sidewalk relocated with reconstruction of sidewalk.  Access to trail from Southwest Genesee Street temporarily disrupted.	Provide signed detour via 26th Avenue Southwest and Southwest Nevada Street and via Southwest Dakota Street during temporary closures of 26th Avenue Southwest to maintain continuity.  Trail connection at Southwest Genesee Street restored when construction is completed.
DEL-2a	No use.		
DEL-2b	<i>de minimis</i> .	Same as Option DEL-1b.	
DEL-3	No use.		
DEL-4	No use.		
DEL-5	No use.		
DEL-6a	No use.		
DEL-7	No use.		
<b>West Seattle Golf Course</b>			
DEL-6b	No use.		
DEL-1a	No use. Temporary occupancy exception conditions would be satisfied.	This alternative would temporarily occupy approximately 1 acre of the north end of the golf course property  The temporary occupancy would impact up to three greens (holes 13, 14 and 16) and the cart path in the golf course.  Nearby play may be impacted during some construction activities involving large cranes (such as girder placement), but these construction activities would have short time durations (less than an hour);	The alternative's design limited staging areas on the golf course to only the location needed for construction of guideway columns in the Southwest Genesee Street right-of-way.  The greens (holes 13, 15 and 16) affected by the temporary occupancy would be modified and the cart path rerouted to avoid the construction area. The temporarily occupied area would be fully restored after construction. The construction period would be 2 to 3 years in the area, and modification of the affected holes would occur prior to construction and be

Alternative	Use Determination	Potential Impacts	Proposed Measures to Minimize Harm
		<p>therefore, play on nearby holes would only be restricted during those times.</p> <p>Trees would need to be removed along the north edge of the golf course.</p>	<p>returned to original condition after construction, which would limit use of the holes during those times.</p> <p>Vegetation removed would be replaced with trees and lower growing vegetation after construction in consultation with the City of Seattle. Fencing along the north edge of the golf course would be replaced. Sound Transit would coordinate with Seattle Parks and Recreation to determine the final mitigation to ensure the golf course is still playable throughout construction; the course would be playable similar to how it is played today.</p>
DEL-1b	No use. Temporary occupancy exception conditions would be satisfied.	<p>This alternative would temporarily occupy up to 0.2 acre on the north end of the golf course; a cart path is in this area.</p> <p>Some trees would need to be removed along the north edge of the golf course on the east side.</p>	<p>The alternative's design limited staging areas on the golf course to only the location needed for construction of guideway columns in the Southwest Genesee Street right-of-way.</p> <p>A cart path would be temporarily re-aligned for a short distance to retain its functionality during construction; the cart path would be re-aligned for about 2 years. The area of temporary occupancy would be fully restored after construction.</p> <p>Area along the south edge would be replanted with trees and lower growing vegetation in consultation with the City of Seattle.</p> <p>Sound Transit would coordinate with Seattle Parks and Recreation to re-align the cart path prior to construction.</p>
DEL-2a	Use.	<p>This alternative would permanently impact 1.4 acres (approximately 1 percent of the total area) of the golf course as it transitions from an elevated guideway to a tunnel at the northwest corner of the property and would temporarily occupy an additional 1.2 acres during construction. The alternative would remove some playable area along the northern property boundary and permanently impact five holes of the golf course (holes 13, 14, 15, 17, and 18).</p>	<p>The temporarily impacted area would be fully restored after construction. To mitigate for the permanent impacts, the golf course could be modified to retain functionality. However, the modified holes would need to have a minimum yardage; mitigation could include shortening a hole or reconfiguring part of the golf course. Fencing along the north edge of the golf course would be installed between the golf course and the light rail. Sound Transit would provide replacement park land consistent with City of Seattle Ordinance 118477, as appropriate.</p>
DEL-2b	No use. Temporary occupancy exception conditions would be satisfied.	Same as Option DEL-1b.	

Alternative	Use Determination	Potential Impacts	Proposed Measures to Minimize Harm
DEL-3	No use. Temporary occupancy exception conditions would be satisfied.	<p>This alternative would temporarily occupy 1.2 acres of the north end of the golf course property. The temporary occupancy would impact up to three greens (holes 13, 14, and 16) and the cart path in the golf course. Nearby play may be impacted during some construction activities involving large cranes (such as girder placement), but these construction activities would have short time durations (less than an hour); therefore, play on nearby holes would only be restricted during those times.</p> <p>Trees would need to be removed along the north edge of the golf course.</p>	<p>The alternative's design limited staging areas on the golf course to only the location needed for construction of guideway columns in the Southwest Genesee Street right-of-way.</p> <p>The greens affected by the temporary occupancy would be modified and the cart path rerouted to avoid the construction area. The temporarily occupied area would be fully restored after construction. The construction period would be 2 to 3 years in the area, and modification of the affected holes would occur prior to construction and be returned to original condition after construction, which would limit use of the holes during those times.</p> <p>Sound Transit would coordinate with Seattle Parks and Recreation to determine the final mitigation to ensure the golf course is still playable throughout construction; the course would be playable similar to how it is played today.</p> <p>Vegetation removed would be replaced with trees and lower growing vegetation after construction in consultation with the City of Seattle.</p>
DEL-4	Use.	<p>This alternative would permanently impact 1.4 acres (approximately 1 percent of the total area) of the golf course as it transitions from an elevated guideway to a tunnel at the northwest corner of the property and would temporarily occupy an additional 1.2 acres during construction. The alternative would remove some playable area along the northern property boundary and permanently impact five holes of the golf course (holes 13, 14, 15, 17, and 18).</p>	<p>The temporarily impacted area would be fully restored after construction. To mitigate for the permanent impacts, the golf course could be modified to retain functionality. However, the modified holes would need to have a minimum yardage; mitigation could include shortening a hole or reconfiguring part of the golf course. Sound Transit would coordinate with Seattle Parks and Recreation to determine the final mitigation to ensure the golf course is still playable throughout construction. Fencing along the north edge of the golf course would be installed between the golf course and the light rail. Sound Transit would provide replacement park land consistent with City of Seattle Ordinance 118477, as appropriate.</p>
DEL-5	No use.		
DEL-6a	No use.		
DEL-7	No use.		



Alternative	Use Determination	Potential Impacts	Proposed Measures to Minimize Harm
<b>Junction Plaza Park</b>			
WSJ-5b	No use.		
WSJ-1	No use.		
WSJ-2	No use.		
WSJ-3a	No use.		
WSJ-3b	Use.	This alternative would permanently acquire the park for a station entrance.	Sound Transit would provide replacement park land consistent with City of Seattle Ordinance 118477, as appropriate.
WSJ-4	No use.		
WSJ-5a	No use.		
WSJ-6	No use.		

\* These measures to minimize harm are mitigation for other project impacts not directly related to the activities, attributes, or features that qualify the resource for Section 4(f) protection and are repeated here as they address City concerns related to the property.

### **3.5.4 Historic Resources Measures to Minimize Harm**

Measures to minimize or mitigate harm to Section 4(f) historic resources, beyond the design measures already included in the project, are not known at this time as Sound Transit and FTA continue to consult with the State Historic Preservation Officer, Tribes, and other consulting parties. These measures will be coordinated with the Washington State Department of Archaeology and Historic Preservation, local jurisdictions, and interested parties. They will also be memorialized in the Section 106 programmatic agreement for this project, consistent with Section 106 of the National Historic Preservation Act. The specific mitigation measures for each affected historic resource will be developed in consultation with the State Historic Preservation Officer, Tribes, and other consulting parties under Section 106. The following typical mitigation measures for impacts to historic resources are from Section 11.2, Resolution of Adverse Effects, in Appendix N.5, Historic and Archaeological Resources Technical Report:

- Modifying the undertaking through redesign, reorientation, or other similar changes to avoid, minimize, or mitigate impacts
- Documenting historic properties or resources that would be impacted
- Installing interpretive/educational signage, or other options that provide a public benefit (e.g., exhibits, HistoryLink essays, documentaries, or historic property nominations)
- Implementing data recovery of archaeological or architectural information and materials
- Preparing a National Register nomination for an archaeological site
- Preparing City of Seattle landmark nominations for potentially eligible buildings, structures, objects, and/or sites
- Preparing an ethnographic study, historic essays, documentaries, or formal documentation
- Developing museum exhibits
- Offering lecture series, trainings, or workshops
- Additional consultation to ensure compatible replacement buildings or structures
- Supporting preservation non-profit organizations

Sound Transit will develop a detailed monitoring and inadvertent discovery plan for review by the State Historic Preservation Officer and Tribes. The plan will include research questions and outline protocols to ensure the proper treatment of archaeological resources that may be identified during construction.

#### **3.5.4.1 SODO Segment**

Each of the SODO Segment alternatives would demolish one historic resource (the Graybar Electric Company Building) to enable the construction of the project; as such, there are no minimization measures associated with SODO Segment alternative actions.

#### **3.5.4.2 Duwamish Segment**

Sound Transit has made design changes during the alternative design process and will continue to do so throughout project design to minimize impacts on historic properties in the Duwamish Segment. To minimize impacts to the Department of Highways District No. 1 Headquarters/Maintenance Facility - Office/Administrative Building, Maintenance Building, and

Storage Building under Alternative DUW-2, the construction staging area was reduced to preserve these historic buildings and only remove two other buildings on the property.

#### **3.5.4.3 Delridge Segment**

Sound Transit has made design changes during the alternative design process and will continue to do so throughout project design to minimize impacts on historic properties in the Delridge Segment.

To minimize impacts to Section 4(f) and other environmental resources, the preferred alternative for the project was revised from Alternative DEL-1a (which had temporary impacts at the West Seattle Golf Course and resulted in a use of multiple historic resources) to Preferred Option DEL-6b, which avoids a use of any Section 4(f) resources.

#### **3.5.4.4 West Seattle Junction Segment**

Sound Transit has made design changes during the alternative design process and will continue to do so throughout project design to minimize impacts on historic properties in the West Seattle Junction Segment.

To minimize impacts to Section 4(f) and other environmental resources, the preferred alternative for the project was revised from Alternative WSJ-1 and Alternative WSJ-2 (which both resulted in the use of multiple historic resources) to Preferred Option WSJ-5b, which avoids a use (or any impacts) of any Section 4(f) resources.

### **3.6 Least Harm Analysis**

#### **3.6.1 Least Harm Alternatives Analysis**

When there is no feasible and prudent avoidance alternative, FTA may approve only the alternatives that cause the least overall harm based on an assessment of the seven factors listed in 23 Code of Federal Regulations Section 774.3.c.1:

- 1) The ability of the alternative to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property).
- 2) The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection.
- 3) The relative significance of each Section 4(f) property.
- 4) The views of the official(s) with jurisdiction over each Section 4(f) property.
- 5) The degree to which each alternative meets the purpose and need for the project.
- 6) After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f).
- 7) Substantial differences in costs among the alternatives.

Because there is no alternative in either the SODO or Duwamish segments that avoids the individual use of a Section 4(f) resource, a least harm analysis is required under Section 4(f) to determine which alternative in the SODO and Duwamish segments causes the least overall harm per 23 Code of Federal Regulations Section 774.3.c. Table 3-14 presents the least harm analysis for the SODO Segment and Table 3-15 presents the least harm analysis for the

Duwamish Segment. The Delridge and West Seattle Junction segments contain alternatives that avoid all Section 4(f) resources; therefore a discussion of least harm for these segments is not required under Section 4(f).

**Table 3-14. Least Harm Analysis: SODO Segment Alternatives**

Least Harm Analysis Factor	Assessment of Least Harm	Conclusion
Factor 1: The ability to minimize and mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property).	<p>This factor evaluates how well the effects of each alternative can be mitigated for each of the impacted Section 4(f) resources in the segment.</p> <p><b>Park/Recreation and Wildlife Refuge Resources</b></p> <p>There are no park/recreation resources within the SODO Segment.</p> <p><b>Historic Resources</b></p> <p>Each of the SODO Segment alternatives would result in the demolition of one historic resource (Graybar Electric Company Building); the ability to mitigate for this demolition is the same for each SODO Segment alternative.</p>	Based on the assessment of least harm provided for this factor, all SODO Segment alternatives are concluded to equally be the least harm alternative for Factor 1.
Factor 2: The relative severity of remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection.	<p>This factor assesses the remaining effects on Section 4(f) resources after efforts to avoid, minimize, and mitigate project impacts are considered.</p> <p><b>Park/Recreation Resources</b></p> <p>There are no park/recreation resources within the SODO Segment.</p> <p><b>Historic Resources</b></p> <p>As noted for Factor 1, each of the SODO Segment alternatives would result in the demolition of one historic resource (with the same mitigation to offset the demolition).</p>	Based on the assessment of least harm provided for this factor, all SODO Segment alternatives are concluded to equally be the least harm alternative for Factor 2.
Factor 3: The relative significance of each Section 4(f) property.	Each of the SODO Segment alternatives would result in the demolition of one historic resource. Because each SODO Segment alternative would have the identical impact to Section 4(f) resources, no distinction can be made between the alternatives with respect to Factor 3.	Based on the assessment of least harm provided for this factor, all SODO Segment alternatives are concluded to equally be the least harm alternative for Factor 3.
Factor 4: The views of the official(s) with jurisdiction over each Section 4(f) property.	Each of the SODO Segment alternatives would result in the demolition of one historic resources. Because the same single Section 4(f) property is being impacted the same under all SODO Segment alternatives, no distinction can be made between the alternatives with respect to Factor 4.	Based on the assessment of least harm provided for this factor, all SODO Segment alternatives are concluded to equally be the least harm alternative for Factor 4.
Factor 5: The degree to which each alternative meets the purpose and need for the project.	This factor evaluates how well each alternative meets the project's purpose and need. The purpose of the project is to expand the Sound Transit Link light rail system from SODO to West Seattle, to make appropriate community investments to improve mobility, and to increase capacity and connectivity for regional connections (see Chapter 1, Purpose and Need for West Seattle Link Extension of the Final EIS). All Build Alternatives would meet this purpose by improving transit mobility and access to regional activity centers and advancing implementation of local and regional land use and	Based on the assessment of least harm provided for this factor, all SODO Segment alternatives are concluded to equally be the least harm alternative for Factor 5.

Least Harm Analysis Factor	Assessment of Least Harm	Conclusion
	<p>transportation plans. All the Build Alternatives would also meet the needs of the project, as outlined in Section 1.2.2, Need for the West Seattle Link Extension Project, of the Final EIS.</p> <p>An integral quantitative element that can be considered when determining the degree to which each alternative would respectively meet the purpose and need of the project is the forecasted ridership numbers. Because all the SODO Segment station alternatives are relatively close to each other and have similar transit integration profiles, the number of boardings are forecasted to be similar for all SODO Segment alternatives. As such, all SODO Segment alternatives are assumed to meet the purpose and need equally well.</p>	
Factor 6: After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f).	<p>This factor evaluates the magnitude of unavoidable environmental impacts to resources not protected by Section 4(f) after implementing mitigation measures. Sound Transit has designed alternatives to avoid impacts to environmental resources wherever feasible, while still placing the alignment and stations in locations that will serve the population areas identified in the Sound Transit 3 Plan.</p> <p>Based on the summary of environmental impacts from the various alternatives in the SODO Segment provided in the Executive Summary of the Final EIS, the areas of slight differentiation are provided below:</p> <p><u>Operational Transportation Impacts:</u></p> <p>Preferred Option SODO-1c, Alternative SODO-1a, Option SODO-1b:</p> <ul style="list-style-type: none"> <li>• 0 intersections impacted.</li> <li>• Grade separation at South Lander Street, which eliminates existing at-grade rail crossing, which reduces rail conflicts with vehicles, bicycles, and pedestrians, and improves traffic operations.</li> <li>• Permanent closure of SODO Busway.</li> </ul> <p>Alternative SODO-2:</p> <ul style="list-style-type: none"> <li>• 0 intersections impacted.</li> <li>• SODO Busway reopens following construction.</li> <li>• Retains at-grade crossing at South Lander Street.</li> </ul> <p><u>Construction Transportation Impacts:</u></p> <p>Preferred Option SODO-1c, Alternative SODO-1a, Option SODO-1b:</p> <ul style="list-style-type: none"> <li>• Full closure of South Lander Street (3 years).</li> <li>• Detour a portion of the SODO Trail.</li> <li>• Long-term (greater than 1 year) closure of the existing SODO Station.</li> </ul> <p>Alternative SODO-2:</p> <ul style="list-style-type: none"> <li>• Full closure on South Lander Street on (nights/weekends). Detour a portion of the SODO Trail.</li> <li>• SODO Busway closed for the duration of construction (5 years).</li> <li>• Long-term (greater than 1 year) closure of the existing SODO Station.</li> </ul>	Based on the assessment of least harm provided for this factor, all SODO Segment alternatives are concluded to equally be the least harm alternative for Factor 6.



Least Harm Analysis Factor	Assessment of Least Harm	Conclusion
	<p><u>Potential Residential Displacements:</u></p> <ul style="list-style-type: none"> <li>No residential displacements under any SODO alternative.</li> </ul> <p><u>Potential Business Displacements:</u></p> <ul style="list-style-type: none"> <li>Preferred Option SODO-1c: 33</li> <li>Alternative SODO-1a: 34</li> <li>Option SODO-1b: 35</li> <li>Alternative SODO-2: 31</li> </ul> <p><u>Potential Employee Displacements:</u></p> <ul style="list-style-type: none"> <li>Preferred Option SODO-1c: 240</li> <li>Alternative SODO-1a: 240</li> <li>Option SODO-1b: 260</li> <li>Alternative SODO-2: 280</li> </ul>	
Factor 7: Substantial differences in costs among the alternatives (Code of Federal Regulations Title 23 Section 774.3(c)(i)).	<p>This factor considers the cost of each alternative.</p> <ul style="list-style-type: none"> <li>Preferred Option SODO-1c: \$550 to 600 million</li> <li>Alternative SODO-1a: \$550 to 600 million</li> <li>Option SODO-1b: \$800 to 850 million</li> <li>Alternative SODO-2: \$800 to 850 million</li> </ul>	Preferred Option SODO-1c and Alternative SODO-1a cost over 40 percent less than Option SODO-1b and Alternative SODO-2. Therefore, Preferred Option SODO-1c and Alternative SODO-1a are equal least harm alternatives for Factor 7.

Based on an overall assessment of all the seven factors in 23 Code of Federal Regulations Section 774.3 presented in Table 3-14, Preferred Option SODO-1c and Alternative SODO-1a are equal least harm alternatives due solely to Factor 7 for the SODO Segment per 23 Code of Federal Regulations Section 774.3.c.1.

**Table 3-15. Least Harm Analysis: Duwamish Segment Alternatives**

Least Harm Analysis Factor	Assessment of Least Harm	Conclusion
<p>Factor 1: The ability to minimize and mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property).</p>	<p>This factor evaluates how well the effects of each alternative can be mitigated for each of the impacted Section 4(f) resources in the segment.</p> <p><b>Park/Recreation and Wildlife Refuge Resources</b></p> <p>Although the project has entailed measures to minimize harm and could provide measures to mitigate impacts to all park/recreation/wildlife refuge resources, of the three Duwamish Segment alternatives, only Alternative DUW-2 would actually result in an individual use of a Section 4(f) resource (the Terminal 25 wildlife refuge). Preferred Alternative DUW-1a and Option DUW-1b would both impact the West Duwamish Greenbelt (whereas Alternative DUW-2 would not), although those impacts would be <i>de minimis</i> in nature.</p> <p><b>Historic Resources</b></p> <p>Each of the Duwamish Segment alternatives would result in the demolition of six historic resources; the ability to mitigate for these demolition is the similar for each resource.</p> <p>In addition to the demolitions, Alternative DUW-2 would result in the partial property acquisition (and associated Section 4(f) use) of three additional historic resources. Although these partial acquisition impacts could be mitigated, because they are in addition to what would occur under Preferred Alternative DUW-1a and Option DUW-1b, Alternative DUW-2 would have the greatest impact to historic resources with regard to Factor 1.</p>	<p>Based on the assessment of least harm provided for this factor, Preferred Alternative DUW-1a and Option DUW-1b are concluded to equally both be the least harm alternative for Factor 1.</p>
<p>Factor 2: The relative severity of remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection.</p>	<p>This factor assesses the remaining effects on Section 4(f) resources after efforts to avoid, minimize, and mitigate project impacts are considered.</p> <p><b>Park/Recreation Resources</b></p> <p>After mitigation, only Alternative DUW-2 would still result in an individual use of a Section 4(f) resource. Impacts to this resource would result in a delay in realizing the intended habitat benefits of this refuge (including benefits to threatened and endangered species). As such, Alternative DUW-2 would result in greater harm to park/recreation/wildlife refuge resources with regard to Factor 2.</p> <p><b>Historic Resources</b></p> <p>As noted for Factor 1, each of three Duwamish Segment alternatives would result in the demolition of six historic resources (with similar mitigation measures to offset the demolition). Because Alternative DUW-2 also has further impacts to historic resources (three additional partial property acquisitions and associated uses), it would have the greatest impact to historic resources with regard to Factor 2.</p>	<p>Based on the assessment of least harm provided for this factor, Preferred Alternative DUW-1a and Option DUW-1b are concluded to equally both be the least harm alternative for Factor 2.</p>

Least Harm Analysis Factor	Assessment of Least Harm	Conclusion
Factor 3: The relative significance of each Section 4(f) property.	<p>This factor evaluates all impacted Section 4(f) resources on a comparative basis. This factor does not address the impacts on each resource but rather is intended to help assess whether certain resources are of greater significance than others. This analysis is necessarily qualitative and requires an element of judgment, because it requires comparing unlike resources and their relative and comparative value to the community.</p> <p>A brief discussion of Section 4(f)-protected features and amenities at each impacted park and recreational Section 4(f) resource in the Duwamish Segment is provided below, but more information about parks and recreational resources can be found in Section 4.17, Parks and Recreational Resources, of the Final EIS and more information about historic resources can be found in the Historic and Archaeological Resources Technical Report (Appendix N.5). The assessment of significance for park and recreational resources is based on research and information obtained during consultation with agencies of jurisdiction and community outreach.</p> <p>The West Duwamish Greenbelt is the largest greenbelt in the city at 28 acres and is a significant park and recreational resource in Seattle. The West Duwamish Greenbelt contains trails for walking and hiking and wildlife habitat. The greenbelt draws people from around the city to recreate in its urban forest. Preferred Alternative DUW-1a and Option DUW-1b would impact the West Duwamish Greenbelt similarly, both having a <i>de minimis</i> impact because neither would adversely affect the recreational features and activities of the resource. Alternative DUW-2 would not impact the West Duwamish Greenbelt.</p> <p>The Terminal 25 wildlife refuge is a planned approximately 10-acre site that would be adversely affected by Alternative DUW-2 because the placement of columns at the site would impact planned wildlife habitat restoration efforts intended to support the recovery of Chinook salmon and Southern Resident killer whales.</p> <p>For the purposes of this assessment, because all impacted historic resources in the Duwamish Segment are recommended eligible for the National Register (none is currently listed), they are all considered equally significant.</p>	Based on the assessment of least harm provided for this factor, all Duwamish Segment alternatives are concluded to equally be the least harm alternative for Factor 3.
Factor 4: The views of the official(s) with jurisdiction over each Section 4(f) property.	<p>This factor provides a basis for judging the relative importance of each Section 4(f) resource and the relative significance of potential impacts to these resources based on the point of view of the jurisdiction with ownership of the resource. In the Duwamish Segment, the official with jurisdiction for all park and recreational resources is the City of Seattle and the official with jurisdiction for all historic resources is the Washington State Department of Archaeology and Historic Preservation. The official with jurisdiction for the Terminal 25 Wildlife Refuge is the Port of Seattle.</p> <p>Both the Port of Seattle and the City of Seattle have communicated that the resources over which they have jurisdiction are very significant. The City of Seattle's preferred alternative based on City Council Resolution 32055 is for Alternative DUW-1a (see Attachment H.3). Similarly, the Port of Seattle expressed greater overall concerns regarding impacts to their facilities, maritime business, and the Terminal 25 planned wildlife refuge from Alternative DUW-2. The Washington State Historic Preservation Officer did not express a preference for alternatives or regarding relative significance of specific resources.</p>	Based on the assessment of least harm provided for this factor, Preferred Alternative DUW-1a would be the least harm alternative for Factor 4.

Least Harm Analysis Factor	Assessment of Least Harm	Conclusion
<p>Factor 5: The degree to which each alternative meets the purpose and need for the project.</p>	<p>This factor evaluates how well each alternative meets the project's purpose and need. The purpose of the project is to expand the Sound Transit Link light rail system from SODO to West Seattle, to make appropriate community investments to improve mobility, and to increase capacity and connectivity for regional connections (see Chapter 1, Purpose and Need for West Seattle Link Extension). All Build Alternatives would meet this purpose by improving transit mobility and access to regional activity centers and advancing implementation of local and regional land use and transportation plans. All the Build Alternatives would also meet the needs of the project, as outlined in Section 1.2.2, Need for the West Seattle Link Extension Project, of the Final EIS.</p> <p>An integral quantitative element that can be considered when determining the degree to which each alternative would respectively meet the purpose and need of the project is the forecasted ridership numbers. There are no stations in the Duwamish Segment, so forecasted ridership does not apply. In the absence of ridership numbers, each alternative in this segment is assumed to meet the purpose and need equally well.</p>	<p>Based on the assessment of least harm provided for this factor, all Duwamish Segment alternatives are concluded to equally be the least harm alternative for Factor 5.</p>
<p>Factor 6: After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f).</p>	<p>This factor evaluates the magnitude of unavoidable environmental impacts to resources not protected by Section 4(f) after implementing mitigation measures. Sound Transit has designed alternatives to avoid impacts to environmental resources wherever feasible, while still placing the alignment and stations in locations that will serve the population areas identified in the Sound Transit 3 Plan.</p> <p>Based on the summary of environmental impacts from the various alternatives in the Duwamish Segment provided in the Executive Summary of the Final EIS, a differentiation between alternatives with respect to levels of impact can be made for the following environmental resources (impacts to parks and historic resources have already been addressed in this table in Factors 1 through 4, so are not considered here):</p> <p><u>Potential Residential Displacements:</u></p> <ul style="list-style-type: none"> <li>• Preferred Alternative DUW-1a: 21 to 26</li> <li>• Option DUW-1b: 23 to 26</li> <li>• Alternative DUW-2: 0</li> <li>• Although Preferred Alternative DUW-1a and Option DUW-1b would have notably higher residential displacements, these displacements would be mitigated through adherence to Sound Transit, state, and federal relocation requirements.</li> </ul> <p><u>Potential Business Displacements:</u></p> <ul style="list-style-type: none"> <li>• Preferred Alternative DUW-1a: 35</li> <li>• Option DUW-1b: 29 to 30</li> <li>• Alternative DUW-2: 35</li> </ul>	<p>Based on the assessment of least harm provided for this factor Preferred Alternative DUW-1a and Option DUW-1b are concluded to equally be the least harm alternative for Factor 6.</p>

Least Harm Analysis Factor	Assessment of Least Harm	Conclusion
	<p><u>Potential Employee Displacements:</u></p> <ul style="list-style-type: none"> <li>• Preferred Alternative DUW-1a: 625</li> <li>• Option DUW-1b: 385</li> <li>• Alternative DUW-2: 380</li> <li>• Although Preferred Alternative DUW-1a would have notably higher employee displacements, these displacements would be mitigated through adherence to Sound Transit, state, and federal relocation requirements.</li> </ul> <p><u>Maritime Impacts:</u></p> <ul style="list-style-type: none"> <li>• Depending on the bridge type, Preferred Alternative DUW-1a and Alternative DUW-2 could avoid placing guideway columns in the water; Option DUW-1b would require guideway columns in the water for all bridge types.</li> <li>• Alternative DUW-2 would displace the most water-dependent businesses; the displacement of these businesses could impair the operations of waterway transportation and shipment of goods. Water-dependent facilities are difficult to relocate, and some may not be able to be relocated. The water-dependent business displacements triggered by Alternative DUW-2 would risk detrimental impacts on the economic activities of the Port of Seattle and Northwest Seaport Alliance, two of the key economic drivers of the Puget Sound region. These organizations support a critical mass of port employment across a variety of industries and are essential for maintaining trade and transportation flows.</li> <li>• Option DUW-1b would permanently displace moorage on the Duwamish Waterway.</li> </ul> <p><u>Potential Biodiversity Impacts:</u></p> <ul style="list-style-type: none"> <li>• Preferred Alternative DUW-1a and Option DUW-1b would both impact approximately 1 acre of the West Duwamish Greenbelt, which is home to a great blue heron colony; Alternative DUW-2 would not impact the greenbelt.</li> <li>• Alternative DUW-2 would impact the planned Terminal 25 wildlife refuge; neither Preferred Alternative DUW-1a or Option DUW-1b would impact this planned wildlife refuge. Mitigation of the impact to the Terminal 25 wildlife refuge would still result in a notable delay in the habitat benefits.</li> <li>• Preferred Alternative DUW-1a and Alternative DUW-2 could be constructed with no columns in the Duwamish Waterway, whereas Option DUW-1b would require in-water columns.</li> </ul>	
Factor 7: Substantial differences in costs among the alternatives ( <i>Code of Federal Regulations</i> Title 23 Section 774.3(c)(i)).	<p>This factor considers the cost of each alternative.</p> <ul style="list-style-type: none"> <li>• Preferred Alternative DUW-1a: \$1.95 to \$2.15 billion</li> <li>• Option DUW-1b: \$1.9 to 2.1 billion</li> <li>• Alternative DUW-2: \$2.15 to 2.35 billion</li> </ul>	Preferred Alternative DUW-1a and Option DUW-1b cost approximately 10 percent less than DUW-2. Therefore, Preferred Alternative DUW-1a and Option DUW-1b are least harm for Factor 7.



Based on an overall assessment of all the seven factors in 23 Code of Federal Regulations Section 774.3 presented in Table 3-15, Preferred Alternative DUW-1a and Option DUW-1b are equal least harm alternatives for the Duwamish Segment per 23 Code of Federal Regulations Section 774.3.c.1.

### 3.6.2 Avoidance and Least Harm Alternatives Conclusion

In accordance with 23 Code of Federal Regulations Section 774.3, the project could select a full corridor alternative that included the alternatives shown in Table 3-16.

**Table 3-16. Least Harm Alternatives by Segment**

SODO Segment	Duwamish Segment	Delridge Segment	West Seattle Junction Segment
Preferred Option SODO-1c or Alternative SODO-1a	Preferred Alternative DUW-1a or Option DUW-1b	Preferred Option DEL-6b or Alternative DEL-6a or Alternative DEL-7	Preferred Option WSJ-5b or Alternative WSJ-5a or Alternative WSJ-6

When factoring in Delridge Segment and West Seattle Junction Segment alternatives whose designs connect with one another, the following three full corridor alternative scenarios could be selected per Section 4(f), as shown in Table 3-17.

**Table 3-17. Potential West Seattle Link Extension Least Harm Alternative Scenarios**

Full Corridor Alternative Scenario	SODO Segment	Duwamish Segment	Delridge Segment	West Seattle Junction Segment
1	Preferred Option SODO-1c or Alternative SODO-1a	Preferred Alternative DUW-1a or Option DUW-1b	Alternative DEL-6a	Preferred Option WSJ-5b or Alternative WSJ-5a
2	Preferred Option SODO-1c or Alternative SODO-1a	Preferred Alternative DUW-1a or Option DUW-1b	Preferred Option DEL-6b	Preferred Option WSJ-5b or Alternative WSJ-5a
3	Preferred Option SODO-1c or Alternative SODO-1a	Preferred Alternative DUW-1a or Option DUW-1b	Alternative DEL-7	Alternative WSJ-6

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## 4 COORDINATION

Table 4-1 lists the coordination meetings conducted to date regarding Section 4(f) resources.

Table 4-2 provides a detailed listing of project coordination activities for historic properties. Copies of correspondence with the State Historic Preservation Officer are provided in Attachment N.5F of Appendix N.5, Historic and Archaeological Resources Technical Report.

Table 4-3 lists the concurrence requests sent by Sound Transit to officials with jurisdiction. A copy of the concurrence request sent to the City of Seattle is provided in Attachment H.2.

**Table 4-1. Section 4(f) Consultation Summary, Park and Recreational Facilities**

Date	Format	Participants	General Topic(s)
February 6, 2019	Tour	Sound Transit, Washington State Department of Archaeology and Historic Preservation	Corridor tour and overview of alignments
December 2, 2019	Meeting	Sound Transit, Seattle Parks and Recreation	Overview of West Seattle alternatives and potential impacts to parks
December 5, 2019	Meeting	Sound Transit, Seattle Parks and Recreation	Overview of Interbay and Ballard alternatives and potential impacts to parks
December 19, 2019	Meeting	Sound Transit, Seattle Parks and Recreation	Overview of Downtown alternatives and potential impacts to parks
February 27, 2020	Meeting	Sound Transit, Seattle Parks and Recreation, Premier Golf, Seattle Public Utilities	Overview of impacts to golf courses
March 10, 2020	Teleconference	Sound Transit, Seattle Parks and Recreation	Overview of impacts to Interbay Athletic Complex
August 3, 2021	Teleconference	Sound Transit, City of Seattle	Review draft Section 4(f) appendix
August 9, 2021	Teleconference	Sound Transit, Port of Seattle	Review draft Section 4(f) appendix
September 10, 2021	Teleconference	Sound Transit, Seattle Parks and Recreation	Discussion of comments on draft Section 4(f) appendix and clarification on <i>de minimis</i> and temporary occupancy concurrence
September 6, 2022	Teleconference	Sound Transit, Seattle Parks and Recreation	Discussion of <i>de minimis</i> determinations for West Seattle Link Extension and potential mitigation for impacts to West Duwamish Greenbelt
September 13, 2021	Teleconference	Sound Transit, City of Seattle, Seattle Center	Discussion of comments on draft Section 4(f) appendix and clarification on <i>de minimis</i> and temporary occupancy concurrence
October 31, 2022	Teleconference	Sound Transit, Seattle Parks and Recreation	Review of potential replacement properties for West Duwamish Greenbelt impacts
December 16, 2022	Teleconference	Sound Transit, Seattle Parks and Recreation	Review of potential replacement properties for West Duwamish Greenbelt impacts

Date	Format	Participants	General Topic(s)
April 17, 2023	Teleconference	Sound Transit, Seattle Parks and Recreation	Discussion of property requirements for West Duwamish Greenbelt replacement property
May 8, 2023	Teleconference	Sound Transit, Seattle Parks and Recreation	Discussion of property acquisition process for West Duwamish Greenbelt replacement property
May 22, 2023	Teleconference	Sound Transit, Seattle Parks and Recreation	Discussion of temporary detour of Delridge Connector Trail located partly on West Duwamish Greenbelt parcel
January 31, 2024	Teleconference	Sound Transit, Seattle Parks and Recreation	Discussion of concurrence request correspondence

**Table 4-2. Historic/Section 106 Consultation**

Date	From	To	Description
February 5, 2018	FTA	Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington, Suquamish Indian Tribe of the Port Madison Reservation, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation	Initiation of government-to-government consultation
February 6, 2018	Sound Transit	Duwamish Tribal Organization, Snohomish Tribe	Invitation to participate in State Environmental Policy Act early scoping
February 8, 2018	Snoqualmie Indian Tribe	FTA	Letter indicating cultural resources concern and requesting cultural resources survey
February 12, 2018	Sound Transit	Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington, Suquamish Indian Tribe of the Port Madison Reservation, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation	Invitation to participate in State Environmental Policy Act early scoping
February 14, 2019	Sound Transit	Duwamish Tribal Organization, Snohomish Tribe	Scoping notification and invitation to participate in the environmental review process
February 15, 2019	Sound Transit	Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington, Suquamish Indian Tribe of the Port Madison Reservation, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, State Historic Preservation Officer	Transmittal of State Environmental Policy Act Determination of Significance and scoping meeting invitation

Date	From	To	Description
February 25, 2019	FTA	Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington, Suquamish Indian Tribe of the Port Madison Reservation, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, State Historic Preservation Officer	Section 106 initiation and invitation to participate in environmental review process
March 5, 2019	Washington State Historic Preservation Officer	FTA	Participating agency acceptance letter
May 10, 2019	FTA	Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington, Suquamish Indian Tribe of the Port Madison Reservation, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, State Historic Preservation Officer	Transmittal of Agency Coordination Plan and request for concurrence with proposed schedule
May 10, 2019	Sound Transit	Duwamish Tribal Organization, Snohomish Tribe	Transmittal of Agency Coordination Plan and request for concurrence with proposed schedule
May 21, 2019	Washington State Historic Preservation Officer	FTA	Concurrence with schedule proposed in the Agency Coordination Plan
July 23, 2019	FTA	Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington, Suquamish Indian Tribe of the Port Madison Reservation, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, State Historic Preservation Officer	Request for concurrence with area of potential effects and No Adverse Effects determination for geotechnical investigation
July 24, 2019	Sound Transit	Duwamish Tribal Organization, Snohomish Tribe	Request for concurrence with area of potential effects and No Adverse Effects determination for geotechnical investigation
August 9, 2019	Washington State Historic Preservation Officer	FTA	Area of potential effects and No Adverse Effects determination concurrence for geotechnical investigation
September 9, 2019	Sound Transit	Duwamish Tribal Organization, Snohomish Tribe, State Historic Preservation Officer	Request for EIS methodology review
September 10, 2019	FTA	Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington, Suquamish Indian Tribe of the Port Madison Reservation, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation	Request for EIS methodology review



Date	From	To	Description
September 26, 2019	Washington State Historic Preservation Officer	Sound Transit	EIS methodology comment letter
February 12, 2020	FTA	Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington, Suquamish Indian Tribe of the Port Madison Reservation, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, State Historic Preservation Officer	Request for comments on area of potential effects and Archaeological Survey and Inventory Plan
February 20, 2020	Sound Transit	Duwamish Tribal Organization, Snohomish Tribe	Request for comments on area of potential effects and Archaeological Survey and Inventory Plan
February 25, 2020	Washington State Historic Preservation Officer	FTA	Area of potential effects concurrence and archaeological inventory methodology comments
April 21, 2020	FTA	State Historic Preservation Officer	Transmittal on the Built Environment Inventory Plan
April 23, 2020	Washington State Historic Preservation Officer	FTA	Concurrence with Built Environment Inventory Plan
August 31, 2020	FTA	Freeway Park Association, City of Seattle Historic Preservation Office, Martin Smith Inc., Alliance for Pioneer Square King County Historic Preservation Program, Historic Seattle, Historic South Downtown Community Preservation and Development Authority, Washington Trust for Historic Preservation, Seattle Center, Seattle Chinatown International District Preservation and Development Authority	Section 106 consulting party invitation and area of potential effects map
September 14, 2020	City Historic Preservation Officer	FTA	Consulting party acceptance letter and FTA response
September 23, 2020	Historic Seattle	FTA	Consulting party acceptance letter
September 24, 2020	Washington Trust for Historic Preservation	FTA	Consulting party acceptance letter
September 29, 2020	Alliance for Pioneer Square	FTA	Consulting party acceptance letter and comment on area of potential effects
September 29, 2020	Seattle Chinatown International District Preservation and Development Authority	FTA	Consulting party acceptance letter and comment on area of potential effects

Date	From	To	Description
September 29, 2020	Historic South Downtown Community Preservation and Development Authority	FTA	Consulting party acceptance letter and comment on area of potential effects
September 30, 2020	Martin Smith Inc.	FTA	Consulting party acceptance letter and comment on area of potential effects
December 7, 2020	FTA	Southwest Seattle Historical Society, Interim CDA	Section 106 consulting party invitation
December 21, 2020	Interim CDA	FTA	Consulting party acceptance letter and comment on area of potential effects
December 29, 2020	Southwest Seattle Historical Society	FTA	Consulting party acceptance letter
March 22, 2021	FTA	City Historic Preservation Officer, Historic Seattle, Historic South Downtown Community Preservation and Development Authority, Interim CDA, King County Historic Preservation Program, Martin Smith Inc., Alliance for Pioneer Square, Seattle Chinatown International District Preservation and Development Authority, Southwest Seattle Historical Society, Washington Trust for Historic Preservation	National Historic Preservation Act Section 106 Consulting Party Kickoff Meeting Notice and Coordination Plan
March 22, 2021	FTA	State Historic Preservation Officer, Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington, Suquamish Indian Tribe of the Port Madison Reservation, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation	National Historic Preservation Act Section 106 Consulting Party Kickoff Meeting Notice and Coordination Plan
March 25, 2021	FTA	Historic Seattle, Alliance for Pioneer Square, City Historic Preservation Officer, Historic South Downtown Community Preservation and Development Authority, Interim CDA, King County Historic Preservation Program, Martin Smith Inc., Seattle Chinatown International District Preservation and Development Authority, Southwest Seattle Historical Society, Washington Trust for Historic Preservation, State Historic Preservation Officer	National Historic Preservation Act Section 106 Area of Potential Effects Amendment
March 25, 2021	FTA	Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington, Suquamish Indian Tribe of the Port Madison Reservation, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation	National Historic Preservation Act Section 106 Area of Potential Effects Amendment; and National Environmental Policy Act, Administrative Draft EIS

Date	From	To	Description
March 26, 2021	Washington State Historic Preservation Officer	FTA	Area of potential effects concurrence
March 30, 2021	Sound Transit	Duwamish Tribal Organization, Snohomish Tribe	National Historic Preservation Act Section 106 Area of Potential Effects, Cultural Resources Technical Report, Agency and Tribal Coordination plan, and National Environmental Policy Act, Administrative Draft EIS Methodologies
April 30, 2021	Interim CDA	FTA	Section 106 Consultation Comments
September 3, 2021	FTA	Historic Seattle, Alliance for Pioneer Square, City Historic Preservation Officer, Historic South Downtown Community Preservation and Development Authority, Interim CDA, King County Historic Preservation Program, Martin Smith Inc., Seattle Chinatown International District Preservation and Development Authority, Southwest Seattle Historical Society, Washington Trust for Historic Preservation	National Historic Preservation Act Section 106 Area of Potential Effects Amendment and National Register Eligibility Determinations
September 7, 2021	FTA	State Historic Preservation Officer, Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington, Suquamish Indian Tribe of the Port Madison Reservation, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation	National Historic Preservation Act Section 106 Area of Potential Effects Amendment and National Register Eligibility Determinations
September 20, 2021	Sound Transit	Duwamish Tribal Organization	National Historic Preservation Act Section 106 Area of Potential Effects Amendment and National Register Eligibility Determinations
September 27, 2021	Duwamish Tribal Organization	Sound Transit	Area of Potential Effects Amendments and National Register Eligibility Determinations
October 5, 2021	Washington State Historic Preservation Officer	FTA	Revised area of potential effects comments
October 6, 2021	City Historic Preservation Officer	FTA	National Historic Preservation Act Section 106 Area of Potential Effects Amendment and National Register Eligibility Determinations

Date	From	To	Description
October 6, 2021	Alliance for Pioneer Square	FTA	National Historic Preservation Act Section 106 Area of Potential Effects Amendment and National Register Eligibility Determinations
October 6, 2021	Historic South Downtown Community Preservation and Development Authority	FTA	National Historic Preservation Act Section 106 Area of Potential Effects Amendment and National Register Eligibility Determinations
October 7, 2021	Martin Smith Inc.	FTA	National Historic Preservation Act Section 106 Area of Potential Effects Amendment and National Register Eligibility Determinations
November 9, 2021	Washington State Historic Preservation Officer	FTA	National Register Eligibility Determinations
Various dates	Alliance for Pioneer Square	Sound Transit	Comments on WSBLE Draft EIS
April 5, 2022	Sound Transit	All Consulting Parties	WSBLE Section 106 Consulting Parties Draft EIS Briefing
April 25, 2022	Seattle Chinatown International District Preservation and Development Authority	Sound Transit	Comments on WSBLE Draft EIS
April 26, 2022	Wing Luke Museum	Sound Transit	Comments on WSBLE Draft EIS
April 26, 2022	Historic South Downtown Community Preservation and Development Authority	Sound Transit	Comments on WSBLE Draft EIS
April 27, 2022	Martin Smith Inc	Sound Transit	Comments on WSBLE Draft EIS
April 27, 2022	Washington State Historic Preservation Officer	FTA	Comments on WSBLE Draft EIS
April 28, 2022	Historic Seattle	Sound Transit	Comments on WSBLE Draft EIS
April 28, 2022	Washington Trust for Historic Preservation	Sound Transit	Comments on WSBLE Draft EIS
April 28, 2022	City of Seattle	Sound Transit	Comments on WSBLE Draft EIS
January 23, 2023	Sound Transit	State Historic Preservation Officer	WSBLE project overview
April 13, 2023	Historic Seattle	Sound Transit	Update on Section 106 process following Draft EIS publication
April 26, 2023	FTA	Historic Seattle	Update on Section 106 process following Draft EIS publication

Date	From	To	Description
July 10, 2023	Sound Transit	State Historic Preservation Officer, Muckleshoot Indian Tribe, Stillaguamish Tribe of Indians of Washington, Suquamish Indian Tribe of the Port Madison Reservation, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, Duwamish Tribe, Snohomish Tribe	Announce decision to separate the environmental review processes for the two Link extensions
July 10, 2023	Sound Transit	Historic Seattle, Alliance for Pioneer Square, City Historic Preservation Officer, Historic South Downtown Community Preservation and Development Authority, Interim CDA, King County Historic Preservation Program, Martin Smith Inc., Seattle Chinatown International District Preservation and Development Authority, Southwest Seattle Historical Society, Washington Trust for Historic Preservation, Seattle Center Redevelopment Office	Announce decision to separate the environmental review processes for the two Link extensions
August 2, 2023	FTA	State Historic Preservation Officer, Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington, Suquamish Indian Tribe of the Port Madison Reservation, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation	National Historic Preservation Act Section 106 Area of Potential Effects amendment, removing the Ballard Link Extension
August 2, 2023	FTA	Historic Seattle, Alliance for Pioneer Square, City Historic Preservation Officer, Historic South Downtown Community Preservation and Development Authority, Interim CDA, King County Historic Preservation Program, Martin Smith Inc., Seattle Center Redevelopment Office, Seattle Chinatown International District Preservation and Development Authority, Southwest Seattle Historical Society, Washington Trust for Historic Preservation	National Historic Preservation Act Section 106 Area of Potential Effects amendment, removing the Ballard Link Extension and invitation to confirm interest in Section 106 consultation for the West Seattle Link Extension Project
August 14, 2023	Washington State Historic Preservation Officer	FTA	Concurrence on revised area of potential effects
August 21 and 31, 2023	City Historic Preservation Officer	FTA	Indicated interest in remaining a Consulting Party, and no comment on area of potential effects
September 5-13, 2023	Sound Transit	Duwamish Tribal Organization, Snohomish Tribe	Request for comments on area of potential effects
September 5, 2023	Suquamish Indian Tribe of the Port Madison Reservation	FTA	Concurrence on area of potential effects



Date	From	To	Description
September 11, 2023	Alliance for Pioneer Square	FTA	Indicated interest in remaining a Consulting Party
September 19, 2023	FTA	Washington Trust for Historic Preservation, Seattle Center Redevelopment Office, Southwest Seattle Historical Society, King County Historic Preservation Program, Martin Smith Inc., Seattle Chinatown International District Preservation and Development Authority, Historic South Downtown Community Preservation and Development Authority, Interim CDA, Historic Seattle	Requested interest in remaining a Consulting Party for the West Seattle Link Extension
September 19, 2023	Seattle Center	FTA	No longer interested in remaining a Consulting Party for the West Seattle Link Extension
October 10, 2023	Washington Trust for Historic Preservation	FTA	Indicated interest in remaining a Consulting Party
October 27, 2023	Sound Transit (FTA present)	Suquamish Indian Tribe of the Port Madison Reservation	West Seattle Link Extension Briefing with the Suquamish Tribe
October 31, 2023	Stillaguamish Tribe of Indians of Washington	Sound Transit	Stillaguamish Tribal Meeting and tour of Stillaguamish facility
November 2, 2023	Sound Transit (FTA present)	Muckleshoot Indian Tribe	West Seattle Link Extension Briefing with the Muckleshoot Indian Tribe
December 11, 2023	Sound Transit (FTA present)	State Historic Preservation Officer (staff)	West Seattle Link Extension National Register Eligibility Consultation Record to discuss five non-concurrence properties with the State Historic Preservation Officer and FTA
December 12, 2023	Sound Transit (FTA present)	Suquamish Indian Tribe of the Port Madison Reservation, Stillaguamish Tribe of Indians of Washington, Snoqualmie Tribe, Tulalip Tribes, Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe	Section 106 process briefing
December 14, 2023	Sound Transit (FTA present)	Muckleshoot Indian Tribe	Discussed archaeology focused on Pigeon Point
December 18, 2023	Sound Transit (FTA present)	City Historic Preservation Officer, State Historic Preservation Officer, Alliance for Pioneer Square, Washington Trust for Historic Preservation, Suquamish Indian Tribe of the Port Madison Reservation, Snoqualmie Indian Tribe, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe, Stillaguamish Tribe of Indians of Washington	West Seattle Link Extension Section 106 consulting parties briefing

Date	From	To	Description
December 19, 2023	Sound Transit	Suquamish Indian Tribe of the Port Madison Reservation	Discussed meetings for 2024, Section 106 logistics
January 5, 2024	Sound Transit (FTA present)	State Historic Preservation Officer (staff)	West Seattle Link Extension National Register Eligibility Consultation Record to discuss two remaining non-concurrence properties with the State Historic Preservation Officer and FTA
January 7, 2024	Sound Transit (FTA present)	Suquamish Indian Tribe of the Port Madison Reservation, Stillaguamish Tribe of Indians of Washington, Snoqualmie Tribe, Tulalip Tribes, Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe	West Seattle Link Extension Section 106 Consulting Parties Biweekly Meeting
January 17, 2024	Sound Transit (FTA present)	City Historic Preservation Officer, State Historic Preservation Officer, Alliance for Pioneer Square, Washington Trust for Historic Preservation, Suquamish Indian Tribe of the Port Madison Reservation, Snoqualmie Indian Tribe, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe, Stillaguamish Tribe of Indians of Washington	West Seattle Link Extension Section 106 Consulting Parties Eligibility and Effects Overview
February 13, 2024	Sound Transit (FTA present)	City Historic Preservation Officer, The State Historic Preservation Officer, Alliance for Pioneer Square, Washington Trust for Historic Preservation, Suquamish Indian Tribe of the Port Madison Reservation, Snoqualmie Indian Tribe, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe, Stillaguamish Tribe of Indians of Washington	West Seattle Link Extension Section 106 Consulting Parties Biweekly Meeting Series – Meeting 1
February 23, 2024	Sound Transit (FTA present)	Muckleshoot Indian Tribe	Site visit to Pigeon Point to discuss project impacts
February 27, 2024	Sound Transit (FTA present)	City Historic Preservation Officer, The State Historic Preservation Officer, Alliance for Pioneer Square, Washington Trust for Historic Preservation, Suquamish Indian Tribe of the Port Madison Reservation, Snoqualmie Indian Tribe, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe, Stillaguamish Tribe of Indians of Washington	West Seattle Link Extension Section 106 Consulting Parties Biweekly Meeting Series – Meeting 2

Date	From	To	Description
March 14, 2024	Sound Transit (FTA present)	Muckleshoot Indian Tribe	West Seattle Link Extension consultation – discussed agreement pathways
March 18, 2024	FTA	City Historic Preservation Officer, Alliance for Pioneer Square, Washington Trust for Historic Preservation, Suquamish Indian Tribe of the Port Madison Reservation, Snoqualmie Indian Tribe, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe, Stillaguamish Tribe of Indians of Washington	West Seattle Link Extension Section 106 Eligibility and Effects Determination
March 22, 2024	FTA	The State Historic Preservation Officer	West Seattle Link Extension Section 106 Eligibility and Effects Determination
March 25, 2024	Sound Transit (FTA present)	Suquamish Indian Tribe of the Port Madison Reservation, Stillaguamish Tribe of Indians of Washington, Snoqualmie Tribe, Tulalip Tribes, Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe	Discussed goals of West Seattle Link Extension consulting party meeting series, project approach, and archaeology approach
March 26, 2024	Sound Transit (FTA present)	City Historic Preservation Officer, State Historic Preservation Officer, Alliance for Pioneer Square, Washington Trust for Historic Preservation, Suquamish Indian Tribe of the Port Madison Reservation, Snoqualmie Indian Tribe, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington	West Seattle Link Extension Section 106 Consulting Parties Eligibility and Effects Overview
March 28, 2024	Sound Transit (FTA present)	Muckleshoot Indian Tribe	Duwamish Crossing - discussion during meeting focused on importance of education on Muckleshoot history and environment, mitigation opportunities and agreement progress
March 28, 2024	Sound Transit (FTA present)	Suquamish Indian Tribe of the Port Madison Reservation	Presented updated information on barge use for the Duwamish crossing
April 8, 2024	Sound Transit (FTA present)	Suquamish Indian Tribe of the Port Madison Reservation, Snoqualmie Indian Tribe, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington	West Seattle Link Extension Section 106 Tribes Biweekly Meeting Series - Approach to archaeology, investigation to date, treatment plan update

Date	From	To	Description
April 9, 2024	Sound Transit (FTA present)	City Historic Preservation Officer, State Historic Preservation Officer, Alliance for Pioneer Square, Suquamish Indian Tribe of the Port Madison Reservation, Snoqualmie Indian Tribe, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington	West Seattle Link Extension Section 106 Consulting Parties Biweekly Meeting Series – Meeting 4
April 11, 2024	The State Historic Preservation Officer	FTA	West Seattle Link Extension Project Section 106 Consultation - Determination of Eligibility and Effects letter (2019-02-01457)
April 12, 2024	The State Historic Preservation Officer (staff)	FTA	Notice that the 2018 and 2019 projects were merged in WISAARD, and that the West Seattle Link Extension project now is under the WISAARD project number 2019-02-01457
April 16, 2024	The State Historic Preservation Officer	FTA	Revised - West Seattle Link Extension Project Section 106 Consultation - Determination of Eligibility and Effects letter (2019-02-01457)
April 16, 2024	Suquamish Indian Tribe of the Port Madison Reservation	FTA	Concurrence with FTA's Finding of Effect (Adverse Effect to Historic Properties). Also, request for correction be made to the West Seattle Link Extension Historic and Archaeological Resources Technical Report, where Chief Seattle is referred to as Duwamish only; request for correction to reference Chief Seattle as Duwamish and Suquamish.
April 17, 2024	Duwamish Tribe	Sound Transit	Comments on West Seattle Link Extension project
April 18, 2024	City Historic Preservation Officer	FTA	Noted "general" concurrence on area of potential effects, National Register eligibility, and effects, Requested additional information regarding impacts to Fire Station 14 and statement that effects to properties whose National Register eligibility had not yet been concurred on could not be assessed for effects.

Date	From	To	Description
April 22, 2024	Sound Transit (FTA present)	Suquamish Indian Tribe of the Port Madison Reservation, Snoqualmie Indian Tribe, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington	West Seattle Link Extension Project Section 106 Consultation with Tribes. Discussed ground disturbance.
April 23, 2024	Sound Transit (FTA present)	City Historic Preservation Officer, State Historic Preservation Officer, Alliance for Pioneer Square, Suquamish Indian Tribe of the Port Madison Reservation, Snoqualmie Indian Tribe, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington	West Seattle Link Extension Section 106 Consulting Parties Biweekly Meeting Series – Meeting 5
May 9, 2024	Sound Transit (FTA present)	Muckleshoot Indian Tribe	Discussion on mitigation for West Seattle Link Extension
May 13, 2024	Sound Transit (FTA present)	Suquamish Indian Tribe of the Port Madison Reservation, Stillaguamish Tribe of Indians of Washington, Snoqualmie Tribe, Tulalip Tribes, Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe	West Seattle Link Extension Section 106 Tribes Biweekly Meeting Series
May 14, 2024	Sound Transit (FTA present)	City Historic Preservation Officer, The State Historic Preservation Officer, Alliance for Pioneer Square, Washington Trust for Historic Preservation Suquamish Indian Tribe of the Port Madison Reservation, Snoqualmie Indian Tribe, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington	West Seattle Link Extension Section 106 Consulting Parties Biweekly Meeting Series – Meeting 6

Table 4-3. Concurrences Requested

Concurrence Item	Agency	Date Requested	Date Received
Significance of park and recreational resources; Section 4(f) <i>de minimis</i> and temporary occupancy use exception determinations	City of Seattle	April 15, 2024	April 25, 2024
Determination of Eligibility for listing to the National Register of Historic Places.	Washington State Historic Preservation Officer	September 3, 2021	November 9, 2021
Determination of Eligibility for listing to the National Register of Historic Places and Determination of Adverse Effects for the Project	Washington State Historic Preservation Officer	March 22, 2024	April 16, 2024



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## 5 REFERENCES

- City of Seattle. 2014. [Seattle Bicycle Master Plan](http://www.seattle.gov/Documents/Departments/SDOT/About/DocumentLibrary/BicycleMasterPlan/SBMP_21March_FINAL_full%20doc.pdf). Seattle Department of Transportation. [http://www.seattle.gov/Documents/Departments/SDOT/About/DocumentLibrary/BicycleMasterPlan/SBMP\\_21March\\_FINAL\\_full%20doc.pdf](http://www.seattle.gov/Documents/Departments/SDOT/About/DocumentLibrary/BicycleMasterPlan/SBMP_21March_FINAL_full%20doc.pdf). April.
- City of Seattle. 2016. Seattle Center City Connector Environmental Assessment. March.
- City of Seattle and Sound Transit. 2014. [Transit Expansion Study: Ballard to Downtown Seattle](https://www.seattle.gov/Documents/Departments/SDOT/About/DocumentLibrary/Reports/B2D_FinalReport%2005-16-14.pdf). [https://www.seattle.gov/Documents/Departments/SDOT/About/DocumentLibrary/Reports/B2D\\_FinalReport%2005-16-14.pdf](https://www.seattle.gov/Documents/Departments/SDOT/About/DocumentLibrary/Reports/B2D_FinalReport%2005-16-14.pdf). May.
- Federal Highway Administration. 2012. [Section 4\(f\) Policy Paper](https://www.environment.fhwa.dot.gov/legislation/section4f/4fpolicy.aspx). Federal Highway Administration Office of Planning, Environment, and Realty Project Development and Environmental Review. <https://www.environment.fhwa.dot.gov/legislation/section4f/4fpolicy.aspx>. July 2012.
- Puget Sound Regional Council. 2018. [The Regional Transportation Plan - 2018](https://indd.adobe.com/view/1af394e0-4e37-4982-9155-a2ee1e221b75). <https://indd.adobe.com/view/1af394e0-4e37-4982-9155-a2ee1e221b75>. Adopted May 31.
- Puget Sound Regional Council. 2020. [VISION 2050: A Plan for the Central Puget Sound Region](https://www.psrc.org/vision). <https://www.psrc.org/vision>. October.
- Sound Transit. 2004. [Motion M2004-08: Sound Transit Light Rail Noise Mitigation Policy](https://www.soundtransit.org/st_sharepoint/download/sites/PRDA/FinalRecords/2004/Motion%20M2004-08.pdf). Seattle, Washington. [https://www.soundtransit.org/st\\_sharepoint/download/sites/PRDA/FinalRecords/2004/Motion%20M2004-08.pdf](https://www.soundtransit.org/st_sharepoint/download/sites/PRDA/FinalRecords/2004/Motion%20M2004-08.pdf).
- Sound Transit. 2013. [System Access Policy](https://wsdot.wa.gov/partners/erp/background/System%20Access%20Policy%20Resolution%20R2013-03%20-%20Attachment%20A%20-%20Final.pdf). Resolution No. R2013-03 – Attachment A. <https://wsdot.wa.gov/partners/erp/background/System%20Access%20Policy%20Resolution%20R2013-03%20-%20Attachment%20A%20-%20Final.pdf>.
- Sound Transit. 2014. [Regional Transit Long-Range Plan Update Final Supplemental Environmental Impact Statement](https://www.soundtransit.org/get-to-know-us/documents-reports/long-range-plan-final-supplemental-environmental-impact-statement). <https://www.soundtransit.org/get-to-know-us/documents-reports/long-range-plan-final-supplemental-environmental-impact-statement>. November.
- Sound Transit. 2016. [Sound Transit 3, The Regional Transit System Plan for Central Puget Sound](https://www.soundtransit.org/get-to-know-us/documents-reports/sound-transit-3). <https://www.soundtransit.org/get-to-know-us/documents-reports/sound-transit-3>. Adopted June 2016.
- Sound Transit. 2018. [Adopting an Equitable Transit Oriented Development Policy](https://www.soundtransit.org/st_sharepoint/download/sites/PRDA/FinalRecords/2018/Resolution%20R2018-10.pdf). Sound Transit Board Resolution No. R2018-10. [https://www.soundtransit.org/st\\_sharepoint/download/sites/PRDA/FinalRecords/2018/Resolution%20R2018-10.pdf](https://www.soundtransit.org/st_sharepoint/download/sites/PRDA/FinalRecords/2018/Resolution%20R2018-10.pdf). Adopted April 26, 2018.
- Sound Transit. 2019. [Sustainability Plan – 2019 Update: Building a better tomorrow](https://www.soundtransit.org/sites/default/files/documents/2019-sustainability-plan.pdf). <https://www.soundtransit.org/sites/default/files/documents/2019-sustainability-plan.pdf>. January.
- Sound Transit. 2023. [Resolution No. R2023-15: Sound Transit Link Noise and Vibration Policy](https://www.soundtransit.org/st_sharepoint/download/sites/PRDA/FinalRecords/2023/Resolution%20R2023-15.pdf). [https://www.soundtransit.org/st\\_sharepoint/download/sites/PRDA/FinalRecords/2023/Resolution%20R2023-15.pdf](https://www.soundtransit.org/st_sharepoint/download/sites/PRDA/FinalRecords/2023/Resolution%20R2023-15.pdf). Adopted July 27, 2023.

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**Attachment H.1**  
**Section 4(f) Status of Parks and Recreational**  
**Resources in the Study Area**

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Table H.1-1. Parks and Recreational Section 4(f) Resources in Study Area

Segment	Resource Name	Ownership/Maintenance	Size/Length	Resource Type	Primary Use	Significant Resource? Yes/No	4(f) Resource? Yes/No
SODO	SODO Trail	Sound Transit, Seattle Department of Transportation	1 mile	Paved connector trail	Non-motorized transportation	No	No, primary purpose is transportation <sup>a</sup>
Duwamish	West Seattle Bridge Trail	Seattle Department of Transportation, Port of Seattle	2 miles	Paved trail	Non-motorized transportation	No	No, primary purpose is transportation <sup>a</sup>
Duwamish	Harbor Marina Corporate Center at Terminal 102	Port of Seattle	600 feet of shoreline	Waterfront park	Public shoreline access	No	No, primary purpose is landscaping and marina access
Duwamish	Bridge Gear Park	Port of Seattle	0.3	Waterfront park	Commemorative sign of historic Spokane Street Bridge and public shoreline access	No	No, primary purpose is landscaping and access to Harbor Island
Duwamish	Terminal 18 Park	Port of Seattle	1.3 acres	Waterfront park	Passive use	Yes	Yes
Duwamish	Duwamish Trail	Seattle Department of Transportation, Seattle Parks and Recreation, Port of Seattle	1.9 miles	On-street trail	Non-motorized transportation	No	No, primary purpose in study area is transportation <sup>a</sup>
Duwamish	West Duwamish Greenbelt	Seattle Parks and Recreation	197 acres	Greenspace	Recreation/conservation	Yes	Yes
Duwamish	22nd Avenue Southwest Street-end	Seattle Department of Transportation	<0.1 acre	Street-end park	Passive use	No	No, permitted use in public right-of-way
Duwamish	Delridge Connector Trail	Seattle Department of Transportation	0.4 mile	Paved trail	Non-motorized transportation	No	No, primary purpose is transportation <sup>a</sup>

## Attachment H.1 Section 4(f) Status of Parks and Recreational Resources in the Study Area

Segment	Resource Name	Ownership/Maintenance	Size/Length	Resource Type	Primary Use	Significant Resource? Yes/No	4(f) Resource? Yes/No
Duwamish	Alki Trail	Seattle Department of Transportation, Seattle Parks and Recreation, Port of Seattle	4.4 miles	Paved trail	Non-motorized transportation	No	No, primary purpose in study area is transportation <sup>a</sup>
Delridge	Delridge Playfield	Seattle Parks and Recreation	14.0 acres	Playground	Active use	Yes	Yes
Delridge	Longfellow Creek Natural Area	Seattle Parks and Recreation	5.9 acres	Greenspace	Conservation/recreation	Yes	Yes
Delridge	Longfellow Creek Legacy Trail	Seattle Parks and Recreation	4.2 miles	Recreation trail	Recreation	Yes	Yes
Delridge	West Seattle Golf Course	Seattle Parks and Recreation	138.1 acres	Recreation area	Golf	Yes	Yes
West Seattle Junction	West Seattle Stadium	Seattle Parks and Recreation	11.6 acres	Recreation area	Active use	Yes	Yes
West Seattle Junction	Fauntleroy Place	Seattle Parks and Recreation	0.1 acre	Street triangle	Passive use/leisure activity	No	No, not a significant park
West Seattle Junction	West Seattle Junction Park	Seattle Parks and Recreation	0.4 acre	Planned park	Passive use/leisure activity	Yes	Yes
West Seattle Junction	Junction Plaza Park	Seattle Parks and Recreation	0.2 acre	Neighborhood park	Passive use/leisure activity	Yes	Yes

Note: For a discussion of study area parks and recreational resources, refer to Section 4.17, Parks and Recreational Resources, in Chapter 4, Affected Environment and Environmental Consequences, of the Final Environmental Impact Statement. For a discussion of potential project effects to paved multi-modal trails in the study area, see the Non-motorized Facilities subsections in Chapter 3, Transportation Environment and Consequences, of the Final Environmental Impact Statement.

<sup>a</sup> *Code of Federal Regulations* Title 23 Section 774.13(f)(4) provides an exception to Section 4(f) regulations for trails, paths, bikeways, and sidewalks that are part of the local transportation system and that function primarily for transportation. This trail meets the exception criteria because it is a Seattle Department of Transportation multi-use trail, the purpose of which is to provide another transportation option for city residents.

## **Attachment H.2**

### **Section 4(f) Concurrence Letter from City of Seattle**

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The Department of Transportation is committed to ensuring that information is available in appropriate alternative formats to meet the requirements of persons who have a disability. If you require an alternative version of this file, please contact [FTAWebAccessibility@dot.gov](mailto:FTAWebAccessibility@dot.gov).

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**From:** [Graves, David](#)  
**To:** [Littauer, Erin](#)  
**Cc:** [Chasanov, Amy](#); [Rastelli, Scot \(FTA\)](#); [Hale, Kent](#); [Assam, Mark \(FTA\)](#); [Swift, Lauren](#); [Durkin, Cassandra](#); [Ann Costanza](#); [Diaz, AP](#); [Maxana, Sara](#)  
**Subject:** RE: Section 4(f) Consultation- Sound Transit West Seattle Link Extension Project  
**Date:** Thursday, April 25, 2024 12:38:52 PM  
**Attachments:** [image001.png](#)  
[Sound Transit 4f Concurrence - signed.pdf](#)

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**CAUTION:** This email originated from a contact outside Sound Transit. Remember, do not click any links or open any attachments unless you recognize the sender and know the content is safe. Report any suspicious email by clicking the “fish” button in Outlook. Thank you! ST Information Security

Erin,

Attached is Seattle Parks and Recreation’s 4f concurrence, signed by Superintendent AP Diaz. Seattle Parks and Recreation also concurs in Sound Transit's determination that Fauntleroy Place is not a section 4(f) resource as it is not a public park of local significance. Please let me know if you have any follow-up questions.

Regards,

dg

David Graves, AICP, Strategic Advisor  
Planning & Capital Development Branch  
City of Seattle, [Seattle Parks and Recreation](#)  
O: 206-684-7048 | M: 206-240-5968  
[Facebook](#) | [Twitter](#) | [Blog](#)

**Seattle Parks and Recreation**  
**Planning & Capital Development Branch**  
**300 Elliott Avenue West, Suite 100**  
**Seattle, WA 98119**

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**From:** Littauer, Erin (FTA) <erin.littauer@dot.gov>  
**Sent:** Monday, April 15, 2024 1:33 PM  
**To:** Diaz, AP <AP.Diaz@seattle.gov>  
**Cc:** Graves, David <David.Graves@seattle.gov>; Chasanov, Amy <Amy.Chasanov@seattle.gov>; Rastelli, Scot (FTA) <Scot.Rastelli@dot.gov>; Hale, Kent <kent.hale@soundtransit.org>; Assam, Mark (FTA) <mark.assam@dot.gov>; Swift, Lauren <lauren.swift@soundtransit.org>; Durkin, Cassandra <cassandra.durkin@soundtransit.org>; Ann Costanza <acostanza@anchorqea.com>  
**Subject:** Section 4(f) Consultation- Sound Transit West Seattle Link Extension Project

---

**CAUTION: External Email**

Superintendent Diaz,

Please see the attached Section 4(f) consultation documents for the Sound Transit West Seattle Link Extension (WSLE) Project.

Thank you,

Erin Littauer

Environmental Protection Specialist

Federal Transit Administration- Region 10

U.S. Department of Transportation

[Erin.littauer@dot.gov](mailto:Erin.littauer@dot.gov) | [www.transit.dot.gov](http://www.transit.dot.gov)





**U.S. Department  
of Transportation  
Federal Transit  
Administration**

REGION X  
Alaska, Idaho, Oregon,  
Washington

915 Second Avenue  
Federal Bldg. Suite 3192  
Seattle, WA 98174-1002  
206-220-7954  
206-220-7959 (fax)

April 15, 2024

Anthony-Paul Diaz, Superintendent  
Seattle Parks and Recreation  
City of Seattle  
100 Dexter Avenue N  
Seattle, WA 98109

**Subject: West Seattle Link Extension Section 4(f) Concurrence Request**

Dear Superintendent Diaz:

As part of the West Seattle Link Extension Final Environmental Impact Statement (EIS) review process, the Federal Transit Administration (FTA), as the lead federal agency, in coordination with Sound Transit, is evaluating the potential impacts of the project on public parks and recreational facilities under the jurisdiction of the City of Seattle. A Draft Section 4(f) Evaluation that describes the impacts of the project on these facilities was published in the West Seattle and Ballard Link Extensions Draft EIS in January 2022. As detailed in the letter from Sound Transit to the City, dated July 10, 2023, the West Seattle Link Extension and Ballard Link Extension will now proceed under separate environmental review processes, with West Seattle Link Extension continuing to a Final EIS and the Ballard Link Extension initiating a new Draft EIS.

A Final Section 4(f) Evaluation for the West Seattle Link Extension will be prepared to publish with the West Seattle Link Extension Final EIS. Under Section 4(f) (49 U.S.C. 303), FTA cannot approve a transportation project such as the West Seattle Link Extension that requires either the use of publicly owned land from a significant public park, recreation area, or wildlife and waterfowl refuge, or the use of a significant historic site, unless a determination is made that:

- There is no feasible and prudent avoidance alternative, as defined in 23 CFR § 774.17, to the use of the resource; and
- The action includes all possible planning, as defined in 23 CFR § 774.17, to minimize harm to the resource; or
- The Administration determines that the use of the resource, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures), will have a *de minimis* impact. A *de minimis* impact (as defined in 23 CFR 774.17) is one that will not adversely affect the features, attributes, or activities qualifying the resource for protection under Section 4(f).

Pursuant to 23 CFR 774.13(d), Section 4(f) may not apply to temporary occupancies of property that are so minimal as to not constitute a use. In order to qualify as a temporary occupancy, the following conditions must be satisfied:

- Duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in the ownership of the land;
- Scope of the work must be minor, i.e., both the nature and magnitude of the changes to the Section 4(f) property are minimal;
- There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
- The land being used must be fully restored.

Federal guidance requires early coordination with officials with jurisdiction over any Section 4(f) resource to ascertain the position and views of the officials. The intent of this letter is to continue that coordination and to confirm previous discussions with the City of Seattle regarding the project's potential impacts to city parks and recreation resources. Throughout the EIS process and project design, Sound Transit, in coordination with FTA will continue to consult with the City to further detail specific mitigation plans for affected parks and recreation resources.

Federal regulations stipulate that “officials with jurisdiction over the Section 4(f) resource must concur in writing” with a *de minimis* finding (23 CFR 774.5(b)(2)(ii)). The regulations also require that there be an opportunity for public review and comment concerning the effects of the project on the Section 4(f) resource prior to such written concurrence. This requirement was met with the distribution of the Draft EIS for review and comment by Tribes, the public, agencies, and organizations. The 90-day comment period occurred from January 28<sup>th</sup> to April 28<sup>th</sup>, 2022. Federal regulations require documented agreement of the officials with jurisdiction regarding whether the project meets the conditions for temporary occupancy (23 CFR 774.13(d)(5)). With this letter, FTA is now requesting final concurrence for the West Seattle Link Extension from the City of Seattle on the *de minimis* findings and temporary occupancy of Section 4(f) resources within the jurisdiction of the City. Following the City's written concurrence, FTA will make final Section 4(f) *de minimis* and temporary occupancy determinations. The West Seattle Link Extension Final EIS will include documentation of the City's concurrence and FTA's determination.

On July 28, 2022, the Sound Transit Board passed Motion M2022-57 regarding the West Seattle and Ballard Link Extensions project. Please note that all alternatives in the Draft EIS will be carried forward in the Final EIS. For the Delridge and West Seattle Junction segments, the preferred alternative for the Final EIS has changed from what was identified as the preferred alternative in the Draft EIS. The Sound Transit Board will select the project to be built after the Final EIS is published.

Attachment 1 lists the city park resources for which FTA, in coordination with Sound Transit, requests Section 4(f) concurrence and includes a summary of potential impacts to each resource and proposed mitigation for impacts. This chart has been updated to reflect ongoing coordination with the City following publication of the Draft EIS and the Section 4(f) analysis. Based on potential impacts and mitigation detailed in the attachment for city resources identified with each alternative, and a *de minimis* impact and temporary occupancy determination may apply.

The preferred alternative for the West Seattle Link Extension would impact one park, the West Duwamish Greenbelt. Based on the potential impacts and proposed measure to minimize harm provided in Attachment 1, FTA has determined the impacts to the West Duwamish Greenbelt will be *de minimis*.

The alternatives not identified as preferred alternatives have impacts to additional city park resources as set forth in Attachment 1. The potential impacts to these resources may qualify as *de minimis* or as temporary occupancy, with the proposed mitigation. Although design and analysis will focus on the preferred alternative, the Board will not select the project to be built until after publication of the Final EIS. Concurrence on these preliminary determinations is requested in order to advance the Section 4(f) consultation.

In addition, concurrence from the City of Seattle is requested regarding Fauntleroy Place, which does not qualify as a Section 4(f) resources as a public park of national, state, or local significance. The term

“significant” in this context means that in comparing the availability and function of the park, recreation area or wildlife and waterfowl refuge, with the park, recreation or refuge objectives of the agency, community or authority, the property in question plays an important role in meeting those objectives (Federal Highway Administration Section 4(f) Policy Paper, 2012). While Fauntleroy Place is a city park and potential impacts to this park and mitigation for impacts were included in the Draft EIS along with a commitment to provide replacement property consistent with City Ordinance 118477, Sound Transit believes that the park lacks local significance needed for it to qualify for Section 4(f) protection.

FTA seeks concurrence on these determinations, as outlined in the attachment, and is looking forward to continued coordination with Sound Transit and the City as the project advances through the environmental review, the Board’s identification of the project to be built, final design, and construction. Please contact Mark Assam (at 206-220-4465 or [Mark.Assam@dot.gov](mailto:Mark.Assam@dot.gov)) or Lauren Swift (206-398-5301 or [Lauren.Swift@soundtransit.org](mailto:Lauren.Swift@soundtransit.org)) if you have any questions.

Sincerely,

SCOT TANNER  
RASTELLI



Digitally signed by SCOT  
TANNER RASTELLI  
Date: 2024.04.15  
10:43:05 -07'00'

(for) Susan K. Fletcher, P.E.  
Regional Administrator

Attachment: West Seattle Link Extension Proposed Section 4(f) Determinations

cc: Lauren Swift, Sound Transit  
David Graves, City of Seattle Parks and Recreation Department  
Amy Chasanov, City of Seattle Department of Transportation

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## Attachment 1: West Seattle Link Extension Proposed Preliminary Section 4(f) Determinations

Alternative	Potential Use Determination	Potential Impacts	Proposed Measures to Minimize Harm	City Concurrence Response <sup>3</sup>
<b>West Duwamish Greenbelt</b>				
<b>Preferred Alternative</b>				
DUW-1a	<i>de minimis</i>	<p>This alternative would permanently incorporate 1.2 acres (approximately 0.6 percent of the total area) and temporarily occupy up to an additional 0.3 acre of greenbelt land. The total area of the two parcels affected is 3.05 acres.</p> <p>This alternative would impact the wildlife habitat function of the greenbelt in the study area by removing large trees, which support wildlife species such as great blue heron and peregrine falcon.</p> <p>Closure of the Delridge Connector Trail to the West Seattle Bridge Trail during construction.</p>	<p>Sound Transit would provide replacement park land consistent with City of Seattle Ordinance 118477 with such modifications as approved by Seattle City Council.<sup>1</sup> Replacement park land would have similar recreational functions and characteristics, and would serve the same geographic area. Sound Transit would provide improvements as necessary for property to be of equivalent recreational use as the acquired greenbelt property.</p> <p>Replacement park land would be purchased by Sound Transit and conveyed to the city as mutually agreed to by Sound Transit and the city. However, if agreed to by the city, Sound Transit could provide funds for purchase of replacement property, demolition of any structures thereon, cleanup of any contamination and necessary improvements for property to be of equivalent use as the acquired greenbelt property.</p> <p>The temporarily impacted area would be replanted with low-growing vegetation when construction is completed, but large trees would not be allowed near the guideway.</p> <p>For trees permanently removed in the West Duwamish Greenbelt and elsewhere along the project, Sound Transit will replace them or provide payment in lieu fees in compliance with governing city regulations, SDCI Director's Rules, and Executive Orders, or agreed upon in the WSLE Tree and Vegetation Management Plan.<sup>2</sup></p> <p>Sound Transit will provide a detour of the Delridge Connector Trail to the West Seattle Bridge Trail and associated improvements for the detour as depicted in Figure 1. This detour route and associated improvements were developed jointly by the City of Seattle and Sound Transit. As noted in Figure 1, there are several areas where the city and Sound Transit will continue to refine the detour as appropriate and as agreed to by both parties.</p> <p>Based on mutual agreement by the city and Sound Transit, Sound Transit will provide a detour for the 22<sup>nd</sup> Avenue connection to the Delridge Connector Trail and associated improvements for the detour as depicted in Figure 1.<sup>2</sup></p>	<p>The City concurs with Sound Transit's <i>de minimis</i> determination so long as the proposed measures to minimize harm are fully implemented and so long as the project is consistent with the provisions outlined in footnotes 1-3 herein.</p>
<b>Other Alternatives</b>				

Alternative	Potential Use Determination	Potential Impacts	Proposed Measures to Minimize Harm	City Concurrence Response <sup>3</sup>
DUW-1b	<i>de minimis</i>	<p>This alternative would permanently incorporate 1.3 acres (approximately 0.7 percent of the total area) and temporarily occupy up to an additional 0.3 acre of greenbelt land. The total area of the three parcels affected is 3.22 acres.</p> <p>This alternative could impact the wildlife habitat function of the greenbelt in the study area by removing large trees, which support wildlife species such as great blue heron and peregrine falcon.</p> <p>Closure of the Delridge Connector Trail to the West Seattle Bridge Trail during construction.</p>	<p>Sound Transit would provide replacement park land consistent with City of Seattle Ordinance 118477 with such modifications as approved by Seattle City Council.<sup>1</sup> The replacement area needed is assumed to be equivalent to the total areas of parcels affected. Sound Transit would provide improvements as necessary for property to be of equivalent use as the acquired greenbelt property.</p> <p>Replacement park land would be purchased by Sound Transit and conveyed to the city as mutually agreed to by Sound Transit and the city. However, if agreed to by the city, Sound Transit could provide funds for purchase of replacement property, demolition of any structures thereon, cleanup of any contamination and necessary improvements for property to be of equivalent use as the acquired greenbelt property.</p> <p>The temporarily impacted area would be replanted with low-growing vegetation when construction is completed, but large trees would not be allowed near the guideway.</p> <p>For trees permanently removed in the West Duwamish Greenbelt and elsewhere along the project, Sound Transit will replace them or provide payment in lieu fees in compliance with governing city regulations, SDCI Director's Rules, and Executive Orders, or agreed upon in the WSLE Tree and Vegetation Management Plan.<sup>2</sup></p> <p>Sound Transit will provide a detour of the Delridge Connector Trail to the West Seattle Bridge Trail and associated improvements for the detour as depicted in Figure 1. This detour route and associated improvements were developed jointly by the City of Seattle and Sound Transit. As noted in Figure 1, there are several areas where the city and Sound Transit will continue to refine the detour as appropriate and as agreed to by both parties.</p> <p>Based on mutual agreement by the city and Sound Transit, Sound Transit will provide a detour for the 22<sup>nd</sup> Avenue connection to the Delridge Connector Trail and associated improvements for the detour as depicted in Figure 1.<sup>2</sup></p>	<p>The City concurs with Sound Transit's <i>de minimis</i> determination so long as the proposed measures to minimize harm are fully implemented and so long as the project is consistent with the provisions outlined in footnotes 1-3 herein.</p>
<b>Delridge Playfield</b>				
<b>Other Alternatives</b>				



Alternative	Potential Use Determination	Potential Impacts	Proposed Measures to Minimize Harm	City Concurrence Response <sup>3</sup>
DEL-3	<i>de minimis</i>	This alternative would permanently incorporate less than 0.1 acre (approximately less than 1 percent of the total area) of the playfield to accommodate an elevated guideway column and would temporarily occupy an additional 0.1 acre during construction.	The temporarily impacted area would be fully restored as agreed to by the city when construction is completed. Sound Transit would provide replacement park land consistent with City of Seattle Ordinance 118477, with such modifications as approved by Seattle City Council . <sup>1</sup>	The City does not concur at this time. Review has focused on the preferred alternative(s).
DEL-4	No use. Temporary occupancy exception conditions would be satisfied.	This alternative would temporarily occupy 0.1 acre of the playfield during construction.	The temporarily occupied area would be fully restored when construction is completed.	The City does not concur at this time. Review has focused on the preferred alternative(s)
<b>Longfellow Creek Natural Area</b>				
<b>Other Alternatives</b>				
DEL-1a	No use. Temporary occupancy exception conditions would be satisfied.	This alternative would temporarily occupy 0.1 acre of the natural area during construction.  Some trees at the south edge along Southwest Genesee Street on the west end of the park may need to be removed.	The temporarily occupied area would be fully restored when construction is completed, including replacing any trees removed.	The City does not concur at this time. Review has focused on the preferred alternative(s)
DEL-1b	<i>de minimis</i>	This alternative would permanently incorporate 0.1 acre (approximately 2 percent of the total area) of the south end of the natural area and would temporarily occupy less than 0.1 acre during construction.  Some trees at the south edge along Southwest Genesee Street on the west end of the park may need to be removed.	The temporarily impacted area would be fully restored when construction is completed, including replacing any removed trees.  Sound Transit would provide replacement park land consistent with City of Seattle Ordinance 118477, with such modifications as approved by Seattle City Council . <sup>1</sup>	The City does not concur at this time. Review has focused on the preferred alternative(s)
DEL-2b	No use. Temporary occupancy exception conditions would be satisfied.	Same as DEL-1a.		The City does not concur at this time. Review has focused on the preferred alternative(s)
<b>Longfellow Creek Legacy Trail</b>				
<b>Other Alternatives</b>				

Alternative	Potential Use Determination	Potential Impacts	Proposed Measures to Minimize Harm	City Concurrence Response <sup>3</sup>
DEL-1a	No use. Temporary occupancy exception conditions would be satisfied.	Access to trail from SW Genesee temporarily disrupted.	Provide signed detour via 26 <sup>th</sup> Avenue SW and SW Nevada Street and via Dakota Street during temporary closures of 26 <sup>th</sup> Avenue SW to maintain continuity.  The temporarily occupied area would be fully restored when construction is completed.	The City does not concur at this time. Review has focused on the preferred alternative(s)
DEL-1b	<i>de minimis</i>	Trail connection to sidewalk relocated with reconstruction of sidewalk.  Access to trail from SW Genesee temporarily disrupted.	Provide signed detour via 26 <sup>th</sup> Avenue SW and SW Nevada Street and via Dakota Street during temporary closures of 26 <sup>th</sup> Avenue SW to maintain continuity.  Trail connection at SW Genesee restored when construction is completed.	The City does not concur at this time. Review has focused on the preferred alternative(s)
DEL-2b	<i>de minimis</i>			
<b>West Seattle Golf Course</b>				
<b>Other Alternatives</b>				
DEL-1a	No use. Temporary occupancy exception conditions would be satisfied.	This alternative would temporarily occupy approximately 1 acre of the north end of the golf course property  The temporary occupancy would impact up to three greens (holes 13, 14 and 16) and the cart path in the golf course.  Nearby play may be impacted during some construction activities involving large cranes (such as girder placement), but these construction activities would have short time durations (less than an hour); therefore, play on nearby holes would only be restricted during those times.  Trees would need to be removed along the north edge of the golf course.	The alternative's design limited staging areas on the golf course to only the location needed for construction of guideway columns in the Southwest Genesee Street right-of-way.  The greens (holes 13, 15 and 16) affected by the temporary occupancy would be modified and the cart path re-routed to avoid the construction area. The temporarily occupied area would be fully restored after construction. The construction period would be 2 to 3 years in the area, and modification of the affected holes would occur prior to construction and be returned to original condition after construction, which would limit use of the holes during those times.  Vegetation removed would be replaced with trees and lower growing vegetation after construction in consultation with the City of Seattle. Sound Transit would coordinate with Seattle Parks and Recreation to determine the final mitigation to ensure the golf course is still playable throughout construction; the course would be playable similar to how it is played today.	The City does not concur at this time. Review has focused on the preferred alternative(s)

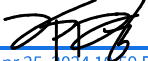
Alternative	Potential Use Determination	Potential Impacts	Proposed Measures to Minimize Harm	City Concurrence Response <sup>3</sup>
DEL-1b	No use. Temporary occupancy exception conditions would be satisfied.	<p>This alternative would temporarily occupy up to 0.2 acre on the north end of the golf course; a cart path is in this area.</p> <p>Some trees would need to be removed along the north edge of the golf course on the east side.</p>	<p>The alternative's design limited staging areas on the golf course to only the location needed for construction of guideway columns in the Southwest Genesee Street right-of-way.</p> <p>A cart path would be temporarily re-aligned for a short distance to retain its functionality during construction; the cart path would be re-aligned for about 2 years. Cart path relocation would be as agreed to by the city. The area of temporary occupancy would be fully restored after construction as agreed to by the city.</p> <p>Area along the south edge would be replanted with trees and lower growing vegetation in consultation with the City of Seattle.</p> <p>Sound Transit would coordinate with Seattle Parks and Recreation to re-align the cart path prior to construction.</p>	The City does not concur at this time. Review has focused on the preferred alternative(s)
DEL-2b	No use. Temporary occupancy exception conditions would be satisfied.	Same as DEL-1b.		The City does not concur at this time. Review has focused on the preferred alternative(s)
DEL-3	No use. Temporary occupancy exception conditions would be satisfied.	<p>This alternative would temporarily occupy 1.2 acres of the north end of the golf course property. The temporary occupancy would impact up to three greens (holes 13, 14 and 16) and the cart path in the golf course. Nearby play may be impacted during some construction activities involving large cranes (such as girder placement), but these construction activities would have short time durations (less than an hour); therefore, play on nearby holes would only be restricted during those times.</p> <p>Trees would need to be removed along the north edge of the golf course.</p>	<p>The alternative's design limited staging areas on the golf course to only the location needed for construction of guideway columns in the Southwest Genesee Street right-of-way.</p> <p>The greens affected by the temporary occupancy would be modified and the cart path re-routed to avoid the construction area. The temporarily occupied area would be fully restored after construction. The construction period would be 2 to 3 years in the area, and modification of the affected holes would occur prior to construction and be returned to original condition after construction, which would limit use of the holes during those times.</p> <p>Sound Transit would coordinate with Seattle Parks and Recreation to determine the final mitigation to ensure the golf course is still playable throughout construction; the course would be playable similar to how it is played today.</p> <p>Vegetation removed would be replaced with trees and lower growing vegetation after construction in consultation with the City of Seattle.</p>	The City does not concur at this time. Review has focused on the preferred alternative(s)

<sup>1</sup> The property replacement must comply with city Ordinance 118477, with such modifications as approved by Seattle City Council. The city may require more acres of replacement land than is converted to comply with City Ordinance 118477. The City of Seattle reserves the right to determine whether the replacement property and exchange fulfills the city's legal responsibilities and commitments to city stakeholders. The City of Seattle has the right to accept or reject property offered by Sound Transit in exchange. The city has final approval authority over any transaction that includes the loss of Seattle Parks and Recreation's land at Pigeon Point and the

acceptance of new park land from Sound Transit. Sound Transit understands that the city expects Sound Transit to assume responsibility for all costs associated with the property transfer (including, but not limited to environmental and title due diligence, tenant relocation and building/structure demolition, remediation to Washington's Model Toxics Control Act-Method A (MTCA-A) standards prior to transfer of ownership to the city, and completion of the Washington State Recreation and Conservation Office (RCO) and/or other acquisition grant-related processes). The City of Seattle's Section 4(f) concurrence does not alter Sound Transit's need to acquire necessary local, state, and federal permits or licenses and comply with all necessary local codes and rules. The City of Seattle's Section 4(f) concurrence does not limit the conditions and mitigation requirements that Seattle Parks and Recreation and other city Departments may require during permitting and approval processes.

<sup>2</sup>These measures to minimize harm are mitigation for other project impacts not directly related to the activities, attributes, or features that qualify the resource for Section 4(f) protection and are repeated here as they address city concerns related to the property.

<sup>3</sup>Any city concurrence on a *de minimis* determination is based on the mitigation proposed being performed by Sound Transit.

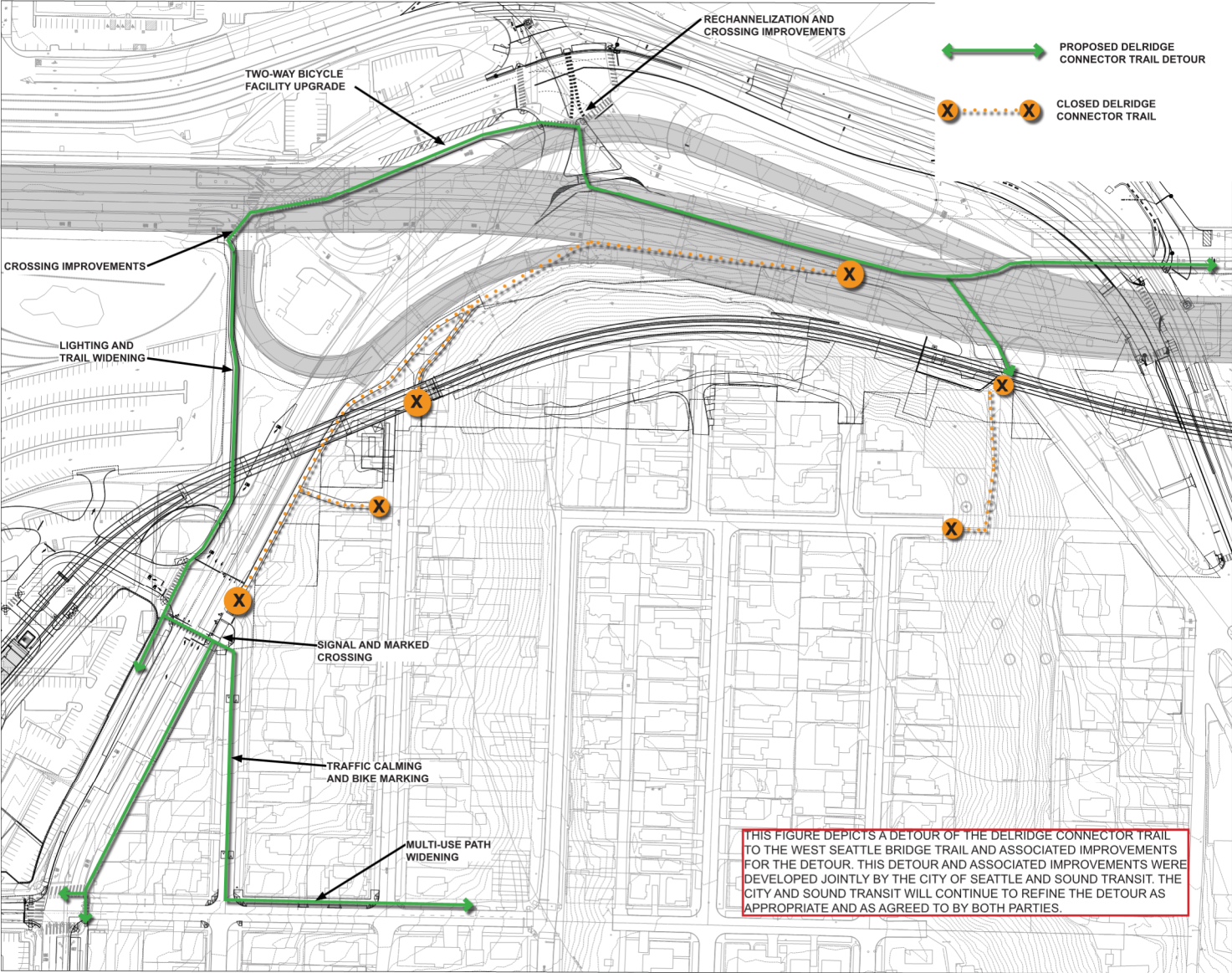
  

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AP Diaz (Apr 25, 2024 10:59 PDT)

City of Seattle Signature for Concurrence

Figure 1 Delridge Trail Detour



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## **Attachment H.3**

# **City of Seattle Resolution 32055**

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**CITY OF SEATTLE**

**RESOLUTION 32055**

A RESOLUTION relating to Sound Transit; providing recommendations to the Sound Transit Board as to the selection of the Preferred Alternative for the West Seattle and Ballard Link Extensions project to be studied in the Final Environmental Impact Statement.

WHEREAS, a Regional Transit Authority (Sound Transit) was created for the Pierce, King, and Snohomish County region by action of their respective county councils pursuant to RCW 81.112.030; and

WHEREAS, in November 2016, the voters of the three-county Sound Transit district approved Sound Transit 3, a funding measure to expand the regional transit system including the West Seattle and Ballard Link Extensions (WSBLE) project, and which included a Representative Alignment that described generally the alignment and the number and location of light rail stations to be provided; and

WHEREAS, on May 23, 2019, through Motion M2019-51, the Sound Transit Board identified the Preferred Alternative, Preferred Alternative with Third Party Funding, and other alternatives to be studied in the WSBLE Draft Environmental Impact Statement (DEIS); and

WHEREAS, The City of Seattle was a Cooperating Agency in the development of the WSBLE DEIS and continues to work collaboratively with Sound Transit through a Partnering Agreement, affirmed by Resolution 31788, and a Project Administration Agreement, authorized by Ordinance 125563; and

WHEREAS, on January 28, 2022, Sound Transit released the WSBLE DEIS for public review with a 90-day public comment period through April 28, 2022; and

1 WHEREAS, the WSBLE DEIS provided new information on the impacts of the project and  
2 provided the basis for updating cost estimates for the alternatives studied; and

3 WHEREAS, the City submitted extensive comments on the WSBLE DEIS to Sound Transit,  
4 identifying a range of areas where additional analysis is needed to sufficiently  
5 demonstrate compliance with City codes and regulations, assess potential project impacts,  
6 as well as identify where more work is needed to articulate potential mitigation strategies  
7 as required under the National Environmental Protection Act (NEPA) and the State  
8 Environmental Protection Act (SEPA) as part of the WSBLE Final Environmental Impact  
9 Statement (FEIS); and

10 WHEREAS, the City has engaged with stakeholders throughout the WSBLE project area to help  
11 community understand and interpret the analysis in the DEIS, as well as gauge interest  
12 and concerns in the potential project locations and proposed project design through a  
13 broad range of venues, and has worked to incorporate priorities and feedback from that  
14 community engagement into its consideration of the WSBLE DEIS and a Preferred  
15 Alternative for the WSBLE project; and

16 WHEREAS, the City and Sound Transit have partnered on a Joint Racial Equity Toolkit (RET)  
17 to advance equitable distribution of project benefits, avoid disparate impacts, and  
18 promote project-wide RET outcomes, as well as address the specific needs of the RET-  
19 priority communities of Chinatown-International District (CID) and Delridge; and

20 WHEREAS, the Sound Transit Board is expected to take action to confirm or modify the  
21 Preferred Alternative to be studied in the WSBLE FEIS; and

22 WHEREAS, the Sound Transit Board may also consider cost saving ideas and design  
23 refinements that may require additional environmental review; NOW, THEREFORE,

**BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SEATTLE, THE  
MAYOR CONCURRING, THAT:**

Section 1. City's goals and objectives. The City recognizes the West Seattle and Ballard Link Extensions (WSBLE) to be one of the largest infrastructure projects in City history, bringing both transformative opportunity to improve access and mobility for Seattle community members, and likelihood of significant impacts as the project is constructed through existing neighborhoods. In recommending a Preferred Alternative for study in the Final Environmental Impact Statement (FEIS), the City seeks to maximize benefit while minimizing impact and harm, by advancing alternatives that further the following values:

A. Racial equity. Promote equitable benefits and avoid disparate impacts.

B. Safety + user experience. Locate and design stations to maximize ridership and access to the Sound Transit system, providing for safe access and circulation that minimizes pedestrian risk.

C. Community. Minimize residential and business displacement and impacts to existing neighborhood assets; ensure compatibility with housing, employment, and industrial land uses; and maximize opportunities to further equitable TOD and other community-identified priorities.

D. Environmental Protection. Minimize impacts to sensitive environmental areas.

E. Financial Stewardship. Facilitate responsible stewardship of taxpayer dollars by seeking highest benefit for dollars spent, helping maintain the project schedule and budget, and prioritizing future expansion opportunities in planning and design.

Section 2. The City Council and Mayor of Seattle commend Sound Transit for its diligent work on the WSBLE Draft Environmental Impact Statement (DEIS). The City encourages the Sound Transit Board to select as the Preferred Alternative the best system for the long-term

needs of riders, surrounding communities, and the broader regional system. In consideration of the City's goals and objectives for the project and information provided in the DEIS, the City Council and Mayor support the following Preferred Alternative to be advanced into the FEIS for the WSBLE project.

A. West Seattle Junction Segment (Avalon and Alaska Junction stations): Preference for WSJ-5, medium tunnel to Alaska Junction station at 41<sup>st</sup> Street SW with retained cut Avalon station.

B. Delridge Segment (Delridge station): The City is not able to state a preference given the inadequate DEIS analysis of impacted social resources in this segment. The DEIS did not identify the Alki Beach Academy as a potentially impacted social resource, and therefore did not fully analyze the project's impact on child-care services. The DEIS identified potential impacts to Transitional Resources, which relies on co-located services and housing to provide comprehensive transitional housing services. The City's future support for DEL-6 is conditioned on avoidance or mitigation of impacts, or relocation, of impacted child-care and transitional housing service providers. The City encourages additional refinements to optimize transit integration and user experience for commuters arriving from Racial Equity Toolkit (RET)-identified communities including South Delridge and White Center. The additional refinements should include the creation of a transit access study for areas further south in the corridor that will access the new station by bus, include protections for Longfellow Creek, and minimize potential conflicts between pedestrians and freight movements.

C. Duwamish Crossing Segment: Preference for DUW-1a, South crossing, conditioned on adequate mitigation of impacts to parks, recreational areas, and natural habitat at Pigeon Point and the West Duwamish Greenbelt.



1           D. SODO Segment (SODO station): Preference for SODO-1b, at-grade south SODO  
2 station, conditioned on resolution of engineering challenges associated with additional  
3 overpasses needed along Lander and Holgate Streets.

4           E. Chinatown-International District (CID) Segment (CID station): The City is not able to  
5 state a preference given inadequate information in the DEIS related to business and residential  
6 impacts, construction and transportation impacts, and potential mitigation strategies. The City  
7 recommends that Sound Transit advance a focused six- to nine-month planning process with CID  
8 and Pioneer Square community members and community-based organizations, Sound Transit,  
9 the City of Seattle, King County Metro, and other interested partners. This process should focus  
10 on the 4<sup>th</sup> shallow and 5<sup>th</sup> shallow alternatives, with the aim of more in-depth work in community  
11 to provide mitigation and improvements to these alternatives, and ultimately providing the Sound  
12 Transit Board with improved alternatives to consider advancing into the FEIS. This process  
13 would:

14                   1. More fully address the community's concerns with the existing alternatives,  
15 helping ensure complete information is provided on potential impacts as well as strategies  
16 available to avoid/minimize those impacts, and providing mitigation where impacts cannot be  
17 avoided;

18                   2. Develop modifications to the 4<sup>th</sup> and 5<sup>th</sup> Avenue shallow alternatives that  
19 reduce impacts to community and to local and regional transportation systems, reduce the costs  
20 of these alternatives, and develop more complete mitigation plans; and

21                   3. Initiate a broader community development strategy that furthers RET outcomes  
22 and addresses project and cumulative impacts and historic harm to community from past

1 infrastructure projects, and engages the City, Sound Transit, King County, and philanthropic and  
2 other partners.

3 F. Downtown Segment (stations at Midtown, Westlake, Denny, South Lake Union, and  
4 Seattle Center): Preference for a mix-and-match approach to the Downtown segment that  
5 optimizes stations from both DT-1 and DT-2 alternatives as follows:

- 6 1. Midtown Station: DT-1, tunnel Midtown station at 5<sup>th</sup> Avenue,
- 7 2. Westlake Station: DT-1, tunnel Westlake station at 5<sup>th</sup> Avenue,
- 8 3. Denny Station: DT-2, tunnel Denny station at Terry Street, conditioned on  
9 refinements to provide station access from the north and south of Denny Way, and connection to  
10 DT-1 South Lake Union station at Harrison,
- 11 4. South Lake Union: DT-1, tunnel South Lake Union station at Harrison Street,  
12 and
- 13 5. Seattle Center: DT-2, tunnel Seattle Center station at Mercer Street,  
14 conditioned on the need to ensure a mitigation plan is developed and fully implemented to  
15 address traffic and access impacts associated with construction along Mercer Street, and to  
16 avoid, minimize, or fully mitigate impacts to the Seattle Center campus and its resident  
17 organizations as well as affected properties along the corridor. Mitigation plans should address  
18 the unique noise and vibration impacts to performing arts organizations at Seattle Center, both  
19 during construction and during permanent light rail operations.

20 The City acknowledges that a mix-and-match approach in downtown will require additional  
21 design and analysis to fully understand its environmental impacts, and cost and schedule  
22 implications.

1           G. South Interbay Segment (Smith Cove station): The City is not able to state an  
2 alignment preference given inadequate information in the DEIS related to transportation and  
3 visual impacts associated with construction and operation of an elevated guideway along Elliott  
4 Avenue West with SIB-1 and SIB-2, and impacts to Environmentally Critical Areas with SIB-2  
5 and SIB-3. The City supports a Smith Cove station located at W Galer Street, consistent with the  
6 SIB-1 alignment, that supports transit connections to Magnolia.

7           H. Interbay and Ballard Segment (Interbay and Ballard stations): Preference for IBB-2b,  
8 retained cut Interbay station at 17<sup>th</sup> Avenue W, conditioned on avoiding property impacts to  
9 multiple community assets, including any Seattle Storm facility; and a tunnel alignment to the  
10 Ballard station at 15<sup>th</sup> Avenue NW, conditioned on refinements that provide station access from  
11 the west side of 15<sup>th</sup> Avenue NW, and north and south of NW Market Street. The Ballard station  
12 alternative at 15<sup>th</sup> Avenue NW is preferred because it is the closest to the Ballard Hub Urban  
13 Village, which is one of the fastest-growing urban villages in Seattle and where the majority of  
14 the station's projected 13,100 daily riders will arrive from. The 15<sup>th</sup> Avenue NW station  
15 alternative would not require pedestrians coming from the west to cross 15<sup>th</sup> Avenue NW,  
16 providing for safer pedestrian access from the Ballard Hub Urban Village consistent with the  
17 City's Vision Zero pedestrian safety goals. The 14th Avenue NW station alternative is  
18 unacceptable without a station entrance west of 15<sup>th</sup> Avenue NW, based on these station  
19 accessibility issues and conflicts with the City's values articulated in Section 1.C.

20           The above recommendations are based on the current understanding of the project as  
21 described in the DEIS. Subsequent information developed through the environmental process,  
22 including additional analysis, evaluation of refinements, development of mitigation plans, and

1 better information on project costs may lead the City to alter its position on a Preferred  
2 Alternative.

3       Section 3. The City recognizes that Sound Transit is exploring potential cost-savings  
4 refinements to the DEIS alternatives in response to the 2021 Sound Transit Board action on ST3  
5 realignment, as well as other refinements that strive to avoid impacts, reduce risk, or achieve  
6 other benefits to the system. The City supports exploring strategies to control costs overall, but  
7 opposes scope reductions that do not bring commensurate benefit to the system and its riders,  
8 and that are not consistent with what was committed to voters when ST3 was approved in 2016.  
9 The City supports re-examining Ballard tunnel alignments that would more directly serve the  
10 center of the Ballard Hub Urban Village in the vicinity of NW Market Street and 22nd Avenue  
11 NW. While tunnel options west of 15th Avenue NW did not advance into the DEIS during  
12 project screening, that decision was influenced by the significant anticipated cost difference  
13 between elevated and tunnel alignments. As the DEIS has shown a narrowing of this cost  
14 difference, re-examining tunnel alignments west of 15th Avenue NW may identify additional  
15 opportunities to reduce costs or to better serve the anticipated ridership.

16       Section 4. The City recognizes that Sound Transit faces tremendous cost pressures in  
17 delivering the ST3 program, resulting from a range of local, regional, and macroeconomic  
18 factors. To that end, the Sound Transit Board established the concept that certain WSBLE DEIS  
19 alternatives may require additional third-party funding to supplement Sound Transit's core  
20 funding established as part of the ST3 ballot measure. Since that time, however, the cost  
21 difference between the DEIS preferred alternatives and the alternatives with third-party funding  
22 has reduced significantly based on more design and cost estimating. The City acknowledges that,  
23 despite the reduction in this cost difference, there may be important project elements that require

1 third-party funding. The City anticipates a role as a partner to address funding needs as well as to  
2 assess available opportunities for the City to reduce costs to Sound Transit in other ways,  
3 including land acquisition, right-of-way, permitting, and other areas that have been identified as  
4 cost drivers to the ST3 Program. The City intends to engage with Sound Transit and other public  
5 agency and private sector partners in earnest to identify additional opportunities for third-party  
6 funding support as work on the FEIS advances, and anticipates more formal commitments at the  
7 time the FEIS and the Federal Record of Decision (ROD) are completed, along with the  
8 availability of more complete cost estimates.

Adopted by the City Council the 12th day of July, 2022,  
and signed by me in open session in authentication of its adoption this 12th day of  
July, 2022.



President Pro Tem of the City Council

The Mayor concurred the 19th day of July, 2022.



Bruce A. Harrell, Mayor

Filed by me this 19th day of July, 2022.



Elizabeth M. Adkisson, Interim City Clerk

(Seal)

Attachments: