



West Seattle and Ballard Link Extensions

Draft Environmental Impact Statement

HISTORIC AND ARCHAEOLOGICAL RESOURCES TECHNICAL REPORT

Appendix N.5

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- N.5D Archaeological Survey and Inventory Plan
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Acronyms and Abbreviations

Acronym	Definition
FTA	Federal Transit Administration
I.D.	identification
LiDAR	light detection and ranging
M.O.S.	minimum operable segment
National Register	National Register of Historic Places
NEPA	National Environmental Policy Act of 1969
N.H.P.A.	National Historic Preservation Act
Section 106	Section 106 of the National Historic Preservation Act
SEPA	State Environmental Policy Act
WISAARD	Washington Information System for Architectural and Archaeological Records Data
WSBLE	West Seattle and Ballard Link Extensions

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1 INTRODUCTION

1.1 Overview

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

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

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

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

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

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

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

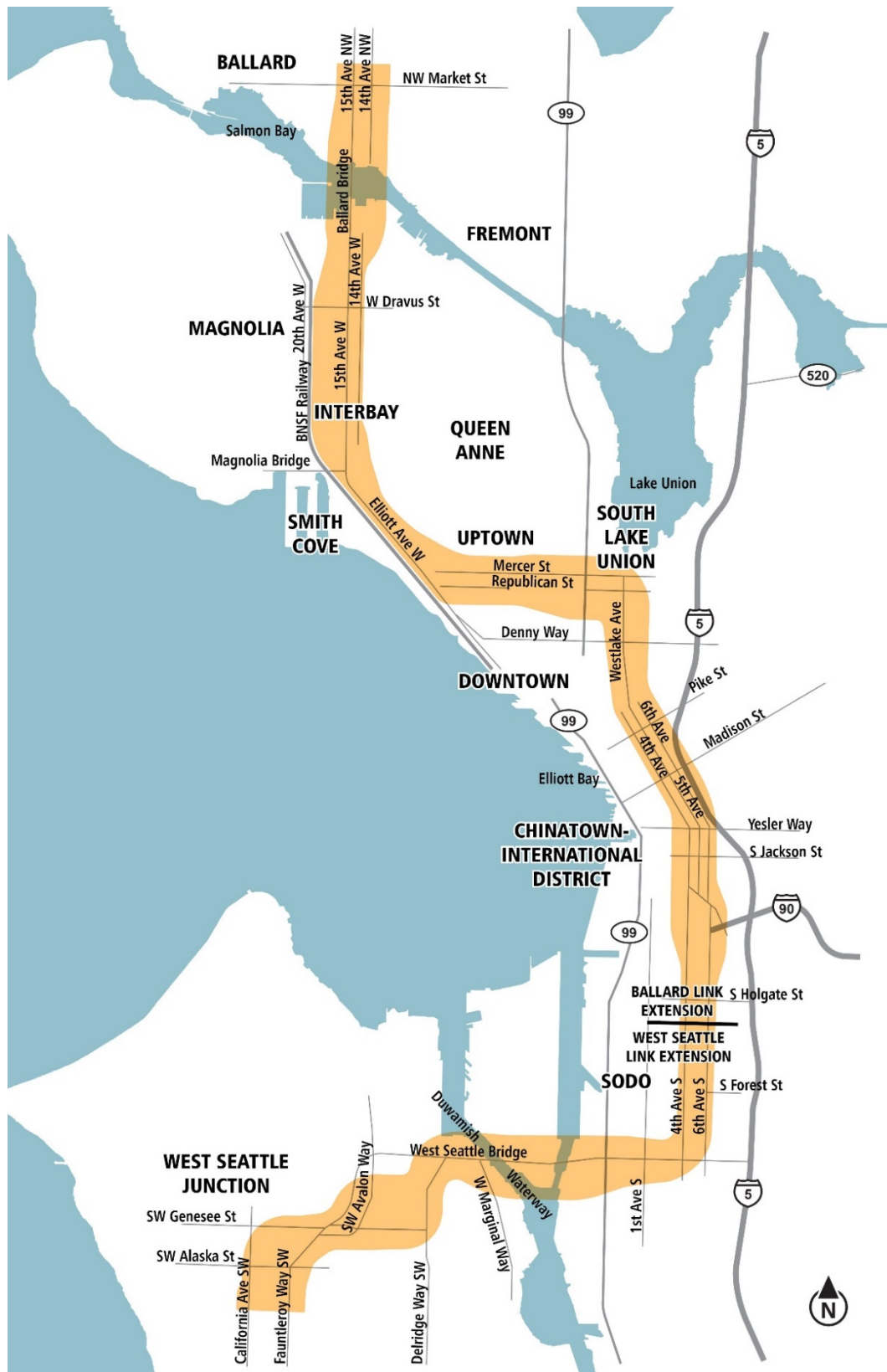


Table 1-1. Summary of West Seattle and Ballard Link Extensions Build Alternatives

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

Extension	Segment	Alternative	Alternative Abbreviation	Stations (and Station Profile)	Connections
West Seattle	Delridge	Dakota Street Station Lower Height North Alignment Option*	DEL-2b*	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-3a* and WSJ-3b*.
West Seattle	Delridge	Delridge Way Station	DEL-3	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-1, WSJ-2, and WSJ-4*.
West Seattle	Delridge	Delridge Way Station Lower Height*	DEL-4*	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-3a* and WSJ-3b*.
West Seattle	Delridge	Andover Street Station	DEL-5	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-1, WSJ-2 and WSJ-4*.
West Seattle	Delridge	Andover Street Station Lower Height*	DEL-6*	Delridge (Elevated)	All Duwamish Segment alternatives. Connects to WSJ-5*.
West Seattle	West Seattle Junction	Preferred Elevated 41st/42nd Avenue Station	WSJ-1	Avalon (Elevated), West Seattle Junction (Elevated)	Connects to DEL-1a, DEL-1b, DEL-3, and DEL-5.
West Seattle	West Seattle Junction	Preferred Elevated Fauntleroy Way Station	WSJ-2	Avalon (Elevated), West Seattle Junction (Elevated)	Connects to DEL-1a, DEL-1b, DEL-3, and DEL-5.
West Seattle	West Seattle Junction	Preferred Tunnel 41st Avenue Station*	WSJ-3a*	Avalon (Tunnel), West Seattle Junction (Tunnel)	Connects to DEL-2a*, DEL-2b*, and DEL-4*.
West Seattle	West Seattle Junction	Preferred Tunnel 42nd Avenue Station Option*	WSJ-3b*	Avalon (Tunnel), West Seattle Junction (Tunnel)	Connects to DEL-2a*, DEL-2b* and DEL-4*.
West Seattle	West Seattle Junction	Short Tunnel 41st Avenue Station*	WSJ-4*	Avalon (Elevated), West Seattle Junction (Tunnel)	Connects to DEL-1a, DEL-1b, DEL-3, and DEL-5.

Extension	Segment	Alternative	Alternative Abbreviation	Stations (and Station Profile)	Connections
West Seattle	West Seattle Junction	Medium Tunnel 41st Avenue Station*	WSJ-5*	Avalon (Retained Cut), West Seattle Junction (Tunnel)	Connects to DEL-6*.
Ballard	SODO	Preferred At-Grade	SODO-1a	Not applicable	Connects to CID-1a*, CID-2a, and CID-2b.
Ballard	SODO	At-Grade South Station Option	SODO-1b	Not applicable	All Chinatown-International District Segment alternatives.
Ballard	SODO	Mixed Profile	SODO-2	Not applicable	Connects to CID-1a* and CID-2a.
Ballard	Chinatown-International District	4th Avenue Shallow* ^a	CID-1a*	Stadium (existing station would be rebuilt) and International District/Chinatown (tunnel)	All SODO Segment alternatives. All Downtown Segment alternatives.
Ballard	Chinatown-International District	4th Avenue Deep Station Option*	CID-1b*	International District/Chinatown (Tunnel)	Connects to SODO-1b. Connects to DT-1.
Ballard	Chinatown-International District	5th Avenue Shallow	CID-2a	International District/Chinatown (Tunnel) or International District/Chinatown Diagonal Station Configuration (Tunnel)	All SODO Segment alternatives. All Downtown Segment alternatives.
Ballard	Chinatown-International District	5th Avenue Deep Station Option	CID-2b	International District/Chinatown (Tunnel)	Connects to SODO-1a and SODO-1b. Connects to DT-1.
Ballard	Downtown	Preferred 5th Avenue/Harrison Street	DT-1	Midtown, Westlake, Denny, South Lake Union, and Seattle Center (Tunnel)	All Chinatown-International District Segment alternatives. Connects to SIB-1 and SIB-2.

Extension	Segment	Alternative	Alternative Abbreviation	Stations (and Station Profile)	Connections
Ballard	Downtown	6th Avenue/Mercer Street	DT-2	Midtown, Westlake, Denny, South Lake Union, and Seattle Center (Tunnel)	Connects to CID-1a* and CID-2a. Connects to SIB-3.
Ballard	South Interbay	Preferred Galer Street Station/Central Interbay	SIB-1	Smith Cove (Elevated)	Connects to DT-1. Connects to IBB-1a, IBB-2a*, and IBB-2b*.
Ballard	South Interbay	Prospect Street Station/15th Avenue	SIB-2	Smith Cove (Elevated)	Connects to DT-1. Connects to IBB-3 and IBB-1b.
Ballard	South Interbay	Prospect Street Station/Central Interbay	SIB-3	Smith Cove (Retained cut)	Connects to DT-2. Connects to IBB-1a, IBB-2a*, and IBB-2b*.
Ballard	Interbay/Ballard	Preferred Elevated 14th Avenue	IBB-1a	Interbay (Elevated), Ballard (Elevated)	Connects to SIB-1 and SIB-3.
Ballard	Interbay/Ballard	Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue)	IBB-1b	Interbay (Elevated), Ballard (Elevated)	Connects to SIB-2.
Ballard	Interbay/Ballard	Preferred Tunnel 14th Avenue*	IBB-2a*	Interbay (Retained cut), Ballard (Tunnel)	Connects to SIB-1 and SIB-3.
Ballard	Interbay/Ballard	Preferred Tunnel 15th Avenue Station Option*	IBB-2b*	Interbay (Retained cut), Ballard (Tunnel)	Connects to SIB-1 and SIB-3.
Ballard	Interbay/Ballard	Elevated 15th Avenue	IBB-3	Interbay (Elevated), Ballard (Elevated)	Connects to SIB-2.

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

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

1.2 Project Description

Chapter 2 of the Draft Environmental Impact Statement, Alternatives Considered, provides an extensive overview of the WSBLE Project elements. This section of the cultural resources evaluation provides a brief overview of the project.

1.2.1 West Seattle Link Extension

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 travel 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. A tunnel in West Seattle was not included in the Sound Transit 3 Plan and, therefore, third-party funding would be required for alternatives that include tunnels. 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. Segment-level project elements are described below.

1.2.1.1 SODO Segment

The SODO Segment includes the area between approximately South Holgate Street and South Forest Street in the SODO neighborhood. The SODO Station is the only station in this segment. There is an existing SODO light rail station, and a new SODO Station is proposed as part of the West Seattle Link Extension. The new SODO Station on the West Seattle Link Extension would provide a transfer point to/from the Ballard Link to Tacoma Link 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, as explained under the descriptions of alternatives below.

Preferred At-Grade Alternative (SODO-1a)

Heading south, Preferred 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 on the West Seattle Link Extension 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 northbound West Seattle Link Extension and the southbound Ballard Link Extension, which would continue south along the existing Link line. Preferred Alternative SODO-1a also has a staggered station configuration that was developed in order 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 staggered station configuration features a narrowed center platform and staggered side platforms, with the

southbound platform shifted slightly north so that it is not on the 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. 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 the same as Preferred Alternative SODO-1a except for the SODO Station location. A new at-grade station on the West Seattle Link Extension 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 northbound West Seattle Link Extension and the southbound Ballard Link Extension. A new bus turnaround would be created off 4th Avenue South, west of the station. As with SODO-1a, buses would be displaced from the SODO busway.

Mixed Profile Alternative (SODO-2)

Alternative SODO-2 for the West Seattle Link Extension would range between ground level and approximately 50 feet. 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 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 after construction.

A new SODO Station on the West Seattle Link Extension would be in an elevated profile north of South Lander Street. The top of the station structure would be up to 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.

1.2.1.2 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 would not include a station but would include a connection to the existing Operations and Maintenance Facility Central.

Preferred 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 west to cross over the Spokane Street Bridge and the West Seattle Bridge.

This alternative would continue west on the south side of the West Seattle Bridge. Where it crosses State Route 99, the alignment would be higher than the West Seattle Bridge and would gradually increase in height as it travels west, because light rail cannot travel on grades as steep as automobiles can. 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, this 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 follows Delridge Way Southwest.

A connection to the Operations and Maintenance Facility Central would be provided from tracks between South Forest Street and 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.

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

Option DUW-1b would be the same as Preferred Alternative SODO-1a except it would cross the East and West Duwamish Waterways on the south edge of Harbor Island, south of the existing BNSF Railway drawbridge. The height of this alternative would be the same as with Preferred 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 be higher than the West Seattle Bridge and 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 and ramps 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 alternatives, 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.

1.2.1.3 Delridge Segment

The Delridge Segment includes the area between Southwest Charlestown Street and 31st Avenue Southwest and one station, the Delridge Station. Some alternatives in this segment would only connect to tunnel alternatives in the adjacent West Seattle Junction Segment. A tunnel in West Seattle was not included in the Sound Transit 3 Plan (Sound Transit 2016); therefore, third-party funding could be required for the tunnel alternatives to which these alternatives would connect.

Preferred Dakota Street Station Alternative (DEL-1a)

Preferred Alternative DEL-1a would follow Delridge Way Southwest south on an elevated guideway to an elevated station. The guideway would be on the west side of Delridge Way Southwest except for in the vicinity of Southwest Andover Street, where it would be in the roadway right-of-way.

The height of 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, this 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 Preferred Alternative DEL-1a except it would be within the Southwest Genesee Street right-of-way between the West Seattle Golf Course and the Longfellow Creek Natural Area, then shift to the north side of Southwest Genesee Street west of 28th Avenue Southwest. The height of 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.

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

Preferred Alternative DEL-2a* would follow the same alignment as Preferred 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 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 Preferred Alternative DEL-1a, 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, 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, this 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, this 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-6)*

Alternative DEL-6* would be similar to Alternative DEL-5 up to and including the station. The top of the station structure would be approximately 100 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.

1.2.1.4 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. All alternatives would have two stations: Avalon and Alaska Junction. Although tunnel alternatives are considered in the environmental review for this segment, a tunnel in West Seattle was not included in the Sound Transit 3 Plan; therefore, third-party funding would be required for the tunnel alternatives.

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

Preferred 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. This alternative would turn southwest on the north side of Fauntleroy Way Southwest and continue south before curving southwest between Southwest Oregon Street and Southwest Alaska Street. 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 include a tail track 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 feet 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 it would be approximately 70 feet to 80 feet high.

Preferred Elevated Fauntleroy Way Station Alternative (WSJ-2)

Preferred Alternative WSJ-2 would be elevated along the south side of Southwest Genesee Street between 31st Avenue Southwest and Fauntleroy Way Southwest. The height of 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 north side of Fauntleroy Way Southwest. The elevated 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 feet 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.

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

Preferred 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 the tail track 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 Southwest Genesee Street and 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.

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

The Preferred Option WSJ-3b* alignment would be the same as Preferred 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 a tail track in a north-south orientation under 42nd Avenue Southwest. The depth of the guideway would be entirely within a tunnel. The Avalon Station would be the same as described for Preferred 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. Both 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 a tail track 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-5)*

The Alternative WSJ-5* alignment would begin in a retained cut south of Southwest Yancy Street and follow the east side of the West Seattle Bridge connection to Southwest Genesee Street. This alternative would enter a tunnel at Southwest Genesee Street and 37th Avenue Southwest. It would then curve southwest west of 37th Avenue Southwest to 41st Avenue Southwest and terminate at Southwest Hudson Street, with a tail track in a north-south orientation under 41st Avenue Southwest. The guideway would be entirely in a tunnel. A tunnel in West Seattle was not included in the Sound Transit 3 Plan; therefore, third-party funding would be required for this alternative. Stations would be located as follows:

- **Avalon Station** – Avalon Station would be in a retained cut south of Southwest Genesee Street, beneath Fauntleroy Way 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.

1.2.2 Ballard Link Extension

Both the West Seattle Link Extension and Ballard Link Extension would include improvements in SODO. The Ballard Link Extension would begin near the existing SODO Station and proceed north to enter a new tunnel under Downtown Seattle. It would pass through the Chinatown-International District and have a new International District/Chinatown Station connected to the existing station. While the Ballard Link Extension would not serve the existing Stadium Station on the Central Link line, one of the alternatives in the Chinatown-International District would rebuild it because of the profile and alignment curvature to reach Chinatown-International District station depths. The Ballard Link Extension would generally follow the corridor of 5th Avenue or 6th Avenue and Westlake Avenue North through Downtown Seattle to South Lake Union. In South Lake Union, the tunnel would turn west toward Uptown. Five underground stations—Midtown Station, Westlake Station, Denny Station, South Lake Union Station, and Seattle Center Station—would be included. Passengers would be able to transfer from the Ballard Link Extension to the existing Central Link line at SODO, International District/Chinatown, and Westlake stations. Passengers currently traveling directly between south Seattle and points north of Westlake Station on the Central Link line (including the existing Capitol Hill, University of Washington, University District, Roosevelt Station, and Northgate stations) would be required to transfer at the SODO, International District/Chinatown, or Westlake stations when the Ballard Link Extension is built. The Tacoma to Ballard line would not serve the existing Stadium Station, and riders on that line would need to transfer to the West Seattle to Everett line to reach the Stadium Station.

The Ballard Link Extension would exit the tunnel at a portal near Elliott Avenue West and continue either elevated, at-grade, or in a retained cut along Elliott Avenue West. It would then travel through Interbay either elevated along 15th Avenue West or elevated on the west side of Interbay Golf Center. It would cross over or under Salmon Bay near 15th Avenue Northwest with a bridge or in a tunnel and continue north to a terminus near Northwest Market Street. Stations would be constructed at Smith Cove, Interbay, and Ballard. The following sections describe the preferred alternatives, preferred alternatives with third-party funding, and other Build Alternatives for the extension by segment.

1.2.2.1 SODO Segment

The SODO Segment includes the area between approximately South Forest Street in the SODO neighborhood and South Holgate Street at the north end. The West Seattle Link Extension also includes improvements in the SODO Segment. The SODO Segment alternatives for the Ballard Link Extension would be continuations of the SODO alignments in the West Seattle Link Extension and would connect to the SODO alignments in West Seattle Link Extension with the same alternative name.

The West Seattle Link Extension improvements would be operational in 2032, while the Ballard Link Extension would be operational in 2037. Therefore, the Ballard Link Extension assumes the West Seattle Link Extension improvements are in place.

As described in Section 10.4.1, Effects to Archaeological Resources, the SODO Segment includes the existing SODO Station and the SODO Station constructed as part of the West Seattle Link Extension. The Ballard Link Extension would not include construction of a new station in SODO. The Ballard Link Extension would include track north of the existing SODO Station to connect it to the existing Central Link line that would continue south to Tacoma Dome.

Because the West Seattle Link Extension would temporarily terminate the line with tail tracks north of the SODO Station, the Ballard Link Extension would permanently connect the West Seattle Link Extension tail tracks to the existing Link light rail line to Lynnwood and Everett in 2037. The new SODO Station and associated tail tracks would be part of the West Seattle Link Extension. The connection would begin at the tail tracks north of the new SODO Station (which would be part of the West Seattle Link Extension) and continue north, at-grade or in a retained cut. It would connect to the existing Link light rail line in the vicinity of South Holgate Street.

Preferred At-Grade Alternative (SODO-1a)

Preferred Alternative SODO-1a would begin at the existing Link light rail line near South Lander Street. The alternative would continue north at-grade immediately east of the West Seattle Link Extension line (which would already be constructed) and would include the existing SODO Station. It would continue north under the new grade separation of South Holgate Street, which would be constructed as part of the Ballard Link Extension. 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. This alternative would only connect to Alternative CID-1a* and Alternative CID-2a in the Chinatown-International District Segment.

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

Option SODO-1b would be the same as Preferred Alternative SODO-1a, except for the SODO Station location. The existing SODO Station would be moved south as part of the West Seattle Link Extension (refer to Section 1.2.1.1, West Seattle Link Extension), and the Ballard Link Extension would begin at the existing Link light rail line north of South Lander Street at the

relocated SODO Station. This option would connect to all the alternatives in the Chinatown-International District Segment.

Mixed Profile Alternative (SODO-2)

For the Ballard Link Extension, Alternative SODO-2 would be similar to Option SODO-1b and would begin at the existing Central Link line near South Lander Street and continue north at-grade immediately east of the West Seattle Link line (which would already be constructed). The Ballard Link Extension line would connect to the existing SODO Station (that would be moved south as part of the West Seattle Link Extension). Similar to the other Ballard Link Extension SODO alternatives, South Holgate Street would be constructed as a new roadway overcrossing. 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. This alternative would only connect to Alternative CID-1a* and Alternative CID-2a in the Chinatown-International District Segment.

1.2.2.2 Chinatown-International District Segment

The Chinatown-International District Segment would include the area from South Holgate Street to James Street and includes one station (International District/Chinatown Station).¹

The Board did not identify a preferred alternative in this segment. The station alternatives on 4th Avenue South (Alternative CID-1a* and Option CID-1b*) would provide a pedestrian undercrossing for direct underground passenger transfer to the southbound line of the existing International District/Chinatown Station. Passenger transfer to the northbound line would require passengers to go up to street level and then go down to the existing station platform. The station alternatives on 5th Avenue South (Alternative CID-2a and Option CID-2b) would provide a pedestrian undercrossing for direct underground passenger transfer to the northbound line of the existing International District/Chinatown Station. Passenger transfer to the southbound line would require passengers to go up to street level and then down to the existing station platform. Direct underground passenger transfer to the other direction of travel could be provided at these stations but would require mining under the existing Central Link line, which would have engineering and operational challenges.

Alternative CID-1a* and Option CID-1b* would both require reconstruction of the 4th Avenue South Viaduct. Such reconstruction was not included in the Sound Transit 3 Plan (Sound Transit 2016); therefore, third-party funding could be required for this alternative and option. Based on assessments to date, the construction duration in this segment could take longer for Alternative CID-1a* and Option CID-1b* (primarily due to reconstruction of the 4th Avenue South Viaduct) compared to Alternative CID-2a and Option CID-2b. Construction in the area of the station (generally between Seattle Boulevard South and James Street) for Alternative CID-1a* would take approximately 9 to 11 years and Option CID-1b* would take approximately 8 to 10 years. Construction in the station area for Alternative CID-2a would take approximately 8 to 9 years and Option CID-2b would take approximately 6.5 to 7.5 years. The construction duration for the Alternative CID-2a diagonal station configuration would be shorter. It is anticipated that

¹ Chinatown-International District is the name for this neighborhood according to City Ordinance 119297 (1999), and the existing light rail station in this neighborhood is named the International District/Chinatown Station. Due to this, Chinatown-International District is used when referring to the neighborhood and the segment and International District/Chinatown Station is used when referring to the station.

construction in the station area of the diagonal station configuration would take approximately 5 to 6 years.

The 4th Avenue South Viaduct rebuild could lengthen the overall schedule of the Ballard Link Extension, but whether there is a delay, and the extent of that delay, would not be known until final design and construction sequencing is determined.

4th Avenue Shallow Alternative (CID-1a)*

Alternative CID-1a* would begin at-grade east of the existing Link light rail line and extend north from South Holgate Street. The Stadium Station on the existing light rail line would be removed and rebuilt to accommodate the tunnel portal for the Ballard Link Extension and realignment of the existing light rail line. However, the Ballard Link Extension would not connect to this existing light rail line and Stadium Station.

This alternative would enter a tunnel between South Massachusetts Street and South Royal Brougham Way. The tunnel would continue to the northwest under the existing Link light rail line at South Royal Brougham Way and then north under 4th Avenue South. A new International District/Chinatown Station would be under 4th Avenue South, west of the existing International District/Chinatown Station. The 4th Avenue South Viaduct would be demolished and reconstructed to accommodate construction of this station. The station platform would be approximately 80 feet deep. Station entrances would be on the west and east side of 4th Avenue South, and the eastern station entrance would also be accessible from the existing International District/Chinatown Station plaza at South King Street.

From the station, the tunnel alignment would continue north under 4th Avenue South to Yesler Way, at which point it would begin transitioning to follow 5th Avenue or 6th Avenue in the Downtown Segment.

4th Avenue Deep Station Option (CID-1b)*

Option CID-1b* would begin at-grade slightly farther east of the existing Link light rail line than Alternative CID-1a* and extend north from South Holgate Street. The tunnel portal would be in the vicinity of South Massachusetts Street, and the tunnel alignment would begin transitioning to follow 4th Avenue South farther south than Alternative CID-1a*. From Seattle Boulevard South to James Street, the alignment and station location would be similar to Alternative CID-1a* but would be deeper. Station entrances would be the same as Alternative CID-1a*. The International District/Chinatown Station platform would be approximately 190 feet deep, approximately 110 feet deeper than Alternative CID-1a*. The deeper tunnel and station would allow the station to be mined rather than constructed using cut-and-cover methods and would reduce surface disturbance during construction. The 4th Avenue South Viaduct would be demolished and reconstructed to accommodate construction of this station. This option would only connect to Preferred Alternative DT-1 in the Downtown Segment.

5th Avenue Shallow Alternative (CID-2a)

Alternative CID-2a would begin at-grade east of the existing Link light rail line and extend north from South Holgate Street. This alternative would enter a tunnel north of South Massachusetts Street and continue north beneath 6th Avenue South. The tunnel would transition to be under 5th Avenue South near Seattle Boulevard South. The International District/Chinatown Station would be under 5th Avenue South, east of the existing International District/Chinatown Station. The northbound station platforms would be stacked over the southbound station platform and would be approximately 90 feet deep (to the lower platform). There is also a diagonal station configuration where the tunnel would be under 6th Avenue South and transition to 5th Avenue

South between South Weller Street and South Jackson Street. The station platform for the diagonal station configuration would be between 5th Avenue South and 6th Avenue South and would be approximately 25 feet deeper, with a depth of approximately 115 feet. In both configurations, the station entrance would be on the east side of 5th Avenue South, at the corner of South King Street. From the station, the tunnel alignment would continue north to James Street, either staying under 5th Avenue or transitioning to be under 6th Avenue.

5th Avenue Deep Station Option (CID-2b)

Option CID-2b would be the same as Alternative CID-2a except that the tunnel and the station would be deeper, and the station platforms would not be stacked. Station entrances would be the same as Alternative CID-2a. The deeper tunnel and station would allow the station to be mined rather than constructed using cut-and-cover methods and would reduce surface disturbance during construction. The International District/Chinatown Station platform would be approximately 180 feet deep, approximately 90 feet deeper than Alternative CID-2a. This option would only connect to Preferred Alternative DT-1 in the Downtown Segment.

1.2.2.3 Downtown Segment

The Downtown Segment includes the area between James Street in Downtown Seattle and 2nd Avenue West in Uptown. This segment includes five stations: Midtown, Westlake, Denny, South Lake Union, and Seattle Center. In addition, alternatives in this segment could include modification or addition of emergency egress as well as ventilation or other ancillary facilities needed for the ongoing operations and maintenance of the existing Downtown Seattle Transit Tunnel and stations.

Preferred 5th Avenue/Harrison Street Alternative (DT-1)

Preferred Alternative DT-1 would be in a tunnel generally heading north under 5th Avenue and Westlake Avenue and then heading west under Harrison Street and Republican Street. Stations would be located as follows:

- **Midtown Station** – This station would be beneath 5th Avenue between Columbia Street and Madison Street. One station entrance would be on the corner of 5th Avenue and Columbia Street and the other on the corner of 4th Avenue and Madison Street. The station entrance on 4th Avenue would connect to the station via an underground walkway beneath Madison Street. For this alternative to connect to Alternative CID-1a*, Option CID-1b*, and Option CID-2b, the alignment between the Chinatown-International District Segment and Midtown Station and the station platform would need to be deeper.
- **Westlake Station** – This station would be beneath 5th Avenue between Pike Street and Pine Street and have three entrances. Two station entrances would be provided on 5th Avenue at the corners of Pike Street and Pine Street, and one station entrance would be on Pine Street between 4th Avenue and 5th Avenue. The station platform would connect to the existing Westlake Station at Pine Street via pedestrian undercrossings.
- **Denny Station** – This station would be beneath Westlake Avenue between Denny Way and Blanchard Street. Station entrances would be on Westlake Avenue near the Denny Way intersection and south of Blanchard Street.
- **South Lake Union Station** – This station would be beneath Harrison Street, between Dexter Avenue North and just west of Aurora Avenue North. Station entrances would be on Harrison Street at the corners of Dexter Avenue North and Aurora Avenue North.

- **Seattle Center Station** – This station would be beneath Republican Street, east of 1st Avenue North. One station entrance would be on Republican Street at the corner of Queen Anne Avenue North, and the other entrance would be farther east at the corner of 2nd Avenue North (now a pedestrian walkway and campus maintenance and delivery access roadway within Seattle Center).

Preferred Alternative DT-1 would only connect to Preferred Alternative SIB-1 and Alternative SIB-2 in the South Interbay Segment.

6th Avenue/Mercer Street Alternative (DT-2)

Alternative DT-2 would be in a tunnel generally heading north under 6th Avenue and Terry Avenue, and then west under Mercer Street. Stations would be located as follows:

- **Midtown Station** – This station would be beneath 6th Avenue, between Madison Street and Seneca Street. Interstate 5 would be directly east of the station. One station entrance would be on 6th Avenue and the other on 5th Avenue, both between Spring Street and Seneca Street. The station entrance on 5th Avenue would connect to the station via a pedestrian undercrossing.
- **Westlake Station** – This station would be beneath 6th Avenue, between Pine Street and Olive Way. One station entrance would be at 6th Avenue and Olive Way, and the other entrance would be at 6th Avenue and Pine Street. The existing Westlake Station at Pine Street east of 5th Avenue would be modified to provide connection to the new station via a pedestrian undercrossing.
- **Denny Station** – This station would be beneath Terry Avenue North, between Denny Way and John Street. Both station entrances would be on Terry Avenue North, one at the corner of Denny Way and the other at John Street with a pedestrian connection to Boren Avenue.
- **South Lake Union Station** – This station would be north of Mercer Street between Aurora Avenue North and Taylor Avenue North. Both station entrances would be on Mercer Street one at the corner of Taylor Avenue North and the other at Aurora Avenue North with pedestrian connections at both Aurora Avenue North and Mercer Street.
- **Seattle Center Station** – This station would be beneath Mercer Street, between Warren Avenue North and Queen Anne Avenue North. Station entrances would be on Mercer Street at the corners of Warren Avenue North and 1st Avenue North.

Alternative DT-2 would only connect to Alternative SIB-3 in the South Interbay Segment.

1.2.2.4 South Interbay Segment

The South Interbay Segment includes the area between 2nd Avenue West in Uptown and West Dravus Street (west of 17th Avenue West) and West Barrett Street (east of 17th Avenue West) in Interbay. There would be one station in this segment, the Smith Cove Station.

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

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

Smith Cove Station would be elevated above the West Galer Street bridge, and the top of the station structure would be approximately 90 feet high. The station entrances would be on both sides of West Galer Street and accessed from Elliott Avenue West. The West Galer Street flyover pedestrian facility would be modified to maintain its function in approximately the same location, providing access to the station. In addition to bus stops, this alternative would include a bus layover facility at the station, with access from Elliott Avenue West.

From the Smith Cove Station, the elevated guideway would cross over the Magnolia Bridge and continue north along the east side of the BNSF Railway tracks to West Armory Way. From West Armory Way, the alignment would continue north along the western edge of Interbay Golf Center and Interbay Athletic Center. The elevated guideway would continue over West Dravus Street and connect to Preferred Alternative IBB-1a in the Interbay/Ballard Segment. The elevated guideway for this alternative would be between about 30 and 80 feet high and would be highest near West Armory Way to allow for a future bridge over the BNSF Railway tracks. For this alternative to connect to the tunnel alternatives (Preferred Alternative IBB-2a* and Preferred Option IBB-2b*) in the Interbay/Ballard Segment, it would transition from elevated to at-grade along the Interbay Athletic Center to continue under West Dravus Street.

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

Alternative SIB-2 would continue the tunnel beneath Republican Street in the Downtown Segment from 2nd Avenue West to a tunnel portal on the east side of 5th Avenue West. From the tunnel portal, the alternative would become elevated and cross to the west side of Elliott Avenue West and continue northwest. The guideway would cross to the east side of Elliott Avenue West near West Mercer Place and would continue northwest between the east side of Elliott Avenue West and Kinnear Park. It would enter an elevated Smith Cove Station north of Kinnear Park on the east side of Elliott Avenue West. The station would be north of West Prospect Street with station entrances and a bus layover facility in addition to bus stops, all accessed from Elliott Avenue West. The top of the station structure would be approximately 60 feet high. The station would have a retaining wall on the east side.

From the Smith Cove Station, the elevated guideway would continue northwest along the east side of Elliott Avenue West and then transition to a retained cut along the edge of the Southwest Queen Anne Greenbelt before turning north and transitioning to the center of 15th Avenue West near West Newton Street. It would continue on elevated guideway in the middle of 15th Avenue West to West Barrett Street. The elevated guideway would be about 40 feet tall in this area. This alternative would only connect to the bridge alternatives (Option IBB-1b and Alternative IBB-3) in the Interbay/Ballard Segment.

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

Alternative SIB-3 would continue the tunnel under West Mercer Street from the Downtown Segment from 2nd Avenue West to a tunnel portal east of Elliott Avenue West on the northwestern edge of Kinnear Park, south of West Prospect Street. This alternative would continue north from the tunnel portal in a retained cut to Smith Cove Station north of West Prospect Street with station entrances and a bus layover facility in addition to bus stops, all accessed from Elliott Avenue West. The station would be in a retained cut with the top of the station structure approximately 30 feet above the existing ground surface.

From the Smith Cove Station, Alternative SIB-3 would continue north in a retained cut along the edge of the Southwest Queen Anne Greenbelt. Most of the retained cut would have a retaining wall on the east side. The alternative would transition to elevated guideway near West Howe Street and cross 15th Avenue West at West Armory Way to travel northwest along the northern side of West Armory Way. From West Armory Way, it would continue north along the western

edge of Interbay Golf Center and Interbay Athletic Complex and then continue over West Dravus Street to connect to Alternative IBB-1a. The elevated guideway would range in height from approximately 30 feet to 80 feet and would be highest at the Interbay Athletic Complex for it to pass over West Dravus Street. For this alternative to connect to the tunnel alternatives (Preferred Alternative IBB-2a* and Preferred Option IBB-2b*) in the Interbay/Ballard Segment, it would transition from elevated to at-grade along the Interbay Athletic Complex and continue under West Dravus Street.

1.2.2.5 Interbay/Ballard Segment

The Interbay/Ballard Segment encompasses the area between West Dravus Street (west of 17th Avenue West) and West Barrett Street (east of 17th Avenue West) in Interbay to Northwest 58th Street in Ballard. All alternatives would have two stations: Interbay and Ballard. Although a tunnel alternative is considered in the environmental review for this segment, a tunnel in Interbay/Ballard was not included in the Sound Transit 3 Plan; therefore, third-party funding could be required for the tunnel alternatives.

Preferred Elevated 14th Avenue Alternative (IBB-1a)

Preferred Alternative IBB-1a would cross over West Dravus Street on elevated guideway parallel to the BNSF tracks and then curve northeast to Interbay Station. The station would be just north of West Dravus Street between the railroad tracks and 17th Avenue West. The top of the station structure would be approximately 80 to 90 feet high, depending on which alternative it would connect with in the South Interbay Segment. Station access would be from West Dravus Street and 17th Avenue West. Thorndyke Avenue West and 17th Avenue West would provide roadway circulation underneath the station.

This alternative would continue on elevated guideway from Interbay Station northeast over the West Emerson Street interchange and then curve north to cross Salmon Bay on a fixed-span bridge on the east side of the Ballard Bridge (15th Avenue Bridge). The bridge over Salmon Bay would have a clearance of approximately 136 feet over the navigation channel in Salmon Bay. This height could be adjusted through coordination with the United States Coast Guard.

This alternative would continue north within the 14th Avenue Northwest right-of-way before transitioning to the east edge of the road south of Northwest Market Street. Ballard Station would be on the east side of 14th Avenue Northwest, straddling Northwest Market Street, with station entrances on both sides of Northwest Market Street. The top of the station structure would be approximately 80 feet high. Elevated tail tracks would extend north of the station along the east side of 14th Avenue Northwest and would then curve west to end above the center of the roadway. The elevated guideway for this alternative would range in height from approximately 30 to 140 feet and would be highest south and north of Salmon Bay where it transitions to the bridge.

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

Option IBB-1b is a design option for connecting Alternative SIB-2 in the South Interbay Segment to the Preferred Alternative IBB-1a bridge over Salmon Bay. The alignment would start north of the Interbay Station on 15th Avenue West. It would extend to the northeast of the intersection of 15th Avenue West and West Emerson Street on elevated guideway and would connect to the 14th Avenue alignment bridge over Salmon Bay. The bridge over Salmon Bay and the elevated guideway to the north would be the same as for Preferred Alternative IBB-1a.

Preferred Tunnel 14th Avenue Alternative (IBB-2a)*

Preferred Alternative IBB-2a* would cross under West Dravus Street, enter in a retained cut parallel to the BNSF Railway tracks, and then curve northeast to Interbay Station. The station would be in a retained cut north of West Dravus Street, between 17th Avenue West and Thorndyke Avenue West. The top of the station structure would be approximately 30 feet high. The station entrances would be on 17th Avenue West and West Bertona Street. The station would require realignment and reconstruction of the northern end of 17th Avenue West and Thorndyke Avenue West, and truncation of 16th Avenue West at West Bertona Street.

This alternative would continue in a retained cut from Interbay Station to a tunnel portal between 15th Avenue West and Thorndyke Avenue West. The tunnel would travel northeast under the West Emerson Street interchange, under Salmon Bay (east of Ballard Bridge), and then curve north beneath 14th Avenue Northwest to Northwest Market Street. The station would be under 14th Avenue Northwest and Northwest Market Street, with station entrances on both sides of Northwest Market Street. Tail tracks would extend beneath 14th Avenue Northwest north of the station.

Preferred Tunnel 15th Avenue Station Option (IBB-2b)*

The Interbay Station and tunnel alignment for Preferred Option IBB-2b* would be the same as Preferred Alternative IBB-2a* until just north of West Nickerson Street, where it would head north under Salmon Bay and continue in a tunnel under the east side of 15th Avenue Northwest to the Ballard Station. The station would be east of 15th Avenue Northwest and south of Northwest Market Street, with access from both sides of 15th Avenue Northwest. An underground walkway beneath 15th Avenue Northwest would provide access from the west side of the road. Tail tracks would extend north of the station underneath the east side of 15th Avenue Northwest.

Elevated 15th Avenue Alternative (IBB-3)

Alternative IBB-3 would cross over West Dravus Street in the median of 15th Avenue West. Interbay Station would be elevated above 15th Avenue West, straddling West Dravus Street. Station entrances would be on West Dravus Street above 15th Avenue West on both the east and west sides of 15th Avenue West. The top of the station structure would be approximately 80 feet high.

This alternative would continue on elevated guideway from the Interbay Station on the west side of 15th Avenue West and climb to cross over the West Emerson Street interchange. From the interchange, the alternative would cross over the east side of Fishermen's Terminal west of the Ballard Bridge and cross Salmon Bay on a moveable bridge. The bridge would have a clearance of approximately 70 feet over the navigation channel in Salmon Bay when closed but would open to allow taller vessels to pass underneath. This height could be adjusted through coordination with the Coast Guard.

This alternative would continue north from the bridge on elevated guideway on the west side of 15th Avenue Northwest and transition to the east edge of 15th Avenue Northwest near Northwest 52nd Street. The Ballard Station would be elevated above the east edge of 15th Avenue Northwest, south of Northwest Market Street. The top of the station structure would be approximately 80 feet high. The station would have entrances on both sides of 15th Avenue Northwest. Elevated tail tracks would extend north of the station along the east edge of 15th Avenue Northwest within the road right-of-way. The elevated guideway for this alternative would range from approximately 50 to 80 feet high and would be highest south and north of Salmon Bay where it transitions to the bridge. This alternative would only connect to Alternative SIB-2.

1.3 Purpose of Report

The intent of the Historic and Archaeological Resources Technical Report is to provide detailed information on the historic built environment, archaeological environment, and cultural resources in the vicinity of the construction of the project. In supplying technical information on the historic built environment as well as the archaeological environment, the document serves to assist the project in making an informed decision regarding potential project effects to these resources in compliance with applicable federal, state, and local laws and guidelines. Following the presentation of the technical findings, potential mitigation strategies for minimizing effects to these environments are presented for each extension.

Section 106 of the National Historic Preservation Act requires federal agencies to consider the effects of their undertakings on historic properties (sites, districts, buildings, structures, or objects) that are listed in or eligible for listing in the National Register of Historic Places (National Register). These analyses are documented in this Historic and Archaeological Resources Technical Report that meets Section 106 and National Environmental Policy Act requirements.

The West Seattle Link Extension and the Ballard Link Extension are reviewed and analyzed separately. Each extension is broken into smaller geographic areas called segments. The West Seattle Link Extension has four segments (SODO, Duwamish, Delridge, and West Seattle Junction). The Ballard Link Extension has five segments (SODO, Chinatown-International District, Downtown, South Interbay, and Interbay/Ballard). Within each segment, individual project alternatives are examined for specific impacts to both built environment and archaeological resources.

Data for archaeological resources were derived from numerous sources, including recorded archaeological sites, previous cultural resources surveys in the region, historic and archival records and maps, and geographic and ethnographic sources. Because the project is in a highly developed area, archaeological fieldwork to date for this project has been limited to the archaeological monitoring of geotechnical boreholes drilled in support of project engineering and design. Additional archaeological investigation will be phased as the project progresses and will occur following property acquisitions and right-of-entry permissions.

Data for built environment resources are based on evaluation of more than 1,300 individual buildings and structures. Each of these resources was evaluated in the field and recorded on state of Washington Historic Property Inventory forms, which are stored in the statewide database known as the Washington Information System for Architectural and Archaeological Records Data (WISAARD). The survey examined and photographed built environment resources that were determined to have been built in or before 1980. Properties that were surveyed and inventoried over 5 years ago were photographed, and the WISAARD entries were updated and included in the survey. The results of this effort are presented in Section 9, Field Investigation Results.

The report is organized as follows:

- **Section 2, Regulatory Background**, provides an overview of national, state, and local regulations regarding cultural resources.
- **Section 3, Area of Potential Effects**, describes the project's area of potential effects.
- **Section 4, Environmental and Cultural Context**, provides an overview of the environmental and cultural context of the WSBLE corridor.

- **Section 5, Methods**, describes the methods used to conduct the archaeological and historic built environment evaluations.
- **Section 6, Agency and Tribal Consultation**, provides an overview of agency and Tribal consultation to date.
- **Section 7, Archaeological Records Search**, summarizes the previously identified resources on file in WISAARD.
- **Section 8, Archaeological Objectives and Expectations**, describes the archaeological objectives and expectations for the project.
- **Section 9, Field Investigation Results**, presents the results of the field investigations.
- **Section 10, Application of Criteria of Adverse Effect**, describes the project's effects to historic properties.
- **Section 11, Summary and Recommendations**, summarizes the report findings and recommends potential measures to avoid, minimize, or resolve adverse effects.
- **Section 12** lists the references cited in this report.

1.4 Key Personnel

This report was prepared in accordance with the Secretary of the Interior's Standards and Guidelines for the Identification of Historic Properties (*Federal Register* Volume 48, Issue 44716) by individuals who meet or exceed the Secretary of the Interior's Professional Qualifications Standards (Code of Federal Regulations Title 36, Part 61 [as amended and annotated]) and follows contemporary professional standards for the preparation of cultural resources reports. A complete list of principal contributors to this technical report is provided in Table 1-2.

Table 1-2. Key Personnel

Name	Qualifications	Roles and Responsibilities
Connie Walker Gray	Master of Urban Planning, Senior Architectural Historian	Principal Investigator, Built Environment
Matthew Sterner	Master of Arts, Senior Archaeologist	Principal Investigator, Archaeology
Michelle Yellin	Master of Urban Planning, Architectural Historian	Architectural Historian
Patrick Elliott	Master of Arts, Archaeologist	Project Field Director, Archaeology
Christopher Bryant	Bachelor of Science, Geographic Information Systems Specialist	Geospatial Analysis and Map Production
Jessica Jones	Bachelor of Arts, Geographic Information Systems Specialist	Geographic Information Systems Specialist, Archaeologist
Patricia Ambacher	Master of Arts, Architectural Historian	Architectural Historian
Ellen Dement Hurd	Master of Arts, Architectural Historian	Architectural Historian

2 REGULATORY BACKGROUND

2.1 Federal Laws and Authorities

Cultural resources are protected by federal, state, and local laws, regulations, and guidelines. The two main federal laws are the National Historic Preservation Act (United States Code Title 54 Section 300101-307108) and the National Environmental Policy Act of 1969 (NEPA). The implementing regulation for Section 106 of the National Historic Preservation Act is the Protection of Historic Properties (Code of Federal Regulations Title 36, Part 800). Historic properties are defined as any prehistoric or historic district, site, building, structure, or object listed in or eligible for the National Register. Under the National Historic Preservation Act, a property possesses significance if it meets the National Register criteria listed in Code of Federal Regulations Title 36, Part 60.4 and retains sufficient integrity to convey that significance.

Cultural resources must also be given consideration under NEPA, and the National Historic Preservation Act encourages maximum coordination with NEPA. NEPA establishes national policies and goals for the protection of the environment, including cultural resources. One of the mandates of NEPA is to “preserve important historic, cultural, and natural aspects of our national heritage” (Section 101 [United States Code Title 42, Section 4331]).

Section 4(f) of the United States Department of Transportation Act of 1966 also applies to historic properties and mandates that Department of Transportation agencies, including the Federal Transit Administration (FTA) cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historic sites unless there is no feasible and prudent alternative to the use of the land, and the action includes all possible planning to minimize the harm to the property resulting from use.

The WSBLE Project may be partially funded by FTA, and is defined as a federal undertaking. As such compliance with Section 106 of the National Historic Preservation Act (Code of Federal Regulations Title 36, Part 800) is required. The FTA will serve as the lead federal agency responsible for Section 106 compliance, including consultation, identification of historic properties, evaluation of National Register eligibility, determination of adverse effects, and resolution of adverse effects. Historic properties are identified in consultation with the State Historic Preservation Officer, Tribes, and other consulting parties, and must qualify for listing in the National Register by meeting specific criteria and standards of integrity (Code of Federal Regulations Title 36, Part 60.4).

Under Section 106, an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Section 106 regulations require the federal agency (or agencies) to follow a process for satisfying the Section 106 requirements after a federal undertaking has been defined:

- Initiate Section 106 by consulting with the State Historic Preservation Officer and the federally recognized Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington, Suquamish Indian Tribe of the Port Madison Reservation, and Confederated Tribes and Bands of the Yakama Nation. Sound Transit also coordinated with the non-federally recognized Duwamish Tribal Organization and Snohomish Tribe, as well as other interested parties. This consultation is ongoing throughout the Section 106 process.
- Identify and evaluate potential historic properties for National Register eligibility.

- Assess whether the project will affect historic properties, and whether effects will be adverse.
- Resolve adverse effects to historic properties through consultation.

Historic properties include sites, districts, buildings, structures, and objects. Some historic properties can also be Cultural Landscapes or Traditional Cultural Properties if they meet the applicable criteria in National Register Bulletins 18 and 38, respectively. The regulations also encourage coordination with the environmental review process required by other statutes, including NEPA and Section 4(f) of the United States Department of Transportation Act of 1966.

2.2 Washington State Regulations

Washington state regulations that pertain to cultural resources include the Washington State Environmental Policy Act (SEPA; Chapter 43.21C Revised Code of Washington) and the Washington Heritage Register (27.34.200 Revised Code of Washington) administered by the Washington State Department of Archaeology and Historic Preservation. Under SEPA, project effects on historic properties must be considered in weighing the overall effect of the project on the environment. SEPA requires the consideration of significant impacts on cultural and historic resources, requires that effects on cultural and historic resources be taken into account in the threshold determination process (Washington Administrative Code 197-11-330) and be considered in the final environmental impact statement (Washington Administrative Code 197-11-440), and stipulates that historic and cultural preservation is an element of the environment (Washington Administrative Code 197-11-444). The Washington Heritage Register functions within the state of Washington as the state-wide version of the National Register and follows similar criteria. It is administered by the Washington State Department of Archaeology and Historic Preservation and emphasizes local and statewide significance, with a lower threshold for eligibility. Any building or site listed in the National Register is automatically listed in the Washington Heritage Register.

The Washington Heritage Register is an official listing of historically significant sites and properties found throughout the state. The Washington Heritage Register includes districts, sites, buildings, structures, and objects that have been identified and documented as being significant in local or state history, architecture, archaeology, engineering, or culture. The program was established in 1971 as an alternative to the National Register. Listing in the Washington Heritage Register is strictly an honorary designation and raises public awareness about historic and cultural values.

Washington state laws include requirements related to archaeological sites. Revised Code of Washington 27.53 (Archaeological Sites and Resources) prohibits unpermitted disturbance of archaeological sites, defined as a geographic locality in Washington that contains archaeological objects. Revised Code of Washington 27.44 (Indian Graves and Records) and Revised Code of Washington 68.50 (Human Remains) require notification procedures and work stoppage in the event of a discovery of human remains. In addition, work will be conducted in accordance with Revised Code of Washington 76.09 (Confidentiality of Information).

2.3 City of Seattle

In addition to federal and state laws, the City of Seattle also has codes and ordinances that must be followed. The City of Seattle's Landmarks Preservation Ordinance (Seattle Municipal Code 25.12) states that in order to be eligible for landmark status a property must be at least 25 years old, possess integrity or the ability to convey its significance, and meet at least one of six

criteria. Only the Seattle Landmarks Preservation Board can determine whether a property meets this threshold. A certificate of approval from the Board is required to alter or demolish a landmark.

Seattle Municipal Code 25.05.675(H)) has specific policies regarding mitigation for impacts from projects adjacent to or across the street from designated City landmarks. According to the ordinance, when a project is proposed adjacent to or across the street from a designated site or structure, the project would be referred to the City's Historic Preservation Officer for an assessment of any adverse impacts on the designated landmark and for comments on possible mitigating measures. Measures may be required to insure the compatibility of the proposed project with the color, material and architectural character of the designated landmark and to reduce impacts on the character of the landmark's site. Subject to the overview policy set forth in Section 25.05.665, measures may be required and are limited to the following: sympathetic façade treatment; sympathetic street treatment sympathetic design treatment; and reconfiguration of the project and/or relocation of the project on the project site, that measures shall not include reductions in a project's gross floor area.

On sites with potential archaeological significance, an assessment of the archaeological potential of the site may be required. Subject to the criteria of the overview policy set forth in Seattle Municipal Code 25.05.665, measures that may be required for adverse impacts to an archaeological site include, but are not limited to: relocation of the project on the site; providing markers, plaques, or recognition of discovery; imposing a delay of as much as 90 days (or more than 90 days for extraordinary circumstances) to allow archaeological artifacts and information to be analyzed; and excavation and recovery of artifacts. It also has policies for assessing and mitigating impacts from potential archaeological sites including analysis needed for all sites within 200 feet of the meander line or otherwise known to potentially have archaeological resources on site, procedurally clarified in Seattle Department of Construction and Inspections Director's Rule 2-98.

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3 AREA OF POTENTIAL EFFECTS

The area of potential effects includes all areas where one or more of the alternatives could affect historic built environment or archaeological resources. The area of potential effects for any federally funded project must consider both direct and indirect effects to historic built environment or archaeological resources. The FTA, in consultation with the State Historic Preservation Officer, Tribes, and other consulting parties, determines the Section 106 area of potential effects, which becomes the study area for historic built environment and archaeological resources for the alternatives evaluated in the Environmental Impact Statement.

The area of potential effects for each alternative is generally defined as an area within an adjacent tax parcel (or 200-foot buffer if parcels are very large) for at-grade and elevated sections; within an adjacent tax parcel above tunnel alignments; and within 200 feet of the boundaries of any station or other facility that is constructed as part of the project. In addition, based on consultation with the State Historic Preservation Officer and other parties, the area of potential effects has been expanded to include one parcel adjacent to known demolition areas throughout the corridor, as well as other location-specific areas as described in Section 3.1, West Seattle Link Extension, and Section 3.2, Ballard Link Extension. Based on consultation, design refinements, and/or information from other environmental disciplines, the definition of the area of potential effects may be expanded or reduced where a more detailed review of potential effects indicates that a smaller or larger study area is appropriate. The State Historic Preservation Officer concurred with the FTA's area of potential effects definition for the WSBLE Project on February 25, 2020 (see Attachment N.5F, Agency and Tribal Consultation Letters).

The area of potential effects extends from elements of the project alternatives (e.g., guideway, station locations, 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 effects extent for linear transportation projects, because potential direct and indirect effects to historic properties typically do not extend beyond one parcel. Where the area of potential effects bisects parcels and/or includes portions of historic districts individual effects to the resource on that parcel is considered as well as effects to the larger parcel and/or historic district as a unit.

Detours and haul routes that would be used temporarily during construction have not yet been fully identified. Sound Transit and FTA will continue to consult with the State Historic Preservation Officer, Tribes, and other consulting parties as project planning continues and these areas are more fully understood. Haul routes are anticipated to be on existing, heavily used public rights-of-way. For discussion of detours and haul routes in historic districts, see Section 10.2, Overview of Temporary Construction-Related Effects.

On March 25, 2021, FTA, in cooperation with Sound Transit, defined a revised area of potential effects; the State Historic Preservation Officer agreed with the revised area of potential effects on March 26, 2021. Since then, the project design has continued to advance, and Sound Transit has identified two new construction elements that required additional revisions to the area of potential effects:

- Temporary relocation of the King County Metro trolley line in the area of South Jackson Street to South Royal Brougham Way, approximately between Maynard Avenue South and Interstate 5/9th Avenue South, within the Chinatown-International District Segment.
- Relocation of a 230-kilovolt power line along 6th Avenue South and Diagonal Avenue, south of South Spokane Street, leading to the Seattle City Light Substation within the Duwamish Segment.

FTA, in cooperation with Sound Transit, consulted with the State Historic Preservation Officer, Tribes, and other consulting parties on September 7, 2021. The State Historic Preservation Officer conditionally concurred with the revised area of potential effects on October 5, 2021. 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 (see Section 6). As the project advances, FTA, and Sound Transit will continue to consult 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.

3.1 West Seattle Link Extension

In addition to the areas described above and as illustrated on Figure 3-1, one other area adjacent to the West Seattle Link Extension was included in the area of potential effects to account for potential visual effects. In the Delridge Segment, Southwest Genesee Street between 26th Avenue Southwest and 30th Avenue Southwest, where one project alternative includes a high guideway, the area of potential effects extends to two parcels to the north of Southwest Genesee Street.

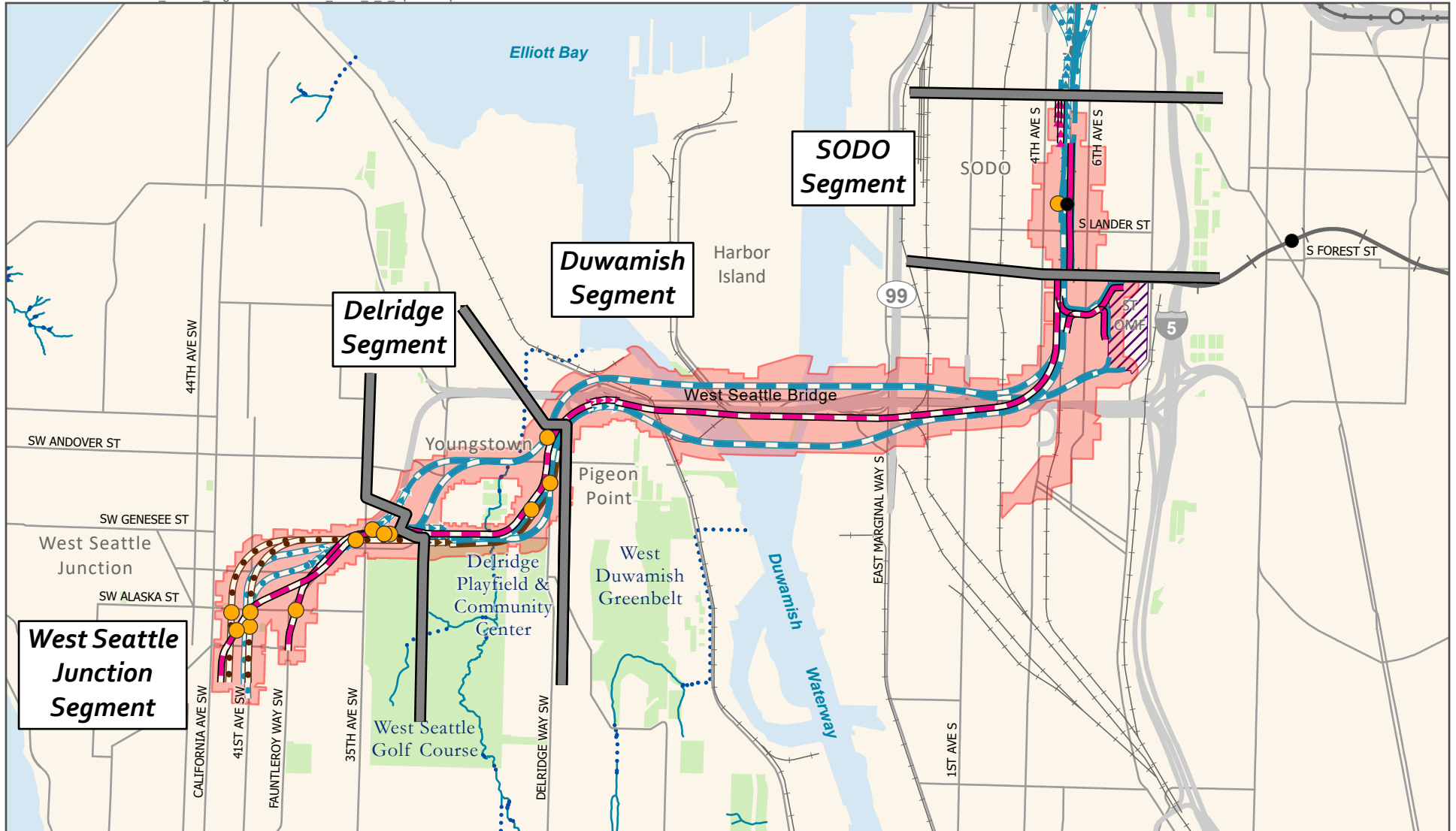
3.2 Ballard Link Extension

In addition to the areas described above and as illustrated on Figure 3-2, two other areas adjacent to the Ballard Link Extension were included in the area of potential effects at Salmon Bay in the Interbay/Ballard Segment to account for potential visual effects.

Where some project alternatives would include a high-level fixed bridge, the area of potential effects extends 0.25 mile from the center of the new high-level bridges at 14th Avenue Northwest and 15th Avenue Northwest. The area of potential effects also extends to parcels on the southwest side of the Ballard Bridge (between 21st Avenue West and the Salmon Bay shoreline, north of West Nickerson Street) and includes all of Fishermen's Terminal.

3.3 Anticipated Ground Disturbance

While a single area of potential effects is shared between archaeological resources and historic built environment resources, the area of potential effects for archaeological resources is restricted to direct impacts. For this reason, when considering a project's effects to archaeological resources, the focus centers more generally on the construction footprint or other construction (e.g., staging and access) and operational activities that can directly impact intact archaeological resources.



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

Alternatives

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

Alternative Profile

- Elevated
- At-Grade
- Tunnel
- Retained Cut

Station

- New
- Existing

— Segment Line

▨ Sound Transit Operations and Maintenance Facility (ST OMF)

— Existing Link Light Rail

— East Link Light Rail (Under Construction)

— Railroad

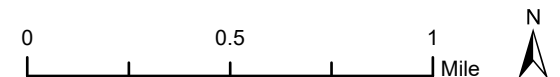
— Stream

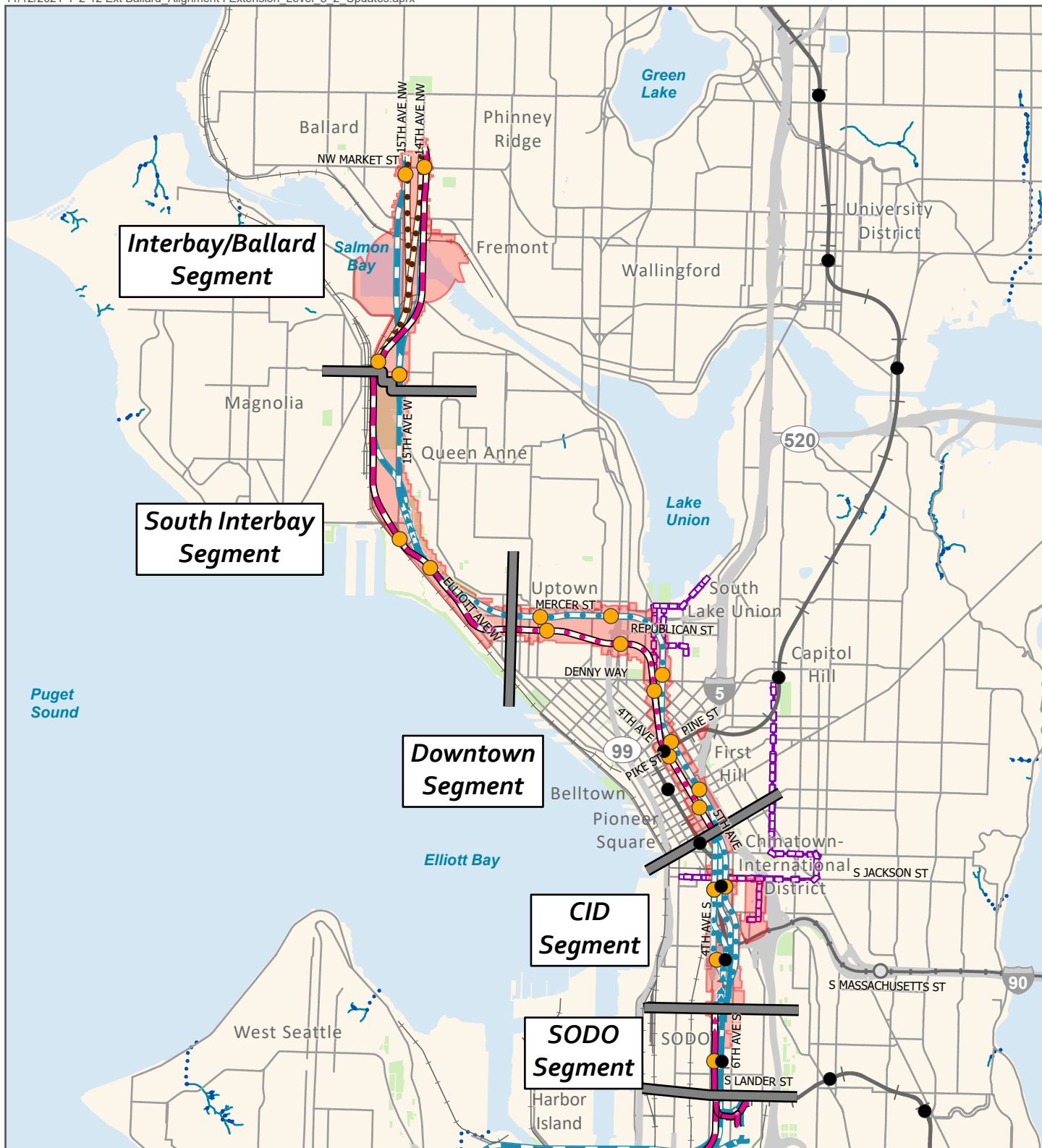
... Piped Stream

■ Park

■ Area of Potential Effects

FIGURE 3-1
Area of Potential Effects
West Seattle Link Extension
West Seattle and Ballard Link Extensions





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

Alternatives

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

Alternative Profile

- Elevated
- At-Grade
- Tunnel
- Retained Cut

Station

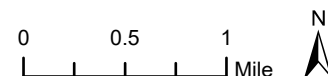
- New
- Existing

- Segment Line
- Existing Link Light Rail
- East Link Light Rail (Under Construction)
- Existing Streetcar
- Center City Connector Streetcar (Construction Paused)
- Railroad
- Stream
- ... Piped Stream
- Park

■ Area of Potential Effects

FIGURE 3-2
Area of Potential Effects
Ballard Link Extension

*West Seattle and
Ballard Link Extensions*



4 ENVIRONMENTAL AND CULTURAL CONTEXT

This section provides an overview of the natural, environmental, and cultural context for the areas within the area of potential effects. The historical context is provided in Attachment N.5C1, an attachment to the Built Environment Inventory Plan and Historic Context (Attachment N.5C).

4.1 Natural Setting

This section describes the environmental setting of the WSBLE area of potential effects. A review of the physical setting is important to evaluate how geologic and natural characteristics affect human behavior, to help generate expectations of precontact and historical archaeological site distribution and the activities that occurred at these sites, and to generate field methods from these expectations.

The WSBLE area of potential effects falls within the western hemlock vegetation zone, which is the most extensive vegetation zone in western Washington (Franklin and Dyrness 1988). Native species in this area may include Douglas-fir (*Pseudotsuga menziesii*), western hemlock (*Tsuga heterophylla*), western redcedar (*Thuja plicata*), red alder (*Alnus rubra*), big leaf maple (*Acer macrophyllum*), with an understory of salal (*Gaultheria shallon*), hairy brackenfern (*Pteridium aquilinum pubescens*), western brackenfern (*Pteridium aquilinum*), western swordfern (*Polystichum munitum*), blackberry (*Rubus ursinus*), red huckleberry (*Vaccinium parvifolium*), evergreen huckleberry (*Vaccinium ovatum*), Cascade Oregon grape (*Berberis nervosa*), Pacific rhododendron (*Rhododendron macrophyllum*), Nootka rose (*Rosa nutkana*), oceanspray (*Holodiscus*), and orange honeysuckle (*Lonicera ciliosa*) (Franklin and Dyrness 1988; Soil Survey Staff 2019).

Prior to urban development, native fauna in the project vicinity included bear (*Ursus americanus*), beaver (*Castor canadensis*), cougar (*Puma concolor*), coyote (*Canis latrans*), deer and elk (*Cervidae*), duck (*Anatidae*), muskrat (*Ondatra zibethicus*), and river otter (*Lontra canadensis*). There is continued presence of coho (*Oncorhynchus kisutch*), chinook (*Oncorhynchus tshawytscha*), and chum (*Oncorhynchus keta*) in the Green-Duwamish River watershed because they use the river and tributaries for transportation and rearing. Anadromous fish of the Green-Duwamish River basin include dolly varden (*Salvelinus malma malma*), steelhead (*Oncorhynchus mykiss irideus*), and sea-run cutthroat trout (*Oncorhynchus clarkia clarkii*). For the Cedar River-Lake Washington watershed, coho, chinook, and sockeye salmon (*Oncorhynchus nerka*) are present. The drainages through the lakes connecting the western end of the watershed provide a unique setting for the salmon as they use the nearshore and shoreline environment to spawn (Williams et al. 1975).

4.2 Geomorphic Setting

The WSBLE area of potential effects lies within the Puget Lowland physiographic province, an elongated structural and topographic basin bounded by the Olympic Mountains to the west and the Cascade Range to the east, likely formed by north to south scarp faults at the edge of each boundary (Alt and Hyndman 1995; Troost and Booth 2008). Further formation of the area began during the quaternary period (2.5 million years ago) as glaciers, through numerous events of transgression and regression, shaped the sides of the basin edges and deposited glacial material thousands of feet thick, mantling much older sea floor deposits. The result of these two unique but often coincidental events is a complex regional geologic context. In addition, ongoing

and much more rapid fluvial and coastal formation processes are shaping the region, the effects of which are determined by material type, gravity, and microclimate. The result is a mosaic of geologic deposits that vary substantially across Seattle's urban setting.

The Seattle Fault Zone is an approximately west-to-east-trending system of young faults running through the southern portion of the area of potential effects and extending farther into south Seattle and across Lake Washington into Bellevue (Blakely et al. 2002). Fault events that have occurred within and around the Seattle Fault Zone date back to the late Holocene; however, there is some sparse and inconsistent evidence that lesser earthquakes occurred during the late Pleistocene period (Nelson et al. 2003). One of the most noteworthy events along the Seattle Fault Zone occurred approximately 1,100 years ago, which caused substantial regional uplift, subsidence, and a related tsunami event (Atwater and Moore 1992; ten Brink et al. 2006; Larson and Lewarch 1995). Furthermore, it is likely that this event and similar events caused much of the mass-wasting deposits that blanket the terminal margins of the elevated glacial drift planes around the area of potential effects.

Also along the terminal margins of the drift plains are Holocene-age alluvium and beach deposits, although some have since been capped by fill events. For example, the Duwamish River was in a steeply walled subglacial meltwater channel turned valley that was filled in by a substantial mudflow deposit from an eruption of Mount Rainier approximately 5,600 years ago. The mudflow deposit, known as the Osceola Mudflow, extended to the Duwamish River mouth and deposited over 100 feet of sediment. Deposits consisted of black medium volcanic sands with grains of andesite and traces of mud and organics collected during transportation (Dragovich et al. 1994; Troost and Booth 2008). The Duwamish River floodplain was broadened by the mudflow deposits that entered the channel and flowed into Puget Sound, likely forming the Duwamish River delta that is now occupied largely by Harbor Island, an artificial island that has been expanded and reshaped by humans to its present size.

In the northern portion of the area of potential effects from Ballard to Interbay, thick glacially derived deposits underlie the modern fill surfaces. The most common of the deposits are Vashon-aged dating to approximately 16,400 years before present (Troost and Booth 2008). There is evidence for at least seven glacial episodes that affected the Seattle area (Troost and Booth 2008). Surface geologic units in and around the area of potential effects are composed largely of Vashon glacial drift, deposited during the most recent advance of the Frasier Glaciation (Booth et al. 2005). Glacial drift deposits comprise a tapestry of mostly silts and sands, well sorted to unsorted, with a range of gravel depending on advancement or retreat or position directly under the ice. Beneath the mantle of glacial material are interglacial deposits consisting of sediments deposited when the area of potential effects was free from ice and proglacial lakes were numerous from the bounding of Puget Sound by ice blockage to the north at Admiralty Inlet (Mullineaux et al. 1965). More recent deposits during this phase are unconsolidated materials such as fine sands and silts to silty clays, depending on location of the late Pleistocene and Holocene glacial lakes behind the retreating glaciers and fluvial channels. Much of the area of potential effects, including the glacial drift plains, sits atop this quaternary-aged material, with constituents known as Esperance sand and Lawton Clay. A result of the unconsolidated materials underlying glacial deposits on the higher-elevated landforms is landslides and other mass-wasting events. These less consolidated landforms are more susceptible to failure during periods of tectonic activity.

Natural Resources Conservation Service soil mapping of the area of potential effects depicts a highly urbanized area developed from heavy anthropogenic modification of the landscape throughout the history of Seattle. In the area of potential effects, most of the land is classified as "Urban land" with less than 5 percent of the total area of the area of potential effects mapped solely as native soil series. The native soil series, classified as the Alderwood series, is limited

to forested areas of West Seattle on the west and east sides of Pigeon Point Park and to the south of West Seattle Stadium. Alderwood series soils derive from glacial drift and outwash deposits and are found on hills and ridges modified glacially on glacial drift plains. Common stratigraphy of this soil begins with a relatively thick brown gravelly sandy loam A-horizon abruptly contacting a weak B-horizon to older B-horizon of very gravelly sandy loam with variants of brown coloration, finally contacting abruptly extremely hard light brownish gray to gray extremely firm to dense very gravelly sandy loam (Soil Survey Staff 2019).

Another minor soil constituent paired with the Urban Land classification and found scattered throughout the urban landscape is the Everett soil series. The Everett soil series, similar to the Alderwood series, derives from glacial outwash deposited on glacial drift plains. However, differences from the Alderwood series include additional deposition on other glacially derived landforms such as kames, moraines, escarpments, and eskers. The parent material is yellowish-brown loose and cobbly sand likely from terminal outwash deposits of the Vashon stade following the glaciers' final retreat (Soil Survey Staff 2019).

The area of potential effects crosses two anthropogenically altered watersheds, the Duwamish-Green River and the Cedar River-Lake Washington. Waters draining to these regions receive stormwater and combined sewer overflows (King County Staff 2016; Williams et al. 1975). The Duwamish-Green River watershed is fed by both major and minor tributaries of creeks and rivers, including the Black River. Drainage basins within this watershed are Longfellow Creek at the southern/western terminus of the area of potential effects, the Duwamish River continuing east, and Elliott Bay comprising most of Downtown Seattle. The Cedar River-Lake Washington watershed similarly is fed by creeks and rivers, but also includes drainage from Lake Washington and Lake Union and two bays, Shilshole and Salmon. Shilshole Bay connects to Puget Sound through the Hiram Chittenden Locks. The Lake Union drainage basin is the only basin in this watershed. Within the drainage basin are a few important bodies of water, including Lake Union, Shilshole Bay, and Salmon Bay, that are vital to the ecology of the watershed of that surrounds north of Downtown, the Lake Union vicinity, and Interbay through Ballard (Williams et al. 1975).

4.3 Precontact Context

The cultural context for the WSBLE Project is provided to give the reader a broader understanding of the region, highlighting those elements that distinguish the study area in the region's history. The following sections are intended to provide the reader with a basic context for understanding the archaeological and historical environment. The primary sources for the material presented here are Ames and Mascher (1999) and Kopperl et al. (2016). Both sources divided the precontact record into five distinct phases. The development of these phases follows general trends based on activity types that can be traced in the archaeological record. Kopperl et al. (2016) does not attribute names to the various phases, rather choosing chronological dates based on calibrated radiocarbon analyses to reference the various phases. Since Ames and Mascher (1999) ascribe more commonly accepted names to differentiate between precontact phases, those identifiers were adopted here. Descriptions of trends in material culture below are likely at least somewhat the result of natural processes that have degraded organic materials that may have been part of precontact tool kits.

4.3.1 Paleo Indian Period

The Paleo Indian period is identified by Ames and Mascher (1999) as the earliest period of native habitation in North America and in the Puget Sound area. While Ames and Mascher

(1999) describe the period with the chronological date of “prior to 12,500 years before present,” Kopperl et al. (2016) more specifically define the period as falling between 14,000 cal² before present and 12,000 cal before present.

Kopperl et al. (2016) define this period as one of regional and climate stabilization with the arrival of the first hunter-gatherers to establish residence in western Washington. Paleo Indian culture has been identified at a few isolated locations in Washington (such as Sequim and East Wenatchee), generally on coastlines and in river valleys. Archaeological materials from these sites usually include tools made of stone, bone, and antler, and suggest practices and activities restricted to hunting, fishing, and food gathering. No archaeological sites from this temporal period have been identified in the Puget Sound area.

4.3.2 Archaic Period

As defined by Ames and Mascher (1999), the Archaic period in Washington spans from 12,500 to 6,400 years before present. While Kopperl et al. (2016) define this period even more tightly (12,000 cal before present to 8,000 cal before present), both define the period as one of great environmental change during which precontact populations were developing more sophisticated strategies to adapt to the changing environmental conditions. This is a period that is not well understood in Washington, with few sites across the state. Generally, the archaeological record from this period consists of sites with pebble/cobble tool assemblages that include larger foliate (Cascade-style) points. Lithic materials at these sites are generally coarse-grained lithic materials such as argillite and basalt (Morgan et al. 1998). Not far from the area of potential effects, the Bear Creek site located in Redmond dates to this period (Kopperl et al. 2016).

4.3.3 Early Pacific Period

Ames and Mascher (1999) define the Early Pacific period, from 6,400 to 3,800 years before present, as one marked by a change in precontact resource exploitation towards littoral environments and coastal habitats. Precontact groups became increasingly sedentary as their focus shifted to shallow coastal waters and beaches, although terrestrial and riverine habitats remained important. Kopperl et al. (2016) refer to this phase as the “third analytical time period” and suggest quite a different time range of 8,000 cal before present to 5,000 cal before present. They define the phase simply as a time of “important reorganization of hunter-gatherer subsistence and technology.”

Ames and Mascher (1999) indicate that archaeological artifact assemblages begin to be dominated by bone tools, primarily in the form of unilaterally and bilaterally barbed harpoon heads. Adze blades crafted out of slate and marine shell suggest the manipulation of wood products and woodworking. Labrets, flaked stone drills, pendants, and abraders appear during this period. Matson and Coupland (1995) suggest that the advent of the new technological variability may represent the beginning of distinct cultural patterning.

4.3.4 Middle Pacific Period

During Ames and Mascher’s (1999) Middle Pacific Period (circa 3800 to 1500 years before present) sea levels had stabilized creating more environmental stability and certainty. Cultural

² “cal” represents calibrated years derived from carbon-14 dating from known archaeological contexts.

units were developing in the form of villages of plank houses, and social stratification based on wealth or prestige appears in the archaeological record. The development of food preservation and storage technologies advanced, and the dietary focus seemed to shift to salmon. Morgan et al. (1998) suggest that the increased use of food storage techniques as well as advances in technological efficiency may have resulted in increased population growth during this period.

During this period, tools and other technologies became increasingly sophisticated as the focus on resource procurement became more seasonally adapted. Numerous bone tool technologies proliferated as procurement increasingly focused on near-shore and riverine resources. The use of canoes, groundstone net sinkers, and wooden fish weirs become increasingly common. In addition to the typical artifacts found in archaeological contexts, Ames and Mascher (1999) suggest that new technologies emerged in the form of cordage, basketry, and hats. Also, items of personal adornment (stone and shell beads and items made of native copper) become more commonplace, again suggesting the development of more robust social stratification.

Kopperl et al. (2016) suggest an earlier date range for what they describe as their “fourth analytical time period,” from 5,000 cal before present to 2,500 cal before present. They define the period as one marked by the appearance of shell middens and the development of old growth Douglas-fir and western hemlock forests in the Puget lowlands (Kopperl et al. 2016). They also describe this period as marked by shifts in the hunter-gatherer economic and technical organization, presumably toward greater social sedentism.

4.3.5 Late Pacific Period

The final precontact phase that ends with the arrival of the Euroamericans 200 to 250 years ago is defined as the Late Pacific period by Ames and Mascher (1999), proposed as beginning around 1,800 to 1,500 years before present. They characterize the period as one of continued sedentism with the development of plank house villages with associated fortifications such as ditches and embankments in longer-used, winter villages. Economies continue to be predominantly salmon-based, and advances in storage techniques allowed for the development of longer-operating seasonal villages. Ames and Mascher (1999) indicate that during this time regional differences appear in both artifact types as well as art, suggesting increased diversity among social and cultural groups based on regional adaptation and diversity.

Kopperl et al. (2016), who begin the “fifth analytical time period” around 2,500 cal before present, recognize many similarities with the Ames and Mascher model, citing this period as one defined by an increase in the appearance of shell middens. The period also includes “adaptations to localized environmental changes caused by the 1,100 cal before present earthquake on the Seattle Fault and possible changes in economic and social organization as a result of Euroamerican contact” (Kopperl et al. 2016).

4.4 Ethnographic Context

Both the ethnography and ethnohistory of the Puget Sound region have been extensively presented by numerous scholars, including Ames and Mascher (1999), Carlson (1990), Matson and Coupland (1995), Ruby and Brown (2010), Suttles and Lane (1990), and Waterman (1920). All of these scholars contributed to the general understanding of ethnographic lifeways and geographic landmarks throughout the Puget Sound region and were heavily consulted for information regarding place names and landmarks of important ethnographic locations throughout the area of potential effects. These data were among factors used in the development of the archaeological sensitivity area study developed and presented in Section

8.3, Archaeological Expectations. The following discussion presents a general ethnographic context for the project vicinity.

The WSBLE Project falls within the ethnographic region of the Coast Salish people, a group of indigenous people stretching from the Columbia River to southwestern British Columbia who shared a common language. Coast Salish culture, while exhibiting regional variation, generally relied on anadromous fish as a dietary staple, mostly in the form of salmon and steelhead. Supplementing this diet were land mammals, shellfish, and plant resources collected as part of a seasonal cycle.

By the period of Euroamerican arrival, Coast Salish peoples lived in permanent winter villages mostly in coastal settings or along rivers or streams. Villages consisted of plank houses, generally constructed from cedar, that were shared by multiple families. The villages had no recognized “chief,” but rather were led by the wealthier heads of a household unit. Matson and Coupland (1995) identify other cultural characteristics as an emphasis on personal wealth and status, multi-family households, and complex exchange systems.

Euroamericans began settling in the Puget Sound area in the 1850s, initially drawn by the abundant timber resources, the agricultural potential, and the abundance of salmon (Kirk and Alexander 1995). The natural protection and potential trade possibilities associated with Elliott Bay also drew Euroamericans to the Seattle waterfront, ultimately resulting in the signing of the Point Elliott Treaty on January 22, 1855, by Isaac Stevens, Governor of Washington Territory; Duwamish Chief Seattle; Snoqualmie Chief Patkanim; Lummi Chief Chow-its-hoot; and other chiefs, subchiefs, and Tribal delegates. After the Treaty of Point Elliott was signed in 1855, the Duwamish people were forced to leave their ancestral villages around Seattle and move to designated reservations to preserve their heritage and culture. Two reservations were established specifically for the Duwamish. The United States established both the Muckleshoot and Port Madison reservations as homelands for Duwamish people. Following the reservation’s establishment in 1857, the Tribe and its members came to be known as Muckleshoot, rather than by the historic Tribal names of their Duwamish and Upper Puyallup ancestors.

4.5 Historic Context

The historic context for the area of potential effects is provided in Attachment N.5C1, an attachment to the Built Environment Inventory Plan and Historic Context, which includes the West Seattle and Ballard Link Extensions Historic Context and National Register of Historic Places Criterion A Eligibility Requirements document. The document provides a historic context for Seattle and each of the eight neighborhoods in the WSBLE area of potential effects from approximately 1851 until 1980 and identifies prevailing historic themes that are reflected in the built environment.

5 METHODS

Background research and field investigations were performed to determine if National Register-eligible or listed archaeological and historic built environment resources may be affected by the project. Research and fieldwork were conducted by archaeologists that meet the Secretary of the Interior's Professional Qualifications Standards for archaeology and historians that meet the Secretary of the Interior's Professional Qualifications Standards for history and architectural history. The following sections describe the methods used for conducting background research, Tribal coordination, field surveys, geotechnical monitoring, and geoarchaeological investigations.

5.1 Background Research

5.1.1 Archaeological Records Search

A records search for the area of potential effects and its vicinity was conducted using WISAARD for both archaeological and historic built environment records. This database, developed by the Washington State Department of Archaeology and Historic Preservation, contains all cultural resource reports and documents submitted to that agency since 1995.

The records search for archaeological resources covered the area of potential effects plus an additional 0.25-mile radius ("desktop research area") to better understand the archaeological context within which the project will be constructed. The team reviewed and analyzed the search results to help develop expectations and objectives for archaeological and/or ethnographic resources in the area of potential effects. Development of these expectations also included consideration of archaeological resources in highly sensitive areas (e.g., within 200 feet of historically documented United States government meander lines). They also reviewed ethnographic place-name data from research reports that discussed the potential for traditional cultural properties in the region. The results of the archaeological records search are presented in Section 7, Archaeological Records Search.

5.1.2 Historic Built Environment Records Search

The results of the records search for historic built environment resources within the area of potential effects are included with the field investigation results in Section 9.

5.1.3 Archival Research

Extensive archival research was conducted on the history of the area and built resources within the area of potential effects. Primary and secondary sources, including historic maps, photographs, newspaper articles, previous building surveys and context statements, and local historians were consulted. This information was used to develop the historical context and aided in the evaluations of building and structures in the area of potential effects. The repositories and materials reviewed are summarized below.

5.1.3.1 Photograph Collections

King County Department of Assessments

The King County Department of Assessments offers an online [Parcel Viewer](#) through the King County Geographic Information System Center. All parcels within King County are searchable, and many of the property reports for individual parcels include digitized historic photographs of the properties that were taken either at the time of construction or during various surveys.

Museum of History and Industry

The Museum of History and Industry in Seattle collects and preserves artifacts and stories of the Puget Sound region's diverse history. Selections of their photography and ephemera collections have been digitized and are available online as part of the [University of Washington's digital collections](#).

Seattle Municipal Archives

The [Seattle Municipal Archives](#) offers a large selection of their collections online, including a database of photographs from the 1880s to the present and focusing on subjects such as public works, city events, city sites and facilities, and elected officials.

5.1.3.2 Newspaper Archives

The Seattle Times Archives

Accessed through the [Seattle Public Library](#), *The Seattle Times* has digitized its entire archives of news articles from 1895 (as *The Seattle Daily Times*) to the present.

5.1.4 Historic Maps

5.1.4.1 Baist Real Estate Atlas of Seattle

The Baist Company, based in Philadelphia, published real estate atlases for many United States cities in the early twentieth century. The atlases show plats, some structures, streets, and railways around the city. Baist published atlases for Seattle in 1905, 1908, 1912, and 1920. The Seattle Public Library has digitized the 1905 map, which was consulted for this report (G. William Baist Company 1905).

5.1.4.2 Kroll Atlas Maps

The Kroll Map Company dates to the 1870s, making it one of the oldest businesses in the Seattle area. Kroll Maps document street grid, street name, parcel size, and general footprint and use of built environment resources (Kroll Map Company 1909 to 1947).

5.1.4.3 Sanborn Fire Insurance Maps

Sanborn Map Company was a publisher of detailed maps of more than 12,000 United States cities and towns in the nineteenth and twentieth centuries. Sanborn Fire Insurance Maps were originally created to allow fire insurance companies to assess their total liability in urbanized areas of the United States. Digital copies of the [Sanborn Fire Insurance Maps](#) were accessed via the Seattle Public Library (Sanborn Map Company 1905 to 1951).

5.1.4.4 United States Geological Survey Topographical Maps

The United States Geological Survey's topographical maps are general-use maps at medium scales that present elevations (contour lines), hydrography, geographic place-names, and a variety of cultural features. Historic topographic maps were originally published as paper documents in the period from 1884 to 2006 but are currently created from digital geographical information system databases. Historic topographic maps were accessed via the United States Geological Survey's [topoView](#) website (United States Geological Survey 1909, 2020).

5.1.5 Local Repositories

5.1.5.1 Pacific Coast Architecture Database

This [Pacific Coast Architecture Database](#) includes information on a range of buildings, architects, and architectural firms in California, Oregon, and Washington. It also highlights the work of landscape architects, engineers, urban planners, builders, and developers. The database provides bibliographic information for further research. It is a searchable, online database created in 2002 by Alan Michelson, and is now hosted by the University of Washington, Seattle.

5.1.5.2 Seattle Department of Neighborhoods

The Seattle Department of Neighborhoods provides information on locally designated landmarks, historic districts, and historic built environment resources surveys and context statements. The department has an online database, [Seattle Historical Sites](#), that can be used to search by address, parcel number, or property attributes. If a property is in the database, it will provide a physical description, a property history, and a recommendation if the property qualifies as a historic property.

5.1.5.3 Seattle Public Library – Seattle Culture and Local History

The Seattle Room at Seattle Public Library contains documents, newspaper archives, and thousands of photographs of historic Seattle. It also contains city and street directories, maps, oral histories, unpublished manuscripts, and postcards from the early days of Seattle. Much of the collection is available online through the library's [Special Collections Online website](#).

5.1.6 Miscellaneous Online Databases

5.1.6.1 Ancestry.com

Ancestry.com materials including United States census records from 1790 to 1940 and city directories were available through the Los Angeles Public Libraries.

5.1.6.2 Redfin.com

The Redfin.com website was used for photographs of buildings in the area of potential effects that were not accessible from the public right-of-way.

5.1.6.3 Zillow.com

The Zillow.com website was used for photographs of buildings in the area of potential effects that were not accessible from the public right-of-way.

5.2 Field Investigations

5.2.1 Archaeological Investigations

Archaeological investigations have not yet begun in earnest for the WSBLE Project. Because of the developed nature of the study area and intrusive nature of archaeological survey and testing, archaeological investigations will be phased to occur following right-of-entry permissions or property acquisition.

5.2.1.1 Archaeological Monitoring of Geotechnical Boreholes

Archaeological investigation of the area of potential effects to date has been limited to the monitoring of geotechnical boreholes that are currently being conducted in support of project design. In 2019, a cultural resources assessment, monitoring, and inadvertent discovery plan (Bumback et al. 2019) was developed to coincide with the geotechnical investigation. Sound Transit identified 482 geotechnical borehole locations throughout the project corridor. Of these, up to 130 boreholes are expected to be completed during preparation of the Draft Environmental Impact Statement. Archaeological monitoring is proposed to occur at 59 of the 130 locations.

To most effectively use the geotechnical work to help understand the archaeological environment for the project, the archaeological team conducted extensive background research to identify archaeological sensitivity areas (see Section 8.3.1, Archaeological Sensitivity Area Study) throughout the project corridor. Some areas were defined as high-probability areas after reviewing geologic data, data on known archaeological sites and previous archaeological investigations in the area, the archaeological predictive model developed by the Washington State Department of Archaeology and Historic Preservation, ethnographic place name locations, United States government meander lines (as stipulated in City of Seattle code), and historical archives, maps, and records. By layering these data streams, the team identified the 59 borehole locations for archaeological monitoring.

5.2.1.2 Archaeological Survey and Inventory Plan

An Archaeological Survey and Inventory Plan for the WSBLE Project was prepared in February 2020. The intent of the plan was to detail the archaeological field survey and recording strategy that would accompany the project through construction. The plan presents a phased approach to the archaeological investigation, timed to correspond with major milestones of project development and construction. The full text of the Archaeological Survey and Inventory Plan for the WSBLE Project is presented in Attachment N.5D, Archaeological Survey and Inventory Plan.

5.2.1.3 Archaeological Sensitivity Areas

For this technical report, a study of archaeological sensitivity areas was developed based on numerous factors including historical and geographic setting, previously identified archaeological resources, cultural resources studies, ethnographic information, and predictive modeling. Each of these research streams was evaluated and the results combined to present a comprehensive profile of archaeological sensitivity and potential impacts as they relate to the project.

5.2.2 Historic Built Environment Resource Investigations

To identify historic built environment resources that are potentially eligible for listing in the National Register, the survey process included preparation of Historic Property Inventory forms for all properties within the area of potential effects that are 50 years or older, based on National Register guidance. This analysis assumes 2030 as the year of action because it is expected that any potential direct impacts will have occurred by that point in construction. Based on this criterion, the inventory will consider all properties within the area of potential effects that were built in 1980 or earlier.

To identify known historic properties and/or designated Seattle landmarks within the area of potential effects, information was collected on the developmental history of the area, the historic districts, and the individual buildings, using the following sources:

- Federal, state, and local lists and nomination forms of identified historic properties, including the National Register, the Washington Heritage Register, online register lists for the King County Historic Preservation Program and the City of Seattle, and local landmark or historic designations.
- Various sources and databases, including those maintained by the Washington State Department of Archaeology and Historic Preservation and the City of Seattle regarding existing historic built environment resources in the area of potential effects, including historical maps, photographs, and local histories.
- Fire insurance maps, historical maps and photographs, and oral histories, including those on record with the University of Washington and public libraries.
- Mapping of buildings, structures, objects, and districts in the area of potential effects by construction date from city directories, building permit files, and County tax assessor records.

The inventory considered information for any properties that have been previously recorded in WISAARD.

To identify potential historic properties not yet identified, an extensive field survey was undertaken. The survey involved examining and photographing buildings and structures in the area of potential effects that were determined to have been built in or before 1980. Properties that were surveyed and inventoried over 5 years ago were photographed, and the Historic Property Inventory entries were updated and included in the survey. The following steps were taken to identify, evaluate, and record historic built environment resources:

- Construction dates were established using data from the King County Tax Assessor.
- A parcel-by-parcel pedestrian survey of properties in the area of potential effects and built in or before 1980 were conducted by architectural historians meeting the Secretary of the Interior's Professional Qualifications Standards.
- Each resource was visually evaluated, photographed from the public right-of-way, and noted for its character-defining features. When properties were inaccessible, Sound Transit requested right of entry. The following information was collected on each historic built environment resource:
 - The precise location.
 - The architectural style (if identifiable).
 - The type and materials of distinctive features.
 - The quantity and types of alterations.

- The overall physical integrity.
- The potential to contribute to a historic district.

The Historic Property Inventory forms are recorded in WISAARD, project number 2019-02-01457.³ The inventories were prepared using information on the physical description of each resource collected in the field. A Statement of Significance for each resource was prepared based on historic research of the history of the project vicinity and neighborhoods.

Unless clearly identified as part of an eligible historic district, each property evaluation was considered for its potential inclusion in a historic district and its district potential ultimately rejected for lack of significance or integrity.

The National Register Bulletin 15 defines a district as an area that “possesses a significant concentration linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development” (National Park Service 1997). In addition to significance, potential historic districts must also retain integrity, meaning that “the majority of the components that make up the district’s historic character must possess integrity even if they are individually undistinguished” (National Park Service 1997).

The built environment within all segments of the area of potential effects has experienced a substantial amount of change and modern infill in the past several years. Many buildings within the area of potential effects have experienced varying levels of alteration throughout the recent years or have been entirely demolished. This greatly diminishes the potential for any eligible historic districts. Groups of related buildings that still share an aesthetic and/or historical significance may not retain enough integrity individually or collectively to be able to convey their significance as a potential district.

Section 106 requires the identification of historic properties listed or eligible for listing in the National Register that are in the area of potential effects. Senior historians completed the identification of historic properties by evaluating the surveyed properties in the area of potential effects in accordance with National Register evaluation criteria and made recommendations for eligibility for listing in the National Register on each property surveyed. National Register evaluation criteria are detailed in Section 9 of this report.

5.3 Historic Context and National Register of Historic Places Criterion A Eligibility Requirements

The Built Environment Inventory Plan (Attachment N.5C) includes the West Seattle and Ballard Link Extensions Historic Context and National Register of Historic Places Criterion A Eligibility Requirements document (Attachment N.5C1). As stated in Section 4.5, the FTA and Sound Transit developed this historic context to guide and standardize inventory and evaluation of historic built environment resources, consistent with National Park Service Bulletin 15, *How to Apply the National Register Criteria for Evaluation* (National Park Service 1997) and *The Components of a Historic Context: A National Register White Paper* (Wyatt 2009).

The purpose of the document is to identify clear thresholds for evaluating historic resources under Criterion A. To be considered for listing under Criterion A, a property must be associated

³ Previous versions of this report provided a different WISAARD project number, 2018-08-06480. Please refer to the new project number, 2019-02-01457, for the most current project information.

with one or more events important in the defined historic context, and it must retain historic integrity (National Park Service 1997:12).

Criterion A recognizes properties associated with single events, such as the founding of a town, or with a pattern of events, repeated activities, or historic trends, such as the gradual rise of a port city's prominence in trade and commerce. The event or trends, however, must clearly be important within the associated context: settlement, in the case of the town, or development of a maritime economy, in the case of the port city.

The Built Environment Inventory Plan also identified anticipated property types that would likely be National Register-eligible within the historic context. The context informed evaluation and potential National Register eligibility under Criteria B, C, and D, but eligibility under Criterion A on a local, state-wide, or national level is the focus of this document.

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6 SECTION 106 CONSULTATION

Sound Transit and FTA are consulting with the Washington State Historic Preservation Officer, Tribes, local jurisdictions, and other parties that meet conditions for consulting parties⁴ as part of the historic built environment and archaeological resource investigations. On February 2, 2018, FTA initiated government-to-government consultation with the federally recognized Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington, Suquamish Indian Tribe of the Port Madison Reservation, and Confederated Tribes and Bands of the Yakama Nation. Later that month, Sound Transit led coordination with the non-federally recognized Duwamish Tribal Organization and Snohomish Tribe, and coordinated with staff members at the City of Seattle.

On February 25, 2019, FTA, in cooperation with Sound Transit, initiated Section 106 consultation with the State Historic Preservation Officer and the federally recognized Tribes listed above. Sound Transit also coordinated with the non-federally recognized Tribes. Letters were prepared and sent to the State Historic Preservation Officer and the Tribes that notified them of the undertaking, invited them to participate in the environmental review process, provided a scoping notice, and initiated Section 106 consultation (Attachment N.5F).

FTA, in cooperation with Sound Transit, solicited information from the Tribes about the presence of any known archaeological sites, Traditional Cultural Properties, and/or properties of religious and spiritual significance that could be affected by construction of the project. The area of potential effects and a draft Archaeological Survey and Inventory Plan were provided to the State Historic Preservation Officer and the Tribes on February 25, 2019, for review, and a Built Environment Inventory Plan was provided to the State Historic Preservation Officer for review on April 23, 2020. The Built Environment Inventory Plan is included in Attachment N.5C, and the Archaeological Survey and Inventory Plan is included in Attachment N.5D.

In addition to the State Historic Preservation Officer and the Tribes listed above, FTA, in cooperation with Sound Transit, is also consulting with the following parties:

- Alliance for Pioneer Square
- City of Seattle Historic Preservation Officer
- Historic Seattle
- Historic South Downtown Community Preservation and Development Authority
- King County Historic Preservation Program
- Martin Smith, Inc.
- Seattle Chinatown International District Preservation and Development Authority
- Washington Trust for Historic Preservation
- InterIm CDA
- Southwest Seattle Historical Society

A meeting was held on March 30, 2021, to discuss project development and the area of potential effects, and further meetings and opportunities to consult are anticipated as the project advances.

⁴ Code of Federal Regulations Title 36 Section 800.2(F)(5) defines additional consulting parties as "...individuals and organizations with a demonstrated interest in the undertaking may participate as consulting parties due to the nature of their legal or economic relation to the undertaking or affected properties, or their concern with the undertaking's effects on historic properties."

FTA and Sound Transit continue to consult with the State Historic Preservation Officer, Tribes, and consulting parties, most recently on September 7, 2021 to solicit feedback on the revised area of potential effects and determinations of National Register eligibility of properties within the area of potential effects. As discussed in Section 3, the State Historic Preservation Officer provided conditional concurrence on the revised area of potential effects on October 5, 2021, “with the understanding that important additional information will be forthcoming (See Attachment N5.F).” 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. On November 9, 2021, the State Historic Preservation Officer concurred with FTA’s determinations of National Register eligibility for all but 26 resources.

As discussed in Section 3, Area of Potential Effects, as project design is advanced, FTA continues to consult with the State Historic Preservation Officer, Tribes, and consulting parties on the area of potential effects definition in response to consulting parties’ comments, as well as on National Register eligibility where concurrence has not occurred.

Table 6-1 lists the letters regarding Tribal and agency consultation. Copies of the letters are included in Attachment N.5F.

Table 6-1. Tribal and Agency Consultation

Date	Format	From	To	Description
February 5, 2018	Letter	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	Letter	Sound Transit	Duwamish Tribal Organization, Snohomish Tribe	Invitation to participate in SEPA early scoping
February 8, 2018	Email	Snoqualmie Indian Tribe	FTA	Letter indicating cultural resources concern and requesting cultural resources survey
February 12, 2018	Email	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 SEPA early scoping
February 14, 2019	Letter	Sound Transit	Duwamish Tribal Organization, Snohomish Tribe	Scoping notification and invitation to participate in the environmental review process
February 15, 2019	Email	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, the State Historic Preservation Officer	Transmittal of SEPA Determination of Significance and scoping meeting invitation
February 25, 2019	Letter	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, the State Historic Preservation Officer	Section 106 initiation and invitation to participate in environmental review process
March 5, 2019	Email/Form	The State Historic Preservation Officer	FTA	Participating agency acceptance letter

Date	Format	From	To	Description
May 10, 2019	Letter	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, the State Historic Preservation Officer	Transmittal of Agency Coordination Plan and request for concurrence with proposed schedule
May 10, 2019	Email	Sound Transit	Duwamish Tribal Organization, Snohomish Tribe	Transmittal of Agency Coordination Plan and request for concurrence with proposed schedule
May 21, 2019	Letter	The State Historic Preservation Officer	FTA	Concurrence with schedule proposed in the Agency Coordination Plan
July 23, 2019	Letter	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, the State Historic Preservation Officer	Request for concurrence with area of potential effects and No Adverse Effects determination for geotechnical investigation
July 24, 2019	Email	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	Letter	The State Historic Preservation Officer	FTA	Area of potential effects and No Adverse Effects determination concurrence for geotechnical investigation
September 9, 2019	Letter	Sound Transit	Duwamish Tribal Organization, Snohomish Tribe, the State Historic Preservation Officer	Request for Environmental Impact Statement methodology review
September 10, 2019	Letter	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 Environmental Impact Statement methodology review
September 26, 2019	Letter	The State Historic Preservation Officer	Sound Transit	Environmental Impact Statement methodology comment letter

Date	Format	From	To	Description
February 12, 2020	Letter	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, the State Historic Preservation Officer	Request for comments on area of potential effects and Archaeological Survey and Inventory Plan
February 20, 2020	Letter	Sound Transit	Duwamish Tribal Organization, Snohomish Tribe	Request for comments on area of potential effects and Archaeological Survey and Inventory Plan
February 25, 2020	Letter	The State Historic Preservation Officer	FTA	Area of potential effects concurrence and archaeological inventory methodology comments
April 21, 2020	Email	FTA	The State Historic Preservation Officer	Transmittal on the Built Environment Inventory Plan
April 23, 2020	Email	The State Historic Preservation Officer	FTA	Concurrence with Built Environment Inventory Plan
August 31, 2020	Letter	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	Email	City Historic Preservation Officer	FTA	Consulting party acceptance letter and FTA response
September 23, 2020	Email	Historic Seattle	FTA	Consulting party acceptance letter
September 24, 2020	Email	Washington Trust for Historic Preservation	FTA	Consulting party acceptance letter
September 29, 2020	Email	Alliance for Pioneer Square	FTA	Consulting party acceptance letter and comment on area of potential effects
September 29, 2020	Email	Seattle Chinatown International District Preservation & Development Authority	FTA	Consulting party acceptance letter and comment on area of potential effects

Date	Format	From	To	Description
September 29, 2020	Letter	Historic South Downtown Community Preservation and Development Authority	FTA	Consulting party acceptance letter and comment on area of potential effects
September 30, 2020	Email	Martin Smith Inc.	FTA	Consulting party acceptance letter and comment on area of potential effects
December 7, 2020	Letter	FTA	Southwest Seattle Historical Society, InterIm CDA	Section 106 consulting party invitation
December 21, 2020	Letter	InterIm CDA	FTA	Consulting party acceptance letter and comment on area of potential effects
December 29, 2020	Email	Southwest Seattle Historical Society	FTA	Consulting party acceptance letter
March 22, 2021	Email	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 & Development Authority, Southwest Seattle Historical Society, Washington Trust for Historic Preservation	N.H.P.A. Section 106 Consulting Party Kickoff Meeting Notice and Coordination Plan
March 22, 2021	Email	FTA	The 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	N.H.P.A. Section 106 Consulting Party Kickoff Meeting Notice and Coordination Plan
March 25, 2021	Letter	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 & Development Authority, Southwest Seattle Historical Society, Washington Trust for Historic Preservation, The State Historic Preservation Officer	N.H.P.A. Section 106 Area of Potential Effects Amendment

Date	Format	From	To	Description
March 25, 2021	Letter	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	N.H.P.A. Section 106 Area of Potential Effects Amendment; and National Environmental Policy Act, Administrative Draft Environmental Impact Statement
March 26, 2021	Letter	The State Historic Preservation Officer	FTA	Area of potential effects concurrence
March 30, 2021	Letter	Sound Transit	Duwamish Tribal Organization, Snohomish Tribe	N.H.P.A. Section 106 Area of Potential Effects, Cultural Resources Technical Report, Agency and Tribal Coordination plan, and National Environmental Policy Act, Administrative Draft Environmental Impact Statement Methodologies
April 30, 2021	Letter	InterIm CDA	FTA	Section 106 Consultation Comments
September 3, 2021	Letter	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 & Development Authority, Southwest Seattle Historical Society, Washington Trust for Historic Preservation	N.H.P.A. Section 106 Area of Potential Effects Amendment and National Register Eligibility Determinations
September 7, 2021	Letter	FTA	The 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	N.H.P.A. Section 106 Area of Potential Effects Amendment and National Register. Eligibility Determinations
September 20, 2021	Email	Sound Transit	Duwamish Tribal Organization	N.H.P.A. Section 106 Area of Potential Effects Amendment and National Register Eligibility Determinations
September 27, 2021	Email	Duwamish Tribal Organization	Sound Transit	Re: Area of Potential Effects Amendments and National Register Eligibility Determinations
October 5, 2021	Letter	The State Historic Preservation Officer	FTA	Re: Revised APE Comments

Date	Format	From	To	Description
October 6, 2021	Email	City Historic Preservation Officer	FTA	Re: N.H.P.A. Section 106 Area of Potential Effects Amendment and National Register Eligibility Determinations
October 6, 2021	Letter	Alliance for Pioneer Square	FTA	Re: N.H.P.A. Section 106 Area of Potential Effects Amendment and National Register Eligibility Determinations
October 6, 2021	Letter	Historic South Downtown Community Preservation and Development Authority	FTA	Re: N.H.P.A. Section 106 Area of Potential Effects Amendment and National Register Eligibility Determinations
October 7, 2021	Letter	Martin Smith Inc.	FTA	Re: N.H.P.A. Section 106 Area of Potential Effects Amendment and National Register Eligibility Determinations
November 9, 2021	Letter	The State Historic Preservation Officer	FTA	National Register Eligibility Determinations

N.H.P.A. = National Historic Preservation Act; National Register = National Register of Historic Places

7 ARCHAEOLOGICAL RECORDS SEARCH

7.1 WISAARD Records

A records search was conducted using the Washington State Department of Archaeology and Historic Preservation's WISAARD system to identify known archaeological sites as well as previously completed cultural resources studies within the desktop research area. The search results are described in Section 7.2, Previous Archaeological Studies.

The historic resources team also conducted a search on WISAARD for historic built environment resources listed or eligible for listing in the National Register. The search results, along with the results of the field investigations, are presented in Section 9. All records searches were conducted in November and December 2019.

7.1.1 West Seattle Link Extension Archaeological Records Search Results

As shown in Table 7-1, there are 10 previously identified archaeological sites currently known within the desktop research area, which contains the area of potential effects, for the West Seattle Link Extension. Four archaeological resources fall within the area of potential effects, all within the Duwamish Segment, and are discussed below. The remaining archaeological sites fall within the desktop research area and would not have potential construction or operational impacts. However, their location in the vicinity may be used to understand additional resource types that may be encountered during archaeological investigations for the project.

7.1.1.1 45KI688

Recorded in 2003, archaeological site 45KI688 is a few blocks west of Interstate 5 in SODO. The site consists of a thick deposit of historical-period refuse. The location, ages, and character of the artifacts correspond closely to documentary evidence for the Seattle Industrial District Dump (Bishop and Turnberg 1984). The site was first identified as part of the Sound Transit Central Link Light Rail project and was determined to be not eligible for listing in the National Register.

7.1.1.2 45KI529 and 45KI530

Archaeological sites 45KI529 and 45KI530 represent two manifestations of a single, ongoing historical event along Spokane Street beneath the Spokane Street Viaduct. Both sites were first identified in 2002 and subsequently tested as part of the Spokane Street Viaduct Widening project. The sites likely represent materials associated with the Jackson Street Regrade project as well as dredge spoils from the Duwamish Waterway in the late nineteenth and early twentieth centuries. Fill material was needed to raise the grade of the tidal zone and stabilize the landform for further development. The State Historic Preservation Officer concurred with the Federal Highway Administration in 2006 that 45KI529 and 45KI530 were not eligible for listing in the National Register.

Table 7-1. Previously Recorded Archaeological Sites, West Seattle Link Extension (North to South)

Site Number	Site Type	Brief Description	National Register Eligibility Determination	Segment	Within Area of Potential Effect?
45KI688	Historic landfill	Seattle Industrial District Landfill.	Not eligible	Duwamish	Yes
45KI1425	Historic utility	Portion of wooden water pipe.	Not eligible	Duwamish	No
45KI722	Historic transportation	Abandoned segment of Columbia & Puget Sound railroad grade.	Not contributing	Duwamish	No
45KI529	Historic landfill	South Spokane Street dump #2.	Not eligible	Duwamish	Yes
45KI530	Historic landfill	South Spokane Street dump #1.	Not eligible	Duwamish	Yes
45KI1346	Isolate	Single precontact lithic flake identified in geoprobe.	Not evaluated	Duwamish	No
45KI52	Precontact village site	Identified on 1894 Seattle map. Not archaeologically verified.	Not evaluated	Duwamish	No
45KI1353	Precontact shell midden	Burned bone and shell fragments identified in geotechnical borings excavated in 1985.	Not evaluated	Duwamish	Yes
45KI1186	Historic residential structure	Residential structure demolition debris.	Not evaluated	West Seattle Junction	No
45KI1187	Historic residential structure	Residential structure demolition debris.	Not evaluated	West Seattle Junction	No

7.1.1.3 45KI1353

Although not officially recorded as an archaeological site until 2017 (Lockwood 2017), 45KI1353 was first identified by Hal Kennedy in 1985. At that time, Kennedy observed what appeared to be midden soils and possible archaeological deposits in two geotechnical boreholes being conducted along Southwest Marginal Way. Included in the sample were shell fragments, fish and mammal bones, fire-cracked rock, charcoal, and a single lithic flake. Originally, Kennedy assumed a possible association between these materials and 45KI152, a reported precontact ethnographic site approximately 200 meters to the southeast. While Kennedy did not formally record the site at the time, Dr. Christopher Lockwood codified Kennedy's findings in an archaeological site form in 2017 at the request of the Washington State Department of Archaeology and Historic Preservation. Archaeological site 45KI1353 may or may not be an extension of 45KI152, but because the location or physical existence of 45KI152 has never been field-verified, Kennedy's find was given a new and unique site number.

7.1.2 Ballard Link Extension Archaeological Records Search Results

As shown in Table 7-2, there are 25 previously identified archaeological sites currently known within the desktop research area for the Ballard Link Extension. Nine archaeological resources fall within the area of potential effects and are discussed below. The remaining archaeological sites fall within the desktop research area and would not have potential construction or operational impacts. However, their location in the vicinity may be used to understand additional resource types that may be encountered during archaeological investigations for the project.

7.1.2.1 45KI765

Located in the Chinatown-International District Segment, site 45KI765 represents a historical-period debris scatter in an area of historic tidelands of early Seattle. Interspersed among wooden pilings that represented the foundation for the elevated 6th Avenue South from the early twentieth century, the site consisted of more than 250 historical-period artifacts (bottles and bottle fragments, ceramics, faunal remains, and other miscellaneous artifacts). Prior to the establishment of organized, city-wide garbage collection, residents commonly disposed of household and commercial refuse in the tidal areas south of the city (Phelps et al. 1978) in an effort to fill the tidelands. The site was officially determined not eligible for listing in the National Register in 2008 by the FTA with concurrence by the State Historic Preservation Officer.

7.1.2.2 45KI1223

Located in the Chinatown-International District Segment, the 45KI1223 site was initially identified during the construction of a new, multi-story structure at that location in 2014. The site consisted of four infrastructure features associated with the Seattle Gas Light Company, which operated at that location in the late nineteenth and early twentieth centuries. In 1906, the company constructed a new coal gas manufacturing plant in the South Lake Union area and abandoned the Jackson Street location. Archaeological remains consisted of a cement pad for a large gas storage tank, a brick-and-mortar foundation for a gas holding tank, a possible wooden support for another tank, and a fourth foundation remnant with a cement cap. The site was referenced only on the archaeological site form for 45KI1027, and the State Historic Preservation Officer concurred that this site was not eligible for listing in the National Register on January 20, 2015.

Table 7-2. Previously Recorded Archaeological Sites, Ballard Link Extension (South to North)

Site Number	Site Type	Brief Description	National Register Eligibility Determination	Segment	Within Area of Potential Effect?
45KI118	Precontact and historical-period debris	Reported disturbed area along railroad tracks where artifacts were reported seen.	Not evaluated	Chinatown-International District	No
45KI924	Historic commercial	Commercial district that was covered to create railroad yard.	Eligible	Chinatown-International District	No
45KI765	Historic debris scatter	Sixth Avenue South Landfill refuse deposit, glass, ceramic, faunal, wood pilings.	Not eligible	Chinatown-International District	Yes
45KI943	Historic commercial	Commercial district that was covered to create railroad yard.	Not eligible	Chinatown-International District	No
45KI244	Historic transportation	King Street Station archaeological component, historic railroad rail segment, structural footings, glazed roof tile fragments, coal waste cinder feature, 1904 to 1906.	Not evaluated	Chinatown-International District	No
45KI1016	Historic commercial properties	Granite block footings, ceramic, faunal, glass, leather, metal.	Not eligible	Chinatown-International District	No
45KI1223	Historic building foundation	Seattle Gas Light Company gasification plant, brick foundation, wood piles, cement slab, metal poles.	Not evaluated	Chinatown-International District	Yes
45KI1027	Historic commercial property	Concrete post.	Not eligible	Chinatown-International District	Yes
45KI1233	Historic building foundations	Debris scatter.	Not evaluated	Chinatown-International District	No
45KI685	Historic commercial property	Remnant of the Seattle Hotel/Occidental Hotel, mosaic tile floor beneath current sidewalk, 1889/1890.	Not eligible	Chinatown-International District	No
45KI1435	Historic public works	Abandoned utility tunnel.	Not evaluated	Downtown	Yes
45KI1434	Historic structures	Pedestrian tunnel.	Not evaluated	Downtown	Yes
45KI1370	Historic debris scatter	Historic fill site, charcoal, mortar, brick, glass.	Not eligible	Downtown	No
45KI909	Cemetery	Little White Church Cemetery.	Not evaluated	Downtown	No
45KI1085	Historic wall	Western Avenue concrete wall.	Not evaluated	Downtown	No

Site Number	Site Type	Brief Description	National Register Eligibility Determination	Segment	Within Area of Potential Effect?
45KI1161	Historic building foundation	Municipal market building.	Not evaluated	Downtown	No
45KI896	Cemetery	Denny Hotel cemetery.	Not evaluated	Downtown	No
45KI85	Cemetery	Seattle Cemetery.	Not evaluated	Downtown	No
45KI1146	Historic public works, historic debris scatter	Harrison Street Regrade retaining wall and road remnants, brick feature, wooden posts, nails, lumber, glass, ceramic ware, metal.	Not eligible	Downtown	Yes
45KI958	Pre-contact lithics, historic structures	Pre-contact ground stone artifact; historical commercial structure components, brick and concrete foundations, ceramic sewer pipe, historic domestic objects.	Not evaluated	Downtown	Yes
45KI1297	Historic debris scatter	Rusted nails, plaster, wood, metal pipes, ceramic tile, glass, domestic items.	Eligible	Downtown	No
45KI1451	Historic landfill	Seattle Municipal Dump site.	Not eligible	Downtown	Yes
45KI502	Historic railroad properties	Segment of Northern Pacific Railroad belt line, tracks, trestles, grade, 1911 and later.	Not evaluated	Downtown	No
45KI1185	Historic railroad property	Queen Anne counterbalance track, wood cable ties, counterbalance tunnel, central drainage system.	Not evaluated	Downtown	Yes
45KI1033	Historic agriculture, historic debris scatter	Historic dam, cans, metal, glass, wood fragments.	Not evaluated	South Interbay	No

7.1.2.3 45KI1027

Archaeological site 45KI1027 in the Chinatown-International District Segment represents a small concrete foundation for a post or light pole adjacent to the south elevation of the historic New Richmond Hotel on the parcel immediately north of archaeological site 45KI1223. The foundation measured 2.5 feet by 2.5 feet and extended approximately 1 foot below ground surface during the time of recording. Based on elevation, the small foundation is presumed to be associated with the construction of the New Richmond Hotel, circa 1916. The site was determined to be not eligible for listing in the National Register on February 23, 2015 (Kaehler 2015).

7.1.2.4 45KI1435

Located in the Downtown Segment, site 45KI1435 identifies an abandoned utility tunnel that extends from the Public Safety Building to City Hall. The tunnel is presumed to be associated with the construction of the Public Safety Building in 1951, although this date has not been verified. It is a reinforced-concrete tunnel that is 23 feet deep at the northwest end, sloping upward to a depth of 19 feet at the southeast end. The tunnel is 8 feet in diameter and has a maximum depth of 32 feet below current ground surface. While the exact purpose of the tunnel is unknown, given its large diameter, it likely accommodated a large infrastructure. The tunnel has not been evaluated for eligibility for listing in the National Register.

7.1.2.5 45KI1434

Located in close proximity to site 45KI1435 (although technically falling within the Chinatown-International Segment), site 45KI1434 represents a pedestrian tunnel emanating from the Public Safety Building to what is now the King County Courthouse. The tunnel was apparently a reinforced concrete “prisoner” tunnel measuring 7 feet by 9 feet with a bottom elevation approximately 57 feet above sea level. The consultant that evaluated the structure in 2018 recommended the site as not eligible for listing in the National Register, but no determination has been made.

7.1.2.6 45KI1146

Site 45KI1146 identified intact and secondarily deposited historical-period materials underneath Harrison Street, currently the location of the north portal of the State Route 99 tunnel in the Downtown Segment. Intact archaeological materials consisted primarily of architectural elements prior to and possibly associated with the early twentieth century Harrison Street Regrade. Early features included wooden retaining walls and brick building foundation remnants. Historical-period artifacts were scattered in concentrations across the site and could be associated with either the First (1905 to 1912) or Second (circa 1929 to 1930) Harrison Street Regrade. The site was determined not eligible for listing in the National Register in 2013 and the State Historic Preservation Officer concurred.

7.1.2.7 45KI958

Initially identified in 2010 and archaeologically tested in 2013 to 2014 as part of the State Route 99 Tunnel North Portal, site 45KI958 was immediately north of 45KI1146 in the Downtown Segment. Much like site 45KI1146, this site represented the remains of commercial and residential buildings dating from the early twentieth century until approximately 1970. Numerous construction features and historical-period artifacts were identified during both phases of

investigation. During the first phase of investigation, two possible precontact groundstone artifacts were identified but appear to be associated with secondarily deposited Denny Regrade materials and were not considered to be in situ. The site was completely removed as part of the North Portal construction associated with State Route 99.

7.1.2.8 45KI1451

Identified during the construction of the Dexter Yard Building, site 45KI1451 consisted of construction (brick, lumber, and wood) and utilitarian (glass, ceramic, metal, and leather) debris. The historical-period scatter covered most of the east half of the block and was identified as one of 15 refuse dumping locations used by the City of Seattle around 1920. According to the site record, “cultural material was scattered throughout the site area with no concentrations and no stratigraphic differentiation within the deposit” (Peterson 2019). The site, located in the Downtown Segment, has been determined to be not eligible for listing in the National Register.

7.1.2.9 45KI1185

Located in the Downtown Segment west of Seattle Center and the Climate Pledge Arena (formerly Key Arena), site 45KI1185 represents remnants of the Queen Anne Counterbalance Line. The Counterbalance Line was constructed around 1898 and was in operation until around 1940 (Murakami 2006). After the Counterbalance Line was decommissioned in 1940, the surface rails were removed and the road surface was paved over, including the remnants of the counterbalance mechanism. Identified in 2012 during monitoring of roadway improvements, the site includes debris and infrastructure components of the counterbalance apparatus, including wooden cable ties, clay drainage pipe, metal spacers, and railroad spikes. The site has not been evaluated for eligibility for listing in the National Register.

7.2 Previous Archaeological Studies

To develop a more robust understanding of the rich cultural history (both precontact and historical-period) a review of archaeological reports and associated literature regarding cultural resources studies was completed within the desktop research area. Table 7-3 lists the cultural resources surveys that have been conducted within the desktop research area for both the West Seattle and Ballard Link Extensions as of January 2020.

The overwhelming majority of the more than 90 cultural resources studies identify historical-period resources, with only a handful identifying precontact cultural components within the study area. Thirteen of the studies are associated with the State Route 99 Alaskan Way Viaduct removal and the construction of the deep-bore tunnel that replaced that transportation resource, and the study reports constitute a major contribution to our understanding of the history and prehistory of Downtown Seattle. While none of the 90 studies cover the entire area of potential effects for WSBLE, they represent a major contribution to the archaeological and historic context of the project vicinity by a number of different cultural resource management firms and transportation agencies.

Table 7-3. Previous Cultural Resource Investigations within the Desktop Research Area (Generally South to North)

National Archaeological Database	Author(s)	Date	Title	Within Area of Potential Effect?
1686058	Gunn, Kenny	2015	SC 35 Alaska Junction Telecommunications Facility, 4545 Fauntleroy Way Southwest, Seattle	No
1348205	Earley, Amber	2006	Cultural Resources Assessment of the Duwamish Bikeway Project, Seattle	No
1339785	Robbins, Jeffrey R.	1998	Seaboard Lumber Aquatic Restoration Project Seattle, Cultural Resource Assessment	No
1689038	Valentino, Alicia	2017	South Lander Street Grade Separation Project, Cultural Resources Assessment	No
1688116	Valentino, Alicia	2016	Results of Archaeological Monitoring, Sound Transit University Link Light Rail Maintenance of Way Building Project (U810), Seattle, King County, Washington	No
1685046	Stevenson, Alex	2014	Archaeological Inventory for the South Spokane Street at Interstate 5 Seismic Backbone Project for Seattle Public Utilities, City of Seattle	No
1681221	Robbins, Jeffrey, and Lynn L. Larson	1995	South Spokane Street Viaduct Widening Project Cultural Resource Assessment Seattle, Washington – Final Report	No
1680716	Bartoy, Kevin	2011	State Route 99 South Hudson Street to Ward Street Automated Viaduct Closure Gates Project, Results of Monitoring Program No Adverse Effect	No
1680161	Chidley, Michael	2011	Cultural Resources Assessment for the State Route 99 Spokane Street Overcrossing Project, King County, Washington	No
1348804	Gillis, Nichole	2005	State Route 99 Alaskan Way Viaduct & Seawall Replacement Project, Archaeological Monitoring and Review of Geotechnical Borings from South Spokane Street to Battery Street Tunnel	No
1346259	Cole, Stephen C.	2005	Revised Archaeological Monitoring of Construction Excavations in the Spokane Street Viaduct Project, Utilities Relocation Phase (Contract 3), Seattle	Yes
1343250	The Johnson Partnership	2004	East Marginal Way Grade Separation Project, Cultural Resources Analysis for National Historic Preservation Act Section 106 Review, Includes Addendum to Report	No
1339836	Courtois, Shirley	1999	Central Link Rail Transit Project Historic and Prehistoric Archaeological Sites Historic Resources Native American Traditional Cultural Properties Paleontological Sites	No
1339816	Courtois, Shirley	1999	Sound Transit Central Link Light Rail Environmental Impact Statement Historic and Archaeological Resources Technical Report	No

National Archaeological Database	Author(s)	Date	Title	Within Area of Potential Effect?
1339757	Robbins, Jeffrey R.	1996	Cultural Resource Monitoring Alki Transfer/Combined Sewer Overflow Facilities Project West Seattle Tunnel	No
1688472	Wong, Marie	2013	Ghost Signs of Seattle: Policy Review and Inventory in Pioneer Square and Chinatown – International District	No
1688119	Raff-Tierney, Angus	2016	Archaeological Monitoring Report for the 400 South Jackson Street Project, City of Seattle, King County, Washington	No
1686868	Compas, Lynn	2015	National Register Evaluation of Archaeological Site HRA-2358-2	Yes
1686867	Pickerell, Jordan	2015	Evaluation of Archaeological Site HRA-2358-1 at 400 South Jackson in the City of Seattle	Yes
1686076	Baker, R. Todd	2015	Cultural resource Survey: Proposed Telecommunications Non-Tower Collection Site, Site Name: SEA Holgate – New Build, Seattle	No
1683535	Pinyerd, Dave	2013	King Dome #SE29XC263, 2201 1st Avenue South, Seattle	No
1683510	Merrill, Christie	2012	Cultural Resource Monitoring Results for King Street Station Construction Phase II b	No
1683022	Reed, Patrick	2012	Cultural Resources Monitoring Report State Route 99 South Holgate Street to South King Street Viaduct Replacement Project Archaeological Monitoring Stage 2 Seattle, King County, Washington	No
1682621	Finley, Aimee	2012	Results of a Cultural Resources Inventory of the Sea Grinder (Trileaf #602141) Cell Colocation Site, Seattle	No
1682114	Silverman, Shari Maria	2012	Archaeological Monitoring for Starbucks Coffee Company's 505 1st Avenue South Construction Site City of Seattle	No
1681271	Merrill, Christie	2011	Cultural Resources Monitoring at King Street Station, King County, Washington 2010 Results	No
1681270	Phillips, Colby	2011	Cultural Resources Monitoring of Geothermal Wells at King Street Station Parking Plaza, Seattle Washington	No
1354895	Casella, Melissa	2010	Cultural Resources Monitoring Report, State Route 99 South Holgate Street to South King Street Viaduct Replacement Project Archaeological Monitoring Stage 1 Seattle, King County, Washington	No
1354642	Mullaley, Meris	2010	Cultural Resources Investigations and Monitoring Report: State Route 519 Intermodal Access Phase 2: South Atlantic Corridor and South Atlantic Street Road Improvements from Utah Avenue South to 1st Avenue South	No

National Archaeological Database	Author(s)	Date	Title	Within Area of Potential Effect?
1352050	Hoyt, Bryan	2008	Letter to Meredith Redmon RE: Archaeological Monitoring of the King Street Odor Control Facility Project	No
1351449	Sheridan, Mimi	2008	State Route 99: Alaskan Way Viaduct & Seawall Replacement Program: Section 106 Technical Report Historical Resources South Holgate Street to King Street Viaduct Replacement Project	No
1351445	Miss, Christian J.	2008	The Alaskan Way Viaduct & Seawall Replacement Project, Results of the Archaeological Core Collection Program: Phase 1	No
1350636	Fallon, Michael J.	2007	Cultural Resources Monitoring for the Atlantic/Central Bus Base Expansion Project, Volumes I and II	Yes
1350614	Northwest Archaeological Associates, Inc./Environmental History Company	2008	ADDENDUM: State Route 519 Intermodal Access Project Phase 2: South Atlantic Corridor, Results of Supplemental Archaeological Investigations	No
1350613	Hudson, Lorelea	2007	State Route 519 Intermodal Access Project Phase 2: South Atlantic Corridor	No
1347441	Northwest Archaeological Associates, Inc.	2006	Geoarchaeological Examination of Solid-Core Geoprobes: Alaskan Way Viaduct and Seawall Replacement Project	No
1344449	Naoi Goetz, Linda C.	2005	Letter to Stephanie Kramer Regarding Continued Monitoring for the Atlantic/Central Base Expansion SHAPIRO Project Number 1025023.2T	No
1340845	Holstine, Craig	1996	Historic Resources Discipline Report: Washington State Department of Transportation's Proposed State Route 519 Kingdome Area Intermodal Access Project, Seattle, Washington	No
1339823	Holstine, Craig	1999	Potential Effects on Historic Properties: WSDOT's State Route 519 Intermodal Access Project, Seattle, Washington	No
1689249	Dellert, Jenny	2017	King County Metro Two-Way Columbia Street 1st to 3rd Avenue, Southend Pathways Project, Archaeological Monitoring, City of Seattle	No
1688617	Rinck, Brandy	2016	Cultural Resources Assessment of the Post Avenue Bridge Replacement Project, Seattle, King County, Washington	No
1688158	McReynolds, Nancy	2016	Visual Effects Report, Proposed Telecommunications Non-Tower Collocation Site; Site Name: SEA 4th and Seneca Seattle, King County, Washington	No
1688038	Elder, J. Tait	2015	Revised Final Supplemental Section 106 Technical Report Volume 2: Archaeological Resources State Route 99: Alaskan Way Viaduct Replacement Project	No

National Archaeological Database	Author(s)	Date	Title	Within Area of Potential Effect?
1687449	Wilson, Katie	2015	Pike Place Market Waterfront Entry Project (PC1-N), Seattle, Washington, Archaeological Survey	No
1687231	Finley, Aimee	2015	Results of a Cultural Resources Study of the WA-SEA0675E14.1 Cell Site (Trileaf #617165), Seattle	No
1686480	Heiderman, Eileen	2015	Final Cultural Resources Assessment for the Yesler Way Over 4th Avenue South Bridge Seattle	No
1686079	Finley, Aimee	2015	Results of a Cultural Resources Study of the SEA Denny Regrade Cell (Trileaf # 613331), Seattle	No
1685380	Elder, J. Tait	2014	Archaeological Testing for the Alaskan Way Viaduct Replacement Project Tunnel Boring Machine Repair Shaft	No
1684710	Link, Karin	2004	Telecommunications antennas attached to 1930 3rd Avenue/301 Virginia Street, Seattle (Parcel Numbers 1977201260 and 19977201280)	No
1684457	Rooke, Lara	2010	Cultural Resources Discipline Report for the Aurora RapidRide Project - E Line, NEPA Documented Categorical Exclusion	No
1684405	Dellert, Jenny	2014	Addendum to Cultural Resources Discipline Report for the Aurora RapidRide E Line Project	No
1693387	Peterson, Emily	2020	Results of Archaeological Monitoring for the Dexter Yard Project, 700 Dexter Avenue, Seattle, Washington	Yes
1684275	Johnson, Paula	2013	Results of Additional Data Collection Required to Evaluate Sites 45KI1012 and 45KI1013, State Route 519 Seattle Multimodal Terminal at Coleman Dock Project (Seattle Multimodal Project)	No
1683710	Askin, Timothy	2013	Historic Properties Survey of Pioneer Square (Coleman Building), Telecom Installation 811 1st Avenue, Seattle	No
1683197	Pinyard, Dave	2013	Alaskan Way # SE03XC051 Cell Tower at 110 Union Street, Seattle	No
1682425	Wilt, Julie	2012	Monitoring and Recording of Two Buried Walls (45KI1084 and 45KI1085) in the Seattle Central Waterfront District	No
1681073	Kachmarsky, Erica	2011	DRAFT: Historical Resource Technical Report, Former Federal Reserve Bank of San Francisco, Seattle Branch	No
1680639	Roberts, Andrew	2011	Elliott Bay Seawall Underwater Archaeological Reconnaissance Survey	No
1353959	Gallacci, Caroline	2010	Letter to Greg Griffith RE: Wireless Proposal #SA1209 1904 3rd Avenue, Seattle (Stewart and 4th)	No

National Archaeological Database	Author(s)	Date	Title	Within Area of Potential Effect?
1351879	Valentino, Alicia	2008	Cultural Resources Investigations Yesler Way Stabilization Project Archaeological Assessment Technical Memorandum	No
1349691	Hodges, Charles M.	2007	Archaeological Assessment of Bents 93 and 94 Emergency Repair of the Alaskan Way Viaduct & Seawall Replacement Project	No
1349402	Schumacher, James	2007	Report on Archaeological Monitoring for William Kenzo Nakamura United States Courthouse, Seattle	No
1341353	Rooke, Lara C.	2002	Letter to Jay Greenfell Regarding WA-794 (Securities Building)	No
1341296	Rooke, Lara C.	2002	Letter Report: Procedures and Results of a Cultural Resources Survey of Cingular Wireless Project Site WA-795 (Gatewood)	No
1341177	Darby, Melissa	2002	Cultural Resources Assessment of the Proposed Dexter Horton Rooftop Antenna Installation, Seattle	No
1340984	Rooke, Lara C.	2002	Cultural Resources Survey of Cingular Wireless Tower Site-WA-0793 (King County Administration Building)	No
1339813	Nelson, Margaret A.	1998	Heritage Resource Investigation of Recent Excavation for Seismic Retrofitting at the King County Administration Building	No
1339767	Forsman, Leonard A.	1997	Denny Way/Lake Union Combined Sewer Overflow Control Project Seattle, Cultural Resources Assessment	No
1688063	Valentino, Alicia	2015	North Access Connection Project, Archaeological Investigations, 45K1958, King County, Washington: Technical Memorandum	Yes
1687096	Finley, Aimee	2015	Results of a Cultural Resources Study of the SEA South Lake Union Cell Site (Trileaf #618493), Seattle	No
1684853	Wegener, Robert	2010	Archaeological Exploration within the Seattle Department of Transportation Harrison Street Maintenance Yard in Support of the State Route 99 North Portal Project, King County, Washington	Yes
1680612	Blake, Karry	2011	Archaeological Resources Monitoring of the Geotechnical Borings from Harrison Street to Thomas Street, State Route 99 Alaskan Way Viaduct Replacement Project, Seattle, Washington	No
1353335	Valentino, Alicia	2009	Assessment for the West Thomas Street Pedestrian Overpass Project, Seattle	No
1353032	Sullivan, Michael	2009	Queen Anne Post Office Historic Structures Report (Queen Anne Station and Regional Headquarters), Parcel 1988200060	No

National Archaeological Database	Author(s)	Date	Title	Within Area of Potential Effect?
1352216	Herkelrath, Megan	2007	Archaeological and Historical Resources Survey of 635 Elliott Avenue West, Seattle	No
1352171	Hamilton, Joe	2008	Cultural Resources Monitoring of Mass Excavation at 635 Elliott Avenue West	No
1351894	Gillespie, Ann	2008	Historical Resources Assessment for the Queen Anne Post Office at 415 1st Avenue North, Seattle	No
1351821	Moore, David	1998	Cultural Resources Survey and Assessment of Naval Reserve Readiness Center, Seattle	No
1351673	Bundy, Barbara	2008	Cultural Resources Assessment, Alaskan Way Viaduct & Seawall Replacement Program, Battery Street Tunnel Fire and Safety Upgrades Project	No
1350362	Gilpin, Jennifer	2007	Draft: Archaeological Monitoring at the South Lake Union Streetcar Maintenance Facility, Seattle	No
1348832	Schumacher, James	2007	Archaeological Monitoring for 333 Elliott Avenue West, Seattle	No
1348189	Juell, Kenneth	2006	Archaeological Site Assessment of Sound Transit's Sounder: Everett to Seattle Commuter Rail System, King and Snohomish Counties	No
1346580	Gillis, Nichole	2005	Archaeological Resources Monitoring and Review of Geotechnical Borings from Harrison Street to Valley Street, State Route 99: Alaskan Way Viaduct & Seawall Replacement Project	No
1343130	Billat, Lorna	2004	Letter to Greg Griffith Regarding Request for Consultation and Concurrence Regarding a Proposed Collocation of a Wireless Telecommunication Service Facility to be on the Roof of a Building at 904 Elliott Avenue West, in Seattle	No
1341215	Shong, Michael V.	2004	Results of Cultural Resources Monitoring for the City of Seattle West Lake Union Trail Improvement Project	No
1339891	Nelson, Margaret A.	2001	Cultural Resource Investigations for the West Lake Union Improvement Project, Seattle	No
1686083	Finley, Aimee	2015	Results of a Cultural Resources Inventory of the SEA Interbay Train – AWS Cell Site (Trileaf #613635), Seattle	No
1683681	Askin, Timothy	2013	Historic Properties Survey of Farwest Liquidation Site Telecom Installation 1461 to 1465 Elliott Avenue West, Seattle	No
1354784	Perrin, Natalie	2010	Cultural Resources Assessment of the Proposed Burke-Gilman Trail Extension Project, Segment 4, King County, Washington	No
1352291	Kaehler, Gretchen	2008	Cultural Resources Assessment of the Proposed Burke-Gilman Trail Extension Project	No

National Archaeological Database	Author(s)	Date	Title	Within Area of Potential Effect?
1350468	Kaehler, Gretchen	2007	Archaeological Resources and Historic Buildings and Structures Assessment of the Proposed Ballard Blocks 2 Project, City of Seattle	No
1343744	Parvey, Michele E.	2004	Cultural Resource Investigation for the Ship Canal Trail Extension Project	No
1690100	Valentino, Alicia et al.	2016	Seattle Public Utilities Ship Canal Water Project	No
1351189	Blukis Onat, Astrida R.	2007	Cultural Resources Background Investigations for the Revised Ballard Siphon Replacement Project	No

8 RESEARCH DESIGN

The results of the background research were used to establish a framework for the archaeological expectations for the project. Expectations for where archaeological deposits could potentially be identified are based on environmental data and the relationship of that data to an understanding of human behavior. Precontact human habitation was dependent on the availability of water and the ease with which resources could be procured and transported. With a change in precontact resource exploitation towards littoral environments and coastal habitats coinciding with the Early Pacific period, habitation areas were increasingly along coastal, river and lake margins. During the historic period, landscape modification methods, including the removal of sediment and filling of topographical depressions, have a unique effect on archaeological site preservation and visibility. By understanding these effects, expectations about archaeological potential can be generated and subsequently used to inform archaeological resource location and identification. Sections 8.1, Precontact and Ethnographic Archaeology, and 8.2, Historical-period Archaeology, examine the geologic, geomorphic, and cultural behaviors presented in Section 4, Environmental and Cultural Context, and focus on the desktop research area to help better understand archaeological expectations.

8.1 Precontact and Ethnographic Archaeology

The majority of the project corridor crosses areas composed of glacial till and outwash deposited by the Puget lobe of the Cordilleran ice sheet during the late Pleistocene (Troost et al. 2005). Glacial till is an unconsolidated (poorly sorted and unstratified) mix of sediments deposited along glacial margins. Glacial outwash is composed of laminated and interbedded sands and gravels, carried and deposited by glacial meltwater (Troost et al. 2005). The formation of these landforms occurred between 17,400 and 16,400 years ago, during the late Pleistocene (Troost et al. 2005) and represented a period in which there was no opportunity for human occupation. Because human occupation of the land surface could only occur after the formation of these landforms (i.e., after 16,400 years ago), the physical remains of these activities would be on the ground surface of these landforms.

Portions of the project corridor occur in areas mapped as Holocene tidal flats, described as silt and sand containing some shells that were historically exposed along broad coastal benches at low tide but are now covered with artificial fill (Troost et al. 2005). The most extensive areas of tidal flats crossed by the alignment occurs along the Duwamish Waterway and Interbay. Lesser areas mapped as Holocene alluvium occur along the Salmon Bay/Washington Ship Canal and lower Duwamish; in both locations, the alluvial deposits are buried by historic fill (Troost et al. 2005). While the Holocene tidal flat deposits are of the appropriate age to contain precontact archaeological deposits, these deposits accumulated in an environment that was frequently inundated. Therefore, while precontact human groups may have used these areas for limited activities (i.e., resource procurement and or processing), the archaeological deposits resulting from these activities would be limited in extent and the likelihood of encountering them is low. Areas of high archaeological sensitivity in these deposits are considered to be limited to locations of ethnographic place names, ethnographic village sites, and water-related places.

The Seattle area landscape has undergone extensive modification since the first Euroamerican settlements were established in the area (Benoit 1979, Huber et al. 2010, Williams 2015). As mentioned above, widespread landscape modification can dramatically affect archaeological resources that may remain in the area of potential effects. By understanding these effects, expectations about archaeological potential can be generated for developed areas and then used to assess the potential for archaeological deposits to be present within the corridor.

From 1898 to 1931, the Seattle Engineering Department undertook nearly 60 projects to alter Seattle's topography through regrades (Kling 2001). Many of these projects took place within, or resulted in the subsequent filling of, Downtown Seattle, with over 15 million cubic yards of earth removed during the regrade activities (Kling 2001, Williams 2015). The two regrade projects relative to the project footprint are the Denny Regrade and the Jackson Street Regrade.

The Denny Regrade occurred in two parts, as follows (Kling 2001):

- Denny Regrade No. 1 occurred from 1903 to 1911. It included several topography-leveling operations, the largest of which removed the western half of Denny Hill, from Pine Street to Cedar Street and from 2nd to 5th avenues.
- Denny Regrade No. 2 began in 1928 and removed the remaining portion of Denny Hill from 5th Avenue east to 9th Avenue and north to approximately Harrison Street. Much of the material produced by the regrade was used to fill depressions in the landscape, as well as a portion of the waterfront off Elliott Bay.

The Jackson Street Regrade, which occurred between 1907 and 1910, removed hills as high as 85 feet from west to east along Jackson Street, sluicing the material to fill the adjacent Elliott Bay tidal flats.

Predicting the location of precontact archaeological remains throughout the project corridor is relatively straightforward. Ethnographic and archaeological data suggest that for the last few thousand years, precontact native inhabitants were congregating predominantly along coastal, river, and lake margins. With much of the current study area traversing historically tidal areas (that were filled during the early historic period) and upland settings (in the case of much of West Seattle), the opportunity to identify landforms that might have resembled what was present 200 to several thousand years ago is minimal. The locations that most closely resemble historical landforms remain at the southern and northernmost portions of the project corridor, namely around the Duwamish Waterway and the Salmon Bay crossings. These areas retain the highest likelihood of encountering precontact archaeological remains within the project corridor.

8.2 Historical-period Archaeology

Historical-period archaeological sensitivity in an urban area is based on knowledge of the spatial organization of historic parcels, understanding the types of activities that result in the deposition of material artifacts, and identification of deposits that typically retain the data potential to address relevant research questions. Recognizing these variables results in specific expectations regarding the areas in which important archaeological data may occur within the corridor. Within an individual parcel along the corridor, for example, target areas could include the following:

- **Open spaces** – this defines those portions of a given parcel not devoted to structures that define the parcel (e.g., residential dwellings or commercial buildings). Before organized refuse collection occurred, people typically discarded their refuse as sheet refuse, in burn piles, or in hollow-filled features (e.g., refuse pits, privies, closed wells, abandoned basements, and cisterns).
- **Outbuildings** – additional buildings on a particular parcel that are set apart from structures that define the parcel (e.g., residential dwellings or commercial buildings). Outbuildings might include one or more privies if the main structure was constructed before the development of the city sewer system or organized refuse collection.

- **Known/inferred activity areas** – Activity types can include gardening, blacksmithing, butchering, and refuse-burning locations.
- **Within building footprints** – Intact archaeological deposits are rarely identified within the footprint of former buildings. A sparse quantity of objects may be identified in the subfloor or in builder's trenches.

The area of potential effects primarily encompasses historic and modern transportation corridors, but also includes the former locations of several residential, commercial, and industrial areas. Residential lots have the potential to contain structural remains associated with the primary residence or outbuildings, infrastructure (including utilities), and associated refuse deposits and inter-occupational (intentional) fill. In addition to structural remains, commercial lots may also contain refuse deposits that reflect the function of the business that created them (Walker and Zeising 2002). Refuse deposits associated with hotels and retail stores may be similar in composition to the refuse deposits found on a residential lot because they are likely to contain a substantial quantity of domestic artifacts. Industrial sites may include features associated with industrial processes (e.g., blacksmithing, use of kilns, and hide or tallow processing) in addition to structural remains.

Another substantial characteristic of the project corridor is the strong presence of a transportation-related network that has served the city of Seattle for more than 100 years. Roads of all historical periods and of all construction methods (for example, dirt, plank, brick, concrete, and asphalt) represent a substantial component of the new light rail corridor and serve as a major research theme for the project. The use of trolleys and other rail-drawn forms of transportation were incorporated in Seattle's transportation network and leave an archaeological signature. Demonstrable evidence that the historic transportation infrastructure remains in situ was evidenced when remnants of the Queen Anne Counterbalance Line (45K11185) were identified in 2012 northwest of Seattle Center.

8.3 Archaeological Expectations

Incorporating many of the factors discussed in Sections 8.1 and 8.2, research conducted in support of the Geotechnical Investigation Cultural Resources Assessment and Inadvertent Discovery Plan (Bumback et al. 2019) identified a number of locations within the area of potential effects with a greater potential of identifying archaeological materials. These areas, designated as "archaeological sensitivity areas," were identified based on numerous geographical and historic sources. As the archaeological investigation progresses with the project, these archaeological sensitivity areas will help focus the field identification efforts.

8.3.1 Archaeological Sensitivity Area Study

A study was undertaken using Geographic Information Systems data from numerous sources to develop a comprehensive archaeological understanding of the project corridor. Data was gathered identifying environmental features, known archaeological resources, data on the historic shorelines, and the patterns of precontact, ethnographic, and historic use of the area. An overlay of light detection and ranging (LiDAR) imagery was imported into Geographic Information Systems to display the cut and fill limits within this heavily urbanized project corridor. Areas of apparent severe disturbance were identified and classified as low-sensitivity areas and only those of moderate and high sensitivity areas are included in the archaeological sensitivity maps.

Data from the following sources were used to identify areas of archaeological sensitivity:

- The *Waterlines* project map, depicting waterbodies, freshwater resources, and waterbody confluences prior to historical modification, sourced from the Burke Museum of Natural History and Culture (2016).
- Ethnographic sources that discuss indigenous place names, especially the geographical data that T.T. Waterman prepared for the Puget Sound area in the 1920s (Hilbert et al. 2001, Waterman 1920).
- Relevant United States Coast Survey topographic (T Sheet) data focusing on the historic tide flat boundaries that was derived from previously digitized sources as a portion of the Puget Sound River History Project completed by the Quaternary Research Center, Geomorphological Research Group, and Department of Earth and Space Sciences at the University of Washington.
- General Land Office plats and Sanborn Fire Insurance Maps that show historical land use.
- LiDAR imagery.
- Archaeological site locations as depicted in WISAARD.
- Historical photographs and maps, including those on record with the University of Washington and public libraries.
- Decommissioned landfill studies on file with King County, University of Washington, and the City of Seattle.

Individual descriptions of the archaeological sensitivity areas are presented in Sections 8.3.2, Precontact/Ethnographic Archaeological Sensitivity Areas, and 8.3.3, Historical-period Archaeological Sensitivity Areas. The archaeological sensitivity maps are presented in Attachment N.5E, Archaeological Sensitivity Areas.

8.3.2 Precontact/Ethnographic Archaeological Sensitivity Areas

8.3.2.1 West Seattle Link Extension

Archaeological Sensitivity Area II (Duwamish Segment)

Archaeological sensitivity area II is south of the West Seattle Bridge in the area of Duwamish Avenue South.

This area represents the ethnographically identified location of *XwEq³*, a name that translates to “slough” or “a cut,” describing the largest branch of the Duwamish Waterway from its mouth. The location of the ethnographic place name has since been filled in and now is home to industrial yards and roadways. Currently there is a single geotechnical borehole proposed within immediately west of the arbitrary boundary of archaeological sensitivity area II (DS2034) with numerous others proposed in the nearby vicinity.

Archaeological Sensitivity Area JJ (Duwamish Segment)

Archaeological sensitivity area JJ is south of the West Seattle Bridge and west of the current channel of the Duwamish Waterway. Extending approximately 250 feet to the east and west of West Marginal Way Southwest, the archaeological sensitivity area extends from the West Seattle Bridge to south of Southwest Idaho Street.

This area represents the ethnographically identified location of *Tul³a'lt'*, translated as “Herring’s house” or “Herring house”. The name references the location of a village that once existed at the bottom of a bluff on the west bank of the Duwamish Waterway. The village reportedly consisted of at least four longhouses, a potlatch house, and several waste deposit areas (middens). The area where the village once stood is now the home of large industrial buildings and parking lots. Despite the substantial development that has occurred in this area, archaeological deposits have been recorded along the west bank of the Duwamish Waterway within roadways and geotechnical boreholes. Archaeological sensitivity area JJ contains previously recorded archaeological sites 45KI52 and 45KI1353. Currently, there are two geotechnical boreholes proposed within the arbitrary boundary of archaeological sensitivity area II (DS2024 and DS2083), both at the extreme north end of the area.

Archaeological Sensitivity Area KK (Duwamish Segment)

Archaeological sensitivity area KK is north of South Spokane Street in the area of the SODO Busway.

This area represents the ethnographically identified location of *Teta'iks*. Translating to “a little strong point” or “little-bit-straight point,” this ethnographic place name refers to a small promontory on a now buried island at the mouth of the Duwamish Waterway, reportedly used as a lookout, stockade, and/or defensive point by native people. Later documents reference the existence of three longhouses at the location (Thrush 2009). The location presented in Hilbert et al. (2001) differs from the location mapped under the Waterlines Project. Currently there is a single geotechnical borehole proposed within the arbitrary boundary of archaeological sensitivity area KK (DS2082) with one other proposed immediately north of the archaeological sensitivity area (DS2055).

8.3.2.2 Ballard Link Extension

Archaeological Sensitivity Area CC (Chinatown-International District Segment)

Archaeological sensitivity area CC generally references the city block bounded by South Dearborn Street on the south, South Lane Street on the north, 5th Avenue South to the west, and 6th Avenue South to the east.

The 1894 Seattle quadrangle map suggests that this area at one time represented the original shoreline of Seattle. Precontact lifeway patterns suggest that native people used the landscape for aquatic and/or terrestrial resource procurement. If the shoreline was stable during prehistory, the possibility also exists that the area could have supported seasonal or permanent habitation. The location is presumed to have been filled and the majority is currently being used as a paved parking area. Currently there is a single geotechnical borehole proposed within immediately west of the arbitrary boundary of archaeological sensitivity area CC (DT2022) with two others proposed in the right-of-way along 5th Avenue South to the west.

Archaeological Sensitivity Area HH (Chinatown-International District Segment)

Archaeological sensitivity area HH is on the northeast corner of the intersection of 4th Avenue South and South Royal Brougham Way.

The area was historically defined as tidelands that has been subsequently filled with regrade material. Native people likely used these types of environments to catch fish and other aquatic species for subsistence. Currently there is a single geotechnical borehole proposed within the arbitrary boundary of archaeological sensitivity area HH (DT2013).

Archaeological Sensitivity Area U (Downtown Segment)

Archaeological sensitivity area U encompasses the north half of the city block bounded by Mercer Street to the north, Republican Street to the south, Westlake Avenue North to the west, and Terry Avenue North to the east.

This sensitivity area represents the ethnographic location of *Cta'q^wc1d*, meaning “where a trail descends to the water,” represents an old trail from Seattle Harbor that connected with Lake Union at the bottom of a hill. One of the first sawmills belonging to David Denny existed in this location. This location has been heavily modified by grading and filling activity as part of development. A portion is currently a paved parking lot. Archaeological deposits may be present below the parking lot. A single geotechnical borehole (DT2158) to be excavated in Westlake Avenue North may provide data on the archaeological potential of this parcel in a future project phase.

Archaeological Sensitivity Area K (South Interbay Segment)

Archaeological sensitivity area K is at the northern end of the Interbay Golf Center, immediately east of the BNSF Railway corridor.

This area represents the ethnographically identified location of *Sila'qwotsid*, which translates to “talking” or “mouth along the side”, refers to a creek mouth that drains into Smith Cove. Archaeological resources excavated in a 1913 investigation indicated a once extensive native occupation of the area (Thrush 2009). Because this area is composed of deep deposits of artificial fill, archaeological deposits associated with the archaeological sensitivity area will be deeply buried at this location. There is a single geotechnical borehole scheduled within the boundaries of the archaeological sensitivity area (IB2038) and two additional holes to the north and south that could provide useful data on the archaeological potential.

Archaeological Sensitivity Area O (South Interbay Segment)

Archaeological sensitivity area O is east of Elliott Avenue West at the north end of Kinnear Park.

This area represents the ethnographically identified location of *T³E'kEp*, an ethnographic place name that translates to “an aerial net for snaring ducks” or “aerial duck net”. The location refers to a small creek and a camping place that existed in the area where ducks flew in a low spot between the hills southwest of Lake Union. The current location of archaeological sensitivity area O is a vegetated slope bounded by West Olympic Place to the east and Elliott Avenue West to the west. Currently there are two geotechnical boreholes proposed immediately west of the arbitrary boundary of archaeological sensitivity area O (DT2235 and DT2236).

Archaeological Sensitivity Area H (Interbay/Ballard Segment)

Archaeological sensitivity area H is along the north shore of Salmon Bay extending both to the east and west of 15th Street Northwest.

The literal translation of this ethnographic place name *B1t¹da'kt*, translates to “a kind of supernatural power” by Waterman, or “a ritual” by the Lushootseed people (Hilbert et al. 2001). The name refers to a small creek on the north side of Salmon Bay that provided power to the native shamans to access the underworld to recover guardian spirits. Shaman dances were reportedly held at this location. Archaeological sensitivity area H is currently covered in impervious surface in an urban environment along with buildings, structures, and roadways. Previously recorded archaeological sites occur elsewhere along the north shore of Salmon Bay, and archaeological deposits associated with archaeological sensitivity area H may be present

and deeply buried at this location. Currently there are three geotechnical boreholes proposed within the arbitrary boundary of archaeological sensitivity area H (IB2078 through IB2080).

8.3.3 Historical-period Archaeological Sensitivity Areas

8.3.3.1 West Seattle Link Extension

No historical-period archaeological sensitivity areas were identified for the West Seattle Link Extension.

8.3.3.2 Ballard Link Extension

Archaeological Sensitivity Area Z (Chinatown-International District Segment)

Archaeological sensitivity area Z is near the intersection of 4th Avenue and Jefferson Street.

The 1893 Sanborn Fire Insurance Map identifies a single dwelling and two outbuildings in this location. The 1905 Sanborn Fire Insurance Map depicts one lodging (New Oxford Lodging) and at least one outbuilding. Immediately adjacent to the New Oxford Lodgings is a Chinese laundry. The laundry is outside of the sensitivity area; however, deposits associated with the laundry may be present. The area is currently a paved parking lot. Archaeological deposits associated with the residences, lodgings, outbuildings, or related refuse deposits may be present below the parking lot. There are currently no geotechnical boreholes planned in the immediate vicinity of the archaeological sensitivity area.

Archaeological Sensitivity Area AA (Chinatown-International District Segment)

Archaeological sensitivity area AA is generally east of 5th Avenue between Terrace Street and Jefferson Street.

Both the 1893 and 1905 Sanborn Fire Insurance Maps depict one lodging (The Birch 1st Lodgings & Tenements), six residences, and at least six outbuildings. LiDAR imagery indicates that portions have been filled. The current area is open space and covered in grasses. Archaeological deposits associated with the residences, lodgings, outbuildings, or related refuse deposits may be present below the fill deposits. Several geotechnical boreholes are proposed in the general area (DT2062 through DT2066, with DT2067 falling within the boundary of the archaeological sensitivity area).

Archaeological Sensitivity Area BB (Chinatown-International District Segment)

Archaeological sensitivity area BB is near Pioneer Square adjacent to the intersection of 4th Avenue and Terrace Street where it passes under Yesler Way.

The 1905 Sanborn Fire Insurance Map depicts one lodging (the Astoria Lodging) and at least one outbuilding at this location. The majority of the area includes a two-story parking garage; however, LiDAR imagery indicates that a small portion of the area surrounding the parking garage in the current sidewalk has not been disturbed and may contain intact archaeological deposits associated with the lodging, outbuilding, or related refuse deposits beneath the surface. There are no planned geotechnical boreholes in the area to provide data on the potential for buried archaeological deposits.

Archaeological Sensitivity Area DD (Chinatown-International District Segment)

Archaeological sensitivity area DD is at the northeast corner of South Dearborn Street and 5th Avenue South.

The 1893 Sanborn Fire Insurance Map depicts buildings and structures associated with the Duwamish Dairy. The area is presently a paved parking lot. LiDAR imagery indicates the presence of cut-and-fill deposits in the northern portion of the area. Archaeological deposits associated with the dairy and related refuse deposits may be present below the parking lot. There are no geotechnical boreholes currently proposed within this archaeological sensitivity area; however, geotechnical borehole DT2022 could provide some depositional information on the integrity of possible archaeological deposits.

Archaeological Sensitivity Area EE (Chinatown-International District Segment)

Archaeological sensitivity area EE is at the southeast corner of South Dearborn Street and 5th Avenue South.

The 1905 Sanborn Fire Insurance Map depicts a wagon shop and a cabin at this location. Approximately half of the area is a paved parking lot and driveway. The area is within the footprint of the Jackson Street Regrade; however, archaeological deposits were found on the adjacent block (also within the boundary of the Jackson Street Regrade). Based on the presence of archaeological deposits on the adjacent block, intact archaeological deposits may be present that post-date the Jackson Street Regrade. There are no geotechnical boreholes currently proposed within this archaeological sensitivity area or in close enough proximity to provide meaningful data.

Archaeological Sensitivity Area FF (Chinatown-International District Segment)

Archaeological sensitivity area FF is at the southeast corner of South Dearborn Street and 5th Avenue South.

The 1905 Sanborn Fire Insurance Map depicts one residence and a boarding house. A small portion of the area contains a paved parking lot and driveway. The area is within the footprint of the Jackson Regrade; however, archaeological deposits were found on the adjacent block (also within the boundary of the Jackson Street Regrade). Based on the presence of archaeological deposits on the adjacent block, intact archaeological deposits may be present that post-date the Jackson Street Regrade. There are no geotechnical boreholes currently proposed within this archaeological sensitivity area or in close enough proximity to provide meaningful data.

Archaeological Sensitivity Area GG (Chinatown-International District Segment)

Archaeological sensitivity area GG is at the southeast corner of South Dearborn Street and 5th Avenue South, just south of archaeological sensitivity areas EE and FF.

The 1905 Sanborn Fire Insurance Map depicts a boarding house and wagon shed at this location. A small portion of the area contains a paved parking lot and driveway. The area is within the footprint of the Jackson Street Regrade; however, archaeological deposits were found on the adjacent block (also within the boundary of the Jackson Street Regrade). Based on the presence of archaeological deposits on the adjacent block, intact archaeological deposits may be present that post-date the Jackson Street Regrade. There are no geotechnical boreholes currently proposed within this archaeological sensitivity area or in close enough proximity to provide meaningful data.

Archaeological Sensitivity Area R (Downtown Segment)

Archaeological sensitivity area R is across the street from archaeological sensitivity area Q, at the northeast corner of West Republican Street off 2nd Avenue West.

Both the 1893 and 1905 Sanborn Fire Insurance Maps depict three residences and two outbuildings on a single lot. LiDAR and modern imagery indicate a portion of the area has been developed. The majority of the area is developed; however, a small portion is a paved parking area. Archaeological deposits associated with one or more of the residences, outbuildings, or related refuse deposits may be present below the parking lot. Information from one adjacent geotechnical borehole (DT2215) could provide some context regarding archaeological probability.

Archaeological Sensitivity Area S (Downtown Segment)

Archaeological sensitivity area S is to the west of the intersection of Harrison Street and 5th Avenue North, at the south end of the in the eastern parking lot of Memorial Stadium.

Both the 1893 and 1905 Sanborn Fire Insurance Maps depict three residences with associated outbuildings at this location. LiDAR and modern imagery indicate a portion of the area has been developed. Approximately half of the area is a paved parking lot. Archaeological deposits associated with one or more of the residences, outbuildings, or related refuse deposits may be present below the parking lot. Currently, two geotechnical boreholes are planned in the area (DT2187 and DT2190) that may provide data regarding archaeological context.

Archaeological Sensitivity Area T (Downtown Segment)

Archaeological sensitivity area T is on the northeast corner of Taylor Avenue North and Mercer Street, just north of the Gates Foundation.

The 1905 Sanborn Fire Insurance Map depicts one residence and an outbuilding. The majority of the area is currently a paved parking area. LiDAR imagery indicates the presence of fill deposits. Archaeological deposits associated with the residence, outbuilding, or related refuse deposits could be present below the parking lot. One geotechnical borehole planned for inside the boundary of this sensitivity area (DT2185) and one outside the boundary (DT2186) could provide insight into the archaeological potential of the area.

Archaeological Sensitivity Area V (Downtown Segment)

Archaeological sensitivity area V is near the southwest corner of the intersection of Republican Street and 9th Avenue North.

The 1905 Sanborn Fire Insurance Map depicts two small residences and three outbuildings scattered across the entire city block. The majority of the area is developed; however, there is a small portion that is currently a paved parking lot that would have represented the side yard of one of the residences in 1905. Archaeological deposits associated with one or more of the residences, outbuildings, or related refuse deposits may be present below the parking lot. One geotechnical borehole (DT2157) is currently planned in the immediate vicinity (within 50 feet of one of the depicted residences) and may provide data regarding archaeological context.

Archaeological Sensitivity Area W (Downtown Segment)

Archaeological sensitivity area W is at the southwest corner of the intersection of Thomas Street and Westlake Avenue North.

The 1893 Sanborn Fire Insurance Map depicts no residences, but the 1905 Sanborn Fire Insurance Map depicts two residences and three outbuildings. The majority of the area is developed; however, there is a small portion that is currently a paved parking lot and driveway. Archaeological deposits associated with one or more of the residences, outbuildings, or related refuse deposits may be present below the parking lot and driveway. One geotechnical borehole

(DT2145) is currently planned in the immediate vicinity of the archaeological sensitivity area and may provide data regarding archaeological context.

Archaeological Sensitivity Area X (Downtown Segment)

Archaeological sensitivity area X is in the vicinity of Stewart Street and 6th Avenue. Both the 1893 and 1905 Sanborn Fire Insurance Maps depict a tenement complex and residence. The area is currently a paved parking lot. Archaeological deposits associated with the residence, tenements, or related refuse deposits may be present below the parking lot. No geotechnical boreholes are planned within the archaeological sensitivity area and nearby borehole locations are unlikely to provide valuable data.

Archaeological Sensitivity Area Y (Downtown Segment)

Archaeological sensitivity area Y is at McGraw Square, at the intersection of 5th Avenue and Stewart Street.

The 1905 Sanborn Fire Insurance Map depicts three residences and five outbuildings, as well as the Swedish Baptist Church and a dwelling labeled “Flats.” The area is currently paved and there are no standing buildings present. Currently the area is being used as an urban park (McGraw Square) and as a turnaround for the Seattle Streetcar (South Lake Union Line). Archaeological deposits associated with the residences, outbuildings, church, or related refuse deposits may be present below the paved surface. A single geotechnical borehole (DT2113) is proposed in the roadway adjacent to this area and could provide information on potential archaeological deposits.

Archaeological Sensitivity Area LL (Downtown Segment)

Archaeological sensitivity area LL is on the northwest corner of 1st Avenue North and Mercer Street.

The 1893 Sanborn Fire Insurance Map identifies residences and outbuildings at this location. The area is currently a paved parking lot. LiDAR imagery does not indicate any substantial disturbance. Archaeological deposits associated with the residences may be present below the parking lot. There are currently two boreholes planned in the immediate vicinity of this area, DT2208 and DT2210, that could provide meaningful information on the archaeological potential of the area.

Archaeological Sensitivity Area MM (Downtown Segment)

Archaeological sensitivity area MM is on a small triangle parcel of land bounded by Westlake Avenue, Denny Way, and 9th Avenue.

The 1893 Sanborn Fire Insurance Map depicts a building associated with a residence. The area is presently entirely paved with planters. This area has the potential for deep historical deposits as archaeological deposits associated with the residence may be present below the paved area. There are no geotechnical boreholes currently proposed within this archaeological sensitivity area or in close enough proximity to provide meaningful data.

Archaeological Sensitivity Area J (South Interbay Segment)

Archaeological sensitivity area J is at the southeast and southwest corners of 15th Avenue Northwest and West Dravus Street, northeast of the Interbay Golf Center.

The 1905 Sanborn Fire Insurance Map depicts three residences and four outbuildings. The majority of the area is an active roadway; however, there is a small planting strip adjacent to

15th Avenue that appears intact. LiDAR imagery indicated substantial cut and fill in the area. According to the LiDAR imagery, the small planting strip has been filled. Archaeological deposits associated with the residences and outbuildings, or related refuse deposits may be beneath fill deposits. There are currently no geotechnical boreholes planned that would shed light on archaeological deposits that might be associated with these properties.

Archaeological Sensitivity Area L (South Interbay Segment)

Archaeological sensitivity area L is at the northeast corner of West Newton Street and 15th Avenue West just north of the Magnolia Bridge.

The 1905 Sanborn Fire Insurance Map depicts two residences on a single lot. The entire area is currently a paved parking lot. LiDAR imagery does not indicate any substantial disturbance. Archaeological deposits associated with one or more of the residences or related refuse deposits may be present below the parking lot. There is a single geotechnical borehole currently proposed immediately south of the archaeological sensitivity area (IB2022) that could provide valuable information on the integrity of possible archaeological deposits.

Archaeological Sensitivity Area M (South Interbay Segment)

Archaeological sensitivity area M is east of Elliott Avenue West just south of West Galer Street, adjacent to the Southwest Queen Anne Greenbelt.

The 1905 Sanborn Fire Insurance Map depicts one residence and a cabin. LiDAR and modern imagery indicate a portion of the area has been developed. A portion of the area is currently a paved parking lot. Archaeological deposits associated with the residence or cabin, or related refuse deposits may be present below the parking lot. There are no geotechnical boreholes currently proposed within the archaeological sensitivity area; however, IB2003 and IB2005 are nearby and could provide some depositional information on the integrity of possible archaeological deposits.

Archaeological Sensitivity Area N (South Interbay Segment)

Archaeological sensitivity area N is east of Elliott Avenue West just north of West Prospect Street, adjacent to the southern end of the Southwest Queen Anne Greenbelt.

The 1905 Sanborn Fire Insurance Map depicts lodgings and a warehouse with at least three outbuildings. There is also a notation on the map that a platform was on pilings and that the buildings and structures were within tide flats in 1905. LiDAR and modern imagery indicate a portion of the area has been developed. The majority of the area is an active roadway; however, the portion where the lodging building is depicted on the Sanborn Fire Insurance Map is currently a paved parking lot. Archaeological deposits associated with one or more of the lodgings, the warehouse, outbuildings, or related refuse deposits may be present below the parking lot. There are no geotechnical boreholes currently proposed within the archaeological sensitivity area; however, IB2001, DT2239, and DT2240 are nearby and could provide some depositional information on the integrity of possible archaeological deposits.

Archaeological Sensitivity Area P (South Interbay Segment)

Archaeological sensitivity area P is off 3rd Avenue West between West Republican and West Mercer streets.

Both the 1893 and 1905 Sanborn Fire Insurance Maps depict one residence and an outbuilding at this location. LiDAR and modern imagery indicate a portion of the area has been developed. The majority of the area is currently a paved parking lot. Archaeological deposits associated

with the residence, outbuilding, or related refuse deposits may be present below the parking lot. A single geotechnical borehole immediately adjacent (DT2219) is proposed that may provide some useful information on the archaeological potential of this sensitivity area.

Archaeological Sensitivity Area Q (South Interbay Segment)

Archaeological sensitivity area Q is north of West Republican Street off 2nd Avenue West, at the 517 2nd Avenue West (Seattle Fire Fighters Union, Local 27 Building).

The 1893 Sanborn Fire Insurance Map depicts two residences and two outbuildings. LiDAR and modern imagery indicate a portion of the area has been developed. The majority of the area is developed; however, a small portion is a paved parking area lot. Archaeological deposits associated with one or more of the residences, outbuildings, or related refuse deposits may be present below the parking lot. One geotechnical borehole DT2215 is currently planned in the near vicinity of the archaeological sensitivity area but will not likely provide any data regarding archaeological context.

Archaeological Sensitivity Area PP (South Interbay Segment)

Archaeological sensitivity area PP is at 1501 Elliott Avenue West, near the east end of the Magnolia Bridge.

The 1905 Sanborn Fire Insurance Map shows several buildings associated with the Great Northern Hotel. The area is presently an auto repair store with large paved areas and a small shop. LiDAR imagery indicates previous fill episodes within the area. Archaeological deposits associated with the hotel and refuse deposits may be present below the paved areas. There is a single geotechnical borehole (IB2008) planned within the boundary of this area that might provide insight into the archaeological potential of the area.

Archaeological Sensitivity Area A (Interbay/Ballard Segment)

Archaeological sensitivity area A is at the northeast corner of 15th Avenue Northwest and Northwest Market Street, north of Salmon Bay.

The 1905 Sanborn Fire Insurance Map depicts at least two residences and two outbuildings, and a portion of a third residence within the area. These were replaced by a large commercial building was constructed in early 2019. It is still possible that archaeological deposits associated with one or more of the residences, outbuildings, or related refuse deposits are present. No geotechnical boreholes are currently planned in the immediate vicinity of the archaeological sensitivity area.

Archaeological Sensitivity Area B (Interbay/Ballard Segment)

Archaeological sensitivity area B is at the northeast corner of 15th Avenue Northwest and Northwest 52nd Street, north of Salmon Bay.

The 1905 Sanborn Fire Insurance Map depicts five residences and one outbuilding in this area. A portion of the area is currently a paved parking lot. LiDAR imagery does not indicate any substantial disturbance. Archaeological deposits associated with one or more of the residences, the outbuilding, or related refuse deposits may be present below the parking lot. One geotechnical borehole (IB2094) is currently planned within the arbitrary boundaries of the archaeological sensitivity area.

Archaeological Sensitivity Area C (Interbay/Ballard Segment)

Archaeological sensitivity area C is at the southeast corner of 15th Avenue Northwest and Northwest Market Street, north of Salmon Bay.

The 1905 Sanborn Fire Insurance Map depicts three residences and two outbuildings in this area. Over half of the area is currently a paved parking lot. LiDAR imagery does not indicate any substantial disturbance. Archaeological deposits associated with one or more of the residences, outbuildings, or related refuse deposits may be present below the parking lot. One geotechnical borehole IB2098 is currently planned in the immediate vicinity of the archaeological sensitivity area.

Archaeological Sensitivity Area D (Interbay/Ballard Segment)

Archaeological sensitivity area D is at the northern end of the new Ballard line, archaeological sensitivity area D is at the southeastern corner of the intersection of 15th Avenue Northwest and Northwest 51st Street.

The 1905 Sanborn Fire Insurance Map depicts one residence and one outbuilding, and the side yard of a second residence is also included within the area. The entire area is currently a paved parking lot. LiDAR imagery does not indicate any substantial disturbance. Archaeological deposits associated with one or more of the residences, the outbuilding, or related refuse deposits may be present below the parking lot. There are no geotechnical boreholes proposed in the vicinity of this area to provide meaningful data on subsurface integrity.

Archaeological Sensitivity Area E (Interbay/Ballard Segment)

Archaeological sensitivity area E encompasses most of the block between Northwest 50th and Northwest 49th streets.

The 1905 Sanborn Fire Insurance Map identifies two residences and two outbuildings on individual two lots. The entire area is currently a paved parking lot. LiDAR imagery does not indicate any substantial disturbance. Archaeological deposits associated with one or more of the residences, outbuildings, or related refuse deposits may be present below the parking lot. One proposed geotechnical borehole at the southern edge of the block (IB2089) could provide useful data on the archaeological integrity of the area.

Archaeological Sensitivity Area F (Interbay/Ballard Segment)

Archaeological sensitivity area F is west of 14th Avenue Northwest between Northwest 49th Street and Northwest Leary Way, north of Salmon Bay.

The 1905 Sanborn Fire Insurance Map depicts two residences and four outbuildings, and the side yard from a third residence is also included within the area. The entire area is currently a paved parking lot associated with an automotive wrecking yard. LiDAR imagery does not indicate any substantial disturbance. Archaeological deposits associated with one or more of the residences, outbuildings, or related refuse deposits may be present below the parking lot. While there are no geotechnical boreholes proposed within the boundary of the archaeological sensitivity area, IB2087 and IB2088 may provide information on the archaeological viability of the area.

Archaeological Sensitivity Area G (Interbay/Ballard Segment)

Archaeological sensitivity area G is west of 14th Avenue Northwest between Northwest Leary Way and Northwest Ballard Way, north of Salmon Bay.

The 1905 Sanborn Fire Insurance Map identifies the Black Diamond Print and Shingle Company facility, including warehouses, drying racks, storage, and a furnace at this location. The majority of the area is currently a paved parking lot. LiDAR imagery does not indicate any substantial disturbance. Archaeological deposits associated with activity areas affiliated with the Black Diamond Print and Shingle Company may be present below the parking lot. While there are no geotechnical boreholes proposed within the boundary of the archaeological sensitivity area, geotechnical borehole IB2087 (within 50 feet of the archaeological sensitivity area boundary) may provide information on the potential for archaeological remains of the area.

Archaeological Sensitivity Area I (Interbay/Ballard Segment)

Archaeological sensitivity area I falls within the larger, previous described archaeological sensitivity area H on the northern edge of Salmon Bay.

The 1905 Sanborn Fire Insurance Map indicate that the Ballard Lumber Company Sawmill operated at this location. Approximately half of the area is currently a paved parking lot. LiDAR imagery does not indicate any substantial disturbance. Archaeological deposits associated with activity areas affiliated with the Ballard Lumber Company may be present below the parking lot. Data from geotechnical boreholes IB2078 and IB2080 will be used to evaluate the archaeological potential of the area.

Archaeological Sensitivity Area NN (Interbay/Ballard Segment)

Archaeological sensitivity area NN is at the northernmost extent of the corridor alignment, to the west of 15th Avenue Northwest between Northwest 54th Street and Northwest Market Street.

The 1905 Sanborn Fire Insurance Map depicts buildings associated with residences. The area is presently a shop and a paved parking lot. Archaeological deposits associated with the residences may be present below the parking lot. There are no geotechnical boreholes currently proposed within this archaeological sensitivity area or in close enough proximity to provide meaningful data.

Archaeological Sensitivity Area OO (Interbay/Ballard Segment)

Archaeological sensitivity area OO is at the northernmost extent of the corridor alignment, at the southeast corner of 15th Avenue Northwest and Northwest 54th Street.

The 1905 Sanborn Fire Insurance Map depicts buildings associated with residences. The area is presently a shop and a paved parking lot. Archaeological deposits associated with the residences may be present below the parking lot. There are no geotechnical boreholes currently proposed within this archaeological sensitivity area or in close enough proximity to provide meaningful data.

9 FIELD INVESTIGATION RESULTS

Section 9 presents the results of the archaeological and built environment investigation for the project to date. The archaeological field investigation will be phased to coordinate with property acquisition and project construction; however, results of archaeological monitoring of boreholes are included below. The identification and evaluation of the archaeological resources presented in this section and subsequent sections are based predominantly on elements introduced in previous sections that serve to develop a detailed context of the area of potential effects for each extension.

Over 1,300 resources were evaluated and documented as part of the historic built environment resource survey. A full list of surveyed resources is included in Attachment N.5A, Table of Surveyed Properties. A detailed historic context covering geographic and thematic patterns of development within the area of potential effects is presented in Attachment N.5C1.

Because of the large number of properties within the area of potential effects, copies of Historic Property Inventory forms are not included as an attachment to this report. Rather, readers are advised to review properties in the Washington State Department of Archaeology and Historic Preservation's WISAARD system. The [website](https://dahp.wa.gov/historic-preservation/find-a-historic-place), along with instructions on how to use the database, is here: <https://dahp.wa.gov/historic-preservation/find-a-historic-place>. WISAARD identification numbers for each property are provided in the overview tables in Sections 9 and 10.

To determine whether historic built environment resources are eligible for listing in the National Register, Sound Transit applied the criteria for evaluation, as documented in *National Park Service Bulletin 15: How to Apply the National Register Criteria for Evaluation* (National Park Service 1997).

According to the bulletin:

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.

FTA and Sound Transit continue to consult with the State Historic Preservation Officer on National Register eligibility of properties within the area of potential effects. On November 9, 2021, the State Historic Preservation Officer provided concurrence on FTA's determinations of National Register eligibility for all but 26 properties; FTA and Sound Transit continue to consult on those properties. In addition, FTA and Sound Transit continue to consult with the State Historic Preservation Officer about potential National Register eligibility within the expanded area of potential effects that includes the temporary relocation of the King County Metro trolley line in the Chinatown-International District Segment and the relocation of a 230-kilovolt power line in the Duwamish Segment.

Specific properties that the State Historic Preservation Officer did not concur on National Register eligibility are the subject of continued consultation and can be identified in Attachments N.5A and Attachment N.5F.

The results of each Link extension's survey are described in Sections 9.1.3, Archaeological Assessment of Alternatives for West Seattle Link Extension, and 9.2.3, Archaeological Evaluation of Alternatives for the Ballard Link Extension. A list of all surveyed historic built environment resources is provided in Attachment N.5A. Unless noted as "pending consultation," the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

9.1 West Seattle Link Extension

As presented in Section 7, Archaeological Records Search, there are currently four previously identified archaeological sites (45KI529, 45KI530, 45KI688, and 45KI1353) known to exist within the West Seattle Link Extension portion of the area of potential effects; all of these are within the Duwamish Segment of that extension. Three of those sites (45KI529, 45KI530, and 45KI688) have been archaeologically investigated and have been determined to be not eligible for listing in the National Register.

9.1.1 Archaeological Field Survey

As of February 2021, no archaeological field survey has been completed within the West Seattle Link Extension portion of the area of potential effects. Archaeological field investigation to date has consisted solely of archaeological monitoring of geotechnical boring activities that are being conducted in support of project design. Plans have been submitted to the FTA to conduct archaeological investigations near 45KI1353 in the near future.

9.1.2 Geotechnical Monitoring

Geotechnical investigations are ongoing to support the preliminary design of the WSBLE Project. Geotechnical borings to support the Draft Environmental Impact Statement began in July 2018 and concluded in 2021. Archaeological monitoring of select geotechnical boreholes was conducted to identify potential buried cultural resources. The selection of individual boreholes for archaeological monitoring was based on proximal location to known archaeologically sensitive areas or where there were indicators of potential archaeological sensitivity based on vertical stratigraphy and existing landforms.

Of the 131 boreholes completed to date, 48 were archaeologically monitored. Sixteen of these monitored boreholes occurred within the West Seattle Link Extension. No archaeological material was observed during monitoring of the boreholes completed prior to publication of the Draft Environmental Impact Statement.

Archaeological monitoring of the geotechnical boreholes for the West Seattle Link generally confirmed presumptions of the geological and morphological profile. Historical-period refuse from numerous tidal "fill" events was limited, with modern artifacts being identified in only a few boreholes. Historical-period refuse generally was not found beyond 15 feet below ground surface. Several holes exhibited dredge spoils, with depths generally not extending beyond 20 feet. Deeper than 20 feet throughout the area, soils representing tidal deposits associated with the Duwamish delta were ubiquitous.

Two geotechnical boreholes that fall within Area JJ (DS2024 and DS2083) may be drilled during a future project phase. Completed borehole DS2023, located to the west of Area JJ, lies at the base of the slope that forms Pigeon Point and returned no insightful archaeological or geomorphological data.

9.1.3 Archaeological Assessment of Alternatives for West Seattle Link Extension

9.1.3.1 SODO Segment

Archaeological Sites

Because there are no previously identified archaeological sites within the SODO Segment, the following comments are germane to all of the alternatives within this segment equally. All of the SODO Segment alternatives fall within a zone defined by the WISAARD predictive model as “survey highly advised: very high risk” for archaeological resources. A single geotechnical borehole (DS2065) has been archaeologically monitored in the SODO Segment with no archaeological materials being identified.

Archaeological Sensitivity Areas

There were no archaeological sensitivity areas identified during the development of the model that fall within the SODO Segment.

Historically, the area as far north as Jackson Street, beyond Spokane Street to the south, and as far east as the present alignment of Interstate 5, was a tidal area subject to daily exposure and inundation. While this type of landform was generally used by precontact populations for resource procurement and may contain archaeological evidence of precontact activity, the types of activities performed in these settings generally left sparse and ephemeral archaeological remains. Due to the seasonality of tidal rise, predicting the location of precontact features (such as weirs, nets, and basketry) within this area is difficult.

Conversely, this entire previously tidal area has been filled and leveled off after the late nineteenth century. As was demonstrated in the discussion of archaeological site 45KI765 (see Section 7.1.2.1), the “fill” used to transform these tidal areas often came in the form of historical-period refuse. The archaeological expectation for all of the alternatives in the SODO Segment is that they would expose vast quantities of historical-period materials that were secondarily deposited as fill.

9.1.3.2 Duwamish Segment

Archaeological Sites

Four known archaeological sites have been previously identified within the Duwamish Segment of the West Seattle Link Extension. The easternmost archaeological site, 45KI688, represents a thick deposit of historical-period refuse identified as the Seattle Industrial District Dump (see Section 7.1.1, West Seattle Link Extension Archaeological Records Search Results). Any impacts to the resource within the known boundaries of the site would not constitute an adverse effect to the resource because it is not a historic property.

Archaeological sites 45KI529 and 45KI530, although separated by more than 400 meters (approximately 1,200 feet), likely represent a single, repeatedly utilized deposit of materials associated with both the Jackson Street Regrade as well as miscellaneous spoils from dredging projects associated the Duwamish Waterway. Because the extent of both 45KI529 and 45KI530, has not been delineated, it is likely that additional historical-period materials would be

identified during construction activities of any of the alternatives. While both archaeological sites have been determined to be not eligible for listing in the National Register, this attribution cannot be extended to potential deposits that are nearby but not currently included within the known site boundaries.

Archaeological site 45KI1353, to the west of the Duwamish Waterway, represents a potential precontact midden deposit first identified in 1985 (see Section 7.1.1). At present, the site has not been evaluated for its eligibility for listing in the National Register. An additional field survey is presently planned to investigate an area north of the mapped site boundary to further determine the horizontal limits of the site. However, following accepted professional practice in the state, unevaluated archaeological sites should be considered eligible for planning purposes until determined otherwise.

The entire Duwamish Segment has been characterized by the WISAARD predictive model as “survey highly advised: very high risk” for archaeological resources. As of this writing, 11 geotechnical boreholes (BH-09, BH-12, BH-17, DS2016, DS2022, DS2023, DS2030, DS2036, DS2047, DS2058, and DS2089) have been archaeologically monitored throughout the Duwamish Segment. One geotechnical borehole, DS2025, is planned for excavation prior to the Final Environmental Impact Statement. Generally, sediment profiles observed in the geotechnical boreholes throughout this segment identified modern fill and dredge deposits overlying Duwamish tidal deposits. No archaeological material was observed in any of the boreholes.

Archaeological Sensitivity Areas

Archaeological sensitivity areas KK, II, and JJ (see Section 8.3.2.1) all fall within the Duwamish Segment. Area KK is a known ethnographic location that could have been the location of a lookout, stockade, or defensive point during precontact or even ethnohistoric times.

Archaeological sensitivity area II (see Section 8.3.2.1) is on the east side of the Duwamish Waterway. The single geotechnical borehole that falls within the boundary of area II (DS2034) may be excavated in a future project phase. Archaeological sensitivity area JJ (see Section 8.3.2.1) on the west side of the Duwamish Waterway covers two identified, precontact archaeological sites (45KI1353 and 45KI52) and should be considered highly sensitive. Both of the geotechnical boreholes that fall within sensitivity area JJ (DS2024 and DS2083) have not yet been excavated and may be drilled in a later project phase. Information from the one geotechnical bore in the vicinity of Area JJ (DS2023) provided no useful archaeological or geomorphological information.

When evaluating landform considerations, like the SODO Segment, much of the Duwamish Segment can be characterized historically as tidelands until the late nineteenth century. Precontact use of the area would have been seasonal, based upon the resource, and evidence of that use ephemeral. The predictability for finding archaeological evidence of in situ precontact occupation or use as low. However, nearer the Duwamish River channel, the likelihood of precontact archaeological remains increases. The identification of 45KI1353 is evidence of the high probability of the archaeological sensitivity of the Duwamish Waterway area.

Similar to the SODO Segment, by the turn of the twentieth century much of the tidal basin had begun to be filled with dredge spoils and historical-period refuse (see description for 45KI529 and 45KI530) to create a more stable landform. This would be likely be pervasive throughout most of the Duwamish Segment.

9.1.3.3 Delridge Segment

Archaeological Sites

Because there are no previously identified archaeological sites within the Delridge Segment, the following comments are germane to all of the alternatives within this segment equally. All of the Delridge Segment alternatives fall within a zone defined by the WISAARD predictive model as “survey highly advised: very high risk” for archaeological resources. It should be mentioned, however, that no cultural resources studies have been completed within the Delridge Segment.

Two geotechnical boreholes (DS2001 and DS2004) have been archaeologically monitored in the Delridge Segment with no archaeological materials being observed. No archaeological sensitivity areas were identified within the Delridge Segment.

Based on this analysis and factors influencing settlement, deposition, and disturbance of archaeological sites, the Delridge Segment more likely has a low to moderate probability of containing precontact archaeological deposits. The likelihood of encountering historical-period archaeological remains is considered high.

9.1.3.4 West Seattle Junction Segment

Archaeological Sites

The West Seattle Junction Segment contains no previously identified archaeological sites and the following comments are germane to all of the alternatives within this segment. All of the West Seattle Junction Segment alternatives fall within zones defined by the WISAARD predictive model as “survey highly advised: very high risk” or “survey highly advised: high risk” for archaeological resources. It should be mentioned, however, that there are no cultural resources studies recorded within the West Seattle Junction Segment.

To date, no geotechnical boreholes have been archaeologically monitored in the West Seattle Junction Segment. There are no archaeological sensitivity areas within the West Seattle Junction Segment.

The upland nature of the West Seattle Junction Segment, the high level of urban development, and the lack of previous cultural resources investigations or known archaeological sites in this area makes predicting the location of precontact archaeological remains very difficult. The likelihood of encountering historical-period archaeological remains should be considered high.

9.1.4 Historic Built Environment Resource Survey

To identify potential historic properties within the West Seattle Link Extension area of potential effects, a historic built environment resources field survey was conducted in between 2018 and 2021. Historic Property Inventory forms for each property are available on WISAARD, project number 2019-02-01457.⁵ The historic built environment resource survey identified over 75 resources within the West Seattle Link Extension that have been determined eligible for listing in

⁵ Previous versions of this report provided a different WISAARD project number, 2018-08-06480. Please refer to the new project number, 2019-02-01457, for the most current project information.

the National Register. Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with all determinations of National Register eligibility.⁶

Several historic built environment resources within the area of potential effects have been previously evaluated and either determined eligible or not eligible, are designated Seattle landmarks, or are listed in the National Register. These previously identified historic built environment resources are clearly identified in this section and associated tables, maps, and photographs.

For all segments, properties listed or eligible for listing in the National Register as well as designated Seattle landmarks are summarized in tables within the following sections, and photographs of each property are included in Attachment N.5B, Photographs of Historic Properties.

There are no previously identified National Register-eligible or -listed historic districts within the West Seattle Link Extension. However, two National Register-eligible historic districts—the Spokane Street Manufacturing Historic District and the Pacific Coast Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District—were identified as part of this investigation. WISAARD does not have a mechanism for recording district-level information; therefore, the eligible historic district descriptions are not provided in the sections below (in the Duwamish Segment) in which they are both located.

All National Register-listed or eligible resources, including districts, would also meet Seattle landmark eligibility criteria. There are no National Register-listed resources within the West Seattle Link Extension area of potential effects. There may be resources that do not meet the National Register age criteria, but meet Seattle’s Landmark Ordinance criteria within the West Seattle Link Extension area of potential effects. Sound Transit would identify these resources during final design.

The West Seattle Link Extension contains one linear resource, the Seattle and Walla Walla Railroad/Puget Sound Shore Railroad Company/Seattle, Lake Shore and Eastern, which is within the Duwamish Segment as well as segments in the Ballard Link Extension (see Section 9.2.4, Historic Built Environment Resource Survey, for additional information). The Seattle and Walla Walla Railroad line is a 15-mile-long standard gauge track of several railroads that eventually became the Northern Pacific Railway Mainline from Tacoma and north to Sumas. It was determined eligible for listing in the National Register in 2017 under Criterion A, as shown in Table 9-1.

9.1.4.1 Historic Utilities

As described in Draft Environmental Impact Statement Section 4.2.15, Utilities, the area of potential effects includes several utilities, including water, sanitary sewer, storm sewer, electrical power, natural gas, telephone and communications infrastructure, and petroleum product pipelines. Many of these utilities were constructed in or before 1980. Because of the large number of these resources, which occur throughout the city, they have not been identified and documented as part of the Draft Environmental Impact Statement. However, prior to final design, after the Sound Transit Board selects the project to be built and in consultation with the State Historic Preservation Officer and other consulting parties, historic utilities within the area of potential effects will be identified, documented, and evaluated for potential adverse effect.

⁶ FTA continues to consult with the State Historic Preservation Officer about National Register eligibility of historic-age resources within the area of potential effects; therefore, this information is subject to change.

Table 9-1. Linear Historic Properties in the West Seattle Link Extension Area of Potential Effects

Photo Number	Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
WSLin-1	LIN-2	708606	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	Eligible (Criterion A)

Note: Property names correspond with the resource names documented on the Historic Property Inventory forms prepared for the Department of Archaeology and Historic Preservation. Property names typically reflect historic names of businesses or individuals that occupied the building in the past.

^a Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

9.1.4.2 SODO Segment

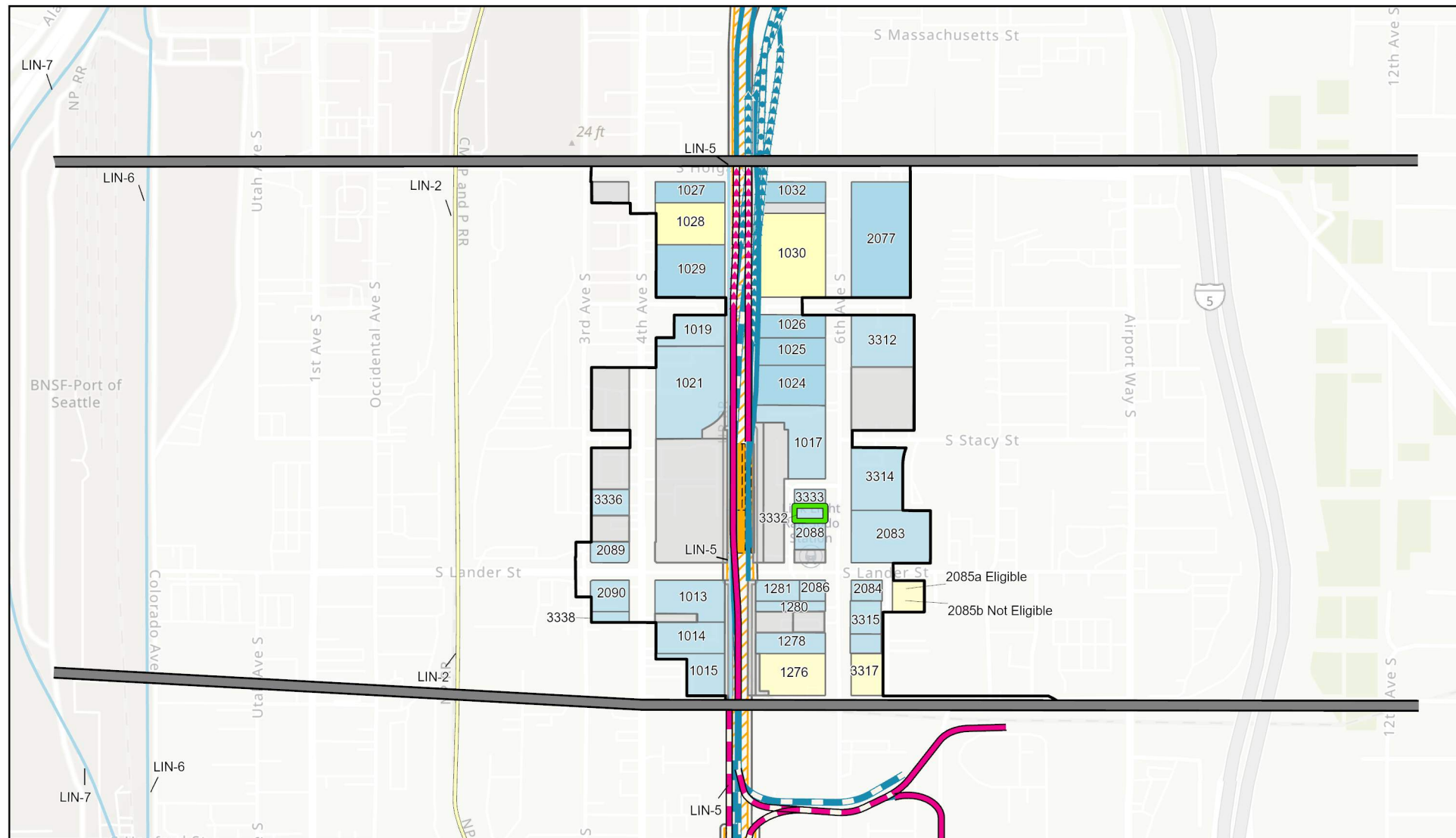
The SODO Segment includes the area between approximately South Holgate Street and South Forest Street in the SODO neighborhood. The built environment in this segment is generally characterized by low-rise industrial and commercial buildings and warehouses.

The SODO Segment does not contain any National Register-listed or designated Seattle landmark resources. Table 9-2 lists the five resources that were determined eligible for listing in the National Register as a result of field investigations for this project. Figure 9-1 shows the location of the historic properties within this segment, and photos of all historic properties in every segment are provided in Attachment N.5B.

Historic Districts

Unlike any other neighborhood in the area of potential effects, the building stock in the SODO Segment is characterized almost entirely as industrial. A small percentage of buildings within the area of potential effect boundaries in the SODO Segment were built between 1910 and 1930, but the majority were built after World War II. Despite this shared association, when examined as a neighborhood-wide potential district, the buildings lack a cohesive aesthetic or historical significance. Research did not reveal one unifying industry or company that dominated the neighborhood at any given period of time, nor did surveys reveal a unifying style or type of building throughout the larger neighborhood. Much of the building stock has also undergone alterations during recent years, and modern infill has replaced older buildings throughout the neighborhood.

After evaluating the historic built environment resources in the area of potential effects within the SODO Segment, no potential historic districts were identified in the SODO Segment.



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

Alternatives

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

Alternative Profile

- Elevated
- At-Grade
- Tunnel
- Retained Cut

Station

- New

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

National Register Eligibility Status

- Eligible
- Not Eligible
- Constructed after 1980 or Vacant
- Pending Consultation

FIGURE 9-1
National Register Eligibility Status
 West Seattle and Ballard Link Extensions
 SODO Segment

*West Seattle and
 Ballard Link Extensions*



Table 9-2. Historic Properties in the SODO Segment, West Seattle Link Extension

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
1028	342325	Lincoln Moving & Storage, Alaska Orient Van Lines Building	1924 4th Avenue South	1966	Eligible (Criterion C)
1030 ^b	720609	Graybar Electric Company Building	1919 6th Avenue South	1960	Eligible (Criterion C)
1276	720594	Platt Electric Supply Co.	2757 6th Avenue South	1970	Eligible (Criterion C)
2085a	343198	Mill & Mine Supply Co. Building and Warehouse	625 South Lander Street	1953	Eligible (Criteria A and C)
3317	721855	Northwest Wire Works	2752 6th Avenue South	1947	Eligible (Criteria A and C)

Note: Property names correspond with the resource names documented on the Historic Property Inventory forms prepared for the Department of Archaeology and Historic Preservation. Property names typically reflect historic names of businesses or individuals that occupied the building in the past.

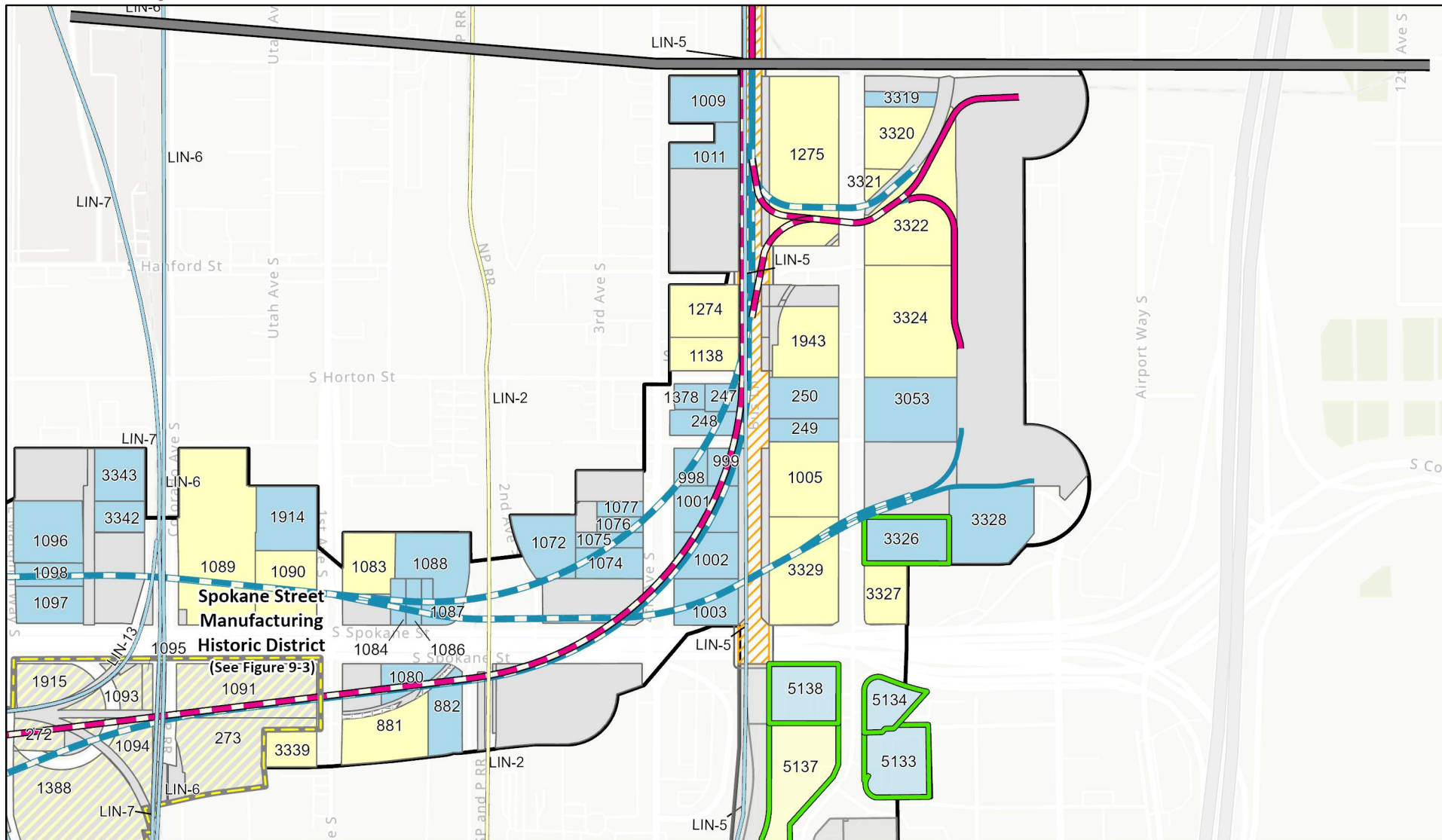
^a Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

^b Note that this building is evaluated in both the West Seattle Link Extension and Ballard Link Extension SODO segments because it is on the border of both segments.

9.1.4.3 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. In the SODO neighborhood, the built environment in this segment is characterized by one- to three-story industrial and commercial buildings and warehouses. On Harbor Island and along the Duwamish Waterway, the built environment is generally characterized by large waterfront industrial warehouses, railroad properties, and bridges, including the Northern Pacific Railway Bridge (LIN-12), a designated Seattle landmark which is also eligible for listing in the National Register. The built environment in a small portion of the Delridge neighborhood in this segment is generally characterized by single-family residences, with some waterfront industrial properties along the west bank of the Duwamish Waterway.

The Duwamish Segment contains two designated Seattle landmarks (one of which is also a determined National Register-eligible resource). The segment also contains two National Register-eligible historic districts, the Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District and the Spokane Street Manufacturing Historic District. The Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District contains five contributing resources, and the Spokane Street Manufacturing Historic District contains 19 contributing resources, 5 of which are also individually eligible for listing in the National Register. In addition, 31 resources within this segment were determined individually eligible for listing in the National Register as a result of field investigations for this project. See Table 9-3 for a full list of historic properties in this segment. Figures 9-2a to 9-2c show the location of the historic properties within this segment, and photos of all historic properties in every segment are provided in Attachment N.5B.



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

Alternatives

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

Alternative Profile

- Elevated
- At-Grade
- Tunnel
- Retained Cut

Station

- New

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

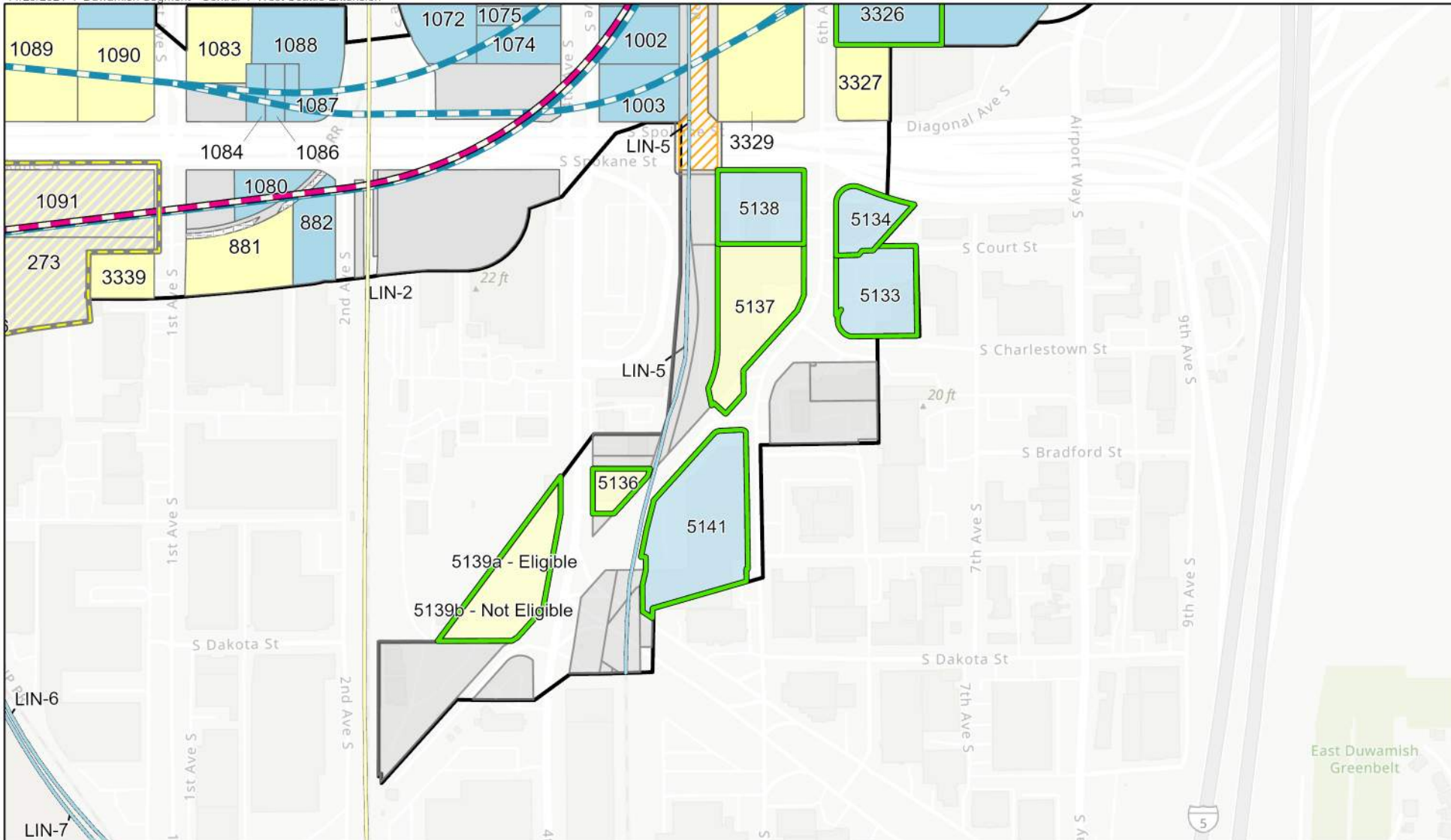
National Register Eligibility Status

- Eligible
- Not Eligible
- Constructed after 1980 or Vacant
- Eligible Historic District Boundary
- Pending Consultation

FIGURE 9-2a
National Register Eligibility Status
West Seattle Link Extension -
Duwamish Segment (East)

*West Seattle and
Ballard Link Extensions*





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

Alternatives

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

Alternative Profile

- Elevated
- Tunnel
- At-Grade
- Retained Cut

Station

- New

- Segment Line
- Area of Potential Effects
- Parcel
- Park

National Register Eligibility Status

- Eligible
- Not Eligible
- Constructed after 1980 or Undeveloped
- Eligible Historic District Boundary
- Pending Consultation

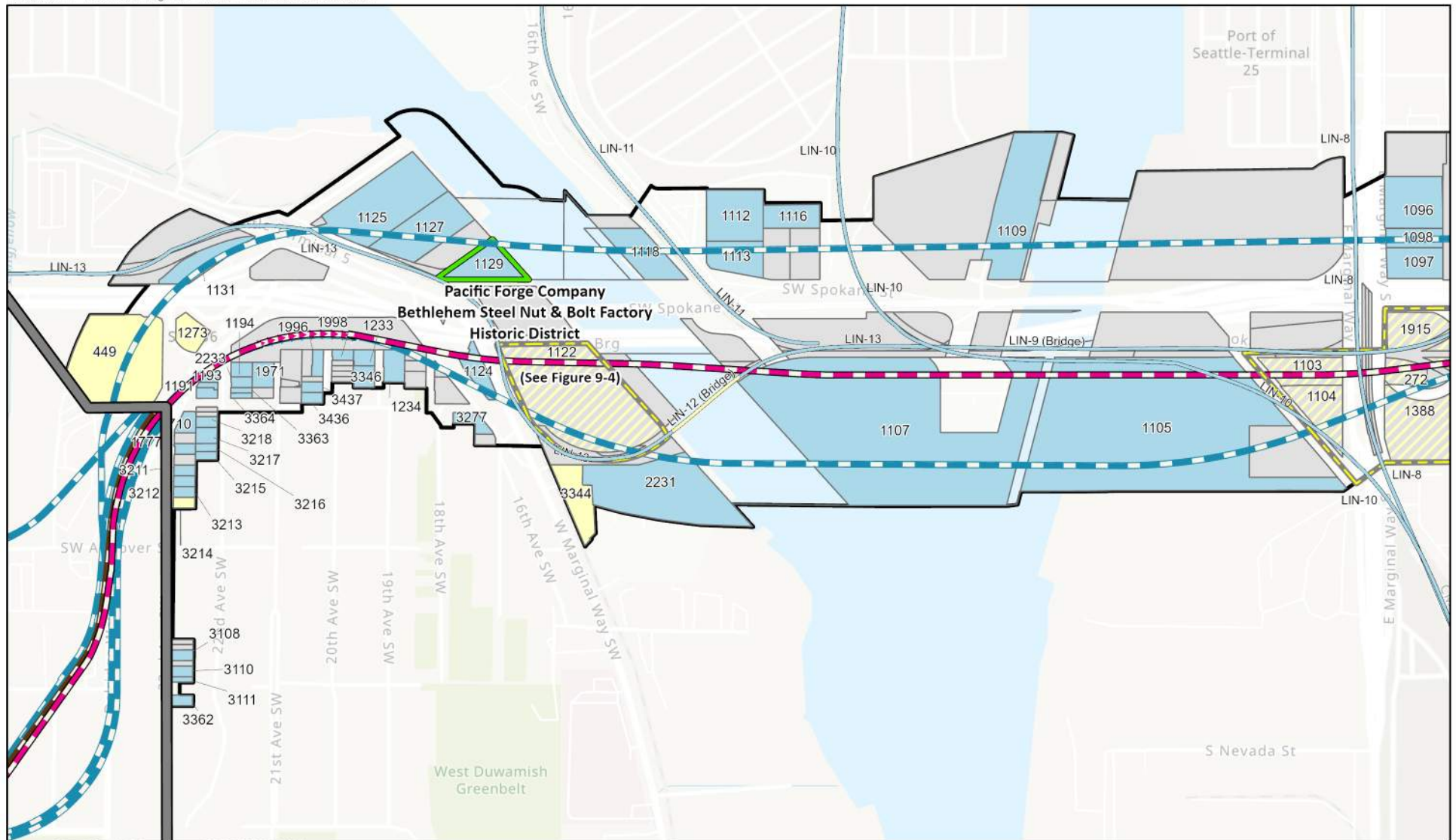
FIGURE 9-2b

National Register Eligibility Status West Seattle Link Extension - Duwamish Segment (Central)

West Seattle and
Ballard Link Extensions

0 375 750 1,500 Feet





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

Alternatives

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

Alternative Profile

- Elevated
- Tunnel
- At-Grade
- Retained Cut

Station

- New

- Segment Line
- Area of Potential Effects
- Parcel
- Park

National Register Eligibility Status

- Eligible
- Not Eligible
- Constructed after 1980 or Vacant
- Eligible Historic District Boundary
- Pending Consultation

FIGURE 9-2c
National Register Eligibility Status
West Seattle Link Extension -
Duwamish Segment (West)

*West Seattle and
Ballard Link Extensions*



Table 9-3. Historic Properties in the Duwamish Segment

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
Not Applicable	Multiple	Spokane Street Manufacturing Historic District	Multiple	1908 to 1968	Eligible Historic District (Criterion A)
272	342293	Edwards Ice Machine Co./Eagle Metals Co.	3628 East Marginal Way South	1924	Contributes to Spokane Street Manufacturing Historic District (Criterion A)
273a	342489	Military Cold Storage Plant/Rainier Market Center	3625 1st Avenue South	1944	Eligible (Criteria A and C), contributes to the Spokane Street Manufacturing Historic District (Criterion A)
273b	720604	Truck Storage Battery Charging Building	3625 1st Avenue South	1944	Eligible (Criterion A), contributes to the Spokane Street Manufacturing Historic District (Criterion A)
881	342274	Seattle Pacific Sales Company Warehouse	3800 1st Avenue South	1968	Eligible (Criterion C)
1005	45159	Link-Belt Company Property	3405 6th Avenue South	1946	Eligible (Criterion C)
1083	718431	Viking Automatic Sprinkler Co.	3434 1st Avenue South	1964	Eligible (Criteria A and C)
1089a	337707	Ehrlich-Harrison Company Industrial Building	60 South Spokane Street	1941	Eligible (Criterion C)
1089b	720508	Ehrlich-Harrison Company Industrial Building	60 South Spokane Street	1941	Eligible (Criterion C)
1090a	720509	Transportation Equipment Rentals Office Building	3443 1st Avenue South	1968	Eligible (Criterion C)
1090b	720510	Transportation Equipment Rentals Maintenance Warehouse	3443 1st Avenue South	1968	Eligible (Criterion C)
1091	344500	The Simmons Company Metal Beds, Springs & Mattress Warehouse	99 South Spokane Street	1929	Contributes to the Spokane Street Manufacturing Historic District (Criterion A)
1093	720482	Nelson Iron Works Blacksmith & Machinist Shop	45 South Spokane Street	1918	Contributes to the Spokane Street Manufacturing Historic District (Criterion A)

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
1094a	720511	Acme Tool Works	3626 East Marginal Way South	1941	Eligible (Criterion A), contributes to the Spokane Street Manufacturing Historic District (Criterion A)
1094b	720513	Lindmark Machine Works	3626 East Marginal Way South	1947	Contributes to the Spokane Street Manufacturing Historic District (Criterion A)
1095	340118	Lindmark Machine Works	49 South Spokane Street	1920	Contributes to the Spokane Street Manufacturing Historic District (Criterion A)
1103a	38527	Air Reduction Company	3623 East Marginal Way South	1916	Contributes to the Spokane Street Manufacturing Historic District (Criterion A)
1103b	720564	Air Reduction Company Carbide Storage Building	3621 East Marginal Way South	1951	Contributes to the Spokane Street Manufacturing Historic District (Criterion A)
1103c	720563	Air Reduction Company Auto Repair Garage	3621 East Marginal Way South	1951	Contributes to the Spokane Street Manufacturing Historic District (Criterion A)
1104a	38525	Puget Sound Sheet Metal Works	3651 East Marginal Way South	1942	Contributes to the Spokane Street Manufacturing Historic District (Criterion A)
1104b	720542	Light Industrial Building	3633 East Marginal Way South	1968	Contributes to the Spokane Street Manufacturing Historic District (Criterion A)
Not Applicable	Multiple	Pacific Forge Company/ Bethlehem Steel Nut and Bolt Factory Historic District	3800 West Marginal Way Southwest	1917-1968	Eligible Historic District (Criteria A and C)
1122a	721620	Pacific Forge Company/ Bethlehem Steel Nut and Bolt Factory Office	3800 West Marginal Way Southwest	1968	Contributes to the Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District (Criteria A and C)
1122b	721624	Pacific Forge Company/ Bethlehem Steel Nut and Bolt Factory Pacific Coast Forge Building	3800 West Marginal Way Southwest	1917	Contributes to the Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District (Criteria A and C)

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
1122c	721625	Pacific Forge Company/ Bethlehem Steel Nut and Bolt Factory North Warehouse	3800 West Marginal Way Southwest	1968	Contributes to the Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District (Criteria A and C)
1122d	721628	Pacific Forge Company/ Bethlehem Steel Nut and Bolt Factory South Warehouse	3800 West Marginal Way Southwest	1948	Contributes to the Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District (Criteria A and C)
1122e	721629	Pacific Forge Company/ Bethlehem Steel Nut and Bolt Factory East Warehouse	3800 West Marginal Way Southwest	1968	Contributes to the Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District (Criteria A and C)
1138	45086	Fire Station 14	3224 4th Avenue South	1922	Eligible, designated Seattle landmark
1273	343706	Seattle Fire Station #36	3600 23rd Avenue Southwest	1972	Eligible (Criteria A and C)
1274	45085	Pacific Hoist and Warehouse Company	3200 4th Avenue South	1931	Eligible (Criterion C)
1275a	342730	Langendorf United Bakeries	2901 6th Avenue South	1952	Eligible (Criteria A and C)
1275b	720593	Langendorf United Bakeries Repair Garage	2901 6th Avenue South	1955	Eligible (Criteria A and C)
1388	38533	A.M. Castle and Company	3640-60 East Marginal Way South	1945	Eligible (Criteria A and C), contributes to the Spokane Street Manufacturing Historic District (Criterion A)
1915	38532	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)
1943	48502	Alaskan Copper and Brass Company	3223 6th Avenue South	1953	Eligible (Criteria A and C)
3214	294616	Single-Family Residence	3842 23rd Avenue Southwest	1914	Eligible (Criterion C)
3320b	722008	NW Motor Parts Corporation Building	2930 6th Avenue South	1951	Eligible (Criterion C)

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
3321	721857	M.J.B Coffee Company Warehouse	2940 6th Avenue South	1954	Eligible (Criteria A and C)
3322a	342997	Alaskan Copper Company Employment Office	2958 6th Avenue South	1941	Eligible (Criterion C)
3322b	721997	Auto Repair Garage	2958 6th Avenue South	1948	Eligible (Criterion A)
3324	340010	Los Angeles-Seattle Motor Express Company	3200 6th Avenue South	1945	Eligible (Criteria A and C)
3327	342709	Scientific Supplies Company	600 South Spokane Street	1954	Eligible (Criterion C)
3329a	86871	Department of Highways District No. 1 Headquarters/ Maintenance Facility - Office/ Administrative Building	450 South Spokane Street	1931	Eligible (Criteria A and C)
3329b	722096	Department of Highways District No. 1 Headquarters/ Maintenance Facility - Maintenance Building	450 South Spokane Street	1931	Eligible (Criteria A and C)
3329c	722098	Department of Highways District No. 1 Headquarters/ Maintenance Facility - Storage Building	450 South Spokane Street	1931	Eligible (Criteria A and C)
3329d	722100	Department of Highways District No. 1 Headquarters/ Maintenance Facility - Car/Paint Building	450 South Spokane Street	1931	Eligible (Criteria A and C)
3329e	722101	Department of Highways District No. 1 Headquarters/ Maintenance Facility - Maintenance Building	450 South Spokane Street	1959	Eligible (Criteria A and C)
3339	342259	Riches & Adams Co./Seattle Opportunities Industrialization Center, Inc.	3627 1st Avenue South	1954	Eligible (Criterion A)

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
3344	344061	General Construction Company Office	3840 West Marginal Way Southwest	1931	Eligible (Criteria A and C)
5136	725824	Air Mac, Inc.	3838 4th Avenue South	1953	Eligible (Criterion C) (pending consultation)
5137	725825	Warehouse and Office Building	3623 6th Avenue South	1961	Eligible (Criterion C) (pending consultation)
5139a	45089	Seattle City Light South Receiving Substation	3839 4th Avenue South	1938	Eligible (Criteria A and C) (pending consultation)
LIN-6	721225	Milwaukee Terminal Railway Company/Chicago, Milwaukee, St. Paul & Pacific Railway-Argo to Stacey Street	Seattle, Washington	1908	Contributes to the Spokane Street Manufacturing Historic District (Criterion A)
LIN-7	720982	Northern Pacific Railway-Argo to Seattle Waterfront	Seattle, Washington	1909	Contributes to the Spokane Street Manufacturing Historic District (Criterion A)
LIN-8	721010	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)
LIN-12	44440	Northern Pacific Railway Bridge over the West Duwamish Waterway	South of Spokane St, near Klickitat Way Southwest	1911	Eligible (Criterion C), designated Seattle landmark
LIN-13	720983	Northern Pacific Railway West Seattle Line	Seattle, Washington	1909	Contributes to the Spokane Street Manufacturing Historic District (Criterion A)

Note: Property names correspond with the resource names documented on the Historic Property Inventory forms prepared for the Department of Archaeology and Historic Preservation. Property names typically reflect historic names of businesses or individuals that occupied the building in the past.

^a Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

Historic Districts

Similar to the SODO Segment, the building stock within the Duwamish Segment is characterized almost entirely as industrial. A small percentage of buildings within the area of potential effect boundaries in the Duwamish Segment were built between 1910 and 1930, but the majority were built after World War II. Despite this shared association, when examined as a neighborhood-wide potential district, the buildings lack a cohesive aesthetic or historical significance. Research did not reveal one unifying industry or company that dominated the neighborhood at any given period of time, nor did surveys reveal a unifying style or type of building throughout the larger neighborhood. Much of the building stock has also undergone alterations during recent years, and modern infill has replaced older buildings throughout the neighborhood.

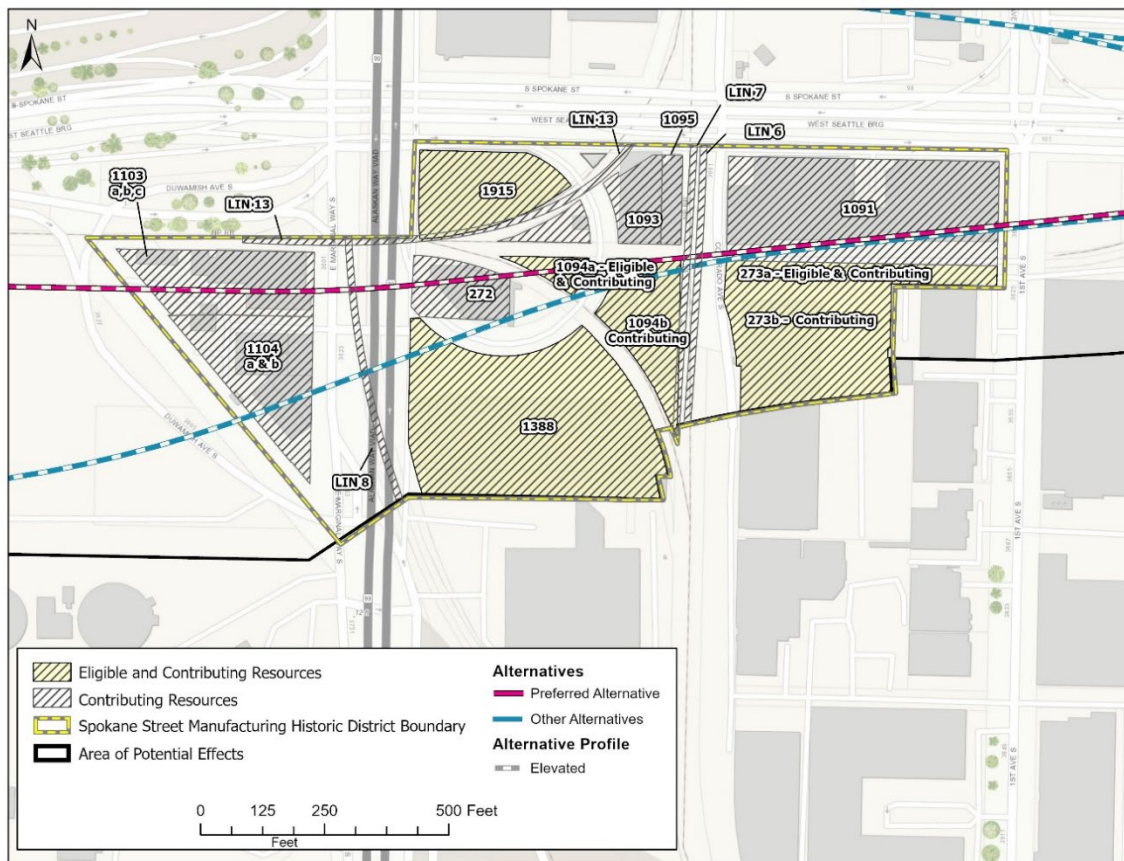
Within this segment are two National Register-eligible historic districts: the Spokane Street Manufacturing Historic District and the Pacific Coast Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District.

Spokane Street Manufacturing Historic District

The Spokane Street Manufacturing Historic District is composed of four railroad segments and a grouping of industrial buildings south of South Spokane Street, roughly between Fourth Avenue South to the east, South Andover Street to the south, and East Marginal Way South to the west (Figure 9-3). The historic district is National Register-eligible under Criterion A for its association with Seattle's industrial manufacturing history, and specifically as representing Seattle's metal manufacturing industry from World War I through and post World War II. The potential historic district consists of four rail segments constructed between 1908 and 1909 as well as both light and heavy industrial warehouses dating from 1918 to 1968 that together represent a significant and distinguishable entity that retains sufficient integrity to convey its direct and important association with the metal manufacturing industry in Seattle from World War I through the period following World War II.

This National Register-eligible historic district retains integrity of location. While some contributing properties have shifted orientation slightly to accommodate new infrastructure, all contributing properties remain generally in their original locations. Similarly for railroad segments, while overall alignments of railroads that pass through the historic district have shifted over time, the segments of track located within the historic district remain generally in their original locations enough to convey the significance they held for the historic district. Integrity of setting, feeling, and association is maintained because the area remains an industrial neighborhood adjacent to the Duwamish Waterway. While some modifications of the individual buildings took place over the years, these improvements were necessary to keep the buildings operational as manufacturing and general industrial buildings, and the collection of buildings retains sufficient integrity of material, design, and workmanship when considered as a district. Therefore, the district retains sufficient overall integrity to convey its significance under Criterion A.

Figure 9-3. Spokane Street Manufacturing Historic District



District Description

The Spokane Street Manufacturing Historic District consists of 15 contributing buildings and 4 railroad segments, roughly bounded by South Spokane Street to the north, South Andover Street to the south, East Marginal Way South to the west, and 1st Avenue South to the east. The railroad segments were constructed between 1908 and 1909, and the buildings were constructed between 1916 and 1968 and represent a variety of industrial styles with varying levels of integrity. All buildings are one to two stories tall and have varying roof profiles, cladding, and window material. Highway 99, its northbound on-ramp, and the various railway tracks bisect the district to the north and south, and the West Seattle Bridge border the district to the north. The district's setting remains highly industrial.

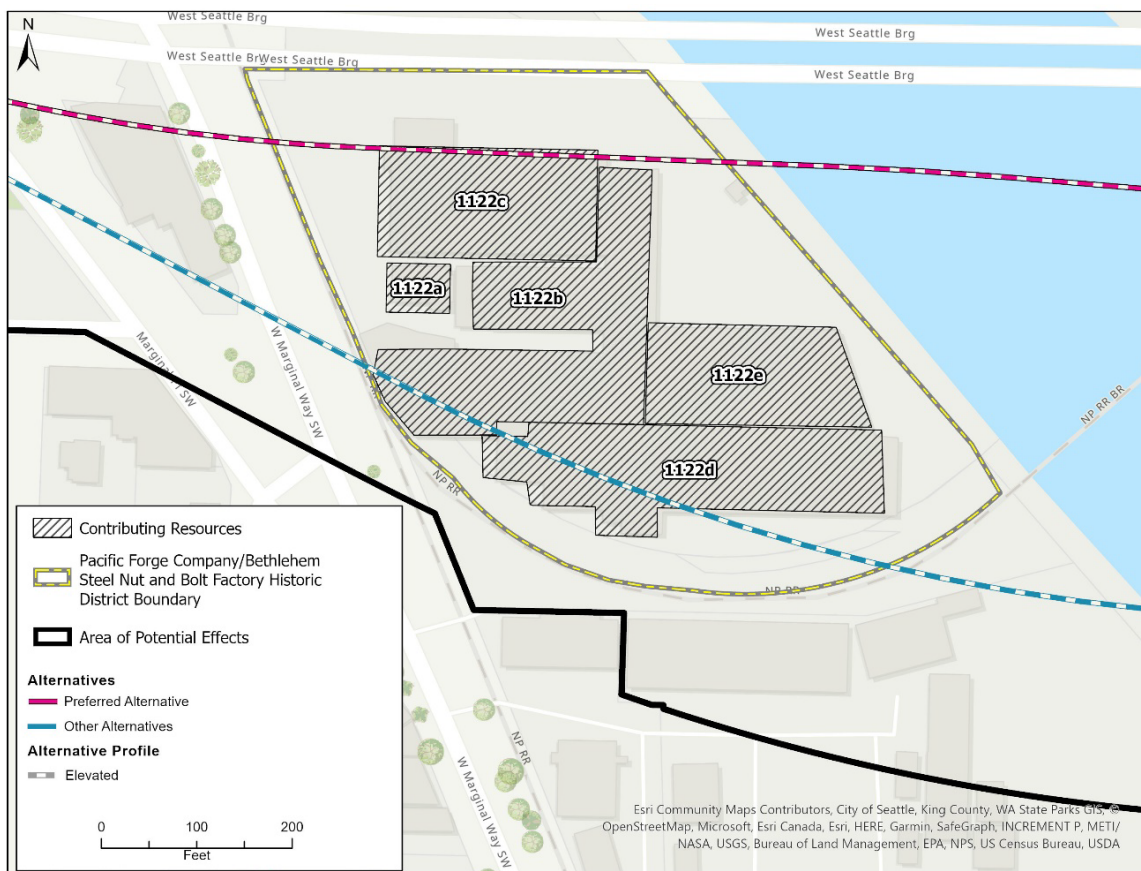
Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District

The Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory complex (Figure 9-4) was evaluated in 2011 and recommended as individually eligible for the National Register as well as contributing to a historic district, although reasons for eligibility were not defined. Upon re-evaluation for this project, the former Pacific Coast Forge Company/Bethlehem Steel Nut and Bolt Factory was determined National Register-eligible under Criterion A for its association with Seattle's steel industry.⁷ Specifically, it represents the critical World War II trend of adapting to

⁷ Sound Transit was not granted access to this property for this evaluation. The analysis was based on previous documentation, views from adjacent properties, archival data, and aerial photographs and maps.

crucial conflict and supply needs such as providing fasteners for naval and other military applications. It also includes the post-war transition to supply homeland civilian and domestic markets. It also meets Criterion C because architecturally, the site consists of utilitarian functional examples of industrial buildings and features that combined represent a significant and distinguishable entity that was the steel industry in Seattle from World War I through the period following World War II.

Figure 9-4. Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District



The property retains integrity of location because it has not been moved. It also retains integrity of design, materials, and workmanship because the buildings and site have undergone minimal changes. Integrity of setting, association, and feeling is maintained because it remains in an industrial area adjacent to West Seattle and the West Seattle Bridge. While the internal forge components have been removed, the exterior of the facility remains similar to its appearance in 1968 when the last of the Bethlehem Steel improvements took place. While some modifications of the individual buildings took place over the years, these improvements were necessary to keep the facility operational as a nut and bolt factory, and the collection of buildings retains sufficient integrity, when considered as a district, for the district to convey its significance under Criteria A and C.

District Description

The 6-acre former Pacific Coast Forge Company/Bethlehem Steel Nut and Bolt Factory property occupies a waterfront site west of the West Duwamish Waterway and east of West Marginal Way Southwest. The northwest portion of the property is adjacent to the West Seattle Bridge

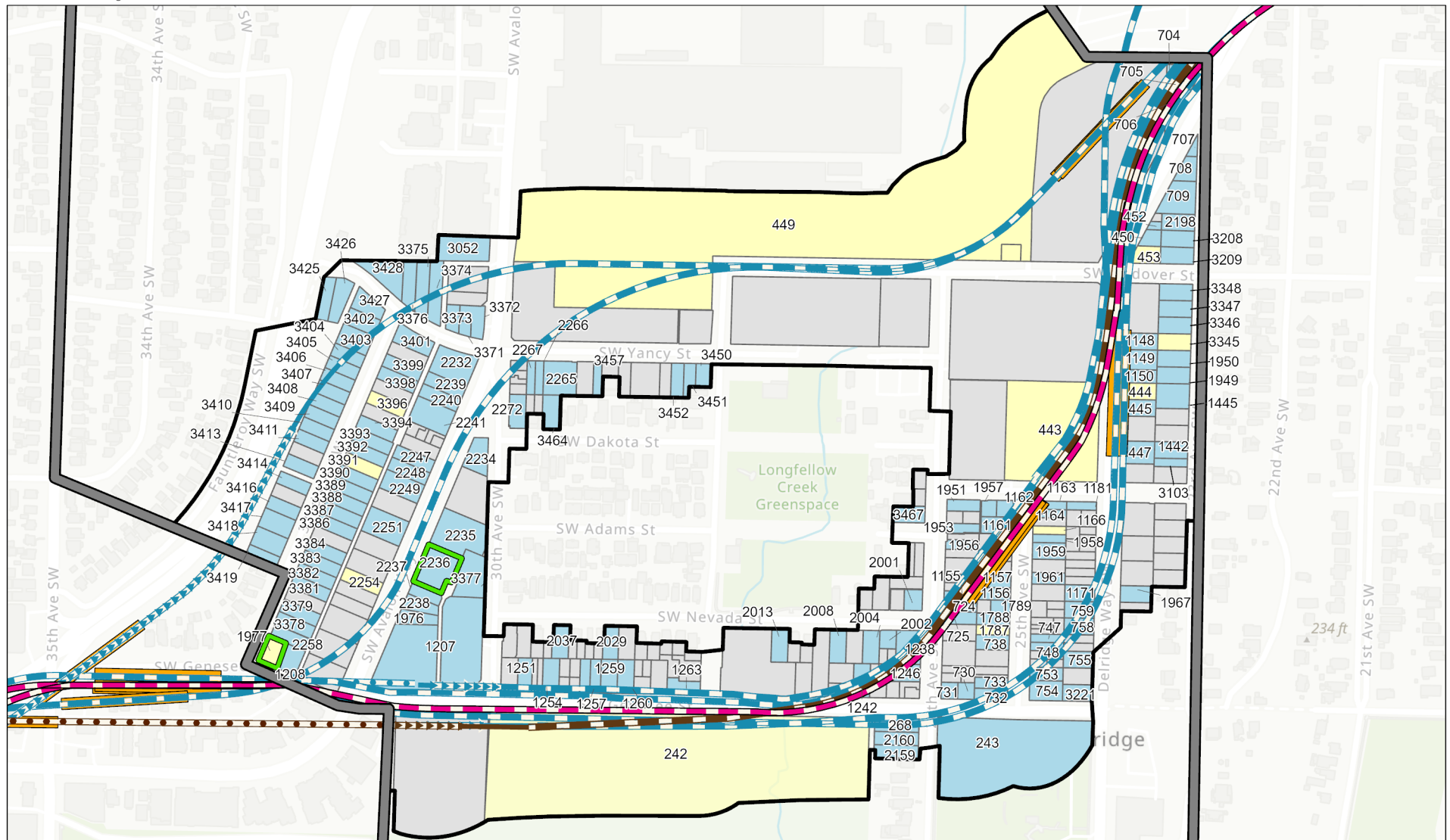
and includes the current “Riverside Mill” buildings, small pier, crane, and an asphalt parking area to the north and south. A rail line abuts the western and southern boundaries of the parcel. The center of the parcel includes large single- and multi-story permanent buildings, most of which are physically connected to each other, with one exception being the main office building. For the purposes of this evaluation, the district is being identified by these five contributing buildings: the Bethlehem Steel Nut and Bolt Factory office building, the original Pacific Forge Company forge building and warehouses, and Bethlehem Steel Warehouses 1, 2, and 3. The subject property is accessible from West Marginal Way Southwest. The crane set near the waterfront appears to have been added to the parcel between 1990 and 2002.

In summary, two National Register-eligible historic districts were identified in the Duwamish Segment as a result of this survey.

9.1.4.4 Delridge Segment

The Delridge Segment includes the area between Southwest Charlestown Street and 31st Avenue Southwest. While the built environment in this segment is generally characterized by a mixture of residential buildings (both single- and multi-family) and neighborhood commercial buildings, the segment also contains the former Seattle Steel Company/Bethlehem Pacific Coast Steel Corporation (now Nucor Steel) site, as well as the National Register-eligible West Seattle Golf Course.

The Delridge Segment does not contain any National Register-listed or designated Seattle landmark resources. Table 9-4 lists all historic properties in this segment, including 12 resources that were determined eligible for listing in the National Register as a result of field investigations for this project. Figure 9-5 shows the location of the historic properties within this segment, and photos of all historic properties in every segment are provided in Attachment N.5B.



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

Alternatives

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

Alternative Profile

- Elevated
- At-Grade
- Tunnel
- Retained Cut

Station

- New

- Segment Line
- Area of Potential Effects
- Parcel
- Park

National Register Eligibility Status

- Eligible
- Not Eligible
- Constructed after 1980 or Vacant
- Pending Consultation

FIGURE 9-5
National Register Eligibility Status
 West Seattle Link Extension -
 Delridge Segment

*West Seattle and
 Ballard Link Extensions*



Table 9-4. Historic Properties in the Delridge Segment

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
242	717063	West Seattle Golf Course	4600 35th Avenue Southwest	1936	Eligible (Criteria A and C)
443	344641	Bethlehem Pacific Coast Steel Company Office Building	4045 Delridge Way Southwest	1960	Eligible (Criteria A and C)
444	721070	Residence	4030 Delridge Way Southwest	1906	Eligible (Criteria A and C)
449	38466	Seattle Steel Company/ Bethlehem Pacific Coast Steel Corporation	2424 Southwest Andover Street	1966	Eligible (Criterion A)
453	47869	Mrachke & Son	3860 to 3864 Delridge Way Southwest	1930	Eligible (Criteria A and C)
1166	376099	Single-Family Craftsman Residence	4108 25th Avenue Southwest	1907	Eligible (Criteria A and C)
1787	721178	Single-Family Residence	4139 25th Avenue Southwest	1909	Eligible (Criterion C)
1977	418305	Contemporary Ranch House	4150 32nd Avenue Southwest	1959	Eligible (Criterion C) (pending consultation)
2254	335189	Kirlow Four-Plex	3074 Southwest Avalon Way	1967	Eligible (Criterion C)
3345	287692	Residence	4017 23rd Avenue Southwest	1907	Eligible (Criteria A and C)
3391	300990	Residence	4044 32nd Avenue Southwest	1925	Eligible (Criterion C)
3396	45978	Cettolin House	4022 32nd Avenue Southwest	1928	Eligible (Criterion C)

Note: Property names correspond with the resource names documented on the Historic Property Inventory forms prepared for the Department of Archaeology and Historic Preservation. Property names typically reflect historic names of businesses or individuals that occupied the building in the past.

^a Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

Historic Districts

During the evaluation of historic-age buildings in the area of potential effects within the Delridge Segment, additional research was warranted in the following areas to determine the potential for an eligible historic district:

- **Bethlehem Pacific Coast Steel Corporation:** The West Seattle Link Extension contains several properties whose history is associated with the Bethlehem Pacific Coast Steel Corporation (now Nucor Steel). Within the Delridge Segment are the former Bethlehem Pacific Coast Steel Mill itself, built circa 1905 (Unique Identification [I.D.] 449); the Bethlehem Pacific Coast Steel Corporation Office Building, built circa 1960 (Unique I.D. 443); the Pacific Coast Forge Company/Bethlehem Steel Nut and Bolt Factory eligible historic district, built circa 1917 to 1968 (Unique I.D. 1122); and the Puget Sound Sheet Metal Works building, built circa 1942 (Unique I.D. 1104a). These properties were considered as part of a potential discontinuous district. A discontinuous district is defined as “two or more definable significant areas separated by nonsignificant areas” (National Park Service 1997). While these properties share an association with the former Bethlehem Pacific Coast Steel Corporation, which is significant for its important place in Seattle’s early twentieth century industrial development, these buildings were all built in different periods of the company’s history and were associated with the company for varying periods of time. Ultimately, it was determined that the buildings lacked a cohesive significance necessary for a discontinuous historic district.
- **West Seattle Golf Course:** The West Seattle Golf Course (including the clubhouse and shop), Camp Long, and the West Seattle Stadium would likely comprise a National Register-eligible historic district under Criterion A. The district would be significant as a collection of recreation-focused Works Progress Administration-era public works. Although said district has not been formally defined, the subject properties have been identified and recorded individually, and future consideration as a district is recommended.
- **Residential areas:** As in all of the segments throughout the area of potential effect, residential areas were considered for their potential as historic districts. The following residential areas warranted additional research:
 - **Single-family residences built circa 1907:** There are 19 single-family residences built circa 1907 within the area of potential effects in the Delridge Segment. These have potential significance in association with the development of a streetcar system in West Seattle. The Seattle Electric Railway system operated from Youngstown through the West Seattle Junction, and when completed in 1907, was responsible for a boom in residential development along its route. Of these 19 residences, 10 are on 25th Avenue Southwest. While this street has the potential for an eligible historic district for its association with the residential development that occurred because of the streetcar system, nearly all of these homes have been significantly altered and can no longer convey their historic significance. As each individual resource has lost integrity, the potential district too does not retain enough integrity to convey its historic significance.
 - **32nd Avenue Southwest between Southwest Genesee Street and Southwest Yancy Street:** This area is characterized by small single-family homes, many of which were built in the late 1910s and into the 1920s. Similarly, 25th Avenue Southwest between Southwest Genesee Street and Southwest Dakota Street is characterized by a handful of single-family homes built circa 1910. While both streets have the potential significance for a concentration of buildings united aesthetically, most of these homes have been significantly altered with modern additions and replacement features. As many of the individual resources have lost integrity, the potential district too does not retain sufficient integrity to convey its historic significance.

In summary, with the exception of the West Seattle Golf Course and associated Works Progress Administration-era resources, no potential historic districts were identified within the Delridge Segment.

9.1.4.5 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. The built environment in this segment is generally characterized by a mixture of residential buildings (single- and multi-family) as well as low-rise neighborhood commercial buildings, particularly near the intersection of Southwest Alaska Street and California Avenue Southwest.

While the West Seattle Junction Segment does not contain any National Register-listed properties, it does contain one designated Seattle landmark. Table 9-5 lists all historic properties in this segment, including 28 resources that were determined eligible for listing in the National Register as a result of field investigations for this project. Figures 9-6a and 9-6b show the location of the historic properties within this segment, and photos of all historic properties in every segment are provided in Attachment N.5B.

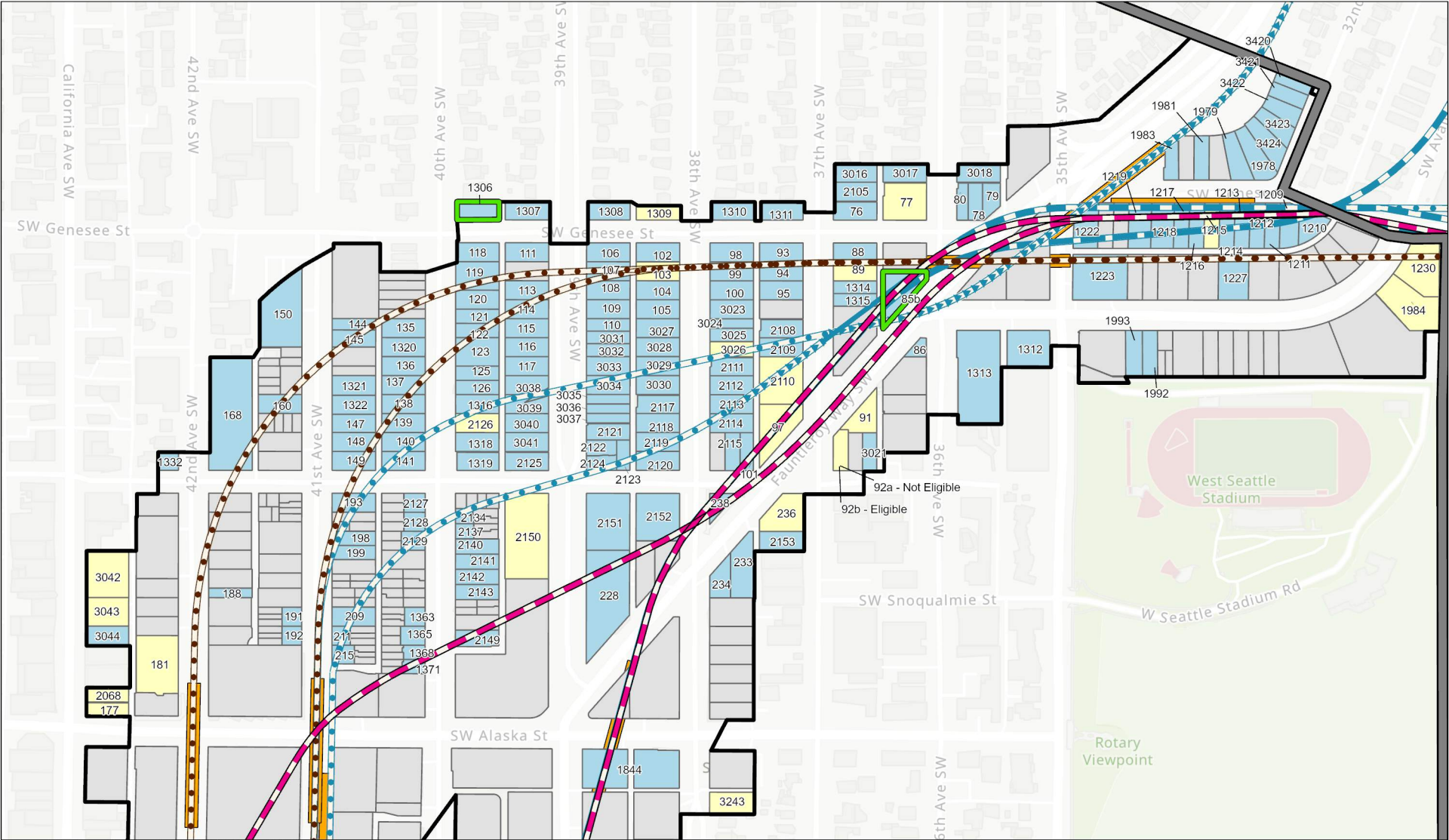
Table 9-5. Historic Properties in the West Seattle Junction Segment

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
77	719318	Limcrest Apartments	3600 Southwest Genesee Street	1956	Eligible (Criterion C)
89	720836	Single-Family Residence	4406 37th Avenue Southwest	1953	Eligible (Criterion C)
91	720871	Carlsen & Winquist Auto	4480 Fauntleroy Way Southwest	1946	Eligible (Criteria A and C)
92b	720875	West Seattle Brake Service	4464 37th Avenue Southwest	1948	Eligible (Criteria A and C)
97	720988	Jim's Shell Service	4457 Fauntleroy Way Southwest	1965	Eligible (Criterion A)
103	420560	Residence	4407 38th Avenue Southwest	1924	Eligible (Criterion C)
177	721552	Campbell Building	4554 California Avenue Southwest	1918	Eligible (Criteria A and C), designated Seattle landmark
181	721486	Alaska House	4545 42nd Avenue Southwest	1979	Eligible (Criterion C)
236	343799	Wardrobe Cleaners	4500 Fauntleroy Way Southwest	1949	Eligible (Criterion C)
239	365276	Craftsman Bungalow	4015 Southwest Hudson Street	1906	Eligible (Criteria A and C)
1215	442141	Contemporary Ranch House	3221 Southwest Genesee Street	1959	Eligible (Criterion C)
1230	338613	Golden Tee Apartments	3201 Southwest Avalon Way	1967	Eligible (Criterion C)

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
1309	303008	Single-Family Residence	4157 38th Avenue Southwest	1956	Eligible (Criterion C)
1984	338612	Golden Tee Apartments	3211 Southwest Avalon Way	1967	Eligible (Criterion C)
2068	679043	Bartell Drugs	4548 California Avenue Southwest	1929	Eligible (Criteria A and C)
2110	334059	Chinook Apartments	4431 37th Avenue Southwest	1959	Eligible (Criterion C)
2126	365104	Residence	4446 40th Avenue Southwest	1908	Eligible (Criterion A)
2150	343495	West Seattle Bowl	4505 39th Avenue Southwest	1948	Eligible (Criterion A)
2217	343979	Venable & Wing Law Office	4826 California Avenue Southwest	1963	Eligible (Criterion C)
2224	721512	Residence	5011 41st Avenue Southwest	1925	Eligible (Criterion C)
2228	278849	Residence	4115 Southwest Hudson Street	1913	Eligible (Criterion C)
3026	654505	Residence	4426 38th Avenue Southwest	1932	Eligible (Criterion C)
3042	721838	J.C. Penney/Russell Building	4520 California Avenue Southwest	1926	Eligible (Criteria A and C)
3043	721839	Marier Foto Studio	4528 California Avenue Southwest	1928	Eligible (Criteria A and C)
3243	722760	Single-Family Residence	4714 38th Avenue Southwest	1939	Eligible (Criterion C)
3250	722762	Single-Family Residence	4755 38th Avenue Southwest	1957	Eligible (Criterion C)
3251a	723076	Apartment Complex	4821 Fauntleroy Way Southwest	1957	Eligible (Criterion C)
3251b	723077	Apartment Complex	4821 Fauntleroy Way Southwest	1957	Eligible (Criterion C)

Note: Property names correspond with the resource names documented on the Historic Property Inventory forms prepared for the Department of Archaeology and Historic Preservation. Property names typically reflect historic names of businesses or individuals that occupied the building in the past.

^a Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with determinations of National Register eligibility.



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

Alternatives

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

Alternative Profile

- Elevated
- Tunnel
- At-Grade
- Retained Cut

Station

- New

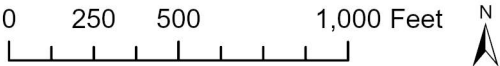
- Segment Line
- Area of Potential Effects
- Parcel
- Park

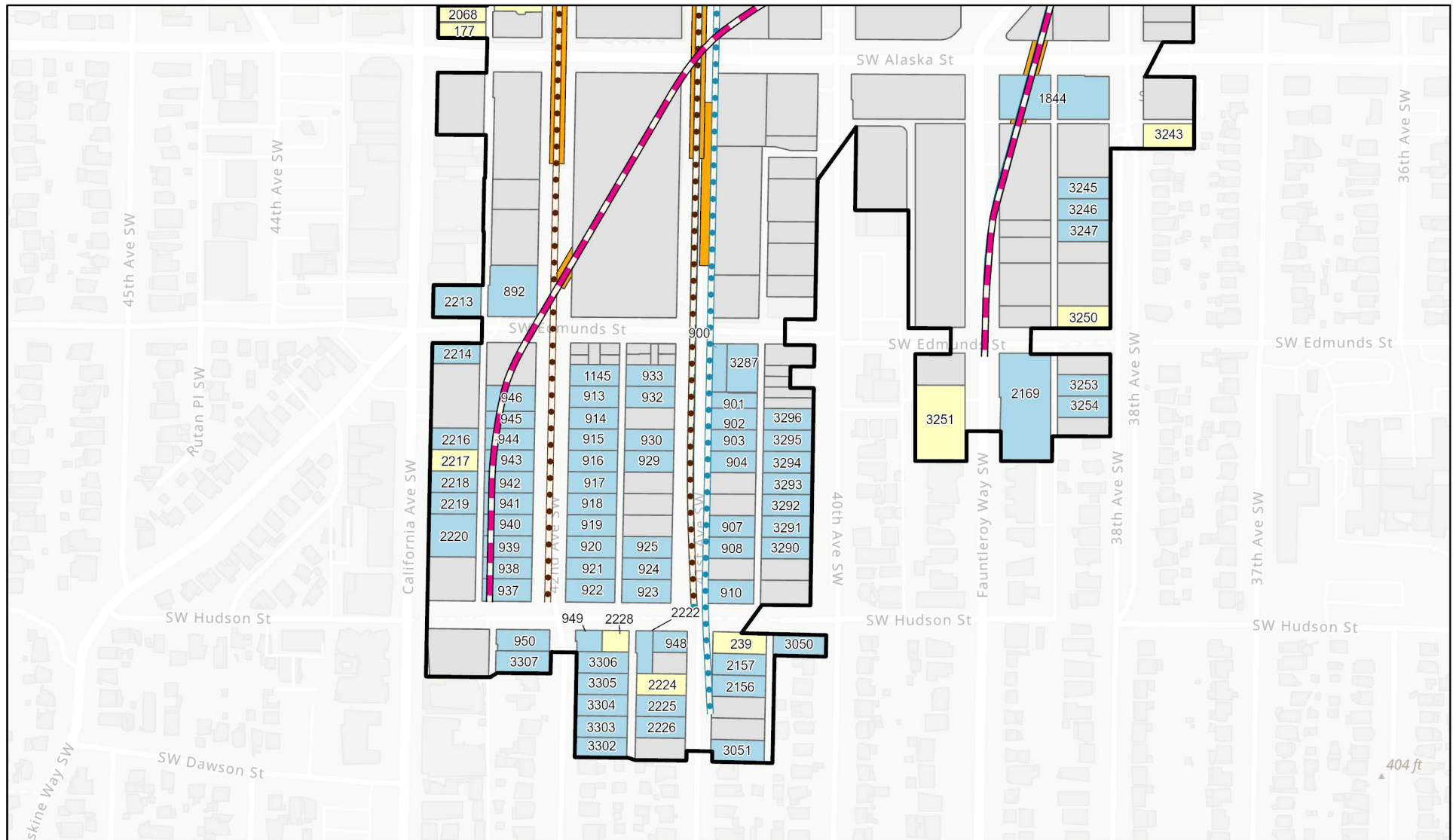
National Register Eligibility Status

- Eligible
- Not Eligible
- Constructed after 1980 or Vacant
- Pending Consultation

FIGURE 9-6a
National Register Eligibility Status
West Seattle Link Extension -
West Seattle Junction Segment (North)

West Seattle and
Ballard Link Extensions





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

Alternatives

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

Alternative Profile

- Elevated
- Tunnel
- At-Grade
- Retained Cut

Station

- New

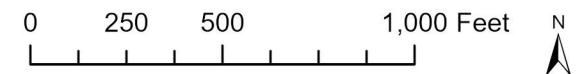
- Segment Line
- Area of Potential Effects
- Parcel
- Park

National Register Eligibility Status

- Eligible
- Not Eligible
- Constructed after 1980 or Vacant

FIGURE 9-6b
National Register Eligibility Status
 West Seattle Link Extension -
 West Seattle Junction Segment (South)

*West Seattle and
 Ballard Link Extensions*



Historic Districts

During the evaluation of historic-age buildings in the area of potential effects within the West Seattle Junction Segment, additional research was warranted in the following areas to determine the potential for an eligible historic district:

- **Residential areas:** As in all of the segments throughout the area of potential effects, residential areas were considered for their potential as historic districts. Research did not reveal any residential street or plat to have a significant association with community planning or development aside from the general development that every residential area experiences. The residential streets in this segment have experienced a lot of recent infill and development, and many older homes have been demolished. Many houses of historic age in this segment have been so altered that any potential district significance for a unified aesthetic no longer retains sufficient integrity to convey any architectural significance.
- **Commercial areas:** There are two primary commercial areas within this segment, both located at the edges of the area of potential effects – one is along Fauntleroy Way Southwest, and the other is at the intersection of Southwest Alaska Street and California Avenue Southwest (known as the Alaska Junction or West Seattle Junction). Commercial properties of historic age along Fauntleroy Way Southwest were built during various periods and have undergone many alterations, and many older buildings have been recently demolished and replaced with modern infill. Ultimately, this area was found to lack a significant association with historical or architectural values that would unify them as a potential district, regardless of integrity. The West Seattle Junction area at Southwest Alaska Street and California Avenue Southwest was surveyed in 2016 as part of the West Seattle Junction Historic Resources Survey, sponsored by the West Seattle Junction Historical Survey Group. While some buildings were found to retain integrity and significance, most have been altered, and a historic district was not proposed in this area.

In summary, no potential historic districts were identified within the West Seattle Junction Segment due to a lack of integrity.

9.2 Ballard Link Extension

As presented in Section 7, there are currently nine previously identified archaeological sites (45KI765, 45KI958, 45KI1027, 45KI1146, 45KI1185, 45KI1223, 45KI1434, 45KI1435, and 45KI1451) known to exist within the Ballard Link Extension. Three of those sites (45KI765, 45KI1027, and 45KI1223) are in the Chinatown-International District Segment. The remaining six sites within the area of potential effects (45KI958, 45KI1146, 45KI1185, 45KI1434, 45KI1435, and 45KI1451) fall within the Downtown Segment.

9.2.1 Archaeological Field Survey

As of February 2021, no archaeological field survey has been completed within the Ballard Link Extension. Archaeological investigation to date has consisted solely of archaeological monitoring of geotechnical boring activities that are being conducted in support of project design.

9.2.2 Geotechnical Monitoring

Geotechnical investigations support the preliminary design efforts for the WSBLE Project. Geotechnical borings to support the Draft Environmental Impact Statement began in July 2018 and concluded in spring 2021. Archaeological monitoring of select geotechnical boreholes was conducted to identify potential buried cultural resources. The selection of individual boreholes for archaeological monitoring was based on proximal location to archaeologically sensitive areas or have indicators of potential for archaeology based on vertical stratigraphy and existing landforms.

Of the 131 boreholes completed to date, 48 were archaeologically monitored. Twenty-eight of these monitored boreholes occurred within the Ballard Link Extension. No archaeological material was observed during monitoring of the boreholes completed prior to the Draft Environmental Impact Statement.

Archaeological monitoring of geotechnical boreholes in the Ballard Link Extension generally confirmed our understanding of the archaeological potential of the area. In the southern portion of the Chinatown-International District Segment, layers of historical-period fill overlaying dredge or Duwamish tidal sediments mirror our geomorphological expectations, much like the SODO and Duwamish Segments of the West Seattle Link Extension. No evidence of cultural use of the area was found. Similarly, borehole data from the northern portion of the Chinatown-International District Segment and all of the Downtown Segment exhibited historical-period fill above clean sediments within 25 to 30 feet of the current ground surface.

Archaeological monitoring of geotechnical boreholes in the South Interbay Segment confirmed the location of the Interbay Landfill, a historically defined archaeological resource located beneath the Interbay Golf Course. As expected, archaeological evidence of the landfill was observed in every borehole cored along the west side of the Interbay Golf Course complex. Within this group of boreholes, geotechnical borehole IB2037, located in the vicinity of archaeological sensitivity area K, identified a 4-foot-thick layer of peat 10 feet beneath the landfill (at approximately 50 feet beneath the current ground surface). The presence of peat soils may indicate precontact cultural activity. Within the Interbay/Ballard Segment, archaeological monitoring of geotechnical boreholes found fill atop relatively shallow deposits of glacial deposits.

9.2.3 Archaeological Evaluation of Alternatives for the Ballard Link Extension

9.2.3.1 SODO Segment

Please refer to the discussion in Section 9.1.3.1, SODO Segment, for the West Seattle Link Extension.

9.2.3.2 Chinatown-International District Segment

Archaeological Sites

There are three archaeological resources (45KI765, 45KI1027, and 45KI1223) recorded in the WISAARD database that fall within the area of potential effects for the Chinatown-International District Segment of the Ballard Link Extension. Most of the Chinatown-International District Segment (with the exception of a small portion along 6th Avenue between Yesler Way and Madison Street) is classified by the WISAARD predictive model as “survey highly advised: very high risk” for archaeological resources.

Archaeological site 45KI765, in the general vicinity of South Dearborn Street and 6th Avenue South, is described as an accumulation of historical-period debris that was presumed to be deposited as tidal fill. It was determined to be not eligible for listing in the National Register in 2008.

The two remaining archaeological sites that have been identified within the area of potential effects for the Chinatown-International District Segment, 45KI1027 and 45KI1223, are both north of Jackson Street. Both sites were completely removed prior to the construction of a new building at the corner of South Jackson Street and 4th Avenue South. Both archaeological sites were determined not eligible for listing in the National Register in 2015.

A total of six geotechnical boreholes (DT2017, DT2018, DT2022, DT2025, DT2031, and DT2064) were archaeologically monitored in this segment. No evidence of archaeological material was observed in any of the boreholes.

Archaeological Sensitivity Areas

Seven archaeological sensitivity areas fall within the Chinatown-International District Segment. One of these areas (HH) represents an area of precontact sensitivity due to its proximity to the historic tidelands of Elliott Bay. All of the remaining archaeological sensitivity areas represent structural remains identified from historical-period maps records. Areas CC, EE, FF, and GG fall within Alternative CID-2a and Option CID-2b. However, because the alignment is in a tunnel in this location, there would be no expectation that these resources would be affected. Likewise, areas AA and BB, just north of Yesler Way, are presumed to be unaffected by any of the alternatives. Geotechnical borehole DT2022 falls within the boundaries of archaeological sensitivity area CC. While fill material with miscellaneous modern or temporally non-diagnostic debris was observed to 12.5 feet below ground surface and dredge materials were observed to approximately 20 feet below ground surface, no archaeological features were observed during monitoring of borehole DT2022.

The southernmost portion of the Chinatown-International District Segment was historically tide flats until perhaps as far north as South Weller Street or even South Jackson Street. Historical-period refuse used as fill material would likely be ubiquitous throughout the area and would likely be encountered on all alternatives.

9.2.3.3 Downtown Segment

The Downtown Segment, beginning in the vicinity of James Street and extending west of Seattle Center, would be completely tunneled through the entire length of the segment and would have only limited ability to affect archaeological resources.

Archaeological Sites

There are six previously recorded archaeological sites within the Downtown Segment area of potential effects, 45KI1434, 45KI1435, 45KI1185, 45KI1146, 45KI1451, and 45KI958. The southernmost archaeological sites, 45KI1434 and 45KI1435, represent under-street tunnels extending under James Street and 4th Avenue just north of James Street, respectively. Both resources could potentially be affected by construction-related (e.g., staging) activities associated with Preferred Alternative DT-1. However, it is presumed that the portion of these sites that extended into the potential construction staging area were likely removed during demolition of that property.

Archaeological sites 45KI958 and 45KI1146 are on the north and south of Harrison Street, respectively, in the vicinity of the north portal of the State Route 99 tunnel. Both sites were completely removed for the construction of the north portal for the State Route 99 tunnel.

Archaeological site 45KI1451 was identified in 2019 on the east half of the block north of Roy Street between Dexter Avenue North and 8th Avenue North and represented the remains of a known Seattle city dump location. The site has been completely or nearly-completely removed for commercial development of the parcel. The site was officially determined to be not eligible for listing in the National Register by the State Historic Preservation Officer. While within the area of potential effects for the project, were this site to remain, it would not be affected by any of the alternatives.

Finally, archaeological site 45KI1185 is between West Mercer Street and West Republican Street on Queen Anne Avenue North. Because elements of the counterbalance mechanism likely extend beyond the currently mapped site boundaries (north of West Mercer Street and south of West Republican Street) all Downtown Segment alternatives would potentially affect the archaeological site. At present, the site has not been evaluated for its eligibility for listing in the National Register.

Five geotechnical boreholes (DT2101, DT2121, DT2132, DT2196, and DT2199) were archaeologically monitored. No evidence of archaeological or cultural material was observed in any of the boreholes.

Archaeological Sensitivity Areas

Eight archaeological sensitivity areas (R, T, U, W, X, Y, LL, and MM) were identified within the Downtown Segment with all but one representing historical-period archaeological concerns. With the entirety of this segment being tunneled, construction risks are associated with station access or cut-and-cover station construction only.

Midtown and Westlake stations are expected to be mined construction (constructed from in the tunnel with minimal surface disturbance), while the northernmost three stations, Denny, South Lake Union, and Seattle Center, are expected to be constructed using cut-and-cover techniques. Although construction would primarily be confined to street right-of-way, construction of these stations, along with the preparation and use of staging, storage, and stockpiling areas would have the greatest likelihood of encountering archaeological resources. Almost the entire Downtown Segment is classified by the WISAARD predictive model as “survey highly advised: very high risk” for archaeological resources. Historical-period archaeological features and sites are likely present throughout the segment. During precontact times, the area at the south end of Lake Union was identified by Waterman as both a prairie and the ethnographic location of a transportation corridor that connected the south end of Lake Union to Elliott Bay (Waterman 1920). While the area is now heavily urbanized, there remains the potential for precontact features from Denny Way through at least the Seattle Center area.

9.2.3.4 South Interbay Segment

Archaeological Sites

There are no previously identified archaeological sites within the area of potential effects for the South Interbay Segment. Nearly 100 percent of the segment falls within a zone defined by the WISAARD predictive model as “survey highly advised: very high risk” for archaeological resources. A total of 13 geotechnical boreholes (DT2233, DT2235, IB2001, IB2005, IB2020, IB2033, IB2034, IB2036, IB2037, IB2038, IB2039, IB2040, and IB2042) have been archaeologically monitored in the South Interbay Segment.

Archaeological Sensitivity Areas

Eight archaeological sensitivity areas have been identified in the South Interbay Segment (K, L, M, N, O, P, Q, and PP) that represent historical-period resources. The largest known historical-period site that has not yet been recorded is the Interbay Landfill. Started in 1911, this resource has never been recorded as an archaeological site and would likely be affected by any of the new alternatives. Sites of this type are very infrequently determined to be eligible for listing in the National Register.

Two precontact archaeological sensitivity areas (K and O) were identified in the area, one at the northwest end of the Interbay Golf Center and one in Kinnear Park. Sensitivity area K represents the ethnographically identified location of *Sila'qwotsid*, which translates to “talking” or “mouth along the side.” Archaeological investigations conducted in 1913 indicated a once extensive native occupation of the area (Thrush 2009). Contemporaneous or subsequent to that early excavation, the City of Seattle constructed a landfill in that location, likely burying any vestige of the precontact resource. Three geotechnical boreholes excavated along the western boundary of the now Interbay Golf Center were monitored to determine if any remnant of the precontact resource remains under the capped landfill. Geotechnical boreholes IB2037, IB2038, and IB2039 were monitored but revealed no remnant of the precontact resource. Landfill materials were observed up to 50 feet deep in IB2038. Peat deposits were observed in geotechnical borehole IB2037 (south of the boundary of sensitivity area K), but no additional indicators of cultural association were observed.

Although not currently identified as an archaeological resource, the Interbay Landfill would be affected by all alternatives. The Interbay Athletic Complex and Interbay Golf Center is constructed atop the Interbay Landfill, originally known as “Sanitary Fill No. 2,” established in April 1911. Established under City Ordinance 15095, the landfill occupied, at a minimum, all of the acreage that now comprises the Interbay Athletic Complex and Golf Center. Based on its age alone, the Interbay Landfill represents a historic property and was evaluated as an archaeological resource for its eligibility for listing on the National Register.

Geotechnical borehole IB2001 was monitored in the vicinity of sensitivity area N in the Southwest Queen Anne Greenbelt. Understood to be the location of early twentieth-century historic warehouses and associated structures, geotechnical borehole IB2001 was monitored to identify any remnant resources. No cultural resources were identified in the borehole.

Geotechnical borehole DT2235 was monitored within the boundary of archaeological sensitivity area O. This area represents the ethnographically identified location of *T³E'kEp*, an ethnographic place name that translates to “an aerial net for snaring ducks” or “aerial duck net”. Historical-period fill above Esperance sands provided no information on any precontact use of the area.

The lack of previously identified archaeological sites in this segment could be because no cultural resources surveys to date have been undertaken in this area. Because much of this area has been heavily developed since the beginning of the twentieth century, the expectation that historical-period materials would be identified during construction associated with all alternatives should also be considered high.

9.2.3.5 Interbay/Ballard Segment

Archaeological Sites

Because there are no recorded archaeological sites within the area of potential effects for the Interbay/Ballard Segment, the following comments are germane to all of the alternatives within this segment. All of the Interbay/Ballard Segment alternatives south of Salmon Bay fall within a

zone defined by the WISAARD predictive model as “survey highly advised: very high risk” for archaeological resources. On the north side of Salmon Bay, the predictive model downgrades its recommendation to “survey highly advised: high risk”. To date, four geotechnical boreholes (IB2055, IB2060, IB2078, and IB2099) have been archaeologically monitored and no archaeological materials were identified.

Archaeological Sensitivity Areas

Twelve archaeological sensitivity areas were identified within the Interbay/Ballard Segment. Only one of the areas denotes a possible ethnographic/precontact potential resource, designated as area H, which spans all of the alternatives along the north shore of Salmon Bay. All of the remaining areas represent historical-period structures that may or may not manifest archaeologically. One geotechnical borehole was archaeologically monitored in the area of sensitivity area H. Located near shore on the north side of Salmon Bay, borehole IB2078 exhibited no evidence of cultural modification or archaeological resources.

Historically, the area in the near proximity to Salmon Bay is considered archaeologically sensitive for precontact archaeological materials. Prior to being a component of the Lake Washington Ship Canal (completed in 1911), this waterway was an important component in precontact lifeways, cited repeatedly in Waterman (1920) with reference to locations of ethnographic importance. While the canal construction has obscured the original waterway, the area most certainly hosted precontact activities and retains a high potential for encountering archaeological materials.

The early historical development of the Ballard area suggests a high likelihood that historical-period archaeological remains are present throughout the area. There is a very high probability that all of alternatives would uncover historical-period archaeological resources during construction.

9.2.4 Historic Built Environment Resource Survey

To identify potential historic properties within the Ballard Link Extension area of potential effects, a historic built environment resources field survey was conducted in between 2018 and 2021. Historic Property Inventory forms for each property are available on WISAARD, project number 2019-02-01457.⁸ The historic built environment resource survey identified over 230 resources within the Ballard Link Extension that have been determined eligible for listing in the National Register. Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with all determinations of National Register eligibility.⁹

Several historic built environment resources within the area of potential effects have been previously evaluated and either determined eligible or not eligible; are designated Seattle landmarks; or are listed in the National Register. These previously-identified historic built environment resources are identified in this section and associated tables, maps, and photographs.

⁸ Previous versions of this report provided a different WISAARD project number, 2018-08-06480. Please refer to the new project number, 2019-02-01457, for the most current project information.

⁹ FTA continues to consult with the State Historic Preservation Officer about National Register eligibility of historic-age resources within the area of potential effects; therefore, this information is subject to change.

For all segments, properties listed or eligible for listing in the National Register, as well as designated Seattle landmarks, are summarized in tables within the following sections, and photographs of each property are included in Attachment N.5B.

The Ballard Link Extension contains the National Register-listed Pioneer Square-Skid Road and the Seattle Chinatown Historic Districts. Two newly identified National Register-eligible historic districts were identified during the cultural resources investigation: Fishermen's Terminal and 14th Avenue West Group.

For all segments, properties listed or eligible for listing in the National Register, as well as designated Seattle landmarks, are summarized in tables within the following sections, and photographs of each property are included in Attachment N.5B. Several historic built environment resources within the area of potential effects have been previously evaluated and either determined eligible or not eligible; are designated Seattle landmarks; or are listed in the National Register. These previously-identified historic built environment resources are clearly identified in this section and associated tables, maps, and photographs.

WISAARD does not have a mechanism for recording district-level information; therefore, the eligible historic district descriptions are not provided in the sections below in the segments in which they are located.

All National Register-listed or eligible resources, including districts, would also meet Seattle landmark eligibility criteria. Note that Sound Transit and the FTA continue to consult with the State Historic Preservation Officer about National Register-eligibility of historic built environment resources within the area of potential effects; therefore, this information is subject to change.

The Ballard Link Extension area of potential effects contains two National Register-eligible linear resources that span one or more segments (Table 9-6). They include the Seattle and Montana Railway/Great Northern Railway Seattle to Everett Mainline Milepost 0 to 4.9 (LIN-3), and the 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 (LIN-2). Both are within the Chinatown-International District, Downtown, South Interbay, and Interbay/Ballard segments.

The Seattle and Montana Railway line is a 4.9-mile-long standard gauge mainline of the Great Northern Railway from Seattle to Everett that was determined eligible by the State Historic Preservation Officer in 2017 under National Register Criterion A as a transcontinental system linear resource district. The current area of potential effects includes this linear resource and so this segment from Downtown Seattle (King Street Station) to Interbay (approximately south of West Emerson Place overpass) has been added to the linear resource district as an eligible contributing segment. The Seattle and Walla Walla Railroad is also included in the West Seattle Link Extension and was described in Section 9.1.4.

Table 9-6. Linear Historic Properties in the Ballard Link Extension Area of Potential Effects

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
LIN-3	720984	Seattle and Montana Railway/Great Northern Railway Seattle to Everett Mainline Milepost 0 To 4.9	Ballard to SODO, milepost 0.0 to 4.9	1890	Eligible (Criterion A)
LIN-2	708606	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	Eligible (Criterion A)

Note: Property names correspond with the resource names documented on the Historic Property Inventory forms prepared for the Department of Archaeology and Historic Preservation. Property names typically reflect historic names of businesses or individuals that occupied the building in the past.

^a Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

9.2.4.1 Historic Utilities

Section 9.1.4.1 provides a discussion of historic utilities for the West Seattle Link Extension; that discussion is applicable to the Ballard Link Extension as well.

9.2.4.2 SODO Segment

The SODO Segment was described in Section 9.1.4.2 for the West Seattle Link Extension. The two historic properties within this segment are also found within the West Seattle Link Extension, SODO Segment, shown in Table 9-7. Figure 9-1 in Section 9.1.4.2 shows the location of the historic properties within this segment, and photos of all historic properties in every segment are provided in Attachment N.5B.

Table 9-7. Historic Properties in the SODO Segment, Ballard Link Extension

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
1028	342325	Lincoln Moving & Storage, Alaska Orient Van Lines Building	1924 4th Avenue South	1966	Eligible (Criterion C)
1030	720609	Graybar Electric Company Building	1919 6th Avenue South	1960	Eligible (Criterion C)

Note: Property names correspond with the resource names documented on the Historic Property Inventory forms prepared for the Department of Archaeology and Historic Preservation. Property names typically reflect historic names of businesses or individuals that occupied the building in the past.

^a Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

Historic Districts

After evaluating historic built environment resources in the area of potential effects within the SODO Segment, no potential historic districts were identified in the SODO Segment. See the historic district discussion in the West Seattle Link Extension, SODO Segment for more detail on the identification and evaluation of potential for historic districts in SODO.

9.2.4.3 Chinatown-International District Segment

The Chinatown-International District Segment would include the area from South Holgate Street to James Street, spanning the northern portion of the SODO neighborhood to the southern tip of Downtown Seattle. This segment contains two of Seattle's National Register-listed historic districts (Pioneer Square-Skid Road National Historic District and Seattle Chinatown Historic District). Both are also designated Seattle landmark districts—the Pioneer Square Preservation District and the International Special Review District—whose boundaries are similar, but not identical, to their associated National Register-listed districts.

The built environment in the SODO neighborhood is generally characterized by low-rise industrial and commercial buildings and warehouses. The built environment in both the Pioneer Square-Skid Road and Seattle Chinatown Historic Districts is generally characterized by low- to mid-rise mixed-use masonry buildings, and the built environment of the Downtown Seattle core is generally characterized by office towers and mixed-use high-rises.

There are 11 contributing resources to the Pioneer Square-Skid Road National Historic District and 22 contributing resources to the Seattle Chinatown Historic District within the area of potential effects. In addition to the two National Register-listed historic districts, the Chinatown-International District Segment contains four individually National Register-listed resources. Sixteen resources within this segment were determined eligible for listing in the National Register as a result of field investigations for this project.

In addition to the two Seattle landmark districts, two individual Seattle landmarks are located within this segment: Old Main School at 307 6th Avenue South and the Chinese Community Bulletin Board, located on the Hudson/Louisa Hotel.

Table 9-8 lists all historic properties and designated landmarks in this segment, and Figures 9-7a to 9-7d show the location of the historic properties within this segment, and photos of all historic properties in every segment are provided in Attachment N.5B.

Some of the buildings within this segment contain areaways. Areaways are belowground spaces within street rights-of-way, enclosed by the sidewalks above and by building foundations and street supports on either side. Areaways located in a National Register-listed historic district or attached to a National Register-listed building are considered historic properties, even though they are actually part of the right-of-way. All areaways that retain integrity and are connected to a historic property or within a historic district are assumed to be historic for the purposes of this project.

Prior to publication of the Final Environmental Impact Statement, historic areaways within the area of potential effects for the preferred alternative will be identified and documented, and evaluated for potential National Register eligibility.

Table 9-8. Historic Properties in the Chinatown-International District Segment

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
Not Applicable	Not Applicable	Seattle Chinatown Historic District	Multiple	Multiple dates	National Register-listed Historic District
Not Applicable	Not Applicable	Pioneer Square-Skid Road National Historic District	Multiple	Multiple dates	National Register-listed Historic District
66	14941	King County Administration Building	500 4th Avenue	1970	Eligible (Criteria A and C)
69	39470	420 4th Avenue	420 4th Avenue	1924	Contributes to the Pioneer Square-Skid Road National Historic District
72	45032	Hotel Reynolds	410 4th Avenue (406 to 410 4th Avenue)	1905	Contributes to the Pioneer Square-Skid Road National Historic District
73	39473	Macrae Parking Garage	400 4th Avenue	1927	Contributes to the Pioneer Square-Skid Road National Historic District
74	39474	Old Public Safety Building – Seattle	400 Yesler Way	1909	National Register-listed; Contributes to the Pioneer Square-Skid Road National Historic District; within the Pioneer Square Preservation District
840	39475	Prefontaine Building	110 Prefontaine Place South	1909	Contributes to the Pioneer Square-Skid Road National Historic District, within the Pioneer Square Preservation District
841	671365	Great Northern Railway Tunnel	201 4th Avenue South	1904	Contributes to the Pioneer Square-Skid Road National Historic District, within the Pioneer Square Preservation District
842	720500	Opening in Tunnel Above Great Northern/Northern Pacific Train Tracks	4th Avenue South	1929	Contributes to the Pioneer Square-Skid Road National Historic District, within the Pioneer Square Preservation District

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
843	720502	Opening in Tunnel Above Great Northern/Northern Pacific Train Tracks	4th Avenue South	1929	Contributes to the Pioneer Square-Skid Road National Historic District, within the Pioneer Square Preservation District
851	344099	Buty Building	501 South Jackson Street	1901	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
853	45108	Retail Stores	418 5th Avenue South	1926	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
854	56066	Publix Hotel	504 5th Avenue South	1928	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
1133	54050	United States Immigrant Station and Assay Office – Seattle	815 Seattle Boulevard South (815 Airport Way South)	1931	National Register-listed; within the International Special Review District
1203	39496	Union Station – Seattle	401 South Jackson Street	1911	National Register listed; Contributes to the Pioneer Square-Skid Road National Historic District, within the Pioneer Square Preservation and the International Special Review Districts
1303	39466	Dilling Park/City Hall Park	City Hall Park (450 3rd Avenue)	1911	Contributes to the Pioneer Square-Skid Road National Historic District, within the Pioneer Square Preservation District
1817	53391	New Richmond Hotel	308 4th Avenue South	1910	National Register-listed; within the International Special Review District
1823	344539	American Hotel	520 South King Street	1925	Contributes to the Seattle Chinatown Historic District, within the International Special Review District

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
1824	676079	Seattle First National Bank - International District Branch	525 South Jackson Street	1959	Eligible (Criterion C); Non-contributing to the Seattle Chinatown Historic District, within the International Special Review District
1897	342768	Nepage McKenney Company	804 6th Avenue South	1924	Eligible (Criteria A and C); within the International Special Review District
1899	342236	Holgate Terminals Incorporated	1762 6th Avenue South	1960	Eligible (Criterion C)
1910	720568	Disston, Inc. Plant	1701 4th Avenue South	1975	Eligible (Criteria A and C)
2080	720512	Pacific National Bank of Washington	1763 4th Avenue South	1975	Eligible (Criterion C)
3236	723195	United Savings and Loan Bank	601 South Jackson Street	1973	Eligible (Criteria A and C); Non-contributing to the Seattle Chinatown Historic District, within the International Special Review District
3237	343170	Hing Hay Park	414 6th Avenue South	1973	Eligible (Criteria A and C); Non-contributing to the Seattle Chinatown Historic District, within the International Special Review District
4106	39493	Metropolitan Building	222 2nd Avenue Extension South	1906	Contributes to the Pioneer Square-Skid Road National Historic District, within the Pioneer Square Preservation District
4107	39494	Seattle Lighting Fixture Company Annex	210 2nd Avenue Extension South	1946	Eligible (Criteria A and C); Non-contributing to the Pioneer Square-Skid Road National Historic District, within the Pioneer Square Preservation District
4116	342521	Governor Apartments	514 South Jackson Street	1926	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
4117	45138	Old Main School	307 6th Avenue South	1873	Contributes to the Seattle Chinatown Historic District, within the International Special Review District; Designated Seattle Landmark

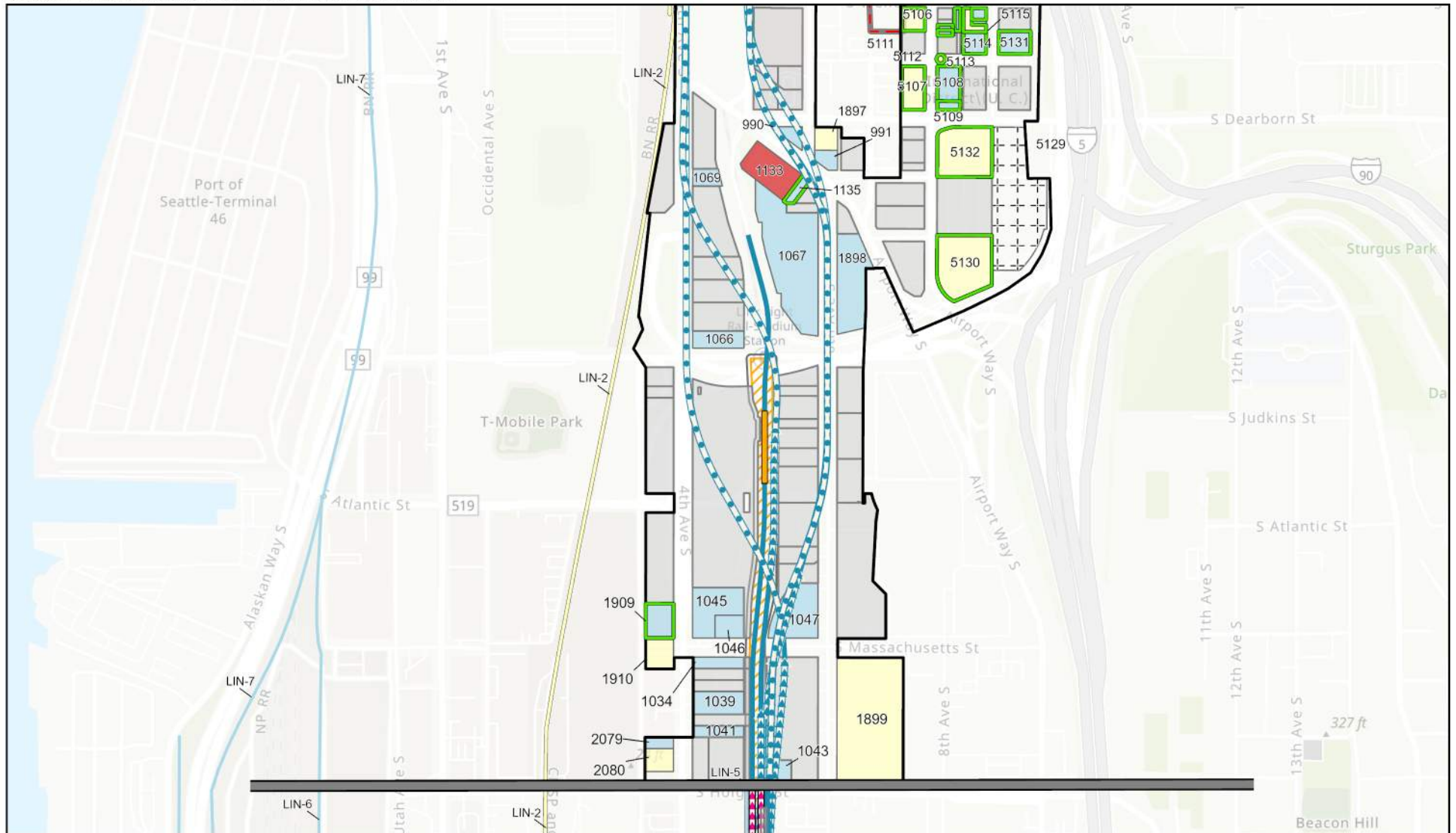
Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
4118	723097	H.T. Kubota Building	513 South Main Street	1924	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
5100	341559	Goon Dip Building	664 South King Street	1911	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
5101	725873	China Garage (T.C. Garage)	413 7th Avenue South	1915	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
5102	725876	T&C Building	671 South Jackson Street	1915	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
5103	343780	Eclipse Hotel	670 South Weller Street	1908	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
5104	340883	Gee How Oak Tin Hotel	519 7th Avenue South	1907	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
5105	86879	Hudson Hotel/Louisa Hotel	669 South King Street	1909	Contributes to the Seattle Chinatown Historic District, within the International Special Review District, the Chinese Community Bulletin Board (on the building) is a designated Seattle landmark
5106	725897	Sun Ya Restaurant	605 7th Avenue South	1975	Eligible (Criteria A and C) (pending consultation), within the International Special Review District
5107	725898	Rainier Bank - International District Branch	666 South Dearborn Street	1979	Eligible (Criterion C) (pending consultation), within the International Special Review District
5113	725913	The Dragon	700 South Lane Street	1978	Eligible (Criterion C) (pending consultation), within the International Special Review District

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
5115	719719	Eng, William Residence	611 8th Avenue South	1937	Eligible (Criterion A)
5117	343383	Kong Yick Apartments	705 1/2 South King Street	1910	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
5118	344395	Chinese Opera House/Chinese Garden Restaurant	516 7th Avenue South	1924	Eligible (Criterion A) and non-contributing to the Seattle Chinatown Historic District, within the International Special Review District
5119	715351	Chong Wa Benevolent Association	522 7th Avenue South	1929	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
5120	342599	East Kong Yick Building/Freeman Hotel	719 South King Street	1910	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
5121b	725918	Jackson Service Station	701 South Jackson Street	1927	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
5122	343162	Republic Hotel	412 7th Avenue South	1920	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
5123	343168	Bing Kung Association Apartments	420 7th Avenue South	1916	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
5126	344438	Don Hee Apartments	410 8th Avenue South	1910	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
5127	343163	Hip Sing Association Building/Chinn Apartments	420 8th Avenue South	1910	Contributes to the Seattle Chinatown Historic District, within the International Special Review District

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
5128	337189	Commercial Building	805 South King Street	1925	Contributes to the Seattle Chinatown Historic District, within the International Special Review District
5129a	To be determined	To be determined	801 South Dearborn Street	1950	Not yet evaluated
5129b	To be determined	To be determined	801 South Dearborn Street	1967	Not yet evaluated
5129c	To be determined	To be determined	801 South Dearborn Street	1975	Not yet evaluated
5129d	To be determined	To be determined	801 South Dearborn Street	1954	Not yet evaluated
5129e	To be determined	To be determined	801 South Dearborn Street	1967	Not yet evaluated
5130	725924	Frye Investment Company Office Building	707 South Plummer Street	1951	Eligible (Criterion C) (pending consultation)
5132	725925	Seattle Engineering Department Office Building	714 South Charles Street	1973	Eligible (Criterion C) (pending consultation)

Note: Property names correspond with the resource names documented on the Historic Property Inventory forms prepared for the Department of Archaeology and Historic Preservation. Property names typically reflect historic names of businesses or individuals that occupied the building in the past.

^a Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with determinations of National Register eligibility.



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

Alternatives

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

Alternative Profile

- Elevated
- At-Grade
- Tunnel
- Retained Cut

Station

- New

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

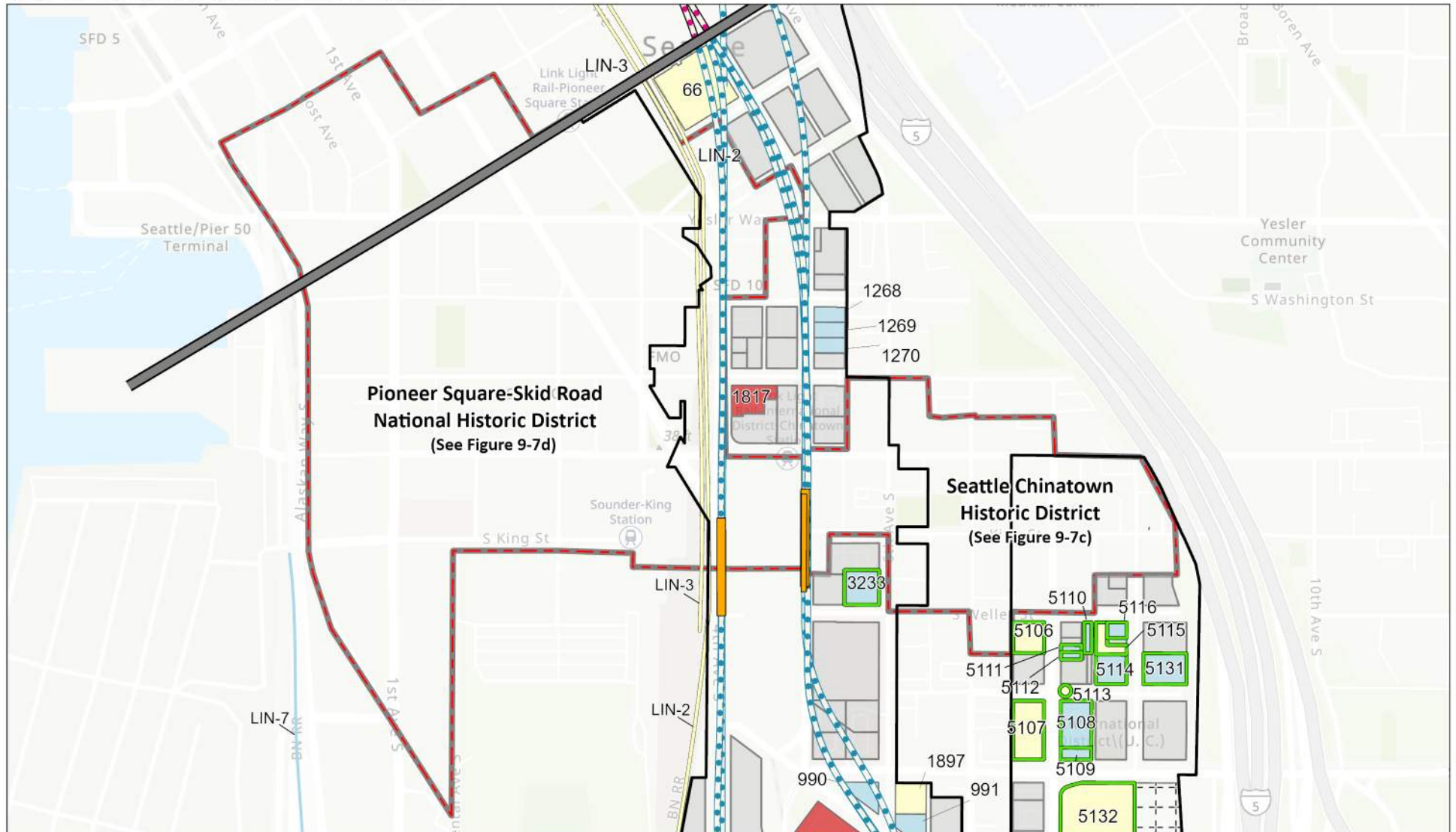
National Register Eligibility Status

- National Register Listed
- Eligible
- Not Eligible
- Constructed after 1980 or Vacant
- + ROE Requested - Not Yet Evaluated
- Pending Consultation

FIGURE 9-7a
National Register Eligibility Status
 Ballard Link Extension -
 Chinatown-International
 District Segment (South)
*West Seattle and
 Ballard Link Extensions*

0 500 1,000 2,000 Feet





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

Alternatives

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

Alternative Profile

- Elevated
- At-Grade
- Tunnel
- Retained Cut

Station

- New

- Segment Line
- Area of Potential Effects
- Parcel
- Park

National Register Eligibility Status

- National Register Listed
- Eligible
- Not Eligible
- Constructed after 1980 or Vacant
- + ROE Requested - Not Yet Evaluated
- National Register Listed Historic District Boundary
- Pending Consultation

National Register Eligibility Status

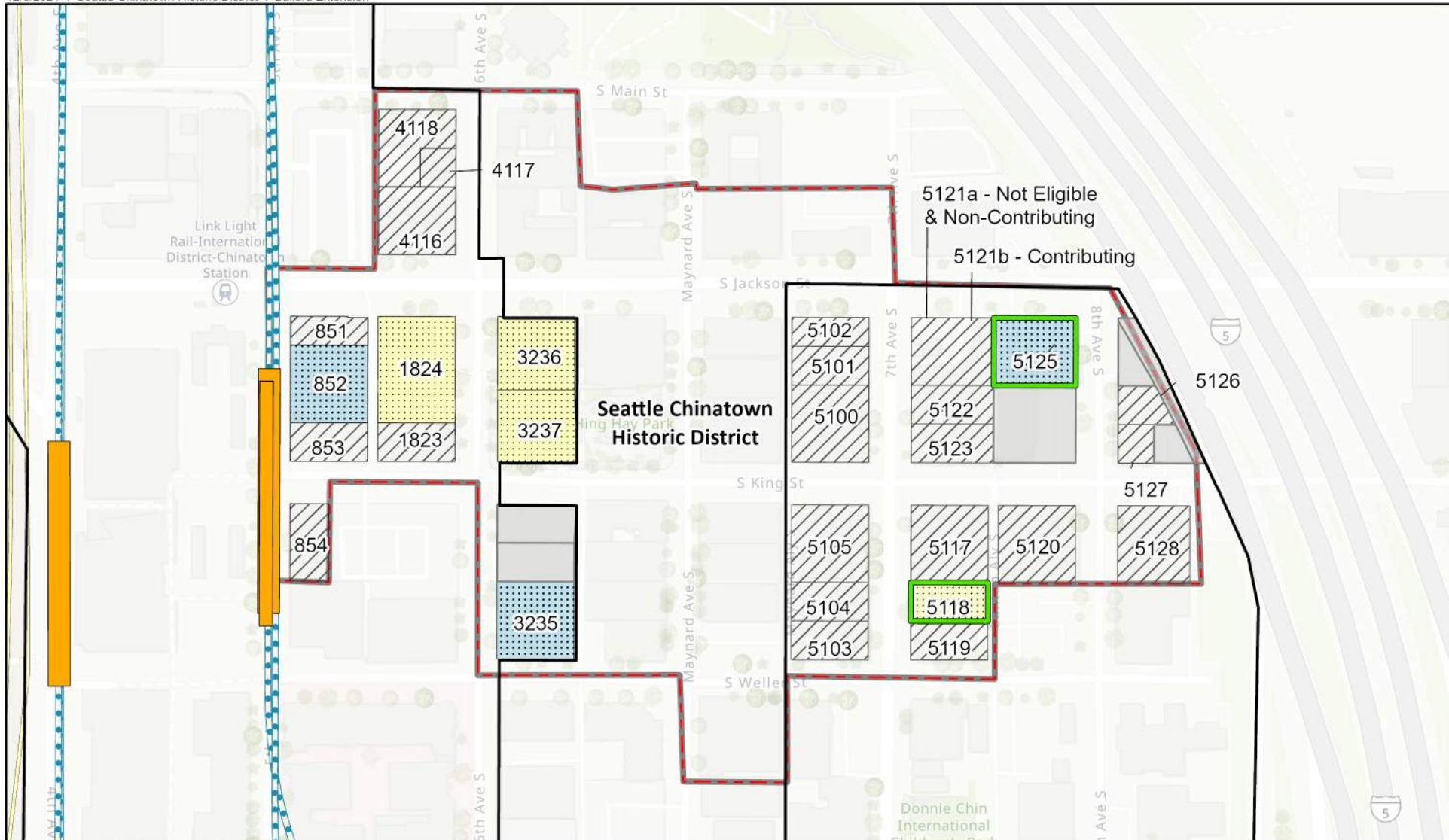
Ballard Link Extension -
Chinatown-International
District Segment (North)

*West Seattle and
Ballard Link Extensions*

0 500 1,000 2,000 Feet



FIGURE 9-7b



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

Alternatives

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

Alternative Profile

- Elevated
- At-Grade
- Tunnel
- Retained Cut

Station

- New

- Segment Line
- Area of Potential Effects
- Parcel
- Park

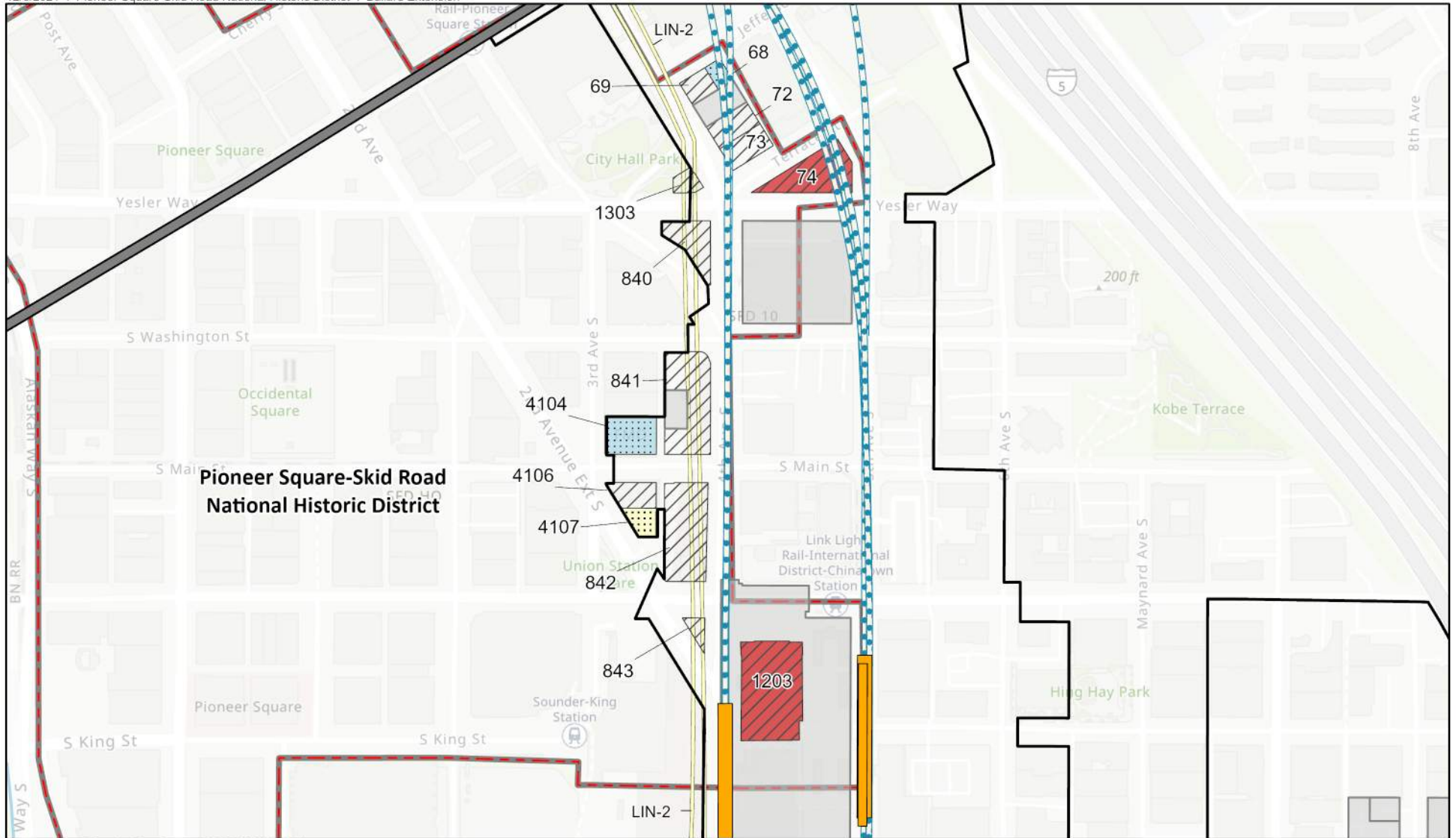
National Register Eligibility Status

- Eligible
- Not Eligible
- Constructed after 1980 or Vacant
- Contributing
- Non-Contributing
- National Register Listed Historic District Boundary
- Pending Consultation

FIGURE 9-7c
National Register Eligibility Status
 Seattle Chinatown Historic District
 Ballard Link Extension -
 Chinatown-International
 District Segment

*West Seattle and
 Ballard Link Extensions*





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

FIGURE 9-7d

National Register Eligibility Status
Pioneer Square-Skid Road National Historic District
Ballard Link Extension - Chinatown-International District Segment
West Seattle and Ballard Link Extensions



Historic Districts

The northern half of this segment, located within Pioneer Square and the Chinatown-International District, contains two National Register-listed historic districts: the Pioneer Square-Skid Road National Historic District and the Seattle Chinatown Historic District.

No additional potential districts were identified in the Chinatown-International District Segment as a result of this survey.

9.2.4.4 Downtown Segment

The Downtown Segment contains the heart of Seattle's Central Business District, the heavily changed South Lake Union neighborhood, and the eastern portion of the Uptown neighborhood. The Downtown Segment includes the area between James Street in Downtown and 2nd Avenue West in Uptown.

The built environment character is diverse in this segment, as the segment spans various distinct neighborhoods. Seattle's Central Business District is generally characterized by densely populated mid- to high-rise office towers and mixed-use buildings. The South Lake Union portion of this segment is generally characterized by mid-rise mixed-use and office buildings built in the last 10 years, and few low-rise historic-era buildings remain. The Uptown portion of this segment is generally characterized by low- to mid-rise office, mixed-use, and multi-family residential buildings; it also contains the Seattle Center campus, constructed in 1962 for the World's Fair.

The Downtown Segment contains 20 National Register-listed resources. The segment passes through Seattle Center, which contains several landmarked and individually eligible or National Register-listed resources. Table 9-9 lists all historic properties in this segment, including 83 resources that were determined eligible for listing in the National Register as a result of field investigations for this project. Of these 103 historic properties, 29 are also designated Seattle landmarks. Figures 9-8a to 9-8c show the location of the historic properties within this segment, and photos of all historic properties in every segment are provided in Attachment N.5B.

Areaways are belowground spaces within street rights-of-way, enclosed by the sidewalks above and by building foundations and street supports on either side. Areaways located in a National Register-listed historic district or attached to a National Register-listed building are considered historic properties, even though they are actually part of the right-of-way. All areaways that retain integrity and are connected to a historic property or within a historic district are assumed to be historic for the purposes of this project.

Prior to publication of the Final Environmental Impact Statement, historic areaways within the area of potential effects for the preferred alternative will be identified and documented and then evaluated for potential National Register eligibility.

Table 9-9. Historic Properties in the Downtown Segment

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
12	676617	Frederick and Nelson Building	500 (512) Pine Street	1918	Eligible, designated Seattle landmark
13	41200	Medical Dental Building – Seattle	507 (509) Olive Way	1925	National Register-listed, designated Seattle landmark
16	344618	Lloyd Building	601 Stewart Street	1926	Eligible (Criterion C), designated Seattle landmark
19	676106	Washington Plaza Hotel	1900 5th Avenue	1969	Eligible (Criterion C)
21	676105	Plaza 600 Building	600 Stewart Street	1969	Eligible (Criterion C)
22	720303	McDonald's Restaurant	1950 6th Avenue	1979	Eligible (Criteria A and C)
27	41211	Western Auto Supply	700 Virginia Street (2004 Westlake Avenue)	1923	Eligible (Criterion A)
28	41149	Westlake Hotel	2008 Westlake Avenue	1907	Eligible (Criteria A and C)
30	41152	Larned Apartments	2030 7th Avenue	1909	Eligible (Criteria A and C)
39	41155	Retail Stores	2120 Westlake Avenue	1909	Eligible (Criterion C)
45	86490	Volker, William, Building	1000 Lenora Street	1928	National Register-listed (Criterion C)
46	344660	Olympic Hotel Parking Garage and Airline Terminal Building	415 Seneca Street	1964	Eligible (Criterion C)
47	717705	Park Hilton Hotel	1113 6th Avenue	1980	Eligible (Criterion C) (pending consultation)
48	53453	Women's University Club of Seattle	1105 6th Avenue	1922	National Register-listed (Criteria A and C), designated Seattle landmark
49	708771	Spring Apartment Hotel	1100 5th Avenue	1922; 1959	Eligible (Criterion C)
50	45105	United States Courthouse – Seattle	1010 5th Avenue	1940	National Register-listed (Criteria A and C)
52	16900	Bank of California Building	901 5th Avenue	1973	Eligible (Criterion C)
56	45126	The Dover Apartments	901 6th Avenue	1907	Eligible (Criteria A and C)

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
58	343568	First Methodist Episcopal Church – Seattle	809 (801) 5th Avenue	1908	National Register-listed (Criteria A and C), designated Seattle landmark
277	48470	Plymouth Congregational Church	1217 6th Avenue	1967	Eligible (Criterion C)
278	45128	Washington Athletic Club	1325 6th Avenue	1929	National Register-listed (Criteria A and C), designated Seattle landmark
280	28320	Logan Building	1400 5th Avenue (500 Union Street)	1958	Eligible (Criterion C)
281	44189	O'Shea Building	501 Pine Street	1914	Eligible (Criteria A and C)
282	44194	Shafer Building	523 Pine Street	1923	National Register-listed (Criterion C), designated Seattle landmark
283	45166	Decatur Building	1521 6th Avenue	1922	Eligible (Criteria A and C), designated Seattle landmark
285	45101	Coliseum Building	1506 5th Avenue (5th Avenue and Pike Street)	1915	National Register-listed (Criterion C), designated Seattle landmark
292	720636	The People's National Bank	1415 5th Avenue	1973	Eligible (Criteria A and C)
299	720637	One Union Square	600 University Street	1980	Eligible (Criteria A and C)
300	45127	Park Place Building	1200 6th Avenue	1971	Eligible (Criterion C)
323	676107	Durant Motor Company	333 Westlake Avenue North	1923	Eligible (Criterion C)
344	41179	Kelly Goodwin Hardwood	310 Terry Avenue North	1915	Eligible (Criterion C)
348	716634	Dick's Drive In	500 Queen Anne Avenue North	1974	Eligible (Criterion A)
351	38452	Wedgewood Apartments	505 1st Avenue North	1930	Eligible (Criterion C)
352	87224	Queen Anne Post Office and Regional Headquarters	415 1st Avenue North	1964	National Register-listed (Criteria A and C)
354	343298	Thurmond's Central Realty	123 Mercer Street	1955	Eligible (Criteria A and C)
356	335621	Maxine Apartments	105 Mercer Street	1929	Eligible (Criterion C)

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
359a	43992	Playhouse – Century 21 Exposition	201 Mercer Street	1962	Eligible (Criteria A and C)
359e	43623	Friendship Bell/Kobe Bell	305 Harrison Street	1968	Eligible (Criteria A and C), designated Seattle landmark
360	38497	Seattle High School – Memorial Stadium	369 Republican Street (401 5th Avenue North)	1947	Eligible (Criteria A and C)
362	720234	Seattle Public Schools Dept of Athletics Building	401 5th Avenue North	1965	Eligible (Criteria A and C)
366	55130	Ancient Order of United Workmen (AOUW), Meeting Hall No. 2	501 Dexter Avenue North	1952	Eligible (Criteria A and C)
367	99082	J.T. Hardeman Hat Company	500 Aurora Avenue North	1920	Eligible (Criteria A and C)
377	344506	Washington Natural Gas Co.	850 Republican Street	1964	Eligible (Criteria A and C)
379	336924	Lexow & Son Custom Cabinet Works	817 Republican Street	1946	Eligible (Criterion C)
388	720008	100 West Harrison Plaza	100 West Harrison Street	1972	Eligible (Criterion C)
411	335636	Grex Apartments	503 1st Avenue West	1930	Eligible (Criterion C)
413	344084	Office Building	506 2nd Avenue West	1958	Eligible (Criterion C)
414	47754	Uptown Theater	511 Queen Anne Avenue North	1926	Eligible (Criteria A and C)
417a	45130	Broad Street Substation Control Building	319 6th Avenue North	1951	Eligible (Criteria A and C), designated Seattle landmark
417b	45131	Broad Street Substation Crane Tower	319 6th Avenue North	1951	Eligible (Criteria A and C), designated Seattle Landmark
436	45102	Y.W.C.A. Building – Seattle	1118 5th Avenue	1914	National Register listed (Criterion A), designated Seattle landmark
785	666395	National Bank of Commerce – Queen Anne Branch	100 West Mercer Street	1955	Eligible (Criterion C)
859	339796	Seattle Master Builders Association Headquarters	170 Mercer Street	1951	Eligible (Criteria A and C)
860	342967	Gas Station	600 Warren Avenue North	1954	Eligible (Criterion C)
864	43993	Garage – Century 21 Exposition	300 Mercer Street	1962	Eligible (Criteria A and C)

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
869	44000	Office Building	557 Roy Street	1952	Eligible (Criterion C)
870	45238	S.L. Savidge Inc. Dodge and Plymouth Dealership	2021 9th Avenue	1948	Eligible (Criteria A and C)
885	44250	Seattle Engineering School	600 Queen Anne Avenue North	1918	Eligible (Criteria A and C)
1294	720610	Vance Hotel	620 Stewart Street	1926	Eligible (Criterion C)
1298	344521	Stuart G. Thompson-Elwell Company Building	901 Lenora Street	1957	Eligible (Criterion C)
1299	45036	Rainier Club	411 Columbia Street (810 4th Avenue)	1903	National Register listed (Criterion C), designated Seattle landmark
1391	44599	Freeway Park	700 Seneca Street [Center of Complex Located at about University Street]	1974	National Register listed (Criteria A and C)
1396a	43618	International Commerce and Industry Building	305 Harrison Street	1961	Eligible (Criteria A and C), designated Seattle landmark
1396b	KI1379	Key Arena	305 Harrison Street	1961	National Register-listed (Criterion A), designated Seattle landmark
1396c	715657	International Plaza	305 Harrison Street	1961	Eligible (Criteria A and C), designated Seattle landmark
1396d	43617	Sweden Pavilion	305 Harrison Street	1961	Eligible (Criteria A and C), designated Seattle landmark
1401	43630	Pioneer Sand and Gravel	901 Harrison Street	1927	Eligible (Criteria A and C), designated Seattle landmark
1402	335846	Gordon Apartments	527 1st Avenue North	1929	Eligible (Criterion A)
1407	55131	People's National Bank of Washington	525 Dexter Avenue North	1948	Eligible (Criterion C)
1416	43628	Apartments	800 to 810 Harrison Street	1911	Eligible (Criteria A and C)
1873	344534	Northern Bank and Trust Building	1500 4th Avenue	1907	National Register-listed (Criterion C)
2100	45109	Skinner Building/5th Avenue Theatre	1308 5th Avenue	1926	National Register-listed (Criterion C)

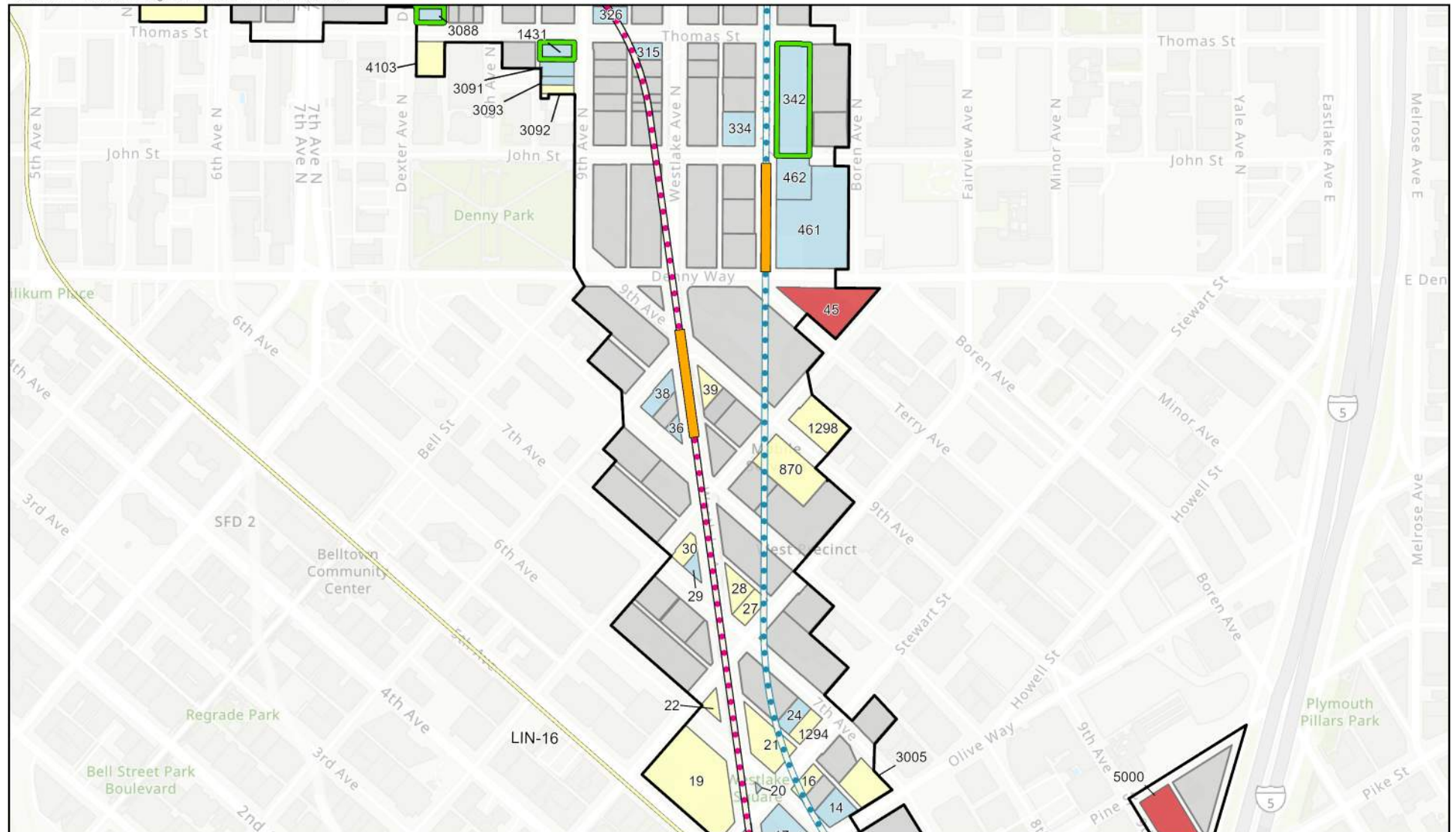
Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
2101	15166	Rainier Tower	1301 5th Avenue	1977	Eligible (Criterion C)
2199	338876	St. Paul's Episcopal Church	15 Roy Street	1962	Eligible (Criterion C)
2201	44370	City Light - Power Control Center	157 Roy Street	1963	Eligible (Criteria A and C), designated Seattle landmark
2300	15165	IBM Building	1200 5th Avenue	1962	Eligible (Criterion C)
2301	45047	Olympic Hotel	411 University Street	1924	National Register-listed (Criterion C)
3003	44094	Bergonian Hotel	405 Olive Way	1927	Eligible (Criterion C)
3005	344621	Textile Tower	1807 7th Avenue	1931	Eligible (Criteria A and C)
3008	45006	Central Building	810 3rd Avenue	1907	Eligible (Criterion C), designated Seattle landmark
3009	53374	Leamington Hotel and Apartments	317 Marion Street	1916	National Register-listed (Criterion C), designated Seattle landmark
3011	722422	The Pacific Building	710 3rd Avenue	1969	Eligible (Criterion C)
3012	344659	Grand Central Garage	719 4th Avenue	1919	Eligible (Criteria A and C)
3013	43011	Arctic Building	306 Cherry Street	1913	National Register-listed (Criterion C), designated Seattle landmark
3059	45052	Liggett Building	1424 4th Avenue	1927	National Register-listed (Criterion C), designated Seattle landmark
3082	47741	Small 20th Century Brick Commercial Building	513 Queen Anne Avenue North	1926	Eligible (Criterion C)
3092	341439	V. Savinoff Furniture Studio	217 9th Avenue North	1946	Eligible (Criterion C)
3223	723100	Alvina Vista Apartments	612 1st Avenue West	1929	Eligible (Criterion C)
3226	723103	Uptown Studios and Apartments	610 2nd Avenue West	1953	Eligible (Criterion C)
3227	343391	G.S. Hamman Building	119 West Roy Street	1924	Eligible (Criterion C)
3239	47755	Puget Sound News Company	621 2nd Avenue North	1948	Eligible (Criteria A and C)
3240	47753	Tricoach Corporation	703 6th Avenue North	1928	Eligible (Criterion C)

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
4000	716633	Floyd A. Naramore Fountain and Plaza	6th Avenue between Seneca and Spring streets	1967	Eligible (Criterion C)
4100	38451	Delmasso Apartments	26 West Harrison Street	1930	Eligible (Criteria A and C)
4101	43613	Century Building	10 Harrison Street	1965	Eligible (Criteria A and C)
4102	38450	Strathmore Apartments	7 Harrison Street	1908	Eligible (Criteria A and C)
4103	723048	Commercial Building	228 Dexter Avenue North	1933	Eligible (Criteria A and C)
5000	44191	Paramount Theatre	911 Pine Street	1928	National Register-listed (Criterion C)
LIN-16	99122	Alweg Monorail - Century 21	5th Avenue	1962	Eligible (Criterion A), designated Seattle landmark
OBJ-1	723414	John H. McGraw Statue	5th Avenue and Stewart Street	1913	Eligible (Criterion C), designated Seattle Landmark
OBJ-2	43163	E.J. Towle Company Street Clock	406 Dexter Avenue North	1915	Eligible (Criteria A and C), designated Seattle landmark
OBJ-3	45055	Zedick Jewelers Street Clock	1525 (1529) 4th Avenue	1920	Eligible (Criteria A and C), designated Seattle landmark
OBJ-4	53395	Ben Bridge Jewelers Clock	409 Pike Street	1929	Eligible (Criteria A and C), designated Seattle landmark

Note: Property names correspond with the resource names documented on the Historic Property Inventory forms prepared for the Department of Archaeology and Historic Preservation. Property names typically reflect historic names of businesses or individuals that occupied the building in the past.

^a Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

N



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

Alternatives

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

Alternative Profile

- Elevated
- Tunnel
- At-Grade
- Retained Cut

Station

- New

- Segment Line
- Area of Potential Effects
- Parcel
- Park

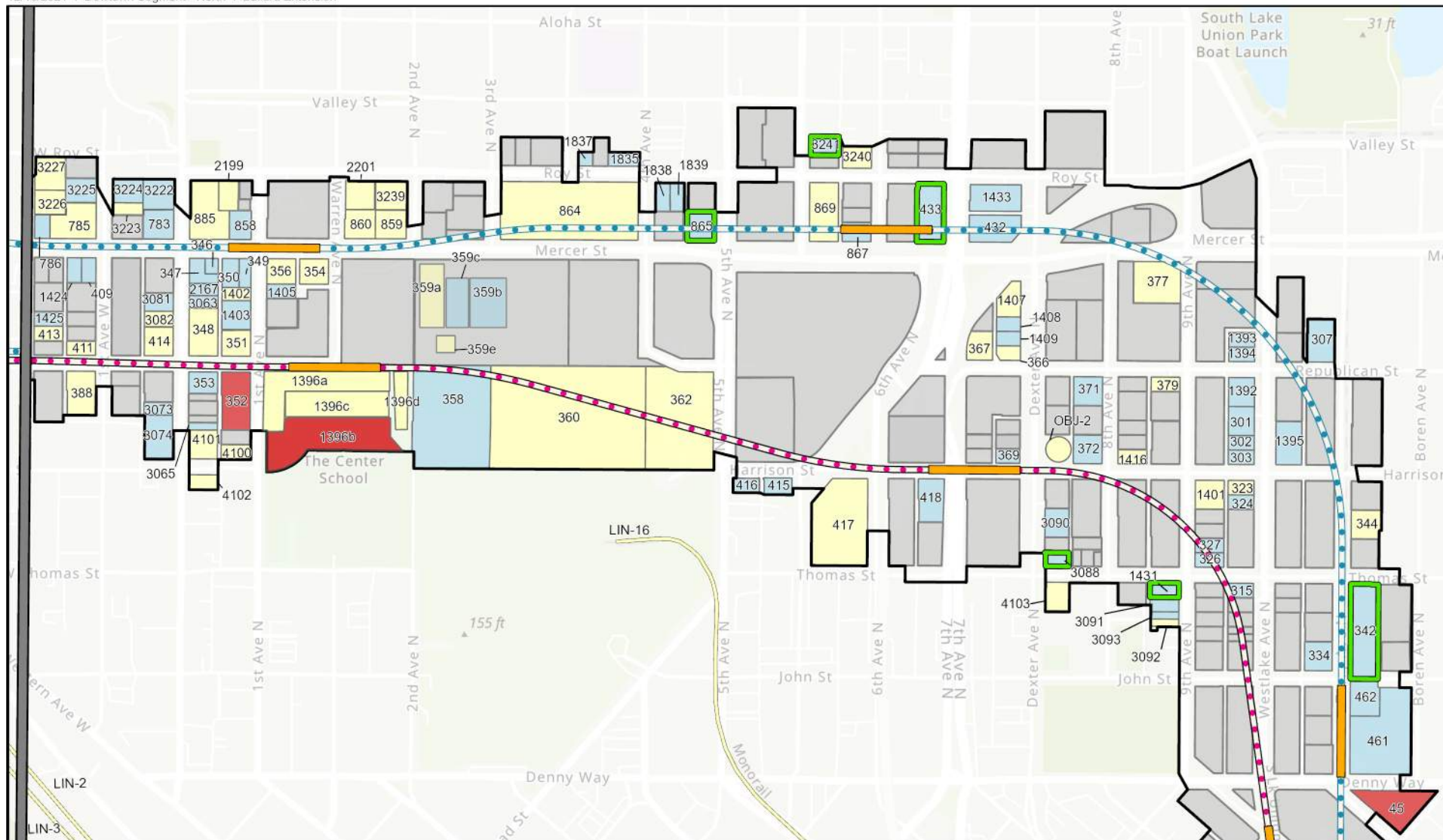
National Register Eligibility Status

- National Register Listed
- Eligible
- Not Eligible
- Constructed after 1980 or Vacant
- Pending Consultation

FIGURE 9-8b
National Register Eligibility Status
 Ballard Link Extension -
 Downtown Segment (Central)

*West Seattle and
 Ballard Link Extensions*





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

Alternatives

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

Alternative Profile

- Elevated
- Tunnel
- At-Grade
- Retained Cut

Station

- New

- Segment Line
- Area of Potential Effects
- Parcel
- Park

National Register Eligibility Status

- NRHP Listed
- Eligible
- Not Eligible
- Constructed after 1980 or Undeveloped
- Pending Consultation

National Register Eligibility Status Ballard Link Extension - Downtown Segment (North)

*West Seattle and
Ballard Link Extensions*



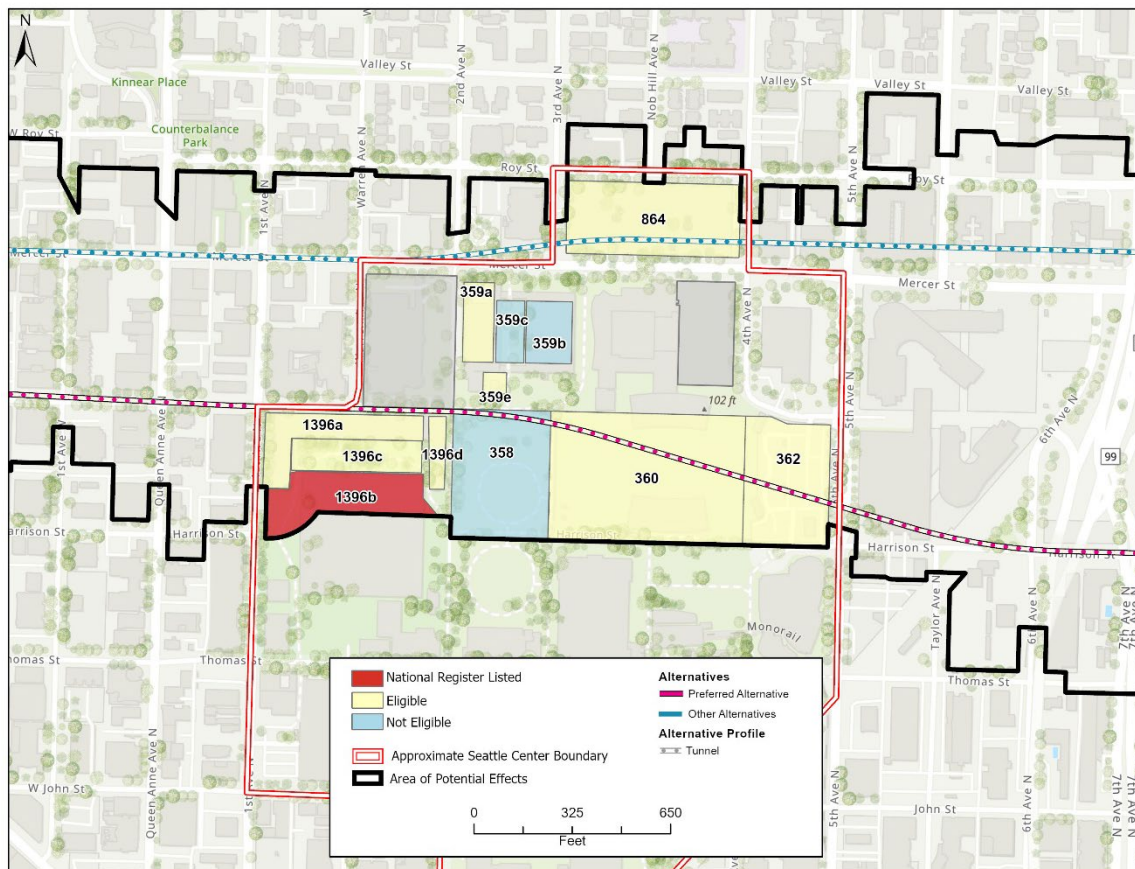
FIGURE 9-8c

Historic Districts

During the evaluation of historic-age buildings in the area of potential effects within the Downtown Segment, additional research was warranted in the following areas to determine the potential for an eligible historic district:

- **Downtown Central Business District:** Much of the built environment in the Downtown Central Business District has been well documented by historians. Many buildings are individually listed on the National Register, are designated Seattle landmarks, or have been previously determined eligible by the State Historic Preservation Officer. However, substantial modern infill is now interspersed among older building stock, and no concentrated linkage of buildings unified aesthetically or historically was found during survey.
- **Seattle Center Campus:** The Seattle Center campus was evaluated as a historic district, as potentially eligible under Criteria A and C (Figure 9-9). However, staff representing the State Historic Preservation Officer suggested that the district lacks sufficient integrity to convey its historic significance, and FTA agreed. Individual resources within the area of potential effects were evaluated and recorded in WISAARD, and are included in Table 9-9.
- **Apartments in Uptown:** There are many apartment buildings built between 1900 and 1957 that meet the existing Multiple Property Documentation (Sheridan 2002) requirements that were evaluated and found eligible under that framework. A potential district within the area of potential effects was not identified, but additional research could potentially identify a noncontiguous district of apartment buildings in this area. There are apartment buildings built after 1957 but not located in a concentrated geographic area. These were evaluated and found eligible if they met requirements, but an aesthetically cohesive district was not identified.
- **Commercial area in Uptown:** The commercial center of Uptown centers around Queen Anne Avenue North and Mercer Street/West Mercer Street. These buildings reflect several different periods of commercial development in the area, including the 1920s through early 1930s, and the early 1950s through early 1970s. Many individual commercial buildings retain elements from their time of construction, but too many of these buildings that have been significantly altered that they no longer convey a unified aesthetic or historic significance. There has also been substantial modern infill in this area, which diminishes the overall integrity of setting.

In summary, no eligible historic districts were identified within the Downtown Segment as a result of this survey.

Figure 9-9. Historic Built Environment Properties within Seattle Center Campus

9.2.4.5 South Interbay Segment

The South Interbay Segment spans the western portion of the Uptown neighborhood and the majority of the Interbay neighborhood. The South Interbay Segment includes the area between 2nd Avenue West in Uptown and West Dravus Street (west of 17th Avenue West) and West Barrett Street (east of 17th Avenue West) in Interbay. The built environment in the Uptown portion of this segment is generally characterized by low- to mid-rise office, mixed-use, and multi-family residential buildings. Kinnear Park (built circa 1890), a designated Seattle landmark and National Register-eligible resource, serves as the transition between the Uptown and Interbay neighborhoods. The Interbay neighborhood is characterized by low-rise commercial and industrial buildings; the Interbay Golf Center (built post-1980) the Seattle Armory property, and the BNSF Railway railyards¹⁰ are also prominent resources in this segment.

The South Interbay Segment does not contain any National Register-listed resources. This segment does contain eight designated Seattle landmarks. This segment also contains one National Register-eligible historic district, the 14th Avenue West Group historic district, which consists of five individually National Register-eligible Victorian residences. There are eight designated Seattle landmarks in this segment, including the five Victorian residences that contribute to the 14th Avenue West Group historic district. Table 9-10 lists all historic properties

¹⁰ This resource is located outside of the area of potential effects.

in this segment, including 42 resources that were determined eligible for listing in the National Register as a result of field investigations for this project (including the five resources that contribute to the 14th Avenue West Group historic district). Figures 9-10a to 9-10c show the location of the historic properties within this segment, and photos of all historic properties in every segment are provided in Attachment N.5B.

Table 9-10. Historic Properties in the South Interbay Segment

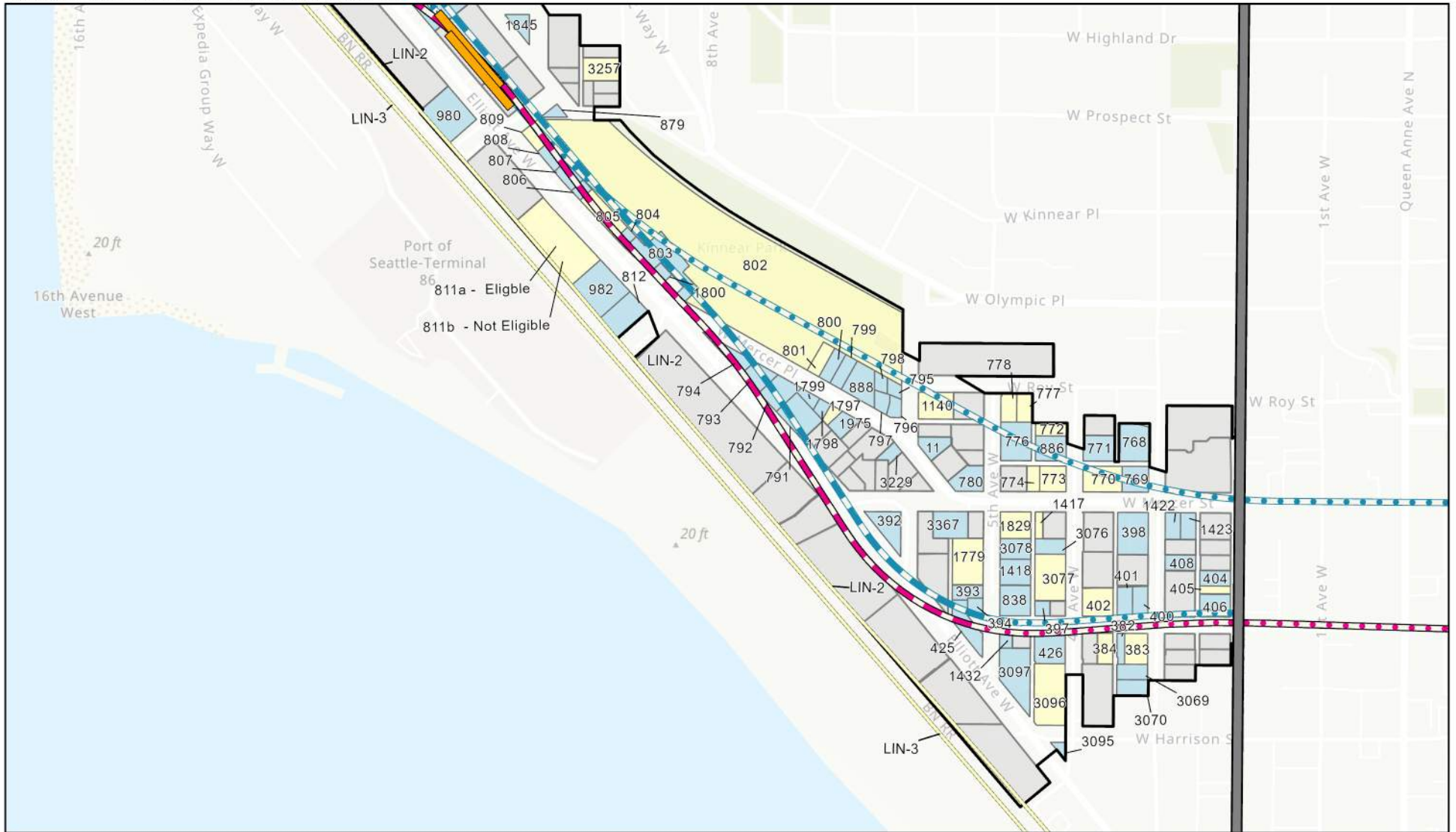
Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
383	343966	Waterfront Employers of Washington and The Pacific Maritime Association	301 West Republican Street	1959	Eligible (Criteria A and C)
384a	719666	Duplex	317 West Republican Street	1905	Eligible (Criterion C)
384b	716635	Duplex	319 West Republican Street	1905	Eligible (Criterion C)
384c	720252	Residence	317 1/2 West Republican Street	1905	Eligible (Criterion C)
402	338494	Cape Flattery Apartments	320 West Republican Street	1959	Eligible (Criterion C)
405	344205	Powers Regulator Co.	511 2nd Avenue West	1955	Eligible (Criterion C)
628	335820	Barrett West Apartments	2850 15th Avenue West	1964	Eligible (Criterion C)
670	341338	Federal Employees Credit Union	2500 15th Avenue West	1960	Eligible (Criterion C)
680	720187	K&D Carpet Installers Building/Alpine Hut	2215 15th Avenue West	1960	Eligible (Criteria A and C)
690	720097	Residence	2250 15th Avenue West	1905	Eligible (Criterion A)
692	720233	Residence	2246 1/2 15th Avenue West	1909	Eligible (Criterion A) (pending consultation)
770	338455	Lola Apartments	326 West Mercer Street	1929	Eligible (Criterion C)
772	338513	Naomi Apartments	625 4th Avenue West	1930	Eligible (Criterion C)
773	338465	Franconia Apartments	400 West Mercer Street	1930	Eligible (Criterion C)
774	537709	Apartment Building	412 West Mercer Street	1958	Eligible (Criterion C)
777	720029	Iris Apartments	415 West Roy Street	1928	Eligible (Criterion C)
778	338609	Westroy Apartments	421 West Roy Street	1931	Eligible (Criterion C)

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
801	43989	Residence	636 West Mercer Place	1907	Eligible (Criterion C)
802a	44101	Kinnear Park Comfort Station/Viewing Platform	899 West Olympic Place	1929	Eligible (Criteria A and C), designated Seattle landmark
802b	44106	Kinnear Park	899 West Olympic Place	1890	Eligible (Criteria A and C), designated Seattle landmark
805	38483	Sheet Metal Works and Roof Company	942 (934b) Elliott Avenue West	1929	Eligible (Criterion C)
809	38479	Wilson Machine Works	1038 Elliott Avenue West	1925	Eligible (Criteria A and C)
811a	38482	Gladding, McBean, and Company	945 Elliott Avenue West	1953	Eligible (Criterion C)
954	721608	Seattle Armory	1601 West Armory Way	1974	Eligible (Criteria A and C)
955	721609	Seattle Armory Field Maintenance Shop Building	1601 West Armory Way	1974	Eligible (Criterion A)
961	87104	King County Metro Pumping Station	1523 West Garfield Street	1967	Eligible (Criterion A)
976	47791	Western Pacific Chemical Company	1436 (1430 to 1436) Elliott Avenue West	1940	Eligible (Criterion C)
1140	44376	Sea View Apartments	519 West Roy Street	1932	Eligible (Criteria A and C), designated Seattle landmark
1417	720190	Office Building	411 West Mercer Street	1973	Eligible (Criterion C)
Not Applicable	Not Applicable	14th Avenue West Group Historic District (2000, 2006, 2010, 2014, and 2016 14th Avenue West)	Multiple	1891 to 1906	Eligible (Criterion C)
1764	676164	Gilman House	2016 14th Avenue West	1891	Eligible (Criterion C), contributes to 14th Avenue West Group Historic District, designated Seattle landmark
1765	641394	Torbactia House	2014 14th Avenue West	1901	Eligible (Criterion C), contributes to 14th Avenue West Group Historic District, designated Seattle landmark
1766	721037	Residence	2010 14th Avenue West	1900	Eligible (Criterion C), contributes to 14th Avenue West Group Historic District, designated Seattle landmark

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
1767	386850	Residence	2006 14th Avenue West	1906	Eligible (Criterion C), contributes to 14th Avenue West Group Historic District, designated Seattle landmark
1768	472425	Residence	2000 14th Avenue West	1903	Eligible (Criterion C), contributes to 14th Avenue West Group Historic District, designated Seattle landmark
1779	720207	The Harbor House	521 5th Avenue West	1964	Eligible (Criteria A and C)
1797	720208	Residence	623 West Mercer Place	1932	Eligible (Criterion C)
1829	344536	Mercer West Condominium	415 West Mercer Street	1962	Eligible (Criteria A and C)
3077	335620	Fourth Avenue West Apartments	515 4th Avenue West	1947	Eligible (Criterion C)
3096	344505	Metro Headquarters Building	410 4th Avenue West	1962	Eligible (Criterion C)
3190	338499	Dor-Rik Apartments	2655 14th Avenue West	1961	Eligible (Criterion C) (pending consultation)
3257	354094	Gillespie House	1115 9th Avenue West	1936	Eligible (Criterion C)
3265	467559	Residence	1015 West Lee Street	1911	Eligible (Criterion C)

Note: Property names correspond with the resource names documented on the Historic Property Inventory forms prepared for the Department of Archaeology and Historic Preservation. Property names typically reflect historic names of businesses or individuals that occupied the building in the past.

^a Unless noted as "pending consultation," the State Historic Preservation Officer has concurred with determinations of National Register eligibility.



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

Alternatives

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

Alternative Profile

- Elevated
- Tunnel
- At-Grade
- Retained Cut

Station

- New

- Segment Line
- Area of Potential Effects
- Parcel
- Park

National Register Eligibility Status

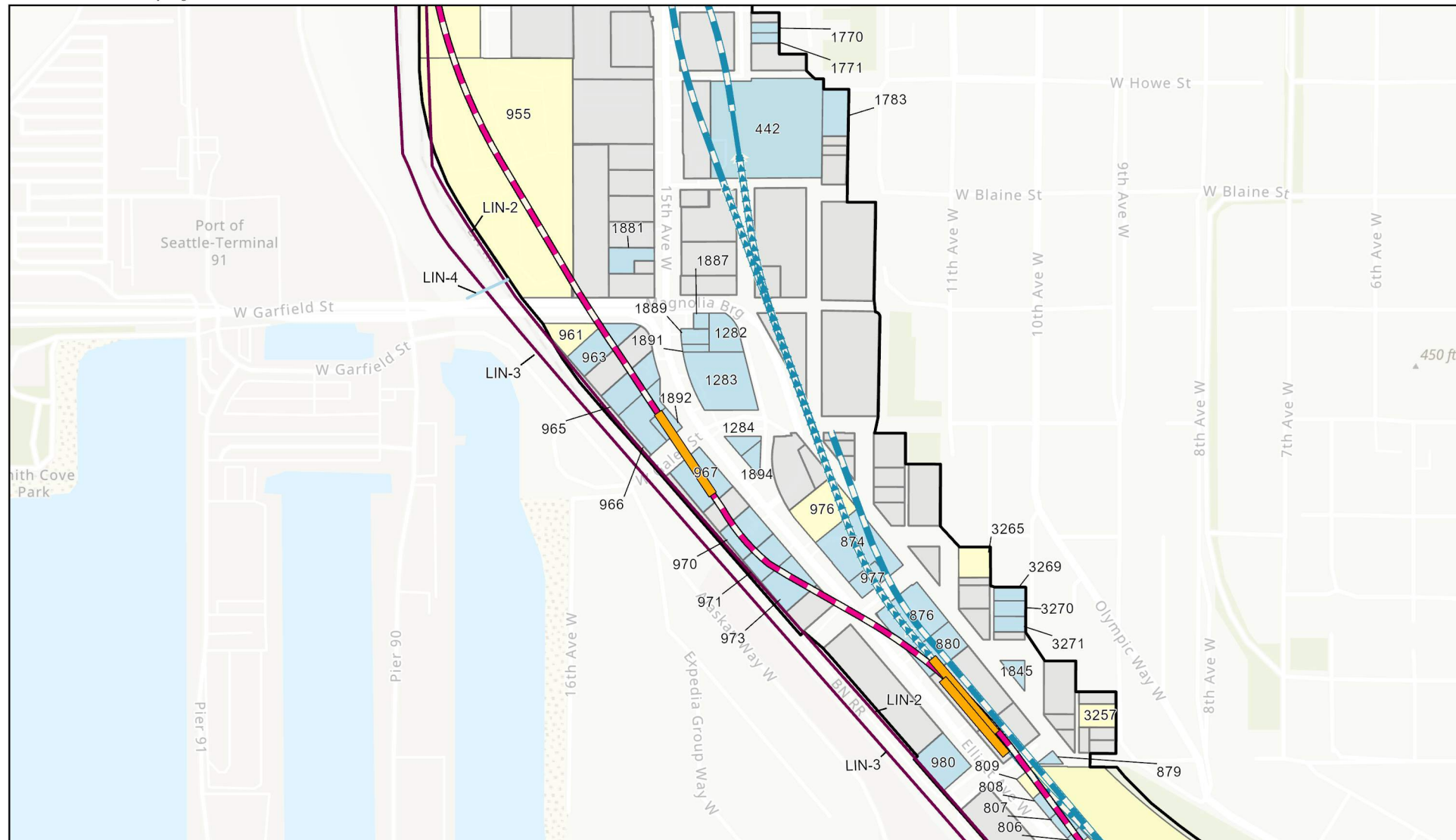
- Eligible
- Not Eligible
- Constructed after 1980 or Undeveloped

FIGURE 9-10a
National Register Eligibility Status
 Ballard Link Extension -
 South Interbay Segment (South)

*West Seattle and
 Ballard Link Extensions*

0 375 750 1,500 Feet





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

Alternatives

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

Alternative Profile

- ▬ Elevated
- ▬ At-Grade
- ▬ Tunnel
- ▬ Retained Cut

Station

- ▬ New

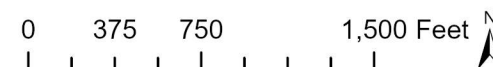
- ▬ Segment Line
- ▬ Area of Potential Effects
- ▬ Parcel
- ▬ Park

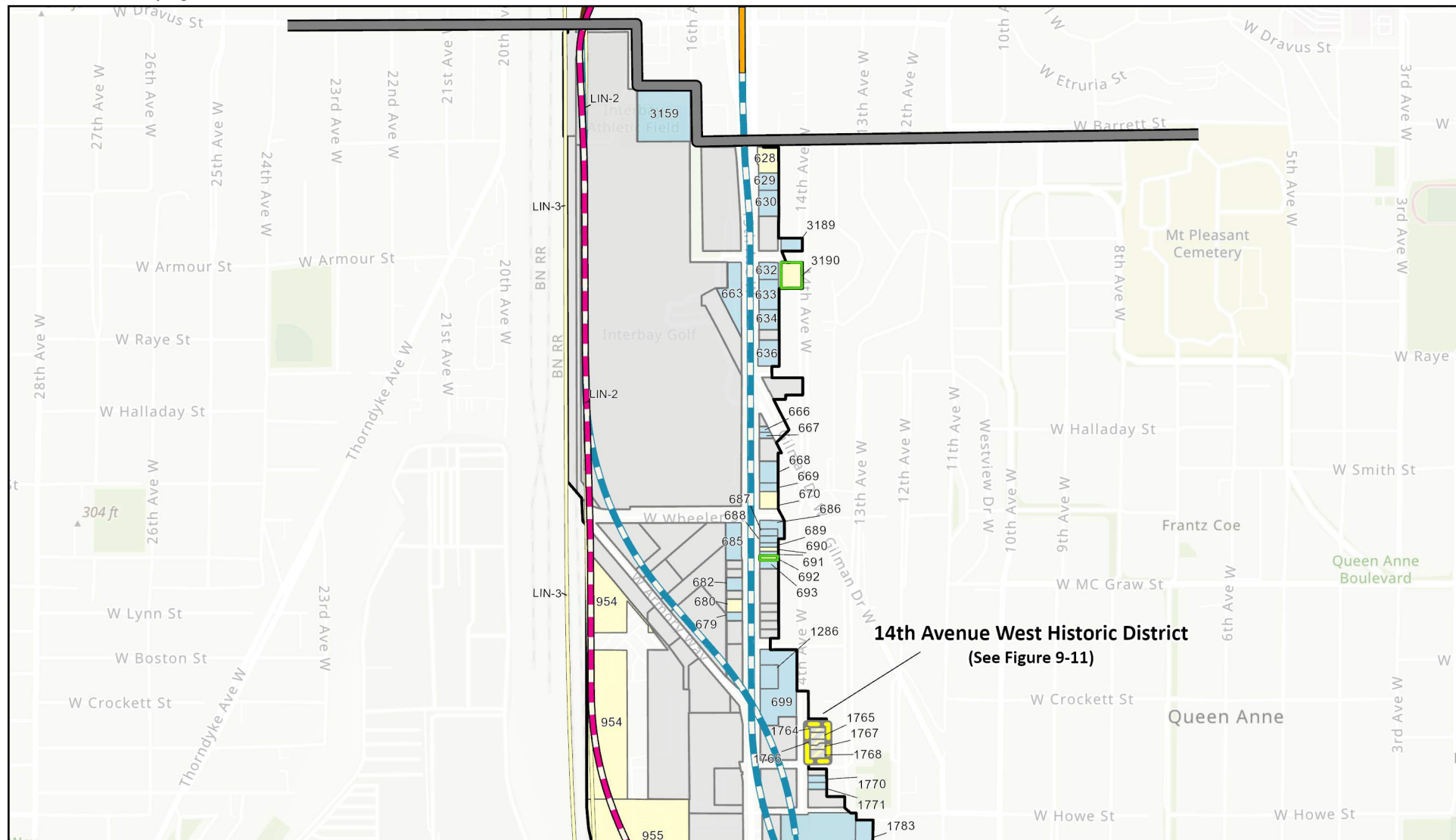
National Register Eligibility Status

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

FIGURE 9-10b
National Register Eligibility Status
 Ballard Link Extension -
 South Interbay Segment (Central)

*West Seattle and
 Ballard Link Extensions*





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

Alternatives

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

Alternative Profile

- Elevated
- Tunnel
- At-Grade
- Retained Cut

Station

- New

- Segment Line
- Area of Potential Effects
- Parcel
- Park

National Register Eligibility Status

- Eligible
- Not Eligible
- Constructed after 1980 or Vacant
- Eligible Historic District Boundary
- Pending Consultation

FIGURE 9-10c
National Register Eligibility Status
Ballard Link Extension -
South Interbay Segment (North)

*West Seattle and
Ballard Link Extensions*



Historic Districts

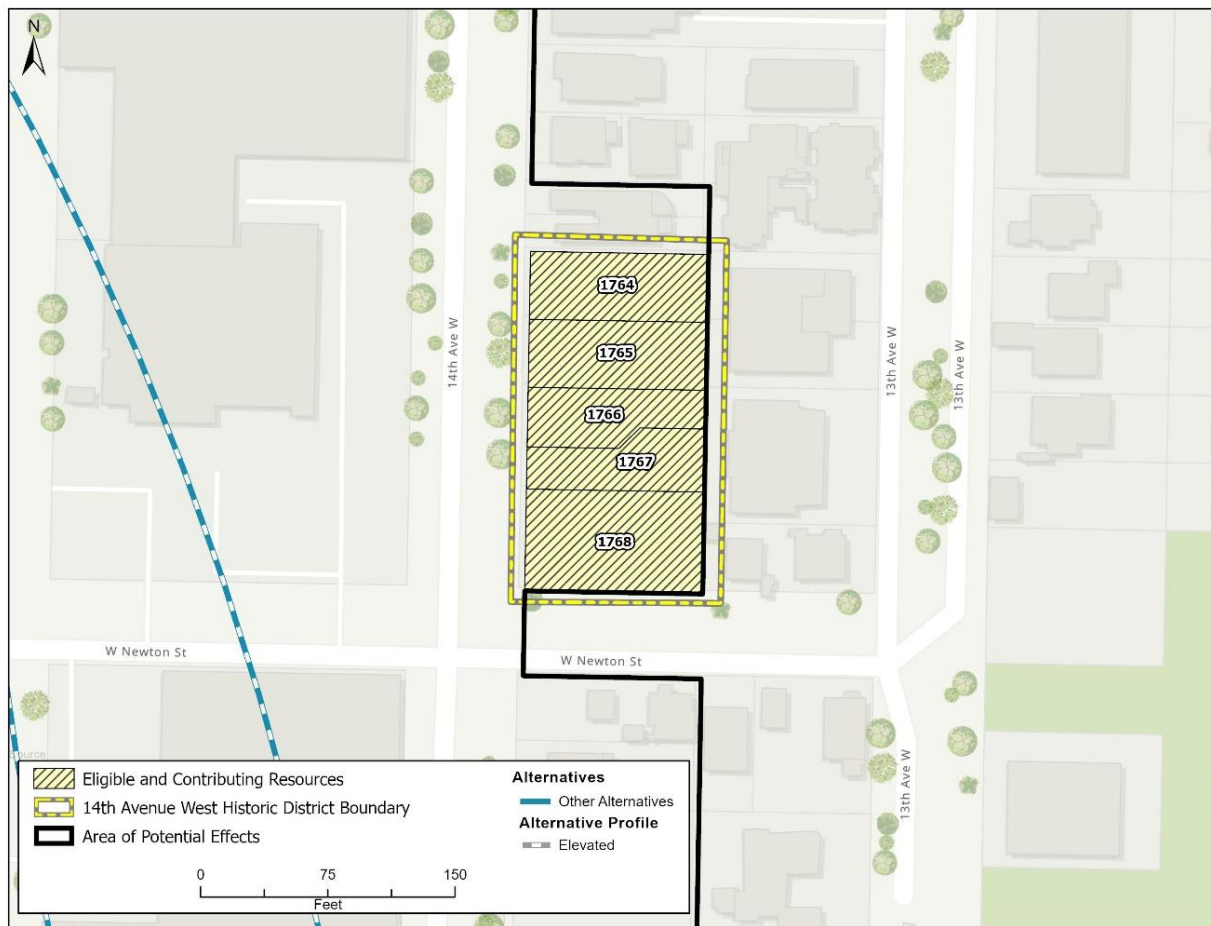
During the evaluation of historic-age buildings in the area of potential effects within the South Interbay Segment, additional research was warranted in the following areas to determine the potential for an eligible historic district:

- Apartments in Uptown: See the historic district discussion in the Downtown Segment for more detail on the identification and evaluation of potential for historic districts of apartments in Uptown.
- Seattle Armory property: This property, located on 15th Avenue West just north of the Magnolia Bridge, contains only two permanent buildings that were found to be individually eligible. A district evaluation was considered not appropriate because the property only has two buildings, and the property surrounding the buildings does not contribute to the significance of the extant buildings.
- Single-family residences on 15th Avenue West: A grouping of five single-family homes built between 1900 and 1909 is on the east side of 15th Avenue West just south of West Wheeler Street. A potential district was considered here for its significance under Criterion A as early examples of single-family housing in an area that is now mostly commercial and light-industrial. Several properties were found to be individually eligible, but the grouping as a whole was found to lack integrity. Several individual properties have lost significant integrity of material, design, and workmanship, and the setting surrounding the properties has changed significantly.
- Mid-century apartment buildings along 15th Avenue West: A grouping of three mid-century apartment buildings is across from the Interbay Golf Center on 15th Avenue West. While a potential district was considered here, research did not reveal that these apartment buildings were built in relation to the construction of the golf course. Two out of the three apartments have diminished integrity of materials, design, and workmanship, and the three do not present a unified aesthetic. Finally, three buildings together do not represent a “significant concentration” of properties needed to form a potential district.

However, further research did reveal a National Register-eligible historic district, the 14th Avenue West Group (Figure 9-11). This district is eligible for the National Register under Criterion C for representing a significant and distinguishable entity whose components lack individual distinction. The district contains important examples of late- to early-twentieth century residential architecture in the Interbay region of Seattle on the western slope of the Queen Anne hill. The period of significance for the proposed historic district begins in 1891, the date of construction of the first contributing residence, and ends in 1906, the date of construction for the last contributing residence. The boundary for the district is the parcel boundaries of the five contributing residences on 14th Avenue West. The City of Seattle designated this property as a contributing residence to the locally landmarked Victorian Group/14th Avenue West House Historic District (City of Seattle Ordinance 108211).

In addition to being architecturally distinctive, this district retains the necessary aspects of integrity because the majority of the components that comprise the district’s historic character possess integrity. The contributing buildings are substantially unchanged since the period of significance. There have been few intrusions on the district to its setting, feeling, and association. None of the buildings were moved; all are in their original location. Integrity of design, materials, and workmanship is still present.

Figure 9-11. 14th Avenue West Historic District



District Description

This district consists of five contributing residences on the east side of 14th Avenue West. The residences were constructed between 1891 and 1906 and each represents late-nineteenth to early-twentieth century architecture, specifically the Queen Anne and the Folk Victorian styles. Most are two stories tall and have steeply pitched roofs. All have wood cladding, wood-framed windows, and porches. Each is decoratively landscaped with lawns, mature trees, and shrubs.

In summary, one recommended National Register-eligible historic district was identified in the South Interbay Segment as a result of this survey.

9.2.4.6 Interbay/Ballard Segment

The Interbay/Ballard Segment spans Salmon Bay around the National Register-listed Ballard Bridge to connect the northern portion of the Interbay neighborhood with Ballard's 15th Avenue commercial and 14th Avenue industrial corridors. The Interbay/Ballard Segment includes the area between West Dravus Street (west of 17th Avenue West) and West Barrett Street (east of 17th Avenue West) in Interbay to Northwest 58th Street in Ballard. The built environment in Interbay is generally characterized by low-rise commercial and industrial buildings and some single-family residential buildings. The waterfront on the south and north shores of Salmon Bay feature large waterfront commercial industrial sites, namely the former U.S. Plywood Corporation site just east of the Ballard Bridge, and the National Register-eligible Fishermen's

Terminal Historic District, just west of the Ballard Bridge. The built environment in Ballard is mixed. 15th Avenue Northwest features mostly low- to mid-rise commercial buildings, whereas 14th Avenue Northwest features mostly low-rise industrial buildings and single-family residences.

The Interbay/Ballard Segment features one National Register-listed resource, the Ballard Bridge. Fishermen's Terminal Historic District contains 24 contributing resources, three of which are also individually eligible. Table 9-11 lists all historic properties in this segment, including 36 resources (including the two resources that are individually eligible and contributing to the historic district) that were determined eligible for listing in the National Register as a result of field investigations for this project. Figures 9-12a to 9-12c show the location of the historic properties within this segment, and photos of all historic properties in every segment are provided in Attachment N.5B.

Table 9-11. Historic Properties in the Interbay/Ballard Segment

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
5a	723554	Industrial and Commercial Building	1121 Northwest 45th Street	1963	Eligible (Criteria A and C)
10a	90524	Lyle Branchflower Company Processing Warehouse	4507 Shilshole Avenue Northwest	1950	Eligible (Criteria A and C)
10b	722815	Lyle Branchflower Company Cold Storage Building/North Star Ice Equipment Building	4511 Shilshole Avenue Northwest	1945	Eligible (Criteria A and C)
469	719590	Skipper's Fish, Chip and Chowder House	5305 15th Avenue Northwest	1971	Eligible (Criteria A and C)
476	719335	Nelson Chevrolet Storage Lot Office Building	1510 Northwest 50th Street	1956	Eligible (Criteria A and C)
477	719595	Nelson Chevrolet Showroom	1521 Northwest 50th Street	1973	Eligible (Criterion C)
482	344402	Restaurant	1510 Northwest Leary Way	1927	Eligible (Criteria A and C)
496	441302	Residence	5713 14th Avenue Northwest	1905	Eligible (Criterion C)
504	333632	Apartment Complex	5700 14th Avenue Northwest	1957	Eligible (Criterion C)
529	49120	Bardahl Manufacturing Company Office	1400 Northwest 52nd Street	1957	Eligible (Criteria A and C)
536	342705	Mid-Century Light Industrial Building	5118 14th Avenue Northwest	1963	Eligible (Criterion C)
556	719361	Office Building	1148 Northwest Leary Way	1970	Eligible (Criterion C)
569	48101	Mike's Tavern and Chili Parlor	1447 Northwest Ballard Way	1940	Eligible (Criteria A and C)

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
578	719366	HDF Propeller Company Machining and Manufacturing Building	4451 14th Avenue Northwest	1979	Eligible (Criterion A)
607	38464	Residence	3440 15th Avenue West	1911	Eligible (Criteria A and C)
608	461681	Residence	3442 15th Avenue West	1911	Eligible (Criteria A and C)
618	357587	Residence	3220 15th Avenue West	1920	Eligible (Criterion C)
647	342781	Superior Concrete Products Co.	3615 15th Avenue West	1945	Eligible (Criterion A)
648	720084	Elmer & Moody Company Woodwork	3635 Thorndyke Avenue West	1949	Eligible (Criteria A and C)
651	720085	Sweden Freezer Manufacturing Company	3401 Thorndyke Avenue West	1946	Eligible (Criterion A)
659	342170	Keller Supply Co.	3205 17th Avenue West	1955	Eligible (Criteria A and C)
Not Applicable	Not Applicable	Fishermen's Terminal Historic District	2000 West Emerson Place (1735 West Thurman Street)	Various	Eligible (Criterion A)
951a	44576	Fishermen's Terminal-South Bulkhead Wall	2000 West Emerson Place (1735 West Thurman Street)	1917	Contributes to Fishermen's Terminal Historic District (Criterion A)
951b	709702	Fishermen's Terminal Net Shed N-7	2000 West Emerson Place	1943	Contributes to Fishermen's Terminal Historic District (Criterion A)
951c	709704	Seattle First National Bank - Fishermen's Terminal Branch	2000 West Emerson Place	1964	Eligible (Criterion C) and contributes to Fishermen's Terminal Historic District (Criterion A)
951d	709703	Fishermen's Terminal Net Shed N-8	2000 West Emerson Place	1954	Contributes to Fishermen's Terminal Historic District (Criterion A)
951e	159029	Fishermen's Terminal Fishing Vessel Owners Winch House	2000 West Emerson Place	1916	Eligible (Criteria A and C), contributes to Fishermen's Terminal Historic District

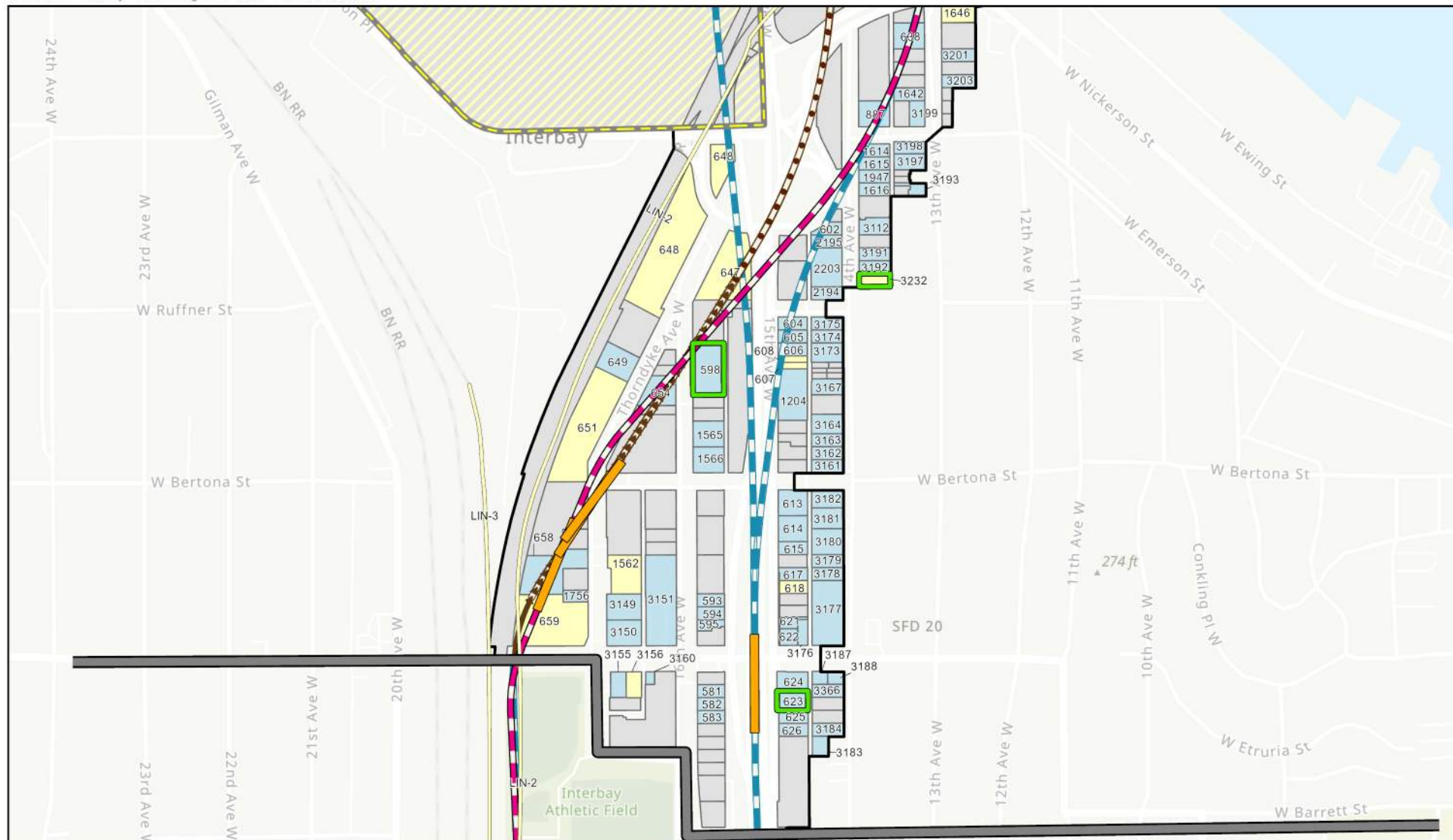
Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
951f	716640	Fishermen's Terminal Fishing Vessel Owners Marine Ways	2000 West Emerson Place (1511 West Thurman Street)	1919	Eligible (Criterion A), contributes to Fishermen's Terminal Historic District (Criterion A)
951g	717389	Fishermen's Terminal FVO Machine Building I-3	2000 West Emerson Place	1979	Contributes to Fishermen's Terminal Historic District (Criterion A)
951h	159028	Fishermen's Terminal Net Shed N-3	2000 West Emerson Place	1943	Contributes to Fishermen's Terminal Historic District (Criterion A)
951i	38460	Fishermen's Terminal Seattle Ship Supply Company Warehouse C-9	2000 West Emerson Place	1918	Contributes to Fishermen's Terminal Historic District (Criterion A)
951j	720949	Fishermen's Terminal Float 1	2000 West Emerson Place	1919	Contributes to Fishermen's Terminal Historic District (Criterion A)
951k	720950	Fishermen's Terminal Dock 3	2000 West Emerson Place	1944	Contributes to Fishermen's Terminal Historic District (Criterion A)
951l	720951	Fishermen's Terminal Dock 4	2000 West Emerson Place	1936	Contributes to Fishermen's Terminal Historic District (Criterion A)
951m	717390	Fishermen's Terminal Office C-10	2000 West Emerson Place	1938	Contributes to Fishermen's Terminal Historic District (Criterion A)
951n	720953	Fishermen's Terminal Downie Building	1900 West Emerson Place	1979	Contributes to Fishermen's Terminal Historic District (Criterion A)
951o	126616	Fishermen's Terminal Net Shed N-4	2000 West Emerson Place	1943	Contributes to Fishermen's Terminal Historic District (Criterion A)
951p	720954	Fishermen's Terminal Net Shed N-5	2000 West Emerson Place	1956	Contributes to Fishermen's Terminal Historic District (Criterion A)
951q	720955	Fishermen's Terminal Net Shed N-6	2000 West Emerson Place	1950	Contributes to Fishermen's Terminal Historic District (Criterion A)

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
951r	720956	Fishermen's Terminal Warehouse Building I-8	2000 West Emerson Place	1957	Contributes to Fishermen's Terminal Historic District (Criterion A)
951s	720957	Fishermen's Terminal Net Shed N-9	2000 West Emerson Place	1978	Contributes to Fishermen's Terminal Historic District (Criterion A)
951t	720958	Fishermen's Terminal Nordby Building	2000 West Emerson Place	1955	Contributes to Fishermen's Terminal Historic District (Criterion A)
951v	720961	Fishermen's Terminal West Bulkhead	2000 West Emerson Place	1948	Contributes to Fishermen's Terminal Historic District (Criterion A)
951w	720964	Fishermen's Terminal Bathroom Building M-2	2000 West Emerson Place	1960	Contributes to Fishermen's Terminal Historic District (Criterion A)
951x	720965	Fishermen's Terminal Bathroom Building M-15	2000 West Emerson Place	1960	Contributes to Fishermen's Terminal Historic District (Criterion A)
951y	720966	Fishermen's Terminal FVO Building M-4	2000 West Emerson Place	1960	Contributes to Fishermen's Terminal Historic District (Criterion A)
952d	721259	United States Plywood Corporation Power House	4025 13th Avenue West	1938	Eligible (Criteria A and C)
1537	342178	Seattle City Light - Ballard Substation	1415 Northwest 49th Street	1918	Eligible (Criteria A and C)
1539	43813	Leary Substation	1414 Northwest Leary Way	1954	Eligible (Criteria A and C)
1554	719625	Edith Macefield House	1438 Northwest 46th Street	1900	Eligible (Criterion A)
1555a	90521	Industrial Building	1130 Northwest 45th Street	1910	Eligible (Criterion A)
1562	344017	Office Building	3220 17th Avenue West	1955	Eligible (Criteria A and C)
1646	720146	Canal Apartments	1223 West Nickerson Street	1926	Eligible (Criterion C)
1875a	43297	Northwest Builders Hardware	1100 West Ewing Street	1957	Eligible (Criteria A and C)
2183	388861	Duplex	1145 Northwest 56th Street	1945	Eligible (Criterion C)

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a
3156	344287	Interbay Pharmacy	1613 West Dravus Street	1959	Eligible (Criteria A and C)
3232	723016	Madera on Queen Anne Condominiums	3608 14th Avenue West	1967	Eligible (Criterion C) (pending consultation)
LIN-1	42541	Ballard Bridge	Spans Lake Washington Ship Canal	1917	National Register listed (Criterion C)
LIN-15	88822	Seattle & Montana Railway/Great Northern Railway Main Line/Seattle Lake Shore & Eastern Railroad Ballard Branch Line	Ballard, Seattle	1890	Eligible (Criterion A)

Note: Property names correspond with the resource names documented on the Historic Property Inventory forms prepared for the Department of Archaeology and Historic Preservation. Property names typically reflect historic names of businesses or individuals that occupied the building in the past.

^a Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with determinations of National Register eligibility.



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

Alternatives

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

Alternative Profile

- Elevated
- Tunnel
- At-Grade
- Retained Cut

Station

- New

- Segment Line
- Area of Potential Effects
- Parcel
- Park

National Register Eligibility Status

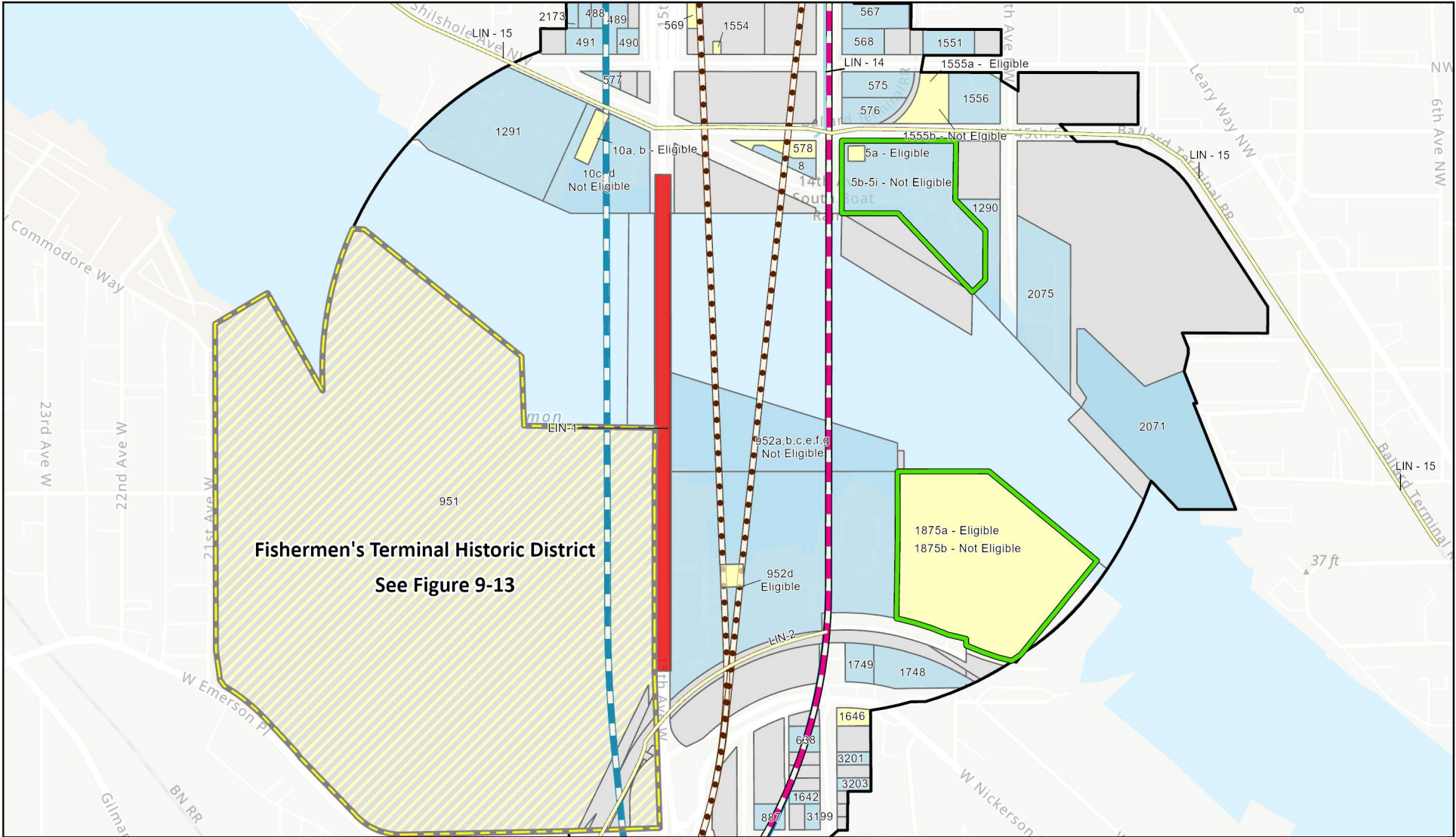
- Eligible
- Not Eligible
- Constructed after 1980 or Vacant
- Eligible Historic District Boundary
- Pending Consultation

FIGURE 9-12a
National Register Eligibility Status
Ballard Link Extension -
Interbay/Ballard Segment (South)

*West Seattle and
Ballard Link Extensions*

0 375 750 1,500 Feet

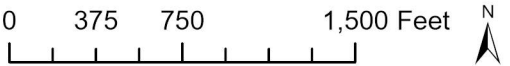


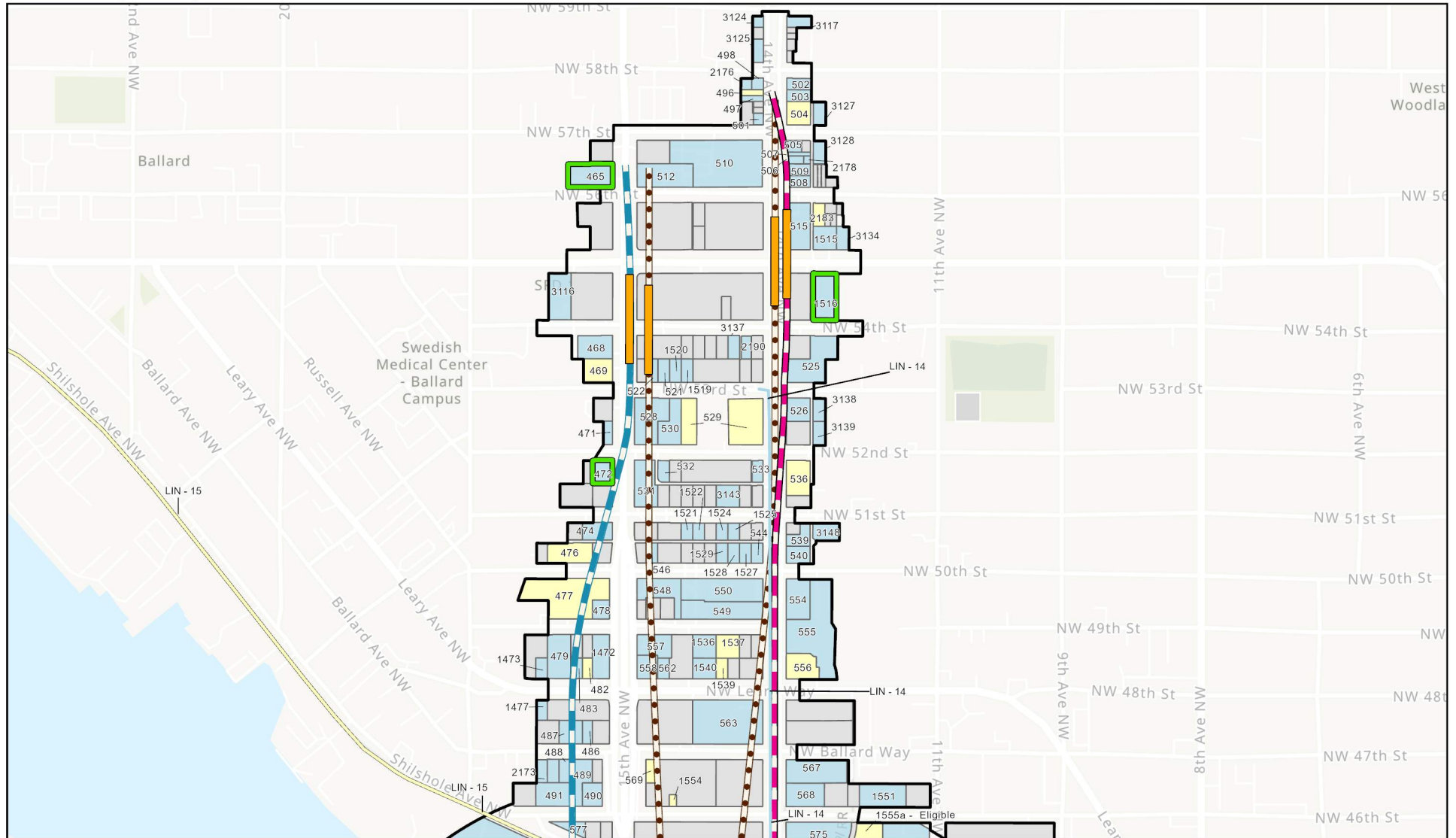


Source: City of Seattle, King County (2019, 2020, 2021).

FIGURE 9-12b
National Register Eligibility Status
Ballard Link Extension -
Interbay/Ballard Segment (Central)

*West Seattle and
Ballard Link Extensions*





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

Alternatives

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

Alternative Profile

- Elevated
- Tunnel
- At-Grade
- Retained Cut

Station

- New

- Segment Line
- Area of Potential Effects
- Parcel
- Park

National Register Eligibility Status

- Eligible
- Not Eligible
- Constructed after 1980 or Vacant
- Pending Consultation

FIGURE 9-12c
National Register Eligibility Status
Ballard Link Extension -
Interbay/Ballard Segment (North)

*West Seattle and
Ballard Link Extensions*



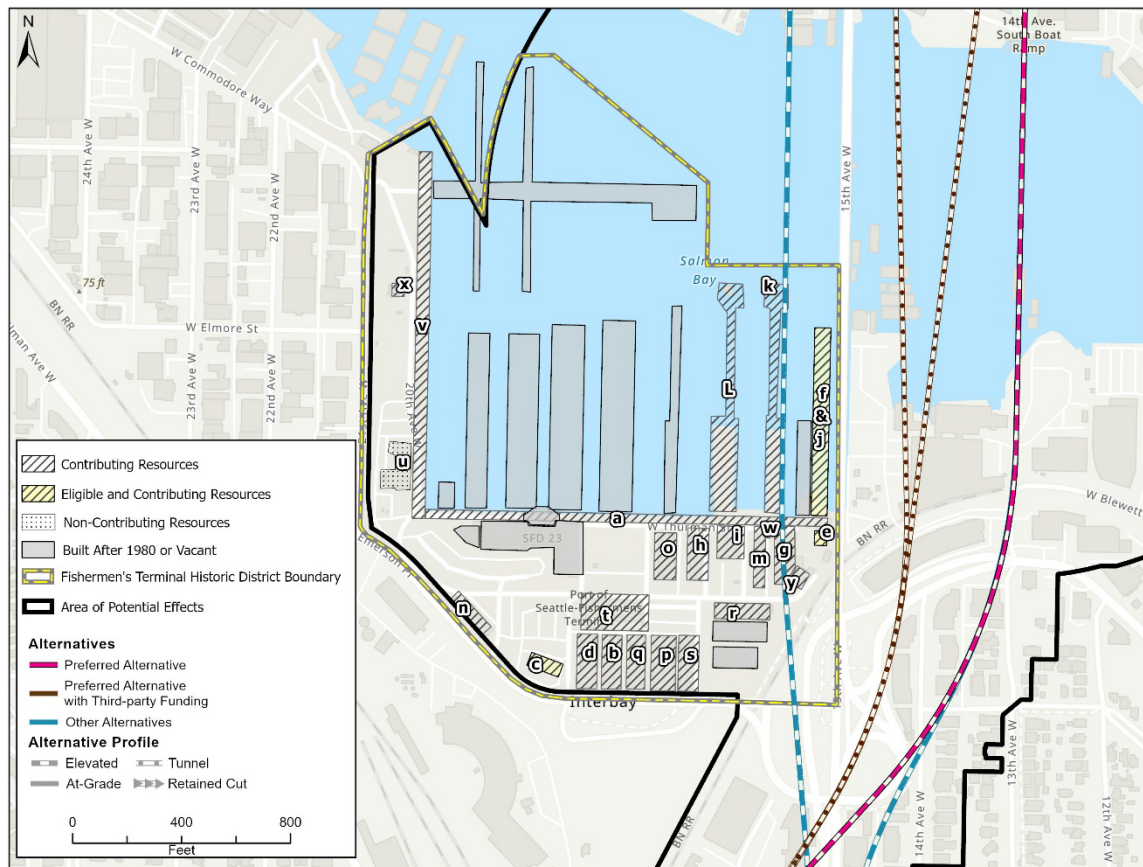
Historic Districts

During the evaluation of historic built environment resources in the area of potential effects within the Interbay/Ballard Segment, additional research was warranted in the following areas to determine the potential for an eligible historic district:

- **Industrial buildings along 17th Avenue West:** A grouping of approximately six industrial warehouse buildings built between 1945 and 1957 are in north Interbay on 17th Avenue West, between West Dravus Street and West Emerson Street. A potential district was considered here for its association with Post-World War II industry. Several properties were found to be individually eligible, but ultimately the grouping was found to lack a true unifying aesthetic or historical significance, and several individual buildings lacked integrity.
- **United States Plywood Corporation:** The former United States Plywood Corporation site, located north of West Nickerson Street and just east of the Ballard Bridge, was evaluated as a potential historic district under Criterion A for its association with Seattle's lumber industry. Ultimately, however, it is not eligible due to a significant loss of integrity.
- **Industrial properties in South Ballard:** South Ballard contains a concentration of industrial properties south of Northwest Leary Way. Each was considered as a potential district during evaluation. Some sites were found to lack a cohesive aesthetic or historic significance and were not further considered. However, several were found to be historically significant, such as the Lyle Branchflower Company site (Unique I.D. 10), the Superior Biscuit Company site (Unique I.D. 568), and the Seattle Cedar Lumber Manufacturing Company site (Unique I.D. 1291). Ultimately, however, the sites were found to have lost too much integrity to be able to convey their historic significance and are not eligible historic districts.
- **Residential buildings along 14th Avenue Northwest:** As in all of the segments throughout the area of potential effect, residential areas were considered for their potential as historic districts. The concentration of single-family residences in this segment is along 14th Avenue Northwest, north of Northwest Leary Way. This residential area has experienced a lot of modern infill and development, and many older residences have been demolished. There are approximately 15 of these single-family residences built between 1900 and 1928 in this area, before the area became primarily industrial. The majority of these residences have lost much of their individual integrity that any potential district significant for a unified history or aesthetic no longer retains sufficient integrity to convey any potential significance.

However, further research did reveal a National Register-eligible historic district, Fishermen's Terminal (Figure 9-13). The Fishermen's Terminal Historic District is eligible for the National Register under Criterion A as a significant site in the development of Seattle's maritime industry. The terminal opened in 1914 as the first facility operated by the Port of Seattle, serving the city's fishing fleet. Fishermen's Terminal has been a key location for the fishing industry in Seattle, which is vitally important to the economy of the city and the entire Puget Sound region. Although Fishermen's Terminal remains just as significant to this industry today as it was in the historic period, the period of significance for the Fishermen's Terminal Historic District is proposed as 1913 through 1980. This date range begins with the construction date of the port and ends with the end of the historic period, as defined by the WSBLE Project. Throughout the twentieth century, Fishermen's Terminal made a significant contribution to the development of the fishing industry in Seattle. In 2019, the shoreline of Fishermen's Terminal was designated part of the Washington State Maritime Heritage Area.

Figure 9-13. Fishermen's Terminal Historic District



As a commercial fishing facility, the Fishermen's Terminal Historic District remains in its original location, and its setting of maritime industrial development has been consistent throughout the twentieth and twenty-first centuries. The property remains in its original use and retains its original feeling and association. The overall layout of Fishermen's Terminal remains roughly the same as it was in 1980, the end of the period of significance. The individual buildings of historic age retain varying degrees of integrity of material, workmanship, and design. Although there are some non-historic buildings on the property, the date of construction for most of the resources at Fishermen's Terminal fall within the period of significance for the district. Moreover, the property has been continually developed in order to retain its viability as a commercial fishing facility. The construction of infill and alterations to individual buildings reflect this, and they do not diminish the overall integrity of the Fishermen's Terminal Historic District.

Contributing resources include those resources that are at least 50 years old and represent the continued development and importance of Fishermen's Terminal. Contributing resources include: Float 1 (1917), the Marine Ways (1919), the 1919 Fishing Vessel Owners Winch Building (Building I-6), the 1979 Fishing Vessel Owners Machine Shop (Building I-3), Dock 3 (1944), Dock 4 (1944), the 1938 Office Building C-10, the 1918 Seattle Ship Supply Company Building (Building C-9), the 1943 Net-Shed N-3, the 1943 Net-Shed N-4, the 1956 Net-Shed N-5, the 1950 Net-Shed N-6, the 1943 Net-Shed N-7, the 1954 Net Shed N-8, the 1978 Net-Shed N-9, the 1957 Warehouse Building I-8, the 1955 Norby Building, the 1964 Office Building C-12, the 1979 Downie Building, the South Bulkhead (1917), the West Bulkhead (1948), Building M-4 (1960), Bathroom Building M-2 (1960), and Bathroom Building M-15 (1960).

Non-contributing, non-historic built environment resources are those structures and sites within the Fishermen's Terminal that were constructed after 1980. These resources do not have sufficient individual importance to warrant inclusion in the historic district under National Register Criteria Consideration G, which allows for listing of a property achieving significance within the past 50 years if it is of exceptional importance. However, it is recommended that the following resources be added as contributing resources in the historic district once they have crossed the 50-year age threshold, although they are currently non-contributing, non-historic built environment resources: Float 2 (post 1980), Docks 5-10 (all demolished and replaced circa 2007), the Northwest Dock (1986), the 1982 Net-Shed N-10, the 1989 Net-Shed N-11, the 1989 Central Plaza (Building C-15), Washington State Department of Fisheries Headquarters (1954, but has lost much of its integrity), the 1999 Memorial Garden, and the 1988 Fishermen's Memorial.

District Description

Fishermen's Terminal is a 54-acre property owned by the Port of Seattle that includes boat docks, storage facilities, and office spaces for businesses associated with Seattle's maritime industry. The terminal is on the southern and western banks of Salmon Bay, a natural bay between Puget Sound and Lake Union in Seattle. It sits at the northern edge of Seattle's Interbay neighborhood. The Fishermen's Terminal property is bounded by 15th Avenue West (which runs across the Ballard Bridge) to the east, the Lake Washington Ship Canal to the north, 21st Avenue West to the west, West Emerson Place to the southwest, West Emerson Street to the south, and railroad tracks to the southeast. Two bulkhead walls form the south and west boundaries of the marina, which contains eight docks—seven projecting from the south bulkhead wall and one projecting from the west. There are office buildings, storage sheds for nets, and parking lots on the land to the south and west of the marina.

Fishermen's Terminal can be roughly divided into four zones based on use: the water-based marina and docks, industrial net sheds and offices in the easternmost half of the Terminal land, the outdoor storage space along the West Wall Bulkhead, and the public area in the center of the Terminal land. The land portion of Fishermen's Terminal is laid out on a rough grid pattern, with 16th Avenue West, 18th Avenue West, and 19th Avenue West running north to south through the property. West Nickerson Street runs east to west through the center of the property, and West Thurman Street runs east to west along the edge of the south bulkhead wall. At the southwestern edge of the property, West Nickerson Street curves northward and becomes 20th Avenue West, which runs along the north bulkhead wall. Silky's Alley runs between 16th Avenue West and 18th Avenue West in the block between West Nickerson Street and West Emerson Street.

The marina includes Floats 1 and 2 at its eastern edge. To their west are Docks 3 to 9. To the north of these docks, the Northwest Dock projects outward from the West Wall.

The northeastern corner of the terminal is leased by Fishing Vessel Owners, and this portion of the property includes Floats 1 and 2, the Marine Ways, the 1919 Fishing Vessel Owners Winch Building (also known as Building I-6), the 1979 Fishing Vessel Owners Machine Shop (also known as Building I-3), and the 1960 Building M-4. To the west of the Fishing Vessel Owners property stand the 1938 Office Building C-10, the 1960 Bathroom Building M-2, the 1918 Seattle Ship Supply Company Warehouse (also known as building C-9), the 1943 Net-Shed N-3, and the 1943 Net-Shed N-4. To the south of Office Building C-10 and the Ship Supply Company Warehouse stand the 1957 Warehouse I-8, the 1982 Net-Shed N-10, and the 1989 Net-Shed N-11. West of Net-Shed N-11 stand the 1978 Net-Shed N-9, the 1956 Net-Shed N-5, the 1950 Net-Shed N-6, the 1943 Net-Shed N-7, and the 1954 Net Shed N-8. To the north of these

buildings stands the 1955 Norby Building C-2 and a parking lot; a Net Repair Yard lies to the north of the Norby Building.

The central public area includes the main automobile entrance along 19th Avenue West, which runs north from West Emerson Place and ends in a parking lot in front of the 1989 Central Plaza (Building C-15) at the southern edge of the marina. To the south of the Central Plaza stands the 1988 Fishermen's Memorial. The 1999 Memorial Plaza is directly west of the Central Plaza. To the east of 19th Avenue West stands the 1964 Office Building C-12 (formerly the Seattle-First Bank Branch), and to the west of 19th Avenue West stands the 1979 Downie Building (C-14).

The West Wall storage area includes the 1954 Washington State Department of Fisheries Headquarters (C-3) at its southern end. To the north of the Washington State Department of Fisheries Headquarters are fenced outdoor storage areas. In the middle of these storage yards is the 1960 Bathroom Building M-15.

In summary, one National Register-eligible historic district was identified in the Interbay/Ballard Segment as a result of this survey.

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10 APPLICATION OF CRITERIA OF ADVERSE EFFECT

As an undertaking, the WSBLE Project would adversely affect historic properties. This section discusses effects to archaeological and individual historic properties within area of potential effects as a result of this undertaking. In cases where historic resources or districts exceed the one-parcel or 200-foot boundary, effects to historic properties are still considered on the entire resource or district.

Under Section 106 and Code of Federal Regulations Title 36, Part 800.5, an undertaking would have an adverse effect if it would alter, directly or indirectly, any of the characteristics of a historic property that qualify it for inclusion in the National Register. These characteristics include the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. All qualifying characteristics of a historic property shall be considered, including those that may have been identified after the original evaluation of the property's National Register eligibility. Adverse effects on historic properties may include, but are not limited to, the following:

- Physical destruction of or damage to all or part of a property.
- Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (Code of Federal Regulations Title 36, Part 68) and applicable guidelines.
- Removal of a property from its historic location.
- Change of the character of a property's use or of physical features within the property's setting that contribute to its historic significance.
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of a property's significant historic features.
- Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an indigenous Tribe or Native Hawaiian organization.
- Transfer, lease, or sale of a property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

To determine the effects on historic properties within the area of potential effects, the following information was considered:

- The location of project elements and proximity to historic properties.
- Potential partial or complete acquisition and/or demolition of historic properties.
- Construction methods and location.
- Potential for vibration (short- or long-term) that could damage historic properties.
- Potential for settlement that could damage historic properties.
- Potential changes to the visual setting that adversely affect the historic setting.

Technical reports prepared by Sound Transit as part of the Environment Impact Statement documentation informed these analyses. These studies include, but are not limited to, the WSBLE Noise and Vibration Technical Report (Appendix N.3), the Visual and Aesthetics Technical Report (Appendix N.2), Transportation Report (Appendix N.1), and Chapter 2, Alternatives Considered, of the Draft WSBLE Environmental Impact Statement. All provide

detail about anticipated noise and vibration, and visual impacts from both construction and operation of the project. Sound Transit evaluates light rail noise and vibration impacts for transit projects according to the FTA's *Transit Noise and Vibration Impact Assessment Manual* (2018).

Potential cumulative long-term effects of the WSBL Project in conjunction with past, present, and reasonably foreseeable future actions are addressed in Section 5, Cumulative Impacts, of the Draft Environmental Impact Statement.

10.1 Overview of Potential Permanent (Operational) Effects

Potential permanent operational effects to archaeological and historic built environment resources can include, but are not limited to:

- Partial and full demolition of existing resources.
- The introduction of physical structures that would diminish the setting or accessibility of historic built environment properties, such as:
 - Elevated guideways.
 - Stations.
 - Tunnels.
 - Overhead catenary systems.
 - Traction power substations.
 - Hi-rail access and maintenance roads.
 - Tunnel vents.
 - Stormwater facilities.
 - Utilities relocation.
 - Construction of staging, stockpiling, and storage areas.
- Other impacts, including train noise, lighting and glare from passing trains and stations, or vibration from passing trains if those impacts compromise the physical integrity or accessibility of existing structures.

Appendix N.2, Visual and Aesthetics Technical Report, describes the type and extent of visual impacts associated with the project elements. It includes visual simulations from key viewpoints, which are provided in Attachment N.2A, Key Observation Point Analysis, of Appendix N.2. Table 10-1 provides an overview of visual characteristics of the WSBL Project components.

Table 10-1. Visual Characteristics of WSBL Project Components

Project Component	Visual Characteristics and Notes
Elevated Guideways or Structures (guideway columns, straddle bents) ^a	These are often the most visible project elements. The bottom parts of elevated guideways and hi-rail access would range between approximately 20 feet and 170 feet in height with the West Seattle Link Extension and between about 30 feet and 80 feet above grade with the Ballard Link Extension. Noise barriers near sensitive receivers could add several additional feet to the height of the elevated guideways. Elevated hi-rail access ramps would be required to reach and maintain elevated guideways. In some locations, elevated guideways (and their associated overhead catenary system) could intrude on views of features such as the Cascade and Olympic mountains, Mount Rainier, Elliott Bay, Puget Sound, Salmon Bay, the Lake Washington Ship Canal, and the Downtown Seattle skyline, although they might not block these views altogether. Elevated stations (and guideways to a lesser extent) could create shadows that could have impacts. However, stations and associated structures such as elevators, escalators, and walkways, as well as underground stations egress/vent structures, would be designed to be attractive architectural elements or features and would add visual interest to the nearby area.

Project Component	Visual Characteristics and Notes
Bridges	Bridges that cross waterways would be the most visible structures as seen from a distance associated with the WSBLE Project. Several alternatives would build bridges over the Duwamish Waterway and Salmon Bay. High-level fixed bridge structure types could include balanced cantilever segmental box girder, extradosed, cable-stayed, arch (only for the bridge over Salmon Bay), or steel truss superstructures (only for the bridge over the Duwamish Waterway). The moveable bridge over Salmon Bay could include a vertical lift or double-leaf bascule bridge, both with a balanced cantilever segmental box girder for the fixed portion of the bridge. The bridge structure types would be determined based on various factors, including engineering constraints, environmental effects, and coordination with other agencies on permitting requirements.
Stations	Depending on size, bulk, and whether they would be elevated, retained cut, or at-grade, stations could block or intrude on views of features such the Cascade and Olympic mountains, Mount Rainier, Elliott Bay, Puget Sound, and the Downtown Seattle skyline; cast shadows; or add built elements to the landscape. Elevated stations would be more visible than stations in retained cuts or tunnels and would contain features such as escalators, elevators, and stairs. The only at-grade station would be in SODO, where there are no sensitive viewers.
Overhead Catenary System	The overhead catenary system can be a very visible component from close viewing distances. Overhead catenary system elements (wires and poles) become less visible as viewing distances increase. The structures could intrude on views but would not block views because of their thin, cable-like profile and appearance.
Lighting and Glare Associated with Stations	Project-related lighting at stations could create light impacts, increase the level of ambient light nearby, and increase skyglow, which can impact nighttime views of the stars. Design-related measures such as shielding and altering light direction in stations would be used where appropriate to reduce potential impacts. Glare impacts from the WSBLE Project Build Alternatives would be unlikely. "Glare" is defined by the online Merriam-Webster Dictionary as "a harsh uncomfortably bright light" (Merriam-Webster 2020); given this definition, potential reflection from stations might be seen under certain conditions and at certain times of the day but would not be likely to produce harsh, uncomfortable bright light that would be a safety issue to vehicle drivers.
Lighting Associated with Trains	Lights from the interior of WSBLE Project light rail trains and train headlights would be seen at night in some locations as the light rail passes viewers, although some noise barriers on elevated structures near sensitive viewers would block views of interior train lights and/or train headlights, particularly when looking upward at trains traveling above viewers on elevated guideways. Briefly seeing light associated with passing light rail trains would not be expected to create visual disturbances, given the existing level of traffic on streets at night on most streets near the Build Alternatives. Some sensitive viewers living in residences that would be adjacent to elevated structures might find passing nighttime light rail visually disturbing.
Building Removal	Removal of existing buildings can improve or detract from visual settings, depending on building condition, style, scale, and color. Areas where buildings would be removed would contain project elements and/or be revegetated to better blend in with nearby areas.
Vegetation Removal	Removal of vegetation can open up views that are nonexistent or, conversely, expose other unsightly views, such as industrial areas below sensitive viewers that are currently blocked by vegetation. When possible, Sound Transit would preserve existing vegetation as practical, replant vegetation, replace trees, and screen to minimize effects of vegetation removal.
Retaining Walls	Retaining walls often replace vegetated hillsides with hard materials such as concrete that might require surface design treatments to reduce impacts. Where appropriate, retaining walls would be treated with surface design enhancements.

Project Component	Visual Characteristics and Notes
Sound Walls	Sound walls or noise barriers could be installed near sensitive noise receivers. They are built of solid materials and placed adjacent to or attached to the light rail guideway. When these measures are not effective, sound walls might be constructed along property lines, sometimes replacing existing fences. The proposed locations of sound walls are shown in Appendix N.3, Noise and Vibration Technical Report, and were considered in the visual impact analysis.
Retained Cut	Retained cut for light rail would only be visible from nearby areas. Fencing and/or walls along the top of the retained cut would be the most visible elements of this feature and would be appropriately designed to fit in with the adjacent properties.
Traction Power Substations	The traction power substations would be in enclosed buildings, about 20 feet by 60 feet in size, with an additional 10 feet to 20 feet required around each unit. Where appropriate, they would be screened from public view with a wall or fence. The exterior walls or fences would be landscaped in accordance with the landscape regulations of the jurisdictions where the facilities would be located.
Tunnel Egress and Vent Shaft Structure	The tunnel egress and vent shaft structure would provide access from tunnels to the surface and provide a way for the vent shaft to vent above the surface. The structure would be a building approximately 30 feet by 30 feet and 25 feet in height above-grade.

^a Straddle bents are supports made of two columns that support a beam on which the guideway sits.

10.2 Overview of Temporary Construction-Related Effects

Archaeological sites are generally not affected by temporary, construction-related effects. However, temporary construction-related effects to historic built environment resources can be caused by several factors, including, but not limited to, restricted access, increased truck traffic along haul routes, glare, noise, vibration, and temporary changes to setting. Together, these factors can lead to reduced commercial activity, and reduced investment in historic resources. Typically, these effects would not be considered adverse unless they result in the diminishment of characteristics that contribute to a historic property's National Register eligibility.

Activities related to building both the West Seattle and Ballard Link Extensions would have temporary visual impacts. Section 2.6, Construction Approach, in Chapter 2, Alternatives Considered, of the Draft WSBLE Environmental Impact Statement, provides an overview of potential construction activities and timing. Both projects would have extended multiple year construction periods. The greatest potential for construction impacts would occur during civil construction.

The following major civil construction activities could result in a potential adverse effect, depending on proximity to the resource and how the resource is accessed.

- Partial and full demolition of existing resources (buildings, pavement) and debris removal.
- Remediation of existing contamination at construction sites.
- Building temporary vehicular, bicycle, and pedestrian detour routes.
- Protective works (such as underpinning) for buildings that would not be demolished.
- Clearing and vegetation removal.
- Fill and excavation.
- Utility extensions, relocations, or disruptions.
- Drainage system relocations and new connections, including stormwater vaults.

- Construction staging area use.
- Guideway structure construction.
- Tunnel construction, particularly at the tunnel portals and vent shafts.
- Tunnel cross passage construction, including ground treatment near the cross passages.
- Delivery of materials and equipment.
- Removal and hauling of excavation spoils and other construction debris.
- Station construction, including elevated stations and tunnel stations under street rights-of-way.
- Crossover track, tail track, and other special trackwork construction, including at-grade, elevated, and underground trackwork structures.
- Bridge construction.
- Slope stabilization (such as retaining wall) construction.
- Ground treatment and improvement (such as stone columns, jet grouting, and ground freezing).
- Pile-driving and shaft drilling.
- Roadway reconstruction.

10.2.1 Potential Vibration-Related Effects

Construction-related vibration would potentially affect built environment historic properties. As described in Appendix N.3, the primary concern from vibration as a result of construction activities is the potential for damage to buildings, particularly historic properties. Because the details of the construction means and methods for this project are not available at this time and there are several alternatives, the construction vibration analysis focused on determining the distance beyond which the damage risk criteria and annoyance criteria would not be exceeded.

There are no state, county, or municipal vibration regulations; therefore, the FTA's recommended criteria on vibration levels is applied to identify potential vibration effects during construction. The construction vibration criteria were developed to avoid potential damage risk to buildings, including historic buildings, which might be particularly susceptible to construction damage, depending on their structural design and siding.

As discussed in Section 6.3.1 of the Noise and Vibration Technical Report, vibration associated with tunneling is not anticipated to exceed FTA criteria.

The highest vibration-generating construction activity that could occur would be pile-driving where bridge construction is planned. Sound Transit would develop a construction vibration control plan to address locations where historic resources would be located within the minimum distance threshold, and to outline measures to avoid and minimize impacts. Section 11.2.2, Minimization of Noise and Vibration Effects, in this report provides more detail on the construction vibration control plan.

10.2.2 Haul Routes, Construction Staging, and Traffic

To construct the West Seattle and Ballard Link Extensions, Sound Transit would primarily use the City of Seattle's Major Truck Streets (see Sections 9.2.1 and 9.3.1 of the Transportation Technical Report for the City's Major Truck Streets) and WSDOT's Interstate and State Route facilities, including Interstates 5 and 90 and State Routes 99, 509, 519, 599, and 520. These routes would be used for construction vehicle access to and from the construction and construction staging areas. Some oversized construction vehicles may need to use designated alternative routes.

Certain construction areas would not be served by these state and City major truck routes, so additional streets would be required to access construction areas. These streets would be limited to arterials or larger whenever possible but would sometimes need to include local streets to access construction areas not adjacent to the arterial street system.

West Seattle Link Extension construction areas where local streets would be necessary for access include the following:

- Pigeon Point construction staging area for Preferred Alternative DUW-1a and Option DUW-1b in the Duwamish Segment.
- Delridge tunnel portals for Preferred Alternative DEL-2a*, Option DEL-2b*, Alternative DEL-4*, and Alternative DEL-6* in the Delridge Segment.
- Portals for the West Seattle Junction Segment tunnel alternatives (Preferred Alternative WSJ-3a*, Preferred Option WSJ-3b*, Alternative WSJ-4*, and Alternative WSJ-5*), and the station areas for all alternatives, including the elevated alternatives.

Ballard Link Extension construction vehicles would need to travel on local streets for access to the south and north Downtown Segment tunnel portals and the station areas for all Build Alternatives. In addition, the Midtown and Westlake stations lie within the City of Seattle's Downtown Traffic Control Zone, which requires permits to be issued for vehicles 30 feet or longer (City of Seattle 2012).

Partial and full road closures for construction would result in detours to parallel roadways that travel through designated historic districts. While some detours would be outside the area of potential effects, the potential for adverse effects to the entire district was considered.

As noted in Section 3, although construction haul routes have not yet been identified, no construction hauling is anticipated to occur within the Pioneer Square-Skid Road National Historic District, outside of the immediate construction area within the area of potential effects. Minimal construction hauling is anticipated within the Seattle Chinatown Historic District and would only occur when hauling trucks travel from the immediate construction site to Interstate 5. As more information on specific haul routes within national historic districts are identified, FTA and Sound Transit will continue consultation with the State Historic Preservation Officer and other consulting parties.

For both West Seattle Link and Ballard Link extensions, consistent with City of Seattle regulations, construction and construction traffic management plans, including haul routes, would be prepared in consultation with the City during the project's final design and construction phases.

Over the duration of the construction period, the major construction activities for the Draft Environmental Impact Statement Build Alternatives would be associated with the station construction, tunneling, and constructing the elevated guideway or bridges. These activities

would require between 10 and 35 trucks per hour; with bridge construction and tunnel excavation generating the highest truck activity (20 to 35 trucks per hour) within that range.

10.3 No Build Alternative

For both the West Seattle and Ballard Link Extensions, the No Build Alternative would have no effect on historic properties in the area. Archaeological resources may be identified through other construction activities as the area continues to expand and develop. Similarly, the number of historic built environment resources could decrease with increased development and through neglect.

10.4 West Seattle Link Extension

This section discusses the potential effects under Section 106 of project construction and operation on archaeological sites and historic built environment resources associated with the West Seattle Link Extension. Measures to reduce noise, vibration, and/or visual effects are discussed in Section 11, Summary and Recommendations.

Section 1.2, Project Description, provides an overview of project elements within this extension; Chapter 2 of the Draft Environmental Impact Statement provides a more extensive description. Effects associated with this extension are described in the following sections.

10.4.1 Effects to Archaeological Resources

In the following sections, the discussion will focus solely on those resources or areas that have the potential to be adversely affected by the project. For archaeological resources discussed in previous sections, those sites that have been determined “not eligible” for listing in the National Register will not be discussed further. Archaeological sites that have not yet been evaluated for eligibility for listing in the National Register or those locations along the new corridors with a high archaeological probability will be the focus of the following discussion.

10.4.1.1 SODO Segment

There are no previously identified archaeological resources within the SODO Segment of the West Seattle Link Extension. However, prior to Euroamerican migration into the area, nearly the entirety of this segment was tidal and likely used by local inhabitants for resource procurement. While archaeological remnants of the types of activities associated with these areas are ephemeral and rare, there exists a real possibility that they could exist beneath the historic fill that was imported and deposited to develop a more stable landform during historic times.

All alternatives should be presumed to be equal in the likelihood of identifying possible precontact remains that may exist throughout this segment. Because the evidence of efforts to develop the tidelands during historic times has clearly been documented in similar areas (for example 45KI765, 45KI529, and 45KI530), deposits of historic debris and fill would be encountered throughout this segment.

10.4.1.2 Duwamish Segment

All of the Duwamish Segment alternatives should expect to encounter historical-period refuse in the form of tidelands stabilization fill. Whether to the north or the south of the West Seattle Bridge, historical-period refuse associated with regrade material, industrial refuse, and dredge

spoils would be pervasive throughout this segment. These types of unconsolidated materials rarely rise to the level of being considered eligible for listing in the National Register (exemplified by 45KI529, 45KI530, and 45KI688, for example), but this cannot be definitively determined until they are uncovered and examined. Although three of the alternatives (Preferred Alternative DUW-1a, Option DUW-1b, and Alternative DUW-2) overlap the present boundaries of archaeological site 45KI688, the site was determined to be not eligible for listing in the National Register.

Presently, there is only a single previously identified archaeological resource that could be affected by the project (see Sections 7.1.1 and 9.1.3.2) within the West Seattle corridor. Archaeological site 45KI1353, on the west side of the Duwamish Waterway, was identified during very limited geotechnical boring work in 1985 and preliminarily identified as a precontact shell midden. To date, the extent of the midden has not been determined, although plans to explore the extent of the site are currently being reviewed.

Two alternatives, Preferred Alternative DUW-1a and Option DUW-1b, are both elevated configurations and would not directly impact the site. Therefore, there would be no effect under Section 106.

Area KK, a known ethnographic location that could have been the location of a lookout, stockade, or defensive point during precontact or even ethnohistoric times, falls in the immediate alignment of Alternative DUW-2 and, if intact features remain, would be directly affected by construction. Archaeological sensitivity area II (see Section 8.3.2.1), on the east side of the Duwamish Waterway, falls directly within Preferred Alternative DUW-1a. The single geotechnical borehole that falls within the boundary of area II (DS2034) has not yet been excavated. Archaeological sensitivity area KK (see Section 8.3.2.1), on the west side of the Duwamish Waterway, covers two identified archaeological sites (45KI1353 and 45KI52). Preferred Alternative DUW-1a and Option DUW-1b would be within area KK.

Both Preferred Alternative DUW-1a and Option DUW-1b should be considered very sensitive for the presence of precontact archaeological remains. The ethnographic and archaeological data suggest that precontact archaeological remains exist in the Duwamish River area. It should be mentioned that human skeletal remains have been identified at 45KI52.

Similarly, the high promontory above the Duwamish Waterway to the west, now referred to as Pigeon Point, would have been an attractive landform during precontact times. While little is known about this landform archaeologically, it shares geographic features that would have made it very attractive to precontact inhabitants. Most notably among these features would be the elevation above flood zone, proximity to water and desirable resources, defensibility, and line of sight. This area would be affected by both Preferred Alternative DUW-1a and Option DUW-1b. If archaeological resources are identified during the pre-construction survey or construction, processes for Section 106 compliance, including National Register evaluation, adverse effects determination, and potential mitigation, would be followed by FTA in Consultation with the State Historic Preservation Officer and affected Tribes (as appropriate).

10.4.1.3 Delridge Segment

In addition to there being no recorded archaeological sites within the Delridge Segment, there is no record of cultural resources survey having been conducted within the area. The WISAARD predictive model suggests that this area is “very high risk” for the presence of precontact archaeological remains, and precontact archaeological remains could be identified during construction of any of the project alternatives.

Similarly, for historical-period resources, all projects alternatives could encounter historical-period archaeological resources within the Delridge Segment. Whether residential, transportation, or industrial in nature, much of this segment has seen development more than 50 years old.

10.4.1.4 West Seattle Junction Segment

There are no recorded archaeological sites, and no cultural resources survey has been completed within the West Seattle Junction Segment boundaries. Categorized primarily as “high to very high risk” in the WISAARD predictive model, this area was likely used during precontact times. The construction of the project alternatives could discover archaeological remains associated with those early inhabitants.

This area has a history of Euroamerican development, and it is possible that all the project alternatives would have the potential to expose and affect historical-period resources.

10.4.2 Effects to Historic Built Environment Resources

The following sections describe the West Seattle Link Extensions effects to the built environment historic properties identified in Section 9 of this report. The properties are described by name and address, and the survey number is included in parentheses. In addition, Tables 10-2 through 10-5 provide an overview of project components that would adversely affect built environment historic properties in each segment. For this project, property-specific adverse effects are characterized as follows:

- Property demolition – property would be acquired and demolished.
- Partial property acquisition – part of the property acquired for the project would not necessitate demolition of the historic property but would diminish one or more aspects of the property’s integrity. Not all partial property acquisitions would result in an adverse effect, particularly when a partial acquisition would only take a small, undeveloped portion of the parcel, or a small portion of surface parking, and would not compromise access or use, or diminish the resource’s integrity.
- Permanent proximity effects – proximity to the project and/or visual intrusion would cause permanent diminishment of setting, feeling, and/or other aspects of integrity. These effects are more likely to be adverse when they occur in neighborhoods with a cohesive building type, such as residential neighborhoods. They are less likely to be adverse in industrial or transportation-dominant areas because the introduction of a new transportation feature would be unlikely to diminish the integrity of setting.
- Construction disruption – a property in direct proximity (typically within one parcel) would be affected by reduced access, extensive noise, and/or vibration over an extended duration, diminishing one or more aspect of integrity. Construction in proximity of a historic property would not necessarily diminish integrity or result in an adverse effect.

Effects to individual historic properties presented in Tables 10-2 through 10-5 are preliminary and have not been formally determined by FTA. Final effects determinations are pending additional consultation with the State Historic Preservation Officer, Tribes, and other consulting parties.

Designated Seattle landmarks and districts that would be directly modified would be subject to review and issuance of a certificate of approval from the Landmarks Board and/or District Review Boards.

10.4.2.1 Linear Resource Spanning Multiple Segments

A segment of 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 (LIN-2) is contained within both the SODO and Duwamish segments. However, it would be avoided in its entirety and would not be adversely affected by any project alternatives. Its integrity would not be altered or diminished by the project.

10.4.2.2 SODO Segment

As summarized in Table 10-2, none of the alternatives would adversely affect built environment historic properties. Any effects would be associated with proximity to the new alignments, but those effects are not anticipated to be adverse.

There are no National Register-eligible historic districts in this segment.

Preferred At-Grade Alternative (SODO-1a)

The historic properties in the area of potential effects for Preferred Alternative SODO-1a would not be adversely affected as a result of the project. They are sufficiently far from construction and operation of the project that it would not alter or diminish any aspect of integrity.

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

The historic properties in the area of potential effects for Option SODO-1b would not be adversely affected as a result of the project. They are sufficiently far from construction and operation of the project that it would not alter or diminish any aspect of integrity.

Mixed Profile Alternative (SODO-2)

The historic properties in the area of potential effects for Alternative SODO-2 would not be adversely affected as a result of the project. They are sufficiently far from construction and operation of the project that it would not alter or diminish any aspect of integrity.

10.4.2.3 Duwamish Segment

As summarized in Table 10-3, all three Duwamish alternatives would cause an adverse effect to built environment historic properties.

There are no previously identified historic districts within the Duwamish Segment. Two National Register-eligible historic districts were identified within this segment: the Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District (1122) and the Spokane Street Manufacturing Historic District (multiple identification numbers). None of the individual buildings within the Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District are individually eligible for listing in the National Register; therefore, each contributing building is not listed in Table 10-3. The Spokane Street Manufacturing Historic District contains five buildings that are individually eligible for listing in the National Register and each is listed in Table 10-3.

Common to all Build Alternatives in this segment is the relocation of a 230-kilovolt power line along 6th Avenue South and Diagonal Avenue, south of South Spokane Street, leading to the Seattle City Light Substation. This project element would not directly or indirectly alter or diminish any aspect of integrity of adjacent historic properties.

Table 10-2. Effects to Built Environment Historic Properties: Area of Potential Effects – SODO Segment (West Seattle Link Extension)

Survey Number	WISAARD Number	Property Name	Address	Date Built	National Register Eligibility Status ^a	Preferred At-Grade Alternative (SODO-1a)	At-Grade South Station Option (SODO-1b)	Mixed Profile Alternative (SODO-2)
1028 ^b	342325	Lincoln Moving & Storage, Alaska Orient Van Lines Building	1924 4th Avenue South	1966	Eligible (Criterion C)	See Table 10-6	See Table 10-6	See Table 10-6
1030 ^b	720609	Graybar Electric Company Building	1919 6th Avenue South	1960	Eligible (Criterion C)	See Table 10-6	See Table 10-6	See Table 10-6
1276	720594	Platt Electric Supply Co.	2757 6th Avenue South	1970	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
2085a	343198	Mill & Mine Supply Co. Building and Warehouse	625 South Lander Street	1953	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3317	721855	Northwest Wire Works	2752 6th Avenue South	1947	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
Total Number of Adversely Affected Properties	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	0	0	0

Note: Assessments of effects to individual historic properties are preliminary and have not been formally determined by FTA. Final effects determinations are pending additional consultation with the State Historic Preservation Officer, Tribes, and other consulting parties.

^a Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

^b Note that this building is evaluated in both the West Seattle Link Extension and Ballard Link Extension SODO segments because it is located on the border of both segments. Effects to these properties are presented in Table 10-6.

Table 10-3. Effects to Built Environment Historic Properties: Area of Potential Effects – Duwamish Segment

Survey Number	WISAARD Number	Property Name	Address	Built Date	National Register Eligibility Status ^a	Preferred South Crossing Alternative (DUW-1a)	South Crossing South Edge Crossing Alignment Option (DUW-1b)	North Crossing Alternative (DUW-2)
Not Applicable	Multiple	Spokane Street Manufacturing Historic District	Multiple	1908-1968	Eligible Historic District (Criterion A)	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected
273a	342489	Military Cold Storage Plant/Rainier Market Center	3625 1st Avenue South	1944	Eligible (Criteria A and C), contributes to Spokane Street Manufacturing Historic District (Criterion A)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
273b	720604	Truck Storage Battery Charging Building	3625 1st Avenue South	1944	Eligible (Criterion A), contributes to Spokane Street Manufacturing Historic District (Criterion A)	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected
881	342274	Seattle Pacific Sales Company Warehouse	3800 1st Avenue South	1968	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1005	45159	Link-Belt Company Property	3405 6th Avenue South	1946	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1083	718431	Viking Automatic Sprinkler Company	3434 1st Avenue South	1964	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>

Survey Number	WISAARD Number	Property Name	Address	Built Date	National Register Eligibility Status ^a	Preferred South Crossing Alternative (DUW-1a)	South Crossing South Edge Crossing Alignment Option (DUW-1b)	North Crossing Alternative (DUW-2)
1089a	337707	Ehrlich-Harrison Company Industrial Building	60 South Spokane Street	1941	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1089b	720508	Ehrlich-Harrison Company Industrial Building	60 South Spokane Street	1941	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1090a	720509	Transportation Equipment Rentals Office Building	3443 1st Avenue South	1968	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>
1090b	720510	Transportation Equipment Rentals Maintenance Warehouse	3443 1st Avenue South	1968	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>
1094a	720511	Acme Tool Works	3626 East Marginal Way South	1941	Eligible (Criterion A), contributes to Spokane Street Manufacturing Historic District (Criterion A)	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected

Survey Number	WISAARD Number	Property Name	Address	Built Date	National Register Eligibility Status ^a	Preferred South Crossing Alternative (DUW-1a)	South Crossing South Edge Crossing Alignment Option (DUW-1b)	North Crossing Alternative (DUW-2)
1122a through 1122e	721620, 721624, 721625, 721628, 721629	Pacific Forge Company/ Bethlehem Steel Nut and Bolt Factory Historic District	3800 West Marginal Way Southwest	1917 to 1968	Eligible Pacific Forge Company/ Bethlehem Steel Nut and Bolt Factory Historic District (Criteria A and C)	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected
1138	45086	Fire Station 14	3224 4th Avenue South	1922	Eligible (Criterion C), Designated Seattle Landmark	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1274	45085	Pacific Hoist and Warehouse Company	3200 4th Avenue South	1931	Eligible (Criterion C)	Not Adversely Affected ^b	Not Adversely Affected	Not Adversely Affected
1275a	342730	Langendorf United Bakeries	2901 6th Avenue South	1952	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1275b	720593	Langendorf United Bakeries Repair Garage	2901 6th Avenue South	1955	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1388	38533	A.M. Castle and Company	3640-60 East Marginal Way South	1945	Eligible (Criteria A and C), contributes to Spokane Street Manufacturing Historic District (Criterion A)	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected

Survey Number	WISAARD Number	Property Name	Address	Built Date	National Register Eligibility Status ^a	Preferred South Crossing Alternative (DUW-1a)	South Crossing South Edge Crossing Alignment Option (DUW-1b)	North Crossing Alternative (DUW-2)
1915	38532	Alaskan Copper Works/Eagle Brass Foundry Company	3600 East Marginal Way South	1918	Eligible (Criterion A), contributes to Spokane Street Manufacturing Historic District (Criterion A)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1943	48502	Alaskan Copper and Brass Company	3223 6th Avenue South	1953	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3214	294616	Single-Family Residence	3842 23rd Avenue Southwest	1914	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3320b	722008	NW Motor Parts Corporation Building	2930 6th Avenue South	1951	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3321	721857	M.J.B Coffee Company Warehouse	2940 6th Avenue South	1954	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3322a	342997	Alaskan Copper Company Employment Office	2958 6th Avenue South	1941	Eligible (Criterion C)	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>
3322b	721997	Auto Repair Garage	2958 6th Avenue South	1948	Eligible (Criterion A)	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected

Survey Number	WISAARD Number	Property Name	Address	Built Date	National Register Eligibility Status ^a	Preferred South Crossing Alternative (DUW-1a)	South Crossing South Edge Crossing Alignment Option (DUW-1b)	North Crossing Alternative (DUW-2)
3324	340010	Los Angeles-Seattle Motor Express Company	3200 6th Avenue South	1945	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3327	342709	Scientific Supplies Company	600 South Spokane Street	1954	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3329a	86871	Department of Highways District No. 1 Headquarters/ Maintenance Facility – Office/ Administrative Building	450 South Spokane Street	1931	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Partial Property Acquisition</i>
3329b	722096	Department of Highways District No. 1 Headquarters/ Maintenance Facility – Maintenance Building	450 South Spokane Street	1931	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Partial Property Acquisition</i>
3329c	722098	Department of Highways District No. 1 Headquarters/ Maintenance Facility – Storage Building	450 South Spokane Street	1931	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Partial Property Acquisition</i>

Survey Number	WISAARD Number	Property Name	Address	Built Date	National Register Eligibility Status ^a	Preferred South Crossing Alternative (DUW-1a)	South Crossing South Edge Crossing Alignment Option (DUW-1b)	North Crossing Alternative (DUW-2)
3329d	722100	Department of Highways District No. 1 Headquarters/ Maintenance Facility – Car/Paint Building	450 South Spokane Street	1931	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>
3329e	722101	Department of Highways District No. 1 Headquarters/ Maintenance Facility – Maintenance/G arage Building	450 South Spokane Street	1959	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>
3339	342259	Riches & Adams Co./Seattle Opportunities Industrialization Center, Inc.	3627 1st Avenue South	1954	Eligible (Criterion A)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3344	344061	General Construction Company Office	3840 West Marginal Way Southwest	1931	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5136	725824	Air Mac, Inc.	3838 4th Avenue South	1953	Eligible (Criterion C) (pending consultation)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Number	Property Name	Address	Built Date	National Register Eligibility Status ^a	Preferred South Crossing Alternative (DUW-1a)	South Crossing South Edge Crossing Alignment Option (DUW-1b)	North Crossing Alternative (DUW-2)
5137	725825	Warehouse and Office Building	3623 6th Avenue South	1961	Eligible (Criterion C) (pending consultation)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5139a	45089	Seattle City Light South Receiving Substation	3839 4th Avenue South	1938	Eligible (Criteria A and C) (pending consultation)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
LIN-12	44440	Northern Pacific Railway Bridge Over the West Duwamish Waterway	South of Spokane Street, near Klickitat Way Southwest	1911	Eligible (Criterion C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
Total Number of Adversely Affected Properties	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	6	7	9

Note: Assessments of effects to individual historic properties are preliminary and have not been formally determined by FTA. Final effects determinations are pending additional consultation with the State Historic Preservation Officer, Tribes, and other consulting parties.

^a Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

^b A portion of this property—but not the building or access to the facility—would be acquired only if it this alternative connects to Alternatives DEL-3 and DEL4*. Although this would result in alteration of setting, the effect would not be adverse, and no other aspects of integrity would be altered or diminish. No portion of the property would be acquired when connecting to any of the other Delridge Segment Build Alternatives.

Preferred South Crossing Alternative (DUW-1a)

Preferred Alternative DUW-1a would require demolition of the following resources, resulting in adverse effects:

- Truck Storage Battery Charging Building at 3625 1st Avenue South (273b).
- The National Register-eligible Pacific Forge Company/Bethlehem Steel Nut and Bolt Factory Historic District, 3800 West Marginal Way Southwest (1122).^a
- The Alaskan Copper Company Employment Office and Auto Repair Garage at 2958 6th Avenue South (3322a and 3322b).

In addition, Preferred Alternative DUW-1a would demolish several buildings listed below within the National Register-eligible Spokane Street Manufacturing Historic District, resulting in an adverse effect to the district.

- The following several buildings within the National-Register-eligible Spokane Street Manufacturing Historic District contribute to the district but are not individually eligible, and are not listed in Table 10-3:
 - Edwards Ice Machine Co./Eagle Metals Co. at 3628 East Marginal Way South (272)
 - Simmons Company Metal Beds, Springs, & Mattress Warehouse at 99 South Spokane Street (1091)
 - Lindmark Machine Works at 3626 East Marginal Way South (1094b)
 - Lindmark Machine Works at 49 South Spokane Street (1095)
 - Air Reduction Company at 3623 East Marginal Way South (1103a)
 - Air Reduction Company Carbide Storage Building at 3621 East Marginal Way South (1103b)
 - Air Reduction Company Auto Repair Garage at 3621 East Marginal Way South (1103c)
 - Light Industrial Building at 3633 East Marginal Way South (1104b)
- The following buildings both contribute to the proposed district and are also individually eligible for listing in the National Register, resulting in adverse effects to the individual properties in addition to the overall adverse effect to the district:
 - Nelson Iron Works Blacksmith & Machinist Shop at 45 South Spokane Street (1093)
 - Acme Tool Works at 3626 East Marginal Way South (1094a)

In order to connect the proposed light rail line to the existing Operations and Maintenance Base Facility, this alternative would also require partial property acquisition of the parcel that contains the Langendorf United (now Franz) Bakeries (1275a) and Repair Garage (1275b) at 2901 6th Avenue South. However, neither building would be adversely affected. Access to or operation of the bakery and garage would not be modified or interrupted during construction or operation, and the undertaking would not alter or diminish the buildings' integrity of location, design, materials, workmanship, setting, feeling, or association; therefore, the buildings would not be adversely affected by this alternative.

^a Due to a lack of property access during the environmental analysis, impacts to specific buildings within the district were not fully defined. Therefore, full acquisition of the property is assumed for this evaluation.

Military Cold Storage Plant/Rainier Market Center at 3625 1st Avenue South (273a) would not be adversely affected by Preferred Alternative DUW-1a, although the adjacent National Register-eligible building—Truck Storage Battery Charging building (273b)—would be acquired, thereby altering its integrity of setting. The Military Cold Storage Plant/Rainier Market Center integrity of setting would be altered by demolition of the adjacent building. However, no other aspects of integrity would be altered or diminished as a result of this alternative, and the effect would not be adverse.

The following properties would partially be acquired; however, due to the limited amount of area that would be acquired and the industrial nature of the area with extensive transportation infrastructure, no aspect of integrity would be altered or diminished, and they would not be adversely affected:

- Seattle Pacific Sales Company Warehouse at 3800 1st Avenue South (881)
- Los Angeles-Seattle Motor Express Company at 3200 6th Avenue South (3324)

No other historic properties would be adversely affected as a result of this alternative. The elevated guideway would add another large-scale elevated transportation element (in addition to the West Seattle Bridge) to views along the Duwamish Waterway but would not change the overall setting, feeling, or association of historic properties along the guideway. According to Appendix N.2, light and glare produced by trains would be a very minor change from present conditions, and would not adversely affect historic properties in this segment.

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

Effects associated with Option DUW-1b would be the same as those described for Preferred Alternative DUW-1a, with the following exceptions:

- The A.M. Castle and Company Building at 3640-60 East Marginal Way (1388) would be demolished as a result of this alternative, resulting in an adverse effect.
- In addition to the resources listed for Preferred Alternative DUW-1a, Puget Sound Sheet Metal Works at 3651 East Marginal Way South (1104a), which is not individually eligible but contributes to the National Register-eligible Spokane Street Manufacturing Historic District, would also be demolished as a result of this alternative. The adverse effect to the district was noted in the Preferred Alternative DUW-1a discussion.
- The Truck Storage Battery Charging Building at 3625 1st Avenue South (273b), which contributes to the National Register-eligible Spokane Street Manufacturing Historic District and is also individually eligible for the National Register, would be physically altered to accommodate ground improvements to build the elevated guideway. This would result in a diminishment of integrity of materials, workmanship, and design, as well as an alteration of setting, resulting in an adverse effect to the individual building.
- The Lindmark Machine Works building at 49 South Spokane Street (1095) would not be demolished as a result of Option DUW-1b. A small portion of the property's paved area would be acquired for the project, and the guideway would be constructed in the vicinity of the building, which would alter integrity of setting. However, because this district is located in an industrial area with extensive transportation infrastructure, this change would not diminish integrity of setting or any other aspects of integrity. Therefore, the effect would not be adverse.

The Ballard Link Extension-only Minimum Operable Segment (M.O.S.) condition would adversely affect two resources in the Duwamish Segment for the connection to the existing

Operations and Maintenance Facility Central. These effects are described for the Ballard Link Extension SODO Segment in Section 10.5.2.2.

North Crossing Alternative (DUW-2)

Alternative DUW-2 would demolish the following historic properties, resulting in an adverse effect:

- Viking Automatic Sprinkler Company at 3434 1st Avenue South (1083)
- Transportation Equipment Rentals Office Building at 3443 1st Avenue South (1090a)
- Transportation Equipment Rentals Maintenance Warehouse at 3443 1st Avenue South (1090b)
- The Alaskan Copper Company Employment Office at 2958 6th Avenue South (3322a)

Although this alternative would demolish the Alaskan Copper Company Employment Office, this would not adversely affect the auto repair garage on the same property (3322b). Demolition of the office would not diminish integrity of the repair garage's location, design, materials, workmanship, or feeling. Integrity of association and setting would be altered, but this change would not be considered adverse.

The Department of Highways District No. 1 property at 450 South Spokane Street, which includes five National Register-eligible buildings (3329a through e), would be adversely affected by this alternative. The alternative would require demolition of two of the maintenance buildings: the Car/Paint Building (3329d) and the Maintenance/Garage Building (3329e). Demolition of two of the five buildings on this property would result in a loss of integrity to the overall property; therefore, the entire property and all the buildings therein would be adversely affected by this alternative.

This alternative would require partial property acquisitions for the following resources:

- Partial property acquisition of the Ehrlich-Harrison Company Industrial Buildings at 60 South Spokane Street (1089a and 1089b) would be required. However, only a small portion of the property would be acquired for construction. The building itself would not be modified in any way, and neither access nor use would be compromised. The undertaking would not alter or diminish the resources' integrity of location, design, materials, workmanship, setting, feeling, or association; therefore, it would not be adversely affected by this alternative.
- A small portion of parking behind Fire Station 14 at 3224 4th Avenue South would be acquired for the project. However, preliminary coordination with the Seattle Fire Department suggests that this acquisition would not change the operations of the station. Further, the building would not be directly altered, and no aspect of its integrity would be diminished. Therefore, this effect would not be adverse.
- Partial property acquisition of the Pacific Hoist and Warehouse Company at 3200 4th Avenue South (1274) would be required. However, only a small portion of the property would be acquired for construction. The building itself would not be modified in any way, and neither access nor use would be compromised. The undertaking would not alter or diminish the resource's integrity of location, design, materials, workmanship, setting, feeling, or association; therefore, it would not be adversely affected by this alternative.

In order to connect the proposed light rail line to the existing Operations and Maintenance Base Facility, this alternative would require partial property acquisition of the parcel that contains the Langendorf United (now Franz) Bakeries (1275a) and Repair Garage (1275b) at 2901 6th Avenue South. However, neither building would be adversely affected. Access or operation of

the bakery or garage would not be modified or interrupted during construction or operation, The undertaking would not alter or diminish the buildings' integrity of location, design, materials, workmanship, setting, feeling, or association; therefore, they would not be adversely affected by this alternative.

No other historic properties would be adversely affected as a result of this alternative. The elevated guideway would add another large-scale elevated transportation element (in addition to the West Seattle Bridge) to views along the Duwamish Waterway and would not change the overall setting, feeling, or association of historic properties along the guideway. Light and glare produced by trains would be a very minor change from present conditions and would not adversely affect historic properties in this segment.

The Ballard Link Extension-only M.O.S. condition would adversely affect one resource in the Duwamish Segment for the connection to the existing Operations and Maintenance Facility Central. These effects are described for the Ballard Link Extension SODO Segment in Section 10.5.2.2.

10.4.2.4 Delridge Segment

An overview of adverse effects caused by all alternatives in this segment is provided in Table 10-4. Alternative DEL-6* would cause no adverse effects to historic properties. All other alternatives would adversely affect one or more historic properties.

Preferred Dakota Street Station Alternative (DEL-1a)

Preferred Alternative DEL-1a would adversely affect several historic properties within this segment's area of potential effects.

This alternative would result in the demolition of the following historic properties, resulting in adverse effects to these properties:

- Bethlehem Pacific Coast Steel Company Office Building at 4045 Delridge Way Southwest (443)
- Single-Family Residence at 4030 Delridge Way Southwest (444)
- Mrachke & Son building at 3860 Delridge Way Southwest (453)
- Single-Family Craftsman Residence at 4108 25th Avenue Southwest (1166)
- Single-Family Craftsman Residence at 4139 25th Avenue Southwest (1787)

This alternative would require 0.5 acre of aerial and underground easements at the north end of the West Seattle Golf Course (242) for the construction of the elevated guideway. Further, the introduction of a new elevated guideway blocking views from the golf course to Downtown Seattle would diminish the design, setting, and feeling of the property's integrity, resulting in an adverse effect.

The remaining historic properties within the segment would not be adversely affected by this alternative. They are far enough away from the construction and operation of the project that there would not be an effect, direct or indirect, that would alter or diminish any aspect of integrity. According to Appendix N.2, with Preferred Alternative DEL-1a, lights and, to a much lesser degree, glare from passing trains on the elevated guideway as well as the elevated station lights would be seen from nearby properties in the Delridge Segment. However, the introduction of lights and glare from passing trains and the elevated station would not adversely affect these properties.

Table 10-4. Effects to Built Environment Historic Properties: Area of Potential Effects – Delridge Segment

Survey Number	WISAARD Number	Historic Property	Address	Construction Date	National Register Eligibility Status ^a	Preferred Dakota Street Station Alternative (DEL-1a)	Dakota Street Station North Alignment Option (DEL-1b)	Preferred 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-6)*
242	717063	West Seattle Golf Course	4600 35th Avenue Southwest	1936	Eligible (Criteria A and C)	Adversely Affected: <i>Permanent Proximity Effects</i>	Adversely Affected: <i>Permanent Proximity Effects</i>	Adversely Affected: <i>Partial Property Acquisition; Permanent Proximity Effects</i>	Adversely Affected: <i>Permanent Proximity Effects</i>	Adversely Affected: <i>Permanent Proximity Effects</i>	Adversely Affected: <i>Partial Property Acquisition; Permanent Proximity Effects</i>	Not Adversely Affected	Not Adversely Affected
443	344641	Bethlehem Pacific Coast Steel Company Office Building	4045 Delridge Way Southwest	1960	Eligible (Criteria A and C)	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected	Not Adversely Affected
444	721070	Residence	4030 Delridge Way Southwest	1906	Eligible (Criteria A and C)	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected	Not Adversely Affected
449	38466	Seattle Steel Company/ Bethlehem Pacific Coast Steel Corporation	2424 Southwest Andover Street	1966	Eligible (Criterion A)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
453	47869	Mrachke & Son	3860 – 3864 Delridge Way Southwest	1930	Eligible (Criteria A and C)	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected	Not Adversely Affected
1166	376099	Single-Family Craftsman Residence	4108 25th Avenue Southwest	1907	Eligible (Criteria A and C)	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

10 Application of Criteria of Adverse Effect

Survey Number	WISAARD Number	Historic Property	Address	Construction Date	National Register Eligibility Status ^a	Preferred Dakota Street Station Alternative (DEL-1a)	Dakota Street Station North Alignment Option (DEL-1b)	Preferred 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-6)*
1787	721178	Single-Family Residence	4139 25th Avenue Southwest	1909	Eligible (Criterion C)	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1977	418305	Contemporary Ranch House	4150 32nd Avenue Southwest	1959	Eligible (Criterion C) (pending consultation)	Not Adversely Affected	Adversely Affected: Property Demolition	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Adversely Affected: Property Demolition	Not Adversely Affected
2254	335189	Kirlow Four-Plex	3074 Southwest Avalon Way	1967	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Adversely Affected: Property Demolition	Not Adversely Affected
3345	287692	Residence	4017 23rd Avenue Southwest	1907	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3391	300990	Residence	4044 32nd Avenue Southwest	1925	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3396	45978	Cettolin House	4022 32nd Avenue Southwest	1928	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
Total Number of Adversely Affected Properties	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	6	7	6	6	4	4	2	0

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

Note: Assessments of effects to individual historic properties are preliminary and have not been formally determined by FTA. Final effects determinations are pending additional consultation with the State Historic Preservation Officer, Tribes, and other consulting parties.

^a Unless noted as "pending consultation," the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

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

The application of criteria of adverse effect to historic properties described above for Preferred Alternative DEL-1a would be the same for Option DEL-1b, with two exceptions:

- The Contemporary Ranch House (eligibility is pending consultation) at 4150 32nd Avenue South (1977) would be demolished for construction staging as a result of this alternative, resulting in an adverse effect.
- Less than 0.1 acre of the West Seattle Golf Course (242) would be acquired for Option DEL-1b, which would construct an elevated guideway with straddle bents at the northeast end of the golf course before crossing to the north side of the street. Acquisition would be limited to aerial and underground easements. However, Option DEL-1b would still introduce a new elevated guideway blocking views from the golf course to Downtown Seattle, and would diminish the design, setting, and feeling of the property's integrity, resulting in an adverse effect.

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

Preferred Alternative DEL-2a* would result in the demolition of the following historic properties, resulting in adverse effects:

- Bethlehem Pacific Coast Steel Company Office Building at 4045 Delridge Way Southwest (443).
- Single-family residence at 4030 Delridge Way Southwest (444).
- Mrachke & Son at 3860 Delridge Way Southwest (453).
- Single-family craftsman residence at 4108 25th Avenue Southwest (1166).
- Single-family craftsman residence at 4139 25th Avenue Southwest (1787).

This alternative would require acquisition of 1.6 acres at the north end of the West Seattle Golf Course (242) for the construction of the elevated guideway and tunnel portal. This alternative would transition from an elevated guideway to a tunnel at the northwest end of the golf course and permanently alter at least five holes and require shortening or reconfiguring of these holes. Changes to these holes could potentially affect the United States Golf Association Handicap System rating of the West Seattle Golf Course, which could make this course less desirable to play. This change would diminish the design, setting, association, and feeling of the property's integrity, resulting in an adverse effect.

The remaining historic properties in this district would not be adversely affected as a result of the project. They are sufficiently far from construction and operation of the project that it would not alter or diminish any aspect of integrity. According to the Visual and Aesthetics Technical Report, the impact of Preferred Alternative DEL-2a* on light, glare, and shadows would be similar to that described for Preferred Alternative DEL-1a, although passing trains and the station would be lower in height in many areas, particularly at the elevated Delridge Station. However, the introduction of lights and, to a much lesser degree glare, from passing trains and the elevated station would not affect these properties.

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

The application of criteria of adverse effect to historic properties described for Preferred Alternative DEL-2a* would be the same under Option DEL-2b*, with one exception. Less than 0.1 acre of the West Seattle Golf Course (242) would be acquired for Option DEL-2b* for aerial

and underground easements. This alternative would construct an elevated guideway with straddle bents at the northeast end of the golf course before crossing to the north side of the street. The introduction of a new elevated guideway blocking views from the golf course to Downtown Seattle, and would diminish the design, setting, and feeling of the property's integrity, resulting in an adverse effect.

Delridge Way Station Alternative (DEL-3)

Alternative DEL-3 would result in the demolition of the following historic properties, resulting in adverse effects:

- Bethlehem Pacific Coast Steel Company Office Building at 4045 Delridge Way Southwest (443).
- Single-family residence at 4030 Delridge Way Southwest (444).
- Mrachke & Son at 3860 Delridge Way Southwest (453).

This alternative would require 0.6 acre of aerial and underground easements at the north end of the West Seattle Golf Course (242) for the construction of the elevated guideway. The introduction of a new elevated guideway blocking views from the golf course to Downtown Seattle, and would diminish the design, setting, and feeling of the property's integrity, resulting in an adverse effect.

The remaining historic properties in this segment would not be adversely affected as a result of the project. They are sufficiently removed from construction and operation of the project that it would not alter or diminish any aspect of integrity. According to the Visual and Aesthetics Technical Report, with Alternative DEL-3, lights and, to a much lesser degree, glare from passing trains on the elevated guideway and the elevated station lights would be seen from nearby. However, the introduction of lights and, to a much lesser degree glare, from passing trains and the elevated station would not affect these properties.

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

The application of criteria of adverse effect to historic properties described in Alternative DEL-3 would be the same for Alternative DEL-4*, with one exception:

- This alternative would require acquisition of 1.6 acres at the north end of the West Seattle Golf Course (242) for the construction of the elevated guideway and tunnel portal. This alternative would transition from an elevated guideway to a tunnel at the northwest end of the golf course and permanently alter at least five holes and require shortening or reconfiguring of these holes. Changes to these holes could potentially affect the United States Golf Association Handicap System rating of the West Seattle Golf Course, which could make this course less desirable to play. This change would diminish the design, setting, association, and feeling of the property's integrity, resulting in an adverse effect.

Andover Street Station Alternative (DEL-5)

Alternative DEL-5 would result in the demolition of the following historic properties, resulting in adverse effects:

- Contemporary Ranch House (eligibility is pending consultation) at 4150 32nd Avenue Southwest (1977).
- Kirlow Four-Plex at 3074 Southwest Avalon Way (2254).

This alternative would result in the acquisition of the southeast corner of the Seattle Steel Company/Bethlehem Pacific Coast Steel Corporation (Nucor Steel) property at 2424 Southwest Andover Street (449). The elevated guideway would be on this portion of the property which currently serves as surface parking. However, this property is a large industrial complex, and no building or structure on the property would be changed. Therefore, no aspect of its integrity would be altered or diminished by this alternative, and it would not result in an adverse effect.

The remaining historic properties in this segment are sufficiently far from construction and operation of Alternative DEL-5 that they would not be adversely affected by this alternative. According to the Visual and Aesthetics Technical Report, with Alternative DEL-5, lights from passing trains on the elevated guideway would be seen by residents from the multi-story residential buildings that line this part of Southwest Andover Street. The lights from the trains would add to the at-grade lights from vehicles traveling on Southwest Andover Street. However, the introduction of lights from passing trains would not affect these properties.

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

No historic properties would be adversely affected by Alternative DEL-6*. This alternative would result in the acquisition of the southeast corner of the Seattle Steel Company/Bethlehem Pacific Coast Steel Corporation (Nucor Steel) property at 2424 Southwest Andover Street (449). A portion of the elevated guideway would be on this portion of the property which currently serves as surface parking. However, this property is a large industrial complex, and no building or structure on the property would be changed. Therefore, no aspect of its integrity would be altered or diminished by this alternative, and it would not result in an adverse effect.

The remaining historic properties in this segment are sufficiently far from construction and operation of Alternative DEL-6* that they would not be adversely affected by this alternative. According to the Visual and Aesthetics Technical Report, with Alternative DEL-6*, lights from passing trains on the elevated guideway would be seen by residents from the multi-story residential buildings that line this part of 32nd Avenue Southwest. The lights from the trains would add to the at-grade lights from vehicles traveling on 32nd Avenue Southwest. The tree removal next to the West Seattle Bridge on-ramp would eliminate the screening value of the trees for screening lights from vehicles traveling on the on-ramp. However, the introduction of lights from passing trains would not affect these properties.

10.4.2.5 West Seattle Junction Segment

As summarized in Table 10-5, all West Seattle Junction Segment alternatives would cause adverse effects to one or more built environment historic properties. There are no previously identified or newly identified historic districts within the West Seattle Junction Segment.

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

Preferred Alternative WSJ-1 would require the demolition of several historic properties, resulting in adverse effects:

- Carlsen & Winquist Auto at 4480 Fauntleroy Way Southwest (91).
- Jim's Shell Service at 4457 Fauntleroy Way Southwest (97).
- Contemporary ranch house at 3221 Southwest Genesee Street (1215).
- Golden Tee Apartment Building at 3201 Southwest Avalon Way (1230) when this alternative connects to Preferred Alternative DEL-1a or Alternative DEL-3.

Table 10-5. Effects to Built Environment Historic Properties: Area of Potential Effects – West Seattle Junction Segment

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Elevated 41st/42nd Avenue Station Alternative (WSJ-1)	Preferred Elevated Fauntleroy Way Station Alternative (WSJ-2)	Preferred Tunnel 41st Avenue Station Alternative (WSJ-3a)*	Preferred Tunnel 42nd Avenue Station Option (WSJ-3b)*	Short Tunnel 41st Avenue Station Alternative (WSJ-4)*	Medium Tunnel 41st Avenue Station Alternative (WSJ-5)*
77	719318	Limcrest Apartments	3600 Southwest Genesee Street	1956	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Property Demolition ^b</i>	Adversely Affected: <i>Property Demolition ^c</i>	Not Adversely Affected	Not Adversely Affected
89	720836	Single-Family Residence	4406 37th Avenue Southwest	1953	Eligible (Criterion C)	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>
91	720871	Carlsen & Winquist Auto	4480 Fauntleroy Way Southwest	1946	Eligible (Criteria A and C)	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
92b	720875	West Seattle Brake Service	4464 37th Avenue Southwest	1948	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
97	720988	Jim's Shell Service	4457 Fauntleroy Way Southwest	1965	Eligible (Criterion A)	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected
103	420560	Residence	4407 38th Avenue Southwest	1924	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
177	721552	Campbell Building	4554 California Avenue Southwest	1918	Eligible (Criteria A and C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
181	721486	Alaska House	4545 42nd Avenue Southwest	1979	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Elevated 41st/42nd Avenue Station Alternative (WSJ-1)	Preferred Elevated Fauntleroy Way Station Alternative (WSJ-2)	Preferred Tunnel 41st Avenue Station Alternative (WSJ-3a)*	Preferred Tunnel 42nd Avenue Station Option (WSJ-3b)*	Short Tunnel 41st Avenue Station Alternative (WSJ-4)*	Medium Tunnel 41st Avenue Station Alternative (WSJ-5)*
236	343799	Wardrobe Cleaners	4500 Fauntleroy Way Southwest	1949	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
239	365276	Craftsman Bungalow	4015 Southwest Hudson Street	1906	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1215	442141	Contemporary Ranch House	3221 Southwest Genesee Street	1959	Eligible (Criterion C)	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition	Not Adversely Affected	Not Adversely Affected	Adversely Affected: Property Demolition	Not Adversely Affected
1230	338613	Golden Tee Apartments	3201 Southwest Avalon Way	1967	Eligible (Criterion C)	Adversely Affected: Property Demolition ^d	Adversely Affected: Property Demolition ^d	Adversely Affected: Property Demolition ^e	Adversely Affected: Property Demolition ^e	Adversely Affected: Property Demolition ^d	Not Adversely Affected
1309	303008	Single-Family Residence	4157 38th Avenue Southwest	1956	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1984	338612	Golden Tee Apartments	3211 Southwest Avalon Way	1967	Eligible (Criterion C)	Adversely Affected: Permanent Proximity Effects	Adversely Affected: Permanent Proximity Effects	Adversely Affected: Permanent Proximity Effects	Adversely Affected: Permanent Proximity Effects	Adversely Affected: Permanent Proximity Effects	Not Adversely Affected
2068	679043	Bartell Drugs	4548 California Avenue Southwest	1929	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
2110	334059	Chinook Apartments	4431 37th Avenue Southwest	1959	Eligible (Criterion C)	Not Adversely Affected	Adversely Affected: Property Demolition	Not Adversely Affected	Not Adversely Affected	Adversely Affected: Property Demolition	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Elevated 41st/42nd Avenue Station Alternative (WSJ-1)	Preferred Elevated Fauntleroy Way Station Alternative (WSJ-2)	Preferred Tunnel 41st Avenue Station Alternative (WSJ-3a)*	Preferred Tunnel 42nd Avenue Station Option (WSJ-3b)*	Short Tunnel 41st Avenue Station Alternative (WSJ-4)*	Medium Tunnel 41st Avenue Station Alternative (WSJ-5)*
2126	365104	Residence	4446 40th Avenue Southwest	1908	Eligible (Criterion A)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
2150	343495	West Seattle Bowl	4505 39th Avenue Southwest	1948	Eligible (Criterion A)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
2217	343979	Venable and Wing Law Office	4826 California Avenue Southwest	1963	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
2224	721512	Residence	5011 41st Avenue Southwest	1925	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Adversely Affected: Property Demolition	Not Adversely Affected
2228	278849	Residence	4115 Southwest Hudson Street	1913	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3026	654505	Residence	4426 38th Avenue Southwest	1932	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Adversely Affected: Property Demolition	Not Adversely Affected
3042	721838	J.C. Penney/Russell Building	4520 California Avenue Southwest	1926	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3043	721839	Marier Foto Studio	4528 California Avenue Southwest	1928	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3243	722760	Single-Family Residence	4714 38th Avenue Southwest	1939	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Elevated 41st/42nd Avenue Station Alternative (WSJ-1)	Preferred Elevated Fauntleroy Way Station Alternative (WSJ-2)	Preferred Tunnel 41st Avenue Station Alternative (WSJ-3a)*	Preferred Tunnel 42nd Avenue Station Option (WSJ-3b)*	Short Tunnel 41st Avenue Station Alternative (WSJ-4)*	Medium Tunnel 41st Avenue Station Alternative (WSJ-5)*
3250	722762	Single-Family Residence	4755 38th Avenue Southwest	1957	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3251a	723076	Apartment Complex	4821 Fauntleroy Way Southwest	1957	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3251b	723077	Apartment Complex	4821 Fauntleroy Way Southwest	1957	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
Total Number of Adversely Affected Properties	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	5	6	4	4	8	1

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

Note: Assessments of effects to individual historic properties are preliminary and have not been formally determined by FTA. Final effects determinations are pending additional consultation with the State Historic Preservation Officer, Tribes, and other consulting parties.

^a Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

^b This property would be demolished as a result of Preferred Alternative WSJ-3a* only if it this alternative connects to Option DEL-2b*. The property would not be acquired or affected if the alternative connects to Preferred Alternative DEL-2a*.

^c This property would be demolished as a result of Preferred Option WSJ-3b* only if it this option connects to Option DEL-2b*. The property would not be acquired or affected if the option connects to Preferred Alternative DEL-2a*.

^d This property would be demolished only if it this alternative connects to Preferred Alternative DEL-1a or Alternative DEL-3.

^e This property would be demolished only if it this alternative connects to Preferred Alternative DEL-2a* or Alternative DEL-4*.

The following property would be adversely affected by this alternative because of permanent proximity effects:

- Golden Tee Apartment Building at 3211 Southwest Avalon Way (1984). This building is identical to the adjacent Golden Tee Apartment Building at 3201 Southwest Avalon Way, which would be demolished as a result of this alternative when it connects to Preferred Alternative DEL-1a or Alternative DEL-3. The two buildings were built as one overall complex, and removal of one of the buildings would result in a diminishment of integrity of setting, design (of the overall property), feeling, and setting of the other. Therefore, the effect to this property would be adverse.

A portion of the property containing the West Seattle Brake Service at 4464 37th Avenue Southwest (92b) would be acquired for this project, and a separate unrelated building on the parcel would be demolished. However, this change would not diminish the resource's integrity of location, design, setting, materials, workmanship, feeling, or association. Integrity of setting would be altered, but setting is not a character-defining feature of this resource, and the effect would not be adverse. The remaining historic properties in this segment would not be adversely affected as a result of the project. They are sufficiently far from construction and operation of the project, or are in a commercial area in a high-volume transportation corridor, and the project would not alter or diminish any aspect of integrity. According to the Visual and Aesthetics Technical Report, the elevated stations would have lights that would be seen from nearby locations in this segment. The tail track and hi-rail vehicle access would also have lighting that would be seen from nearby residential areas. The introduction of lights from elevated stations, passing trains, and the tail track and hi-rail vehicle access would not affect these properties.

Preferred Elevated Fauntleroy Way Station Alternative (WSJ-2)

Preferred Alternative WSJ-2 would require the demolition of several historic properties, resulting in adverse effects:

- A single-family residence at 4406 37th Avenue Southwest (89).
- Jim's Shell Service at 4457 Fauntleroy Way Southwest (97).
- A contemporary ranch house at 3221 Southwest Genesee Street (1215).
- Golden Tee Apartment Building at 3201 Southwest Avalon Way (1230) when this alternative connects to DEL-1a or DEL-3.
- Chinook Apartments at 4431 37th Avenue Southwest (2110).

The following property would be adversely affected by this alternative because of permanent proximity effects:

- Golden Tee Apartment Building at 3211 Southwest Avalon Way (1984). This building is identical to the adjacent Golden Tee Apartment Building at 3201 Southwest Avalon Way, which would be demolished as a result of this alternative when it connects to Preferred Alternative DEL-1a or Alternative DEL-3. The two buildings were built as one overall complex, and removal of one of the buildings would result in a diminishment of integrity of setting, design (of the overall property), feeling, and setting of the other. Therefore, the effect to this property would be adverse.

The remaining historic properties in this segment would not experience adverse effects as a result of the project. They are sufficiently far from construction and operation of the project that it would not alter or diminish any aspect of integrity. According to the Visual and Aesthetics Technical Report, the elevated stations would have lights that would be seen from nearby

locations in this segment. The tail track and hi-rail vehicle access would also have lighting that would be seen from nearby residential areas. The introduction of lights from elevated stations, passing trains and the tail track and hi-rail vehicle access would not affect these properties.

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

Preferred Tunnel Alternative WSJ-3a* would require the demolition of several historic properties, resulting in adverse effects:

- Limcrest Apartments at 3600 Southwest Genesee Street (77) when this alternative connects to Option DEL-2b*.
- A single-family residence at 4406 37th Avenue Southwest (89).
- Golden Tee Apartment Building at 3201 Southwest Avalon Way (1230) when this alternative connects to Preferred Alternative DEL-2a* or Alternative DEL-4*.

The following property would be adversely affected by this alternative because of permanent proximity effects:

- Golden Tee Apartment Building at 3211 Southwest Avalon Way (1984). This building is identical to the adjacent Golden Tee Apartment Building at 3201 Southwest Avalon Way, which would be demolished as a result of this alternative when it connects to Preferred Alternative DEL-2a* or Alternative DEL-4*. The two buildings were built as one overall complex, and removal of one of the buildings would result in a diminishment of integrity of setting, design (of the overall property), feeling, and setting of the other. Therefore, the effect to 3211 would be adverse.

The remaining historic properties are sufficiently far from construction and operation of the project that they would not experience an effect, direct or indirect, that would alter or diminish any aspect of integrity. The removal of residences on 41st Avenue Southwest between Southwest Edmonds Street and Southwest Hudson Street and the introduction of the above-ground egress and vent shaft structure would not affect historic properties in the Preferred Alternative WSJ-3a* area of potential effects.

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

The application of criteria of adverse effect to historic properties for Preferred Option WSJ-3b* would be the same as described for Preferred Alternative WSJ-3a*, with the following exceptions.

The remaining properties are sufficiently far from construction and operation of the project that it would not alter or diminish any aspect of integrity. The removal of residences on 42nd Avenue Southwest between Southwest Edmonds Street and Southwest Hudson Street and the introduction of the aboveground egress and vent shaft structure would not affect historic properties in the Preferred Option WSJ-3b* area of potential effect.

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

Alternative WSJ-4* would require the demolition of several historic properties, resulting in adverse effects:

- A single-family residence at 4406 37th Avenue Southwest (89).
- Jim's Shell Service at 4457 Fauntleroy Way Southwest (97).
- A contemporary ranch house at 3221 Southwest Genesee Street (1215).

- Golden Tee Apartment Building at 3201 Southwest Avalon Way (1230) when this alternative connects to Preferred Alternative DEL-1a or Alternative DEL-3.
- Chinook Apartments at 4431 37th Avenue Southwest (2110).
- A residence at 5011 41st Avenue Southwest (2224).
- A residence at 4426 38th Avenue Southwest (3026).

The following property would be adversely affected by this alternative because of permanent proximity effects:

- Golden Tee Apartment Building at 3211 Southwest Avalon Way (1984). This building is identical to the adjacent Golden Tee Apartment Building at 3201 Southwest Avalon Way, which would be demolished as a result of this alternative when it connects to Preferred Alternative DEL-1a or Alternative DEL-3. The two buildings were built as one overall complex, and removal of one of the buildings would result in a diminishment of integrity of setting, design (of the overall property), feeling, and setting of the other. Therefore, the effect to this property would be adverse.

The remaining historic properties in this segment would not be adversely affected as a result of the project. They are sufficiently far from construction and operation of the project that it would not alter or diminish any aspect of integrity.

According to the Visual and Aesthetics Technical Report, lights at the elevated Avalon Station would be seen from nearby properties. Lights from the elevated guideway and station would be similar to those described for Preferred Alternative WSJ-1 but along a shorter alignment. The introduction of lights from elevated stations, passing trains, and the tail track and hi-rail vehicle access would not affect these properties.

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

Alternative WSJ-5* would require the demolition of one historic property, a single-family residence at 4406 37th Avenue Southwest (89).

The remaining historic properties are sufficiently far from construction and operation of the project that it would not alter or diminish any aspect of integrity. Lights from light rail trains would not affect historic properties in the Alternative WSJ-5* area of potential effect.

10.4.2.6 Potential Indirect or Cumulative Effects

All project Build Alternatives would have the potential to affect historic or archaeological resources within the study area. The settings surrounding these resources have been altered by older development, recent redevelopment, and general changes in uses surrounding them. The reasonably foreseeable future actions in the project vicinity may also have direct impacts on historic or archaeological resources in the WSBLE study area. Incrementally, new infrastructure and development patterns have changed and will continue to change the historic setting of resources as a result of past and ongoing urbanization.

Construction of the West Seattle Link Extension could encourage population growth and transit-oriented development in the station areas. Potential effects could include demolition or substantial alteration of historic properties for redevelopment. Future redevelopment in station areas would be consistent with adopted zoning and the City of Seattle's Comprehensive Plan (2018), which currently allows greater density in the station areas than exists today. The City's Landmark ordinance, which would apply to the demolition or substantial alteration of historic structures that meet the City of Seattle's Landmark criteria, would help to reduce loss of historic

resources. Furthermore, any changes in zoning by the City could result in redevelopment of historic properties and long-term alteration to the scale and character of neighborhoods, which could have indirect impacts on historic properties. Redevelopment also has the potential to disturb archaeological resources. Incrementally, the WSBLE Project could contribute to a cumulative impact on historic and archaeological resources.

10.5 Ballard Link Extension

This section discusses the potential effects under Section 106 of project construction and operation on archaeological sites and historic built environment resources associated with the Ballard Link Extension.

Section 1.2 of this document provides an overview of project elements within this extension; Chapter 2 of the Draft Environmental Impact Statement provides a more extensive description. Effects associated with this extension are described in the following sections.

10.5.1 Effects to Archaeological Resources

For the Ballard Link Extension, the discussion is focused solely on those resources or areas that have the potential to be adversely affected by the project. For archaeological resources discussed in previous sections, those sites that have been determined not eligible for listing in the National Register are not discussed. The archaeological sites that have not yet been evaluated for eligibility for listing in the National Register or those locations along the new corridors with a high archaeological probability are the focus of the following discussion.

10.5.1.1 SODO Segment

Please see the previous discussion of the SODO Segment under the West Seattle Link Extension (Section 10.4.1).

10.5.1.2 Chinatown-International District Segment

Of the three previously identified sites within the Chinatown-International District, all were determined not eligible for listing in the National Register and are therefore not part of the effects discussion for this segment. Because all of the alternatives within the Chinatown-International District Segment would be tunneled between Massachusetts Street and Royal Brougham, potential effects to archaeological resources associated with construction would be limited to portal construction at the surface and then potential surface staging areas associated with construction and operations. Tunneling itself would not have the potential to affect archaeological resources because it would occur in glacial sediment with no potential to contain deeply buried archaeological resources.

Construction of the tunnel portal in what was once Duwamish Waterway tide flats might uncover archaeological remains, possibly precontact, and historical-period refuse and/or fill. Encountering historical-period archaeological remains in areas associated with staging, construction, and operations, where physical ground disturbance is generally shallower (1 to 3 meters/3 to 9 feet), is very likely. Deeper ground disturbance (greater than 3 meters/9 feet) substantially increases the probability of encountering precontact resources as well. Depending on the depth of the tunnel as it passes under archaeological sensitivity area HH, guideway alignments for Alternative CID-1a* and Option CID-1b* could intersect this area.

10.5.1.3 Downtown Segment

Risks to archaeological resources diminish or disappear with a tunneled construction because all disturbance associated with the above-ground guideway portion of the construction is removed. In general terms, tunneling should not disturb archaeological materials because no examples of archaeological remains in the desktop research area have been identified deeper than 30 feet below ground surface.

As mentioned in Section 9.2.3.3, six archaeological sites have been identified within the area of potential effects, three of which have not been evaluated for National Register eligibility. Two of the unevaluated sites, 45KI1434 and 45KI1435, have the potential to be affected by a construction area. The final unevaluated site, 45KI1185, is within the road prism of Queen Anne Avenue North between Mercer Street and Republican Street. Even though all of the alternatives would be confined to tunnels at this location, the site extends (as currently defined) into the construction footprint for Alternative DT-2 and likely extends into the construction/operations footprint for Preferred Alternative DT-1.

Finally, with three of the five new stations within this segment along both alignments being considered for cut-and-cover construction, these station locations may identify historical-period resources. Several archaeological sensitivity areas are in the immediate vicinity of station locations along both alternatives, suggesting a very strong likelihood that historical-period archaeological remains are extant throughout the area. Three of the archaeological sensitivity areas would be close to station locations. Area MM falls outside of the footprint of the new Westlake Station with Preferred Alternative DT-1 but would be within areas designated for long-term and construction and operation uses. Similarly, areas T and LL would be within construction and operation areas associated with the South Lake Union and Seattle Center Station locations with Alternative DT-2, respectively.

The possibility that precontact archaeological remains exist in the Downtown Segment is strongest in the South Lake Union area. Ethnographic sources suggest that this area served as a transportation corridor for precontact movement between Lake Union and Seattle Harbor area (see Section 8.3.2.2). Geomorphically, peat deposits have been identified in the area, a potential indicator for the presence of precontact archaeological remains. All alternatives would have similar potential to affect archaeological resources. There is a low probability of encountering precontact materials in other portions of this segment based on predictive factors.

10.5.1.4 South Interbay Segment

Although no archaeological sites have been previously identified within the South Interbay Segment, ethnographic evidence suggests the very high sensitivity of the area in the form of two precontact archaeological sensitivity areas. Area K, one of two precontact/ethnographic areas identified in this segment, is at the northwest end of the Interbay Golf Center and falls within Preferred Alternative SIB-1 and Alternative SIB-3. The second precontact/ethnographic archaeologically sensitive area within this segment is area O, in Kinnear Park. This area, if archaeological materials are in situ, has the potential to be affected predominantly by Alternative SIB-3.

For the historical-period archaeological sensitivity areas, area P represents a single property that falls midway between alternatives and would not be affected by any of the alternatives. Area N would potentially be affected by all of the alternatives. Area M would potentially be affected by Alternatives SIB-2 and SIB-3. Area PP would potentially be affected by Preferred Alternative SIB-1. Area L would be potentially affected by both Alternatives SIB-2 and SIB-3.

Geographically, much of this segment should be considered tidelands, increasing the potential for precontact archaeological remains. The lack of identified archaeological resources in this segment is likely related to the absence of cultural resources surveys. With no previous research to clarify the precontact context, the likelihood for identifying archaeological resources is equal across alternatives.

10.5.1.5 Interbay/Ballard Segment

Like the South Interbay Segment, the Interbay/Ballard Segment has no previously identified archaeological resources. However, 12 archaeological sensitivity areas have been identified within the segment. Archaeological sensitivity area H (see Section 8.3.2.2), on the north side of Salmon Bay through which all the new alternatives pass, has a high potential for precontact material remains (Waterman 1920). Historical-period remains may be encountered along all of the alternatives to the north of Salmon Bay as they all approach their terminus in downtown Ballard. In total, 7 of the 12 archaeological sensitivity areas identified fall within Preferred Option IBB-2b*. Areas A, B, C, NN, and OO would potentially be affected by Preferred Option IBB-2b* as well as Alternative IBB-3. Areas D and E would be affected by Preferred Option IBB-2b* only. Areas F and G would be affected by Preferred Alternative IBB-2a*. Area J would only be affected by Alternative IBB-3 and Option IBB-1b. Area J covers a substantial portion of the footprint for the proposed station location at 15th Avenue West and West Dravus Street.

With a historically tidal area to the south of Salmon Bay, itself a tidal waterway used by indigenous people before Euroamerican contact, and a historically developed urban area north of Salmon Bay, there is a high probability for discovery of archaeological resources for all project alternatives. Whether any of the resources identified would be considered eligible for listing and the affects considered adverse can only be determined on a case-by-case basis.

10.5.2 Effects to Historic Built Environment Resources

The following sections describe the Ballard Link Extension's effects to the built environment historic properties identified in Section 9 of this report. The properties are described by name and address, and the survey number is included in parentheses. In addition, Tables 10-6 through 10-11 provide an overview of project adverse effects for historic properties in each segment. For the Ballard Link Extension, property-specific adverse effects are characterized the same as for the West Seattle Link Extension, as described in Section 10.4.2.

Property-specific adverse effects are characterized as follows:

- Property demolition – property would be acquired and demolished.
- Partial property acquisition – part of the property acquired for the project would not necessitate demolition of the historic property but would diminish one or more aspects of the property's integrity. Not all partial property acquisitions would result in an adverse effect.
- Permanent proximity effects – proximity to the project and/or visual intrusion would cause permanent diminishment of setting, feeling, and/or other aspects of integrity.
- Construction disruption – a property in direct proximity (typically within one parcel) would be affected by reduced access, extensive noise, and/or vibration over an extended duration, diminishing one or more aspect of integrity. Construction in proximity of a historic property would not necessarily diminish integrity or result in an adverse effect.

Effects presented in Tables 10-6 through 10-11 are preliminary and have not been formally determined by FTA. Final effects determinations are pending additional consultation with the State Historic Preservation Officer, Tribes, and other consulting parties.

Designated Seattle landmarks and districts that would be directly modified would be subject to review and issuance of a certificate of approval from the Landmarks Board and/or District Review Boards.

10.5.2.1 Linear Resources Spanning Multiple Segments

The Ballard Link Extension contains two linear resources that span one or more segments. They are the Seattle and Montana Railway/Great Northern Railway Seattle to Everett Mainline Milepost 0 to 4.9 (LIN-3) and the 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 (LIN-2). However, they would be avoided and would not be adversely affected, directly or indirectly, by any project alternatives. No aspect of its integrity would be altered or diminished by the project.

10.5.2.2 SODO Segment

As summarized in Table 10-6, all of the SODO Segment alternatives would adversely affect one historic property in this segment except when connecting to Alternative CID-1a* in the Chinatown-International District Segment.

Table 10-6. Effects to Built Environment Historic Properties: Area of Potential Effects – SODO Segment (Ballard Link Extension)

Survey Number	WISAARD Property Number	Property Name	Address	Built Date	National Register Eligibility Status ^a	Preferred At-Grade Alternative (SODO-1a)	At-Grade South Station Option (SODO-1b)	Mixed Profile Alternative (SODO-2)
1028	342325	Lincoln Moving & Storage, Alaska Orient Van Lines Building	1924 4th Avenue South	1966	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1030	720609	Graybar Electric Company Building ^b	1919 6th Avenue South	1960	Eligible (Criterion C)	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition
Total Number of Adversely Affected Properties	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	1	1	1

Note: Assessments of effects to individual historic properties are preliminary, and have not been formally determined by FTA. Final effects determinations are pending additional consultation with the State Historic Preservation Officer, Tribes, and other consulting parties.

^a Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

^b For all alternatives, property demolition would only occur when connecting to Option CID-1b*, Alternative CID-2a, and Option CID-2b. When connecting to Alternative CID-1a*, part of the property would be acquired, but no aspect of integrity would be diminished, and the effect would not be adverse.

Preferred At-Grade Alternative (SODO-1a)

Preferred Alternative SODO-1a would require the demolition of Graybar Electric Company Building at 1919 6th Avenue South (1030) when the alternatives connect to Option CID-1b*, Alternative CID-2a, and Option CID-2b, resulting in an adverse effect. When the alternative connects to Alternative CID-1a*, a small portion of the parking lot would be acquired, but no aspect of the property would be altered or diminished, and the affect would not be adverse.

The remaining historic property in this segment, Lincoln Moving & Storage, Alaska Orient Van Lines Building at 1924 4th Avenue South (1028), would not be altered by Preferred Alternative SODO-1a. This property is south of South Holgate Street and would not be directly adjacent to any permanent project element. Some construction would occur on the street in front of the building, but it would be temporary and would not alter or diminish any aspect of the property's integrity.

The Ballard Link Extension-only M.O.S. would adversely affect the Alaskan Copper Company Employment Office and Auto Repair Garage at 2958 6th Avenue South (3322a and 3322b) resources in the Duwamish Segment to connect to the existing Operations and Maintenance Facility Central. If the Ballard Link Extension-only M.O.S. is constructed, these properties would no longer be affected by the West Seattle Link Extension when it is built.

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

The application of criteria of adverse effect to historic properties for Option SODO-1b would be the same as for Preferred Alternative SODO-1a, with no exceptions.

Mixed Profile Alternative (SODO-2)

The application of criteria of adverse effect to historic properties for Alternative SODO-2 would be the same as for Preferred Alternative SODO-1a, with no exceptions.

The Ballard Link Extension-only M.O.S. would adversely affect the Auto Repair Garage at 2958 6th Avenue South (3322a) resource in the Duwamish Segment to connect to the existing Operations and Maintenance Facility Central. If the Ballard Link Extension-only M.O.S. is constructed, this property would no longer be affected by the West Seattle Link Extension when it is built.

10.5.2.3 Chinatown-International District Segment

As summarized in Table 10-7, all four Chinatown-International District Segment Build Alternatives would adversely affect historic properties.

There are two previously identified National Register-listed historic districts in the Chinatown-International District Segment: the Seattle Chinatown Historic District and the Pioneer Square-Skid Road National Historic District. All alternatives would adversely affect Seattle Chinatown Historic District, and Alternative CID-1a* and Option CID-1b* would adversely affect the Pioneer Square-Skid Road National Historic District. These districts (with different boundaries) are also designated City of Seattle historic districts; any work within the local district boundaries would require a certificate of approval from the oversight boards.

Alternative CID-2a would have potential effects associated with temporary relocation of the King County Metro trolley line in the area of South Jackson Street to South Royal Brougham Way, approximately between Maynard Avenue South and Interstate 5/9th Avenue South. This project element would not directly or indirectly alter or diminish any aspect of integrity of adjacent historic properties: wires would not be connected directly to buildings, and the presence of the trolley line in these areas would be temporary during construction.

Table 10-7. Effects to Built Environment Historic Properties: Area of Potential Effects – Chinatown-International District Segment

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	4th Avenue Shallow Alternative (CID-1a)*	4th Avenue Deep Station Option (CID-1b)*	5th Avenue Shallow Alternative (CID-2a)	5th Avenue Deep Station Option (CID-2b)
Not Applicable	Not Applicable	Seattle Chinatown Historic District	Multiple	Multiple dates	National Register-listed historic district	Adversely Affected: <i>Construction Disruption</i>	Adversely Affected: <i>Construction Disruption</i>	Adversely Affected: <i>Property Demolition and Construction Disruption</i>	Adversely Affected: <i>Property Demolition and Construction Disruption</i>
Not Applicable	Not Applicable	Pioneer Square-Skid Road National Historic District	Multiple	Multiple dates	National Register-listed historic district	Adversely Affected: <i>Construction Disruption and Partial Property Acquisition</i>	Adversely Affected: <i>Construction Disruption and Partial Property Acquisition</i>	Not Adversely Affected	Not Adversely Affected
66	14941	King County Administration Building	500 4th Avenue	1970	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
69	39470	420 4th Avenue	420 4th Avenue	1924	Contributes to the Pioneer Square-Skid Road National Historic District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
72	45032	Hotel Reynolds	410 4th Avenue (406 to 410 4th Avenue)	1905	Contributes to the Pioneer Square-Skid Road National Historic District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
73	39473	Macrae Parking Garage	400 4th Avenue	1927	Contributes to the Pioneer Square-Skid Road National Historic District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	4th Avenue Shallow Alternative (CID-1a)*	4th Avenue Deep Station Option (CID-1b)*	5th Avenue Shallow Alternative (CID-2a)	5th Avenue Deep Station Option (CID-2b)
74	39474	Old Public Safety Building - Seattle	400 Yesler Way	1909	National Register listed; Contributes to the Pioneer Square-Skid Road National Historic District; within the Pioneer Square Preservation District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
840	39475	Prefontaine Building	110 Prefontaine Place South	1909	Contributes to the Pioneer Square-Skid Road National Historic District; within the Pioneer Square Preservation District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
841	671365	Great Northern Railway Tunnel	201 4th Avenue South	1904	Contributes to the Pioneer Square-Skid Road National Historic District; within the Pioneer Square Preservation District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
842	720500	Opening in Tunnel Above Great Northern/ Northern Pacific Train Tracks	4th Avenue South	1929	Contributes to the Pioneer Square-Skid Road National Historic District; within the Pioneer Square Preservation District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

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Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	4th Avenue Shallow Alternative (CID-1a)*	4th Avenue Deep Station Option (CID-1b)*	5th Avenue Shallow Alternative (CID-2a)	5th Avenue Deep Station Option (CID-2b)
843	720502	Opening in Tunnel Above Great Northern/ Northern Pacific Train Tracks	4th Avenue South	1929	Contributes to the Pioneer Square-Skid Road National Historic District; within the Pioneer Square Preservation District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
851	344099	Buty Building	501 South Jackson Street	1901	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
853	45108	Retail Stores	418 5th Avenue South	1926	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>
854	56066	Publix Hotel	504 5th Avenue South	1928	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	4th Avenue Shallow Alternative (CID-1a)*	4th Avenue Deep Station Option (CID-1b)*	5th Avenue Shallow Alternative (CID-2a)	5th Avenue Deep Station Option (CID-2b)
1133	54050	United States Immigrant Station and Assay Office – Seattle	815 Seattle Boulevard South (815 Airport Way South)	1931	National Register-listed; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1203	39496	Union Station - Seattle	401 South Jackson Street	1911	National Register listed; Contributes to the Pioneer Square-Skid Road National Historic District; Within the Pioneer Square Preservation and the International Special Review Districts	Adversely Affected: <i>Construction Disruption and Partial Property Acquisition</i>	Adversely Affected: <i>Construction Disruption and Partial Property Acquisition</i>	Not Adversely Affected	Not Adversely Affected
1303	39466	Dilling Park/City Hall Park	City Hall Park (450 3rd Avenue)	1911	Contributes to the Pioneer Square-Skid Road National Historic District; Within the Pioneer Square Preservation District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1817	53391	New Richmond Hotel	308 4th Avenue South	1910	National Register-listed; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	4th Avenue Shallow Alternative (CID-1a)*	4th Avenue Deep Station Option (CID-1b)*	5th Avenue Shallow Alternative (CID-2a)	5th Avenue Deep Station Option (CID-2b)
1823	344539	American Hotel	520 South King Street	1925	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1824	676079	Seattle First National Bank - International District Branch	525 South Jackson Street	1959	Eligible (Criterion C); Non-contributing to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>
1897	342768	Nepage McKenney Company	804 6th Avenue South	1924	Eligible (Criteria A and C); within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1899	342236	Holgate Terminals Incorporated	1762 6th Avenue South	1960	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1910	720568	Disston, Inc. Plant	1701 4th Avenue South	1975	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
2080	720512	Pacific National Bank of Washington	1763 4th Avenue South	1975	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

10 Application of Criteria of Adverse Effect

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	4th Avenue Shallow Alternative (CID-1a)*	4th Avenue Deep Station Option (CID-1b)*	5th Avenue Shallow Alternative (CID-2a)	5th Avenue Deep Station Option (CID-2b)
3236	723195	United Savings and Loan Bank	601 South Jackson Street	1973	Eligible (Criteria A and C); Non-contributing to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3237	343170	Hing Hay Park	414 6th Avenue South	1973	Eligible (Criteria A and C); Non-contributing to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
4106	39493	Metropolitan Building	222 2nd Avenue Extension South	1906	Contributes to the Pioneer Square-Skid Road National Historic District; within the Pioneer Square Preservation District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

10 Application of Criteria of Adverse Effect

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	4th Avenue Shallow Alternative (CID-1a)*	4th Avenue Deep Station Option (CID-1b)*	5th Avenue Shallow Alternative (CID-2a)	5th Avenue Deep Station Option (CID-2b)
4107	39494	Seattle Lighting Fixture Company Annex	210 2nd Avenue Extension South	1946	Eligible (Criteria A and C); Non-contributing to the Pioneer Square-Skid Road National Historic District; Within the Pioneer Square Preservation District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
4116	342521	Governor Apartments	514 South Jackson Street	1926	Contributes to the Seattle Chinatown Historic District; Within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
4117	45138	Old Main School	307 6th Avenue South	1873	Contributes to the Seattle Chinatown Historic District; Within the International Special Review District; Designated Seattle Landmark	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
4118	723097	H.T. Kubota Building	513 South Main Street	1924	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	4th Avenue Shallow Alternative (CID-1a)*	4th Avenue Deep Station Option (CID-1b)*	5th Avenue Shallow Alternative (CID-2a)	5th Avenue Deep Station Option (CID-2b)
5100	341559	Goon Dip Building	664 South King Street	1911	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5101	725873	China Garage (T.C. Garage)	413 7th Avenue South	1915	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5102	725876	T&C Building	671 South Jackson Street	1915	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5103	343780	Eclipse Hotel	670 South Weller Street	1908	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	4th Avenue Shallow Alternative (CID-1a)*	4th Avenue Deep Station Option (CID-1b)*	5th Avenue Shallow Alternative (CID-2a)	5th Avenue Deep Station Option (CID-2b)
5104	340883	Gee How Oak Tin Hotel	519 7th Avenue South	1907	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5105	86879	Hudson Hotel/Louisa Hotel	669 South King Street	1909	Contributes to the Seattle Chinatown Historic District; within the International Special Review District; the Chinese Community Bulletin Board (on the building) is a designated Seattle Landmark	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5106	725897	Sun Ya Restaurant	605 7th Avenue South	1975	Eligible (Criteria A and C) (pending consultation); within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	4th Avenue Shallow Alternative (CID-1a)*	4th Avenue Deep Station Option (CID-1b)*	5th Avenue Shallow Alternative (CID-2a)	5th Avenue Deep Station Option (CID-2b)
5107	725898	Rainier Bank - International District Branch	666 South Dearborn Street	1979	Eligible (Criterion C) (pending consultation); within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5113	725913	The Dragon	700 South Lane Street	1978	Eligible (Criterion C) (pending consultation); within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5115	719719	Eng, William Residence	611 8th Avenue South	1937	Eligible (Criterion A); within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5117	343383	Kong Yick Apartments	705 1/2 South King Street	1910	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	4th Avenue Shallow Alternative (CID-1a)*	4th Avenue Deep Station Option (CID-1b)*	5th Avenue Shallow Alternative (CID-2a)	5th Avenue Deep Station Option (CID-2b)
5118	344395	Chinese Opera House/Chinese Garden Restaurant	516 7th Avenue South	1924	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5119	715351	Chong Wa Benevolent Association	522 7th Avenue South	1929	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5120	342599	East Kong Yick Building/Freeman Hotel	719 South King Street	1910	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5121b	725918	Jackson Service Station	701 South Jackson Street	1927	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	4th Avenue Shallow Alternative (CID-1a)*	4th Avenue Deep Station Option (CID-1b)*	5th Avenue Shallow Alternative (CID-2a)	5th Avenue Deep Station Option (CID-2b)
5122	343162	Republic Hotel	412 7th Avenue South	1920	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5123	343168	Bing Kung Association Apartments	420 7th Avenue South	1916	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5126	344438	Don Hee Apartments	410 8th Avenue South	1910	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5127	343163	Hip Sing Association Building/Chinn Apartments	420 8th Avenue South	1910	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

10 Application of Criteria of Adverse Effect

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	4th Avenue Shallow Alternative (CID-1a)*	4th Avenue Deep Station Option (CID-1b)*	5th Avenue Shallow Alternative (CID-2a)	5th Avenue Deep Station Option (CID-2b)
5128	337189	Commercial Building	805 South King Street	1925	Contributes to the Seattle Chinatown Historic District; within the International Special Review District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
5129a	To be determined	To be determined	801 South Dearborn Street	1950	Not yet evaluated; pending right of entry	Not Applicable	Not Applicable	Not Applicable	Not Applicable
5129b	To be determined	To be determined	801 South Dearborn Street	1967	Not yet evaluated; pending right of entry	Not Applicable	Not Applicable	Not Applicable	Not Applicable
5129c	To be determined	To be determined	801 South Dearborn Street	1975	Not yet evaluated; pending right of entry	Not Applicable	Not Applicable	Not Applicable	Not Applicable
5129d	To be determined	To be determined	801 South Dearborn Street	1954	Not yet evaluated; pending right of entry	Not Applicable	Not Applicable	Not Applicable	Not Applicable
5129e	To be determined	To be determined	801 South Dearborn Street	1967	Not yet evaluated; pending right of entry	Not Applicable	Not Applicable	Not Applicable	Not Applicable
5130	725924	Frye Investment Company Office Building	707 South Plummer Street	1951	Eligible (Criterion C) (pending consultation)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

10 Application of Criteria of Adverse Effect

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	4th Avenue Shallow Alternative (CID-1a)*	4th Avenue Deep Station Option (CID-1b)*	5th Avenue Shallow Alternative (CID-2a)	5th Avenue Deep Station Option (CID-2b)
5132	725925	Seattle Engineering Department Office Building	714 South Charles Street	1973	Eligible (Criterion C) (pending consultation)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
Total Number of Adversely Affected Properties	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	3	3	3	3

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

Note: Assessments of effects to individual historic properties are preliminary and have not been formally determined by FTA. Final effects determinations are pending additional consultation with the State Historic Preservation Officer, Tribes, and other consulting parties.

^a Unless noted as "pending consultation," the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

4th Avenue Shallow Alternative (CID-1a)*

Alternative CID-1a* would not require demolition of any historic properties within the Chinatown-International District Segment. However, it would still adversely affect several historic properties, including the two National Register-listed historic districts: Pioneer Square-Skid Road National Historic District and Seattle Chinatown Historic District. Construction activities in the area of the station (generally between Seattle Boulevard South and James Street) are anticipated to take approximately 9 to 11 years and would include partial and full closure of 4th Avenue South and some cross streets, with subsequent rerouting of traffic into the core of the districts. The City of Seattle classifies 4th Avenue South as a Principal Arterial, with average daily traffic of 16,700 to 36,900 trips. Because of recent major infrastructure projects in the vicinity of these two districts, this alternative would have the potential to further stress the economic strength of the districts, potentially resulting in reduced investment or abandonment of buildings within the districts. As a result, the construction in this area would be considered an adverse effect to the two districts.

Although only a portion of the historic districts are physically within the area of potential effects, the recommendations of adverse effect apply to the entire districts; therefore, mitigation would address the entire districts as well, not just the portions within the area of potential effects. No project elements are anticipated to adversely affect historic properties outside of the area of potential effects.

Union Station at 401 South Jackson Street (1203), which contributes to both districts and is individually National Register-listed, would be adversely affected by this alternative. In addition to effects caused by prolonged construction activities, a new station tunnel entrance would be located at the south end of Union Station and a tunnel ventilation structure would be sited on the plaza on the north end of Union Station. These changes would adversely affect Union Station by diminishing its integrity of materials, design, workmanship, setting, and feeling.

The remaining historic properties within this segment would not be adversely affected by this alternative. Most of the alignment in this section is underground, and above-ground construction would primarily occur in the station location along 4th Avenue South. Some construction might occur on streets in the vicinity of historic properties, but it would be temporary and would not alter or diminish any aspect of the properties' integrity. Other historic properties within this segment are sufficiently far from construction and operation of the project that they would not experience an effect, direct or indirect, that would alter or diminish any aspect of integrity.

4th Avenue Deep Station Option (CID-1b)*

The application of criteria of adverse effect to historic properties for Option CID-1b* would be the same as for Alternative CID-1a*, with no exceptions.

5th Avenue Shallow Alternative (CID-2a)

Alternative CID-2a, including the diagonal station configuration, would require the demolition of the following historic properties, resulting in adverse effects:

- Retail stores, 418 5th Avenue South (853), a contributing resource to the Seattle Chinatown Historic District.
- Seattle First National Bank – International District Branch, 525 South Jackson Street (1824), which has been determined individually National Register-eligible, but is not a contributing resource to the Seattle Chinatown Historic District.

This alternative would also adversely affect the Seattle Chinatown Historic District; however, substantial traffic pattern disruption is not anticipated. Construction activities in the area of the

station (generally between Seattle Boulevard South and James Street) associated with Alternative CID-2a are anticipated to occur over 8 to 9 years and would include partial and full closure of 5th Avenue South and some cross streets. 5th Avenue South is classified as a minor arterial, with average daily traffic of 5,800 to 8,000 trips. Alternative CID-2a would cause traffic- and construction-related impacts, but because this alternative would be located along 5th Avenue South, the vast majority of impacts would be within the Seattle Chinatown Historic District, and would largely avoid the Pioneer Square-Skid Road National Historic District. Therefore, Alternative CID-2a is anticipated to adversely affect the Seattle Chinatown Historic District but not the Pioneer Square-Skid Road National Historic District.

Although only a portion of the historic district is physically within the area of potential effects, the recommendations of adverse effect apply to the entire district; therefore, mitigation would address the entire district as well, not just the portions within the area of potential effects. No project elements are anticipated to adversely affect historic resources outside of the area of potential effects.

The Buty Building at 501 South Jackson Street (851) and the American Hotel at 520 South King Street (1823) would experience temporary construction-period displacement while some construction activities occur directly underneath the buildings. The American Hotel may require seismic upgrades to the building, including new steel piles and other improvements. These modifications would meet the Secretary of the Interior's standards, and would occur only in the interior basement of the building, and would not require any alteration to the building's exterior or significant interior spaces. Further, these improvements would prolong the lifespan of the building by making it more resilient to seismic events.

During construction, both of these buildings would require relocation of tenants and reimbursement to the property owners for temporary closure of businesses. However, none of these effects would alter or diminish the properties' integrity of location, design, setting, materials, workmanship, feeling, or association. Therefore, the effects would not be adverse.

For individual buildings that contribute to the Seattle Chinatown Historic District, including the Publix Hotel at 504 5th Avenue South (853), potential adverse effects related to construction activities are considered as part of overall construction effects to the historic district and would be mitigated. The individual buildings, located within dense urban areas with extensive transportation networks, would not individually experience a diminishment of setting or feeling. Therefore, the effects to the individual buildings would not be adverse.

The remaining historic properties within this segment would not be adversely affected by this alternative. Most of the alignment in this section is underground, and aboveground construction would primarily occur in the station location along 5th Avenue South. Some construction might occur on streets in the vicinity of historic properties, but it would be temporary and would not alter or diminish any aspect of the properties' integrity. Other historic properties within this segment are sufficiently far from construction and operation of the project that they would not experience an effect, direct or indirect, that would alter or diminish any aspect of integrity.

This alternative would not adversely affect the Pioneer Square-Skid Road National Historic District because most of the construction activity would occur outside of the district boundaries, and traffic disruption is not anticipated to be substantial.

5th Avenue Deep Station Option (CID-2b)

The application of criteria of adverse effect to historic properties for Option CID-2b would result in the same effects as described for Alternative CID-2a.

10.5.2.4 Downtown Segment

As summarized in Table 10-8, Alternative DT-2 would adversely affect about three times as many built environment historic properties as the other alternative in the Downtown Segment. Because both of these alternatives are tunnels, effects are concentrated in the station areas. Temporary, construction-related vibration effects above potential tunnel locations have been evaluated and are not anticipated to impact historic resources. There are no previously identified historic districts within the Downtown Segment.

Preferred 5th Avenue/Harrison Street Alternative (DT-1)

Adverse effects associated with Preferred Alternative DT-1 are largely related to station construction because the entire alignment is underground. For clarity, the effects are discussed in relation to each station.

Midtown Station

Grand Central Garage at 719 4th Avenue (3012) would be demolished as a result of Preferred Alternative DT-1 Midtown Station, resulting in an adverse effect.

A portion of the Bank of California building (52) at 901 5th Avenue would be demolished as a result of Preferred Alternative DT-1 Midtown Station, resulting in an adverse effect.

Westlake Station

No historic properties would be demolished as a result of Preferred Alternative DT-1 Westlake Station, and station construction would not adversely affect any historic properties.

Denny Station

No historic properties would be adversely affected as a result of Preferred Alternative DT-1 Denny Station, and station construction would not adversely affect any historic properties.

The building at 2120 Westlake Avenue (39) would be used to house the traction power supply substation facility; however, this would not alter use or access of the building, nor would it alter the exterior of the building or alter or diminish any aspect of the building's integrity. Therefore, the effect would not be adverse.

South Lake Union Station

No historic properties are in the vicinity of the Preferred Alternative DT-1 South Lake Union Station.

Seattle Center Station

No historic properties would be demolished as a result of this station, although one resource would be adversely affected due to construction-related disruptions.

Although it has been designed to minimize effects to the extent possible, it would still adversely affect the International Commerce and Industry Building (Northwest Rooms) at 305 Harrison Street (1396a). The north façade canopy would be removed during construction and rebuilt after construction. Further, prolonged and direct impacts related to the extended cut-and-cover station construction. Overall, this alternative would diminish the building's integrity of materials, setting, and feeling.

The remaining historic properties on the Seattle Center campus are not in the direct vicinity of construction; none of their character-defining features would be altered or diminished by construction or operation of this alternative.

Table 10-8. Effects to Built Environment Historic Properties: Area of Potential Effects – Downtown Segment

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred 5th Avenue/ Harrison Street Alternative (DT-1)	6th Avenue/ Mercer Street Alternative (DT-2)
12	676617	Frederick and Nelson Building	500 (512) Pine Street	1918	Eligible, designated Seattle Landmark	Not Adversely Affected	Adversely Affected: <i>Construction Disruption and Partial Property Acquisition</i>
13	41200	Medical Dental Building – Seattle	507 (509) Olive Way	1925	National Register-listed	Not Adversely Affected	Not Adversely Affected
16	344618	Lloyd Building	601 Stewart Street	1926	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
19	676106	Washington Plaza Hotel	1900 5th Avenue	1969	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
21	676105	Plaza 600 Building	600 Stewart Street	1969	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
22	720303	McDonald's Restaurant	1950 6th Avenue	1979	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
27	41211	Western Auto Supply	700 Virginia Street (2004 Westlake Avenue)	1923	Eligible (Criterion A)	Not Adversely Affected	Not Adversely Affected
28	41149	Westlake Hotel	2008 Westlake Avenue	1907	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
30	41152	Larned Apartments	2030 7th Avenue	1909	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
39	41155	Retail Stores	2120 Westlake Avenue	1909	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
45	86490	Volker, William, Building	1000 Lenora Street	1928	National Register-listed (Criterion C)	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred 5th Avenue/ Harrison Street Alternative (DT-1)	6th Avenue/ Mercer Street Alternative (DT-2)
46	344660	Olympic Hotel Parking Garage and Airline Terminal Building	415 Seneca Street	1964	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
47	717705	Park Hilton Hotel	1113 6th Avenue	1980	Eligible (Criterion C) (pending consultation)	Not Adversely Affected	Not Adversely Affected
48	53453	Women's University Club of Seattle	1105 6th Avenue	1922	National Register-listed (Criteria A and C), designated Seattle Landmark	Not Adversely Affected	Not Adversely Affected
49	708771	Spring Apartment Hotel	1100 5th Avenue	1922; 1959	Eligible (Criterion C)	Not Adversely Affected	Adversely Affected: <i>Partial Property Acquisition</i>
50	45105	United States Courthouse – Seattle	1010 5th Avenue	1940	National Register-listed (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
52	16900	Bank of California Building	901 5th Avenue	1973	Eligible (Criterion C)	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected
56	45126	The Dover Apartments	901 6th Avenue	1907	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
58	343568	First Methodist Episcopal Church – Seattle	809 (801) 5th Avenue	1908	National Register-listed (Criteria A and C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
277	48470	Plymouth Congregational Church	1217 6th Avenue	1967	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
278	45128	Washington Athletic Club	1325 6th Avenue	1929	National Register-listed (Criteria A and C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
280	28320	Logan Building	1400 5th Avenue (500 Union Street)	1958	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred 5th Avenue/ Harrison Street Alternative (DT-1)	6th Avenue/ Mercer Street Alternative (DT-2)
281	44189	O'Shea Building	501 Pine Street	1914	Eligible (Criteria A and C)	Not Adversely Affected	Adversely Affected: Partial Property Acquisition
282	44194	Shafer Building	523 Pine Street	1923	National Register listed (Criterion C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
283	45166	Decatur Building	1521 6th Avenue	1922	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
285	45101	Coliseum Building	1506 5th Avenue (5th Avenue and Pike Street)	1915	National Register-listed (Criterion C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
292	720636	The People's National Bank	1415 5th Avenue	1973	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
299	720637	One Union Square	600 University Street	1980	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
300	45127	Park Place Building	1200 6th Avenue	1971	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
323	676107	Durant Motor Company	333 Westlake Avenue North	1923	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
344	41179	Kelly Goodwin Hardwood	310 Terry Avenue North	1915	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
348	716634	Dick's Drive In	500 Queen Anne Avenue North	1974	Eligible (Criterion A)	Not Adversely Affected	Not Adversely Affected
351	38452	Wedgewood Apartments	505 1st Avenue North	1930	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred 5th Avenue/ Harrison Street Alternative (DT-1)	6th Avenue/ Mercer Street Alternative (DT-2)
352	87224	Queen Anne Post Office and Regional Headquarters	415 1st Avenue North	1964	National Register listed (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
354	343298	Thurmond's Central Realty	123 Mercer Street	1955	Eligible (Criteria A and C)	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>
356	335621	Maxine Apartments	105 Mercer Street	1929	Eligible (Criterion C)	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>
359a	43992	Playhouse – Century 21 Exposition	201 Mercer Street	1962	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
359e	43623	Friendship Bell/Kobe Bell	305 Harrison Street	1968	Eligible (Criteria A and C); designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
360	38497	Seattle High School – Memorial Stadium	369 Republican Street (401 5th Avenue North)	1947	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
362	720234	Seattle Public Schools Dept Of Athletics Building	401 5th Avenue North	1965	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
366	55130	Ancient Order of United Workmen (AOUW), Meeting Hall No. 2	501 Dexter Avenue North	1952	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
367	99082	J.T. Hardeman Hat Company	500 Aurora Avenue North	1920	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
377	344506	Washington Natural Gas Co	850 Republican Street	1964	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred 5th Avenue/ Harrison Street Alternative (DT-1)	6th Avenue/ Mercer Street Alternative (DT-2)
379	336924	Lexow & Son Custom Cabinet Works	817 Republican Street	1946	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
388	720008	100 West Harrison Plaza	100 West Harrison Street	1972	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
411	335636	Grex Apartments	503 1st Avenue West	1930	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
413	344084	Office Building	506 2nd Avenue West	1958	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
414	47754	Uptown Theater	511 Queen Anne Avenue North	1926	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
417a	45130	Broad Street Substation Control Building	319 6th Avenue North	1951	Eligible (Criteria A and C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
417b	45131	Broad Street Substation Crane Tower	319 6th Avenue North	1951	Eligible (Criteria A and C), designated Seattle Landmark	Not Adversely Affected	Not Adversely Affected
436	45102	Y.W.C.A. Building – Seattle	1118 5th Avenue	1914	National Register-listed (Criterion A), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
785	666395	National Bank Of Commerce – Queen Anne Branch	100 West Mercer Street	1955	Eligible (Criterion C)	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>
859	339796	Seattle Master Builders Association Headquarters	170 Mercer Street	1951	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred 5th Avenue/ Harrison Street Alternative (DT-1)	6th Avenue/ Mercer Street Alternative (DT-2)
860	342967	Gas Station	600 Warren Avenue North	1954	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
864	43993	Garage – Century 21 Exposition	300 Mercer Street	1962	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
869	44000	Office Building	557 Roy Street	1952	Eligible (Criterion C)	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>
870	45238	S.L. Savidge Inc. Dodge and Plymouth Dealership	2021 9th Avenue	1948	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
885	44250	Seattle Engineering School	600 Queen Anne Avenue North	1918	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
1294	720610	Vance Hotel	620 Stewart Street	1926	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
1298	344521	Stuart G. Thompson-Elwell Company Building	901 Lenora Street	1957	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
1299	45036	Rainier Club	411 Columbia Street (810 4th Avenue)	1903	National Register listed (Criterion C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
1391	44599	Freeway Park	700 Seneca Street (Center of Complex Located at about University Street)	1974	National Register-listed (Criteria A and C)	Not Adversely Affected	Adversely Affected: <i>Partial Property Acquisition</i>

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred 5th Avenue/ Harrison Street Alternative (DT-1)	6th Avenue/ Mercer Street Alternative (DT-2)
1396a	43618	International Commerce and Industry Building	305 Harrison Street	1961	Eligible (Criteria A and C), designated Seattle landmark	Adversely Affected: <i>Construction Disruption and Permanent Proximity Effects</i>	Not Adversely Affected
1396b	KI1379	Key Arena	305 Harrison Street	1961	National Register-listed (Criterion A), designated Seattle Landmark	Not Adversely Affected	Not Adversely Affected
1396c	715657	International Plaza	305 Harrison Street	1961	Eligible (Criteria A and C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
1396d	43617	Sweden Pavilion	305 Harrison Street	1961	Eligible (Criteria A and C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
1401	43630	Pioneer Sand and Gravel	901 Harrison Street	1927	Eligible (Criteria A and C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
1402	335846	Gordon Apartments	527 1st Avenue North	1929	Eligible (Criterion A)	Not Adversely Affected	Not Adversely Affected
1407	55131	People's National Bank of Washington	525 Dexter Avenue North	1948	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
1416	43628	Apartments	800 to 810 Harrison Street	1911	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
1873	344534	Northern Bank and Trust Building	1500 4th Avenue	1907	National Register-listed (Criterion C)	Not Adversely Affected	Not Adversely Affected
2100	45109	Skinner Building/5 th Avenue Theatre	1308 5th Avenue	1926	National Register-listed (Criterion C)	Not Adversely Affected	Not Adversely Affected
2101	15166	Rainier Tower	1301 5th Avenue	1977	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred 5th Avenue/ Harrison Street Alternative (DT-1)	6th Avenue/ Mercer Street Alternative (DT-2)
2199	338876	Saint Paul's Episcopal Church	15 Roy Street	1962	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
2201	44370	City Light – Power Control Center	157 Roy Street	1963	Eligible (Criteria A and C), designated Seattle Landmark	Not Adversely Affected	Not Adversely Affected
2300	15165	IBM Building	1200 5th Avenue	1962	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
2301	45047	Olympic Hotel	411 University Street	1924	National Register-listed (Criterion C)	Not Adversely Affected	Not Adversely Affected
3003	44094	Bergonian Hotel	405 Olive Way	1927	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
3005	344621	Textile Tower	1807 7th Avenue	1931	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
3008	45006	Central Building	810 3rd Avenue	1907	Eligible (Criterion C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
3009	53374	Leamington Hotel and Apartments	317 Marion Street	1916	National Register-listed (Criterion C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
3011	722422	The Pacific Building	710 3rd Avenue	1969	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
3012	344659	Grand Central Garage	719 4th Avenue	1919	Eligible (Criteria A and C)	Adversely Affected: Property Demolition	Not Adversely Affected
3013	43011	Arctic Building	306 Cherry Street	1913	National Register-listed (Criterion C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
3059	45052	Liggett Building	1424 4th Avenue	1927	National Register-listed (Criterion C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred 5th Avenue/ Harrison Street Alternative (DT-1)	6th Avenue/ Mercer Street Alternative (DT-2)
3082	47741	Small 20 th Century Brick Commercial Building	513 Queen Anne Avenue North	1926	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
3092	341439	V. Savinoff Furniture Studio	217 9th Avenue North	1946	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
3223	723100	Alvina Vista Apartments	612 1st Avenue West	1929	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
3226	723103	Uptown Studios and Apartments	610 2nd Avenue West	1953	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
3227	343391	G.S. Hamman Building	119 West Roy Street	1924	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
3239	47755	Puget Sound News Company	621 2nd Avenue North	1948	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
3240	47753	Tricoach Corporation	703 6th Avenue North	1928	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected
4000	716633	Floyd A. Naramore Fountain and Plaza	6th Avenue Between Seneca and Spring streets	1967	Eligible (Criterion C)	Not Adversely Affected	Adversely Affected: Partial Property Acquisition
4100	38451	Delmasso Apartments	26 West Harrison Street	1930	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
4101	43613	Century Building	10 Harrison Street	1965	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
4102	38450	Strathmore Apartments	7 Harrison Street	1908	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred 5th Avenue/ Harrison Street Alternative (DT-1)	6th Avenue/ Mercer Street Alternative (DT-2)
4103	723048	Commercial Building	228 Dexter Avenue North	1933	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected
5000	44191	Paramount Theatre	911 Pine Street	1928	National Register-listed (Criterion C)	Not Adversely Affected	Not Adversely Affected
LIN-16	99122	Alweg Monorail – Century 21	5th Avenue	1962	Eligible (Criterion A), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
OBJ-1	723414	John H. McGraw Statue	5th and Stewart Streets	1913	Eligible (Criterion C), designated Seattle Landmark	Not Adversely Affected	Not Adversely Affected
OBJ-2	43163	E.J. Towle Company Street Clock	406 Dexter Avenue North	1915	Eligible (Criteria A and C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
OBJ-3	45055	Zedick Jewelers Street Clock	1525 (1529) 4th Avenue	1920	Eligible (Criteria A and C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
OBJ-4	53395	Ben Bridge Jewelers Clock	409 Pike Street	1929	Eligible (Criteria A and C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected
Total Number of Adversely Affected Properties	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	3	9

Note: Assessments of effects to individual historic properties are preliminary and have not been formally determined by FTA. Final effects determinations are pending additional consultation with the State Historic Preservation Officer, Tribes, and other consulting parties.

^a Unless noted as “pending consultation,” the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

West of Seattle Center, Wedgewood Apartments at 505 1st Avenue North (351) and Queen Anne Post Office and Regional Headquarters at 415 1st Avenue North (352) are also in direct proximity to the cut-and-cover construction activities, and would be affected by construction. However, the character-defining features of the buildings would not be altered or diminished during construction. Therefore, the effects would not be adverse.

The remaining historic properties within this segment would not be adversely affected by this alternative. Most of the alignment is underground, and aboveground construction would primarily occur in the station locations. Some construction might occur on streets in the vicinity of historic properties, but it would be temporary and would not alter or diminish any aspect of the properties' integrity. Other historic properties within this segment are sufficiently far from construction and operation of the project that they would not experience an effect, direct or indirect, that would alter or diminish any aspect of integrity.

6th Avenue/Mercer Street Alternative (DT-2)

Adverse effects associated with Alternative DT-2 would be related to station construction because the entire alignment is underground. For clarity, the effects are discussed in relation to each station.

Midtown Station

No historic properties would be demolished as a result of Alternative DT-2 Midtown Station.

A portion of the newly designated National Register-listed Freeway Park (1391) would be acquired to construct this station. Although the acquisition would be minimal, it would permanently diminish the resource's integrity of design, setting, and feeling, resulting in an adverse effect.

The Floyd A. Naramore Fountain and Plaza at 6th Avenue between Seneca and Spring streets (4000) would also be adversely affected. The fountain would be removed, stored, and reinstalled in order to construct the station. The plaza would be rebuilt. Although the reconstruction would be in-kind, this activity would diminish the resource's integrity of design, setting, and materials, resulting in an adverse effect.

The Spring Apartment Hotel 1100 5th Avenue (49) would be partially acquired for construction of this station. The parking garage (non-contributing) adjacent to the Spring Apartment Hotel would be demolished; although this would not affect the building directly, it could present a hardship to the hotel by limiting parking, which could potentially result in eventual lack of investment or abandonment. This would result in an adverse effect.

The Y.W.C.A. Building at 1118 5th Avenue (436) is also adjacent to the above-mentioned parking garage. However, this effect is not anticipated to be adverse. This building houses a number of uses, including, but not limited to, offices, office, shelter, permanent low-income housing. Residential tenants may be relocated during construction due to construction-related disruption. Sound Transit would ensure that the uses were reestablished after construction, and that the building were protected during construction. Because of this, no aspect of the property would be diminished as a result of this alternative, and the effects would not be adverse.

Women's University Club of Seattle at 1105 6th Avenue (48) is in direct proximity of construction activities, which would potentially temporarily alter integrity of feeling or setting of this historic property. However, because these effects would be temporary, and the Women's University Club would not be directly altered, this effect is not anticipated to be adverse. The current setting is densely urbanized with extensive traffic, including Interstate 5 nearby. No aspects of integrity would be permanently diminished as a result of the project.

Westlake Station

No historic properties would be demolished as a result of the Alternative DT-2 Westlake Station.

The Frederick and Nelson (Nordstrom) Building at 500 (512) Pine Street (12) would be adversely affected due to modification of the existing station entrance. Excavation beginning at the station entrance level, down below the existing station platform level would provide a connection to a new pedestrian tunnel that would be mined under the Nordstrom building to the east to connect to the new station under 6th Avenue. This would diminish some aspects of the property's integrity of design and materials.

The O'Shea Building at 501 Pine Street (281) would also be adversely affected. Excavation beginning in the basement of the existing building, down below the existing station platform level would provide a connection to a new pedestrian tunnel that would be mined under the Shafer building to the east to connect to the new station under 6th Avenue. Some interior and exterior elements would be altered, which would diminish its integrity of design, materials, and feeling.

Denny Station

No historic properties would be demolished as a result of the Alternative DT-2 Denny Station. Cut-and-cover construction in the vicinity of historic properties would potentially temporarily alter, but not permanently diminish, integrity of feeling or setting of adjacent historic properties. However, because these effects, which may include, but are not limited to, noise, dust, and visual effects, would be temporary, and any adjacent buildings would not be directly altered, this effect is not anticipated to be adverse.

South Lake Union Station

The following historic property would be demolished as a result of the Alternative DT-2 South Lake Union Station, constituting an adverse effect:

- Office Building at 557 Roy Street (869)

The remaining historic properties within this segment would not be adversely affected by this alternative. Most of the alignment in this section is underground, and aboveground construction would primarily occur in the station locations. Some construction might occur on streets in the vicinity of historic properties, but it would be temporary and would not alter or diminish any aspect of the properties' integrity. Other historic properties within this segment are sufficiently far from construction and operation of the project that they would not experience an effect, direct or indirect, that would alter or diminish any aspect of integrity.

Seattle Center Station

The following historic properties would be demolished as a result of the Alternative DT-2 Seattle Center Station, constituting adverse effects:

- National Bank of Commerce – Queen Anne Branch at 100 West Mercer Street (785).
- Thurmond's Central Realty at 123 Mercer Street (354).
- Maxine Apartments at 105 Mercer Street (356).

The remaining historic properties within this segment would not be adversely affected by this alternative. Most of the alignment in this section is underground, and aboveground construction would primarily occur in the station locations. Some construction might occur on streets in the vicinity of historic properties, but it would be temporary and would not alter or diminish any aspect of the properties' integrity. Other historic properties within this segment are sufficiently

far from construction and operation of the project that they would not experience an effect, direct or indirect, that would alter or diminish any aspect of integrity.

10.5.2.5 South Interbay Segment

As summarized in Table 10-9, all South Interbay Segment alternatives would cause adverse effects to one or more built environment historic properties. There are no previously identified historic districts within the South Interbay Segment. One National Register-eligible historic district has been identified: the 14th Avenue West Group Historic District. Because the five contributing resources are also individually recommended National Register-eligible, each is listed in Table 10-9.

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

Preferred Alternative SIB-1 would result in the demolition of several historic properties, resulting in adverse effects to these properties:

- Waterfront Employers of Washington and The Pacific Maritime Association at 301 West Republican Street (383).
- A duplex at 317 West Republican Street (384a).
- A duplex at 319 West Republican Street (384b).
- A residence at 317 1/2 West Republican Street (384c).
- The Sheet Metal Works and Roof Company at 942 (934b) Elliott Avenue West (805).
- Wilson Machine Works at 1038 Elliott Avenue West (809).
- Seattle Armory Field Maintenance Shop Building at 1601 West Armory Way (955).

This alternative would also require partial property acquisition for the following resources:

- A small, forested, non-contributing portion of the 14.7-acre Kinnear Park (802a and 802b) would be acquired as a result of this alternative; however, this would not diminish any aspect of integrity, and is not anticipated to be adverse. The acquisition is on the very edge of the park on a slope, which is forested, not designed, and generally not used, either actively or passively. Though it is technically park property, its loss would not change the location, setting, feeling, or association of the park; nor would the materials, workmanship, or design be altered. Therefore, the effect is not anticipated to be adverse.
- The Seattle Armory at 1601 West Armory Way (954). Only a small portion of the property would be acquired. The building itself would not be modified in any way, and neither access nor use would be compromised. An associated building, the Seattle Armory Field Maintenance Shop building (955) would be demolished as part of this alternative. However, this would not diminish the overall integrity of the Seattle Armory building. The Field Maintenance Shop building is a secondary building to the main Armory building; its demolition would not diminish the Armory building's significance nor would it diminish the Armory building's integrity of location, design, materials, workmanship, setting, feeling, or association; therefore, it would not be adversely affected by this alternative.
- The King County Metro Pumping Station at 1523 West Garfield Street (961). However, only a small portion of the surface parking would be acquired for the guideway. The building itself would not be modified in any way, and neither access nor use would be compromised. The undertaking would not alter or diminish the resource's integrity of location, design, materials,

workmanship, setting, feeling, or association; therefore, it would not be adversely affected by this alternative.

- The Western Pacific Chemical Company at 1436 (1430 to 1436) Elliott Avenue West (976). However, only a small portion of the property would be acquired for road improvements. The building itself would not be modified in any way, and neither access nor use would be compromised. The undertaking would not alter or diminish the resources' integrity of location, design, materials, workmanship, setting, feeling, or association; therefore, it would not be adversely affected by this alternative.
- The Cape Flattery Apartments at 320 West Republican Street (402) would experience a construction period displacement for this alternative. The project would relocate tenants and the property owner would be compensated during construction, but the building would not be acquired. It could continue to be used as an apartment building after the work was completed. The undertaking would not alter or diminish the resource's integrity of location, design, materials, workmanship, setting, feeling, or association; therefore, it would not be adversely affected by this alternative.

The remaining historic properties within this segment are sufficiently far from construction and operation of the project that they would not experience an effect, direct or indirect, that would alter or diminish any aspect of integrity. According to Appendix N2, lights from trains using the Preferred Alternative SIB-1 elevated guideway would be seen from nearby locations. The elevated Smith Cove Station over the West Galer Street Flyover would be seen at night from distant residences. However, the light from light rail trains on the elevated guideway and the Smith Cove Station would not impact motorists, pedestrians, and the surrounding area (see Appendix N2, Attachment N.2A). However, the introduction of lights and, to a much lesser degree glare, from passing trains and the elevated station would not affect the historic properties.

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

Alternative SIB-2 would result in the demolition of several historic properties, resulting in adverse effects to these properties:

- Waterfront Employers of Washington and The Pacific Maritime Association at 301 West Republican Street (383).
- A duplex at 317 West Republican Street (384a).
- A duplex at 319 West Republican Street (384b).
- A residence at 317 1/2 West Republican Street (384c).
- Federal Employees Credit Union at 2500 15th Avenue West (670).
- The Sheet Metal Works and Roof Company at 942 (934b) Elliott Avenue West (805).
- Wilson Machine Works at 1038 Elliott Avenue West (809).
- Western Pacific Chemical Company at 1436 (1430 to 1436) Elliott Avenue West (976).

Table 10-9. Effects to Built Environment Historic Properties: Area of Potential Effects – South Interbay Segment

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Galer Street Station/Central Interbay Alternative (SIB-1)	Prospect Street Station/15th Avenue Alternative (SIB-2)	Prospect Street Station/Central Interbay Alternative (SIB-3)
383	343966	Waterfront Employers of Washington and The Pacific Maritime Association	301 West Republican Street	1959	Eligible (Criteria A and C)	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition	Not Adversely Affected
384a	719666	Duplex	317 West Republican Street	1905	Eligible (Criterion C)	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition	Not Adversely Affected
384b	716635	Duplex	319 West Republican Street	1905	Eligible (Criterion C)	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition	Not Adversely Affected
384c	720252	Residence	317 1/2 West Republican Street	1905	Eligible (Criterion C)	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition	Not Adversely Affected
402	338494	Cape Flattery Apartments	320 West Republican Street	1959	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
405	344205	Powers Regulator Co.	511 2nd Avenue West	1955	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
628	335820	Barrett West Apartments	2850 15th Avenue West	1964	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
670	341338	Federal Employees Credit Union	2500 15th Avenue West	1960	Eligible (Criterion C)	Not Adversely Affected	Adversely Affected: Property Demolition	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Galer Street Station/Central Interbay Alternative (SIB-1)	Prospect Street Station/15th Avenue Alternative (SIB-2)	Prospect Street Station/Central Interbay Alternative (SIB-3)
680	720187	K&D Carpet Installers Building/Alpine Hut	2215 15th Avenue West	1960	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
690	720097	Residence	2250 15th Avenue West	1905	Eligible (Criterion A)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
692	720233	Residence	2246 1/2 15th Avenue West	1909	Eligible (Criterion A) (pending consultation)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
770	338455	Lola Apartments	326 West Mercer Street	1929	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
772	338513	Naomi Apartments	625 4th Avenue West	1930	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
773	338465	Franconia Apartments	400 West Mercer Street	1930	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
774	537709	Apartment Building	412 West Mercer Street	1958	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
777	720029	Iris Apartments	415 West Roy Street	1928	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
778	338609	Westroy Apartments	421 West Roy Street	1931	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
801	43989	Residence	636 West Mercer Place	1907	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Galer Street Station/Central Interbay Alternative (SIB-1)	Prospect Street Station/15th Avenue Alternative (SIB-2)	Prospect Street Station/Central Interbay Alternative (SIB-3)
802a	44101	Kinnear Park Comfort Station/Viewing Platform	899 West Olympic Place	1890	Eligible (Criteria A and C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
802b	44106	Kinnear Park	899 West Olympic Place	1890	Eligible (Criteria A and C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
805	38483	Sheet Metal Works and Roof Company	942 (934b) Elliott Avenue West	1929	Eligible (Criterion C)	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition	Not Adversely Affected:
809	38479	Wilson Machine Works	1038 Elliott Avenue West	1925	Eligible	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition
811a	38482, 344088	Gladding, McBean, and Company	945 Elliott Avenue West	1953	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
954	721608	Seattle Armory	1601 West Armory Way	1974	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
955	721609	Seattle Armory Field Maintenance Shop Building	1601 West Armory Way	1974	Eligible (Criterion A)	Adversely Affected: Property Demolition	Not Adversely Affected	Not Adversely Affected
961	87104	King County Metro Pumping Station	1523 West Garfield Street	1967	Eligible (Criterion A)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Galer Street Station/Central Interbay Alternative (SIB-1)	Prospect Street Station/15th Avenue Alternative (SIB-2)	Prospect Street Station/Central Interbay Alternative (SIB-3)
976	47791	Western Pacific Chemical Company	1436 (1430 to 1436) Elliott Avenue West	1940	Eligible (Criterion C)	Not Adversely Affected	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition
1140	44376	Sea View Apartments	519 West Roy Street	1932	Eligible (Criteria A and C), designated Seattle landmark	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1417	720190	Office Building	411 West Mercer Street	1973	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
Not Applicable	Not Applicable	14th Avenue West Group Historic District (2000, 2006, 2010, 2014, and 2016 14th Avenue West)	Multiple	1891 to 1906	Eligible, designated Seattle landmark	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1764	676164	Gilman House	2016 14th Avenue West	1891	Eligible (Criterion C), contributes to 14th Avenue West Group Historic District, designated Seattle landmark	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1765	641394	Torbactia House	2014 14th Avenue West	1901	Eligible (Criterion C), contributes to 14th Avenue West Group Historic District, designated Seattle landmark	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Galer Street Station/Central Interbay Alternative (SIB-1)	Prospect Street Station/15th Avenue Alternative (SIB-2)	Prospect Street Station/Central Interbay Alternative (SIB-3)
1766	721037	Residence	2010 14th Avenue West	1900	Eligible (Criterion C), contributes to 14th Avenue West Group Historic District, designated Seattle landmark	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1767	386850	Residence	2006 14th Avenue West	1906	Eligible (Criterion C), contributes to 14th Avenue West Group Historic District, designated Seattle landmark	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1768	472425	Residence	2000 14th Avenue West	1903	Eligible (Criterion C), contributes to 14th Avenue West Group Historic District, designated Seattle landmark	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1779	720207	The Harbor House	521 5th Avenue West	1964	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1797	720208	Residence	623 West Mercer Place	1932	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1829	344536	Mercer West Condominium	415 West Mercer Street	1962	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3077	335620	Fourth Avenue West Apartments	515 4th Avenue West	1947	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3096	344505	Metro Headquarters Building	410 4th Avenue West	1962	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Galer Street Station/Central Interbay Alternative (SIB-1)	Prospect Street Station/15th Avenue Alternative (SIB-2)	Prospect Street Station/Central Interbay Alternative (SIB-3)
3190	338499	Dor-Rik Apartments	2655 14th Avenue West	1961	Eligible (Criterion C) (pending consultation)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3257	354094	Gillespie House	1115 9th Avenue West	1936	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3265	467559	Residence	1015 West Lee Street	1911	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
Total Number of Adversely Affected Properties	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	7	8	2

Note: Assessments of effects to individual historic properties are preliminary and have not been formally determined by FTA. Final effects determinations are pending additional consultation with the State Historic Preservation Officer, Tribes, and other consulting parties.

^a Unless noted as "pending consultation," the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

This alternative would require partial property acquisition of a small, forested, non-contributing portion of the 14.7-acre Kinnear Park (802a and 802b). However, this would not diminish any aspect of integrity, and is not anticipated to be adverse. The acquisition is on the very edge of the park on a slope, which is forested, not designed, and generally not used, either actively or passively. Though it is technically park property, its loss would not change the location, setting, feeling, or association of the park; nor would the materials, workmanship, or design be altered. Therefore, the effect is not anticipated to be adverse.

The Cape Flattery Apartments at 320 West Republican Street (402) would experience a construction period displacement for this alternative. The project would relocate tenants, but the building would not be acquired. It could continue to be used as an apartment building after the work was completed. The undertaking would not alter or diminish the resources' integrity of location, design, materials, workmanship, setting, feeling, or association; therefore, it would not be adversely affected by this alternative.

The remaining historic properties within this segment are sufficiently far from construction and operation of the project that they would not experience an effect, direct or indirect, that would alter or diminish any aspect of integrity.

According to the Visual and Aesthetics Technical Report, lights from trains passing on the Alternative SIB-2 elevated guideway and from the elevated Smith Cove Station would be seen from nearby properties but would not impact motorists, pedestrians, and the surrounding area (see Figure 3-4c in Attachment N5.E). However, the introduction of lights and, to a much lesser degree glare, from passing trains and the elevated station would not affect the historic properties.

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

Alternative SIB-3 would result in the demolition of Wilson Machine Works at 1038 Elliott Avenue West (809) and the Western Pacific Chemical Company at 1436 (1430 to 1436) Elliott Avenue West (976), resulting in an adverse effect to both historic properties.

This alternative would require partial property acquisition of a small, forested, non-contributing portion of the 14.7-acre Kinnear Park (802a and 802b). However, this would not diminish any aspect of integrity, and is not anticipated to be adverse. The acquisition is on the very edge of the park on a slope, which is forested, not designed, and generally not used, either actively or passively. Though it is technically park property, its loss would not change the location, setting, feeling, or association of the park; nor would the materials, workmanship, or design be altered. Therefore, the effect is not anticipated to be adverse.

The remaining historic properties within this segment are sufficiently far from construction and operation of the project that they would not experience an effect, direct or indirect, that would alter or diminish any aspect of integrity. The setting is currently light industrial, with extensive and contemporary development, with extensive transportation infrastructure. The introduction of a new transportation facility would not diminish integrity of setting, feeling, or association.

According to Appendix N.2, lights from trains in the retained cut and at-grade portion of Alternative SIB-3 might be seen but would not impact motorists, pedestrians, and surrounding properties and would alter or diminish any aspect of integrity. However, the introduction of lights and, to a much lesser degree glare, from passing trains and the elevated station would not affect the historic properties.

10.5.2.6 Interbay/Ballard Segment

As summarized in Table 10-10, all Interbay/Ballard Segment alternatives would cause adverse effects to one or more historic properties.

There are no previously identified historic districts within the Interbay/Ballard Segment. One National Register-eligible historic district, Fishermen's Terminal, would be adversely affected by Alternative IBB-3. The district contains three individually National Register-eligible resources that also contribute to the district, so they are individually listed in Table 10-10.

Preferred Elevated 14th Avenue Alternative (IBB-1a)

Preferred Alternative IBB-1a would result in the demolition of several historic properties, resulting in adverse effects to these properties:

- An Industrial and Commercial Building at 1121 Northwest 45th Street (5a).
- A residence at 5713 14th Avenue Northwest (496).
- HDF Propeller Company Machining and Manufacturing Building at 4451 14th Avenue Northwest (578).
- Superior Concrete Products Company at 3615 15th Avenue West (647).
- Sweden Freezer Manufacturing Company at 3401 Thorndyke Avenue West (651).
- Keller Supply Co. at 3205 17th Avenue West (659).
- A duplex at 1145 Northwest 56th Street (2183).

The United States Plywood Corporation Power House at 4025 13th Avenue West (952d) is on a large property, and a portion of the elevated guideway would be on this property. However, the National Register-eligible Power House would not be directly altered, and no character-defining features of the building would be diminished; the effects would not be adverse.

The new bridge would be a city block, approximately 650 feet, away from the existing Ballard Bridge; the distance would not diminish integrity of setting or feeling because of the distance. The remaining historic properties within this segment are sufficiently far from construction and operation of the project that they would not experience an effect, direct or indirect, that would alter or diminish any aspect of integrity. Although the new guideway would be visible from several historic properties in the area, it would be on an existing transportation corridor or across the street. The introduction of a new transportation facility in this location is consistent with the existing built environment context and would not be a substantial visual intrusion. This change would not alter or diminish any aspect of integrity.

Table 10-10. Effects to Built Environment Historic Properties: Area of Potential Effects – Interbay/Ballard Segment

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Elevated 14th Avenue Alternative (IBB-1a)	Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)	Preferred Tunnel 14th Avenue Alternative (IBB-2a)*	Preferred Tunnel 15th Avenue Station Option (IBB-2b)*	Elevated 15th Avenue Alternative (IBB-3)
5a	723554	Industrial and Commercial Building	1121 Northwest 45th Street	1963	Eligible (Criteria A and C)	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
10a	90524	Lyle Branchflower Company Processing Warehouse	4507 Shilshole Avenue Northwest	1950	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Adversely Affected: Property Demolition
10b	722815	Lyle Branchflower Company Cold Storage Building/North Star Ice Equipment Building	4511 Shilshole Avenue Northwest	1945	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Adversely Affected: Property Demolition
469	719590	Skipper's Fish, Chip and Chowder House	5305 15th Avenue Northwest	1971	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
476	719335	Nelson Chevrolet Storage Lot Office Building	1510 Northwest 50th Street	1956	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Adversely Affected: Property Demolition
477	719595	Nelson Chevrolet Showroom	1521 Northwest 50th Street	1973	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Elevated 14th Avenue Alternative (IBB-1a)	Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)	Preferred Tunnel 14th Avenue Alternative (IBB-2a)*	Preferred Tunnel 15th Avenue Station Option (IBB-2b)*	Elevated 15th Avenue Alternative (IBB-3)
482	344402	Restaurant	1510 Northwest Leary Way	1927	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Permanent Proximity Effects</i>
496	441302	Residence	5713 14th Avenue Northwest	1905	Eligible (Criterion C)	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
504	333632	Apartment Complex	5700 14th Avenue Northwest	1957	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected	Not Adversely Affected
529	49120	Bardahl Manufacturing Company Office	1400 Northwest 52nd Street	1952	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
536	342705	Mid-Century Light Industrial Building	5118 14th Avenue Northwest	1963	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
556	719361	Office Building	1148 Northwest Leary Way	1970	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
569	48101	Mike's Tavern and Chili Parlor	1447 Northwest Ballard Way	1940	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
578	719366	HDF Propeller Company Machining and Manufacturing Building	4451 14th Avenue Northwest	1979	Eligible (Criterion A)	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Elevated 14th Avenue Alternative (IBB-1a)	Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)	Preferred Tunnel 14th Avenue Alternative (IBB-2a)*	Preferred Tunnel 15th Avenue Station Option (IBB-2b)*	Elevated 15th Avenue Alternative (IBB-3)
607	38464	Residence	3440 15th Avenue West	1911	Eligible (Criteria A and C)	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
608	461681	Residence	3442 15th Avenue West	1911	Eligible (Criteria A and C)	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
618	357587	Residence	3220 15th Avenue West	1920	Eligible (Criterion C)	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>
647	342781	Superior Concrete Products Co.	3615 15th Avenue West	1945	Eligible (Criterion A)	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>
648	720084	Elmer & Moody Company Woodwork	3635 Thorndyke Avenue West	1949	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
651	720085	Sweden Freezer Manufacturing Company	3401 Thorndyke Avenue West	1946	Eligible (Criterion A)	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected
659	342170	Keller Supply Co	3205 17th Avenue West	1955	Eligible (Criteria A and C)	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected	Adversely Affected: <i>Property Demolition</i>	Adversely Affected: <i>Property Demolition</i>	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Elevated 14th Avenue Alternative (IBB-1a)	Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)	Preferred Tunnel 14th Avenue Alternative (IBB-2a)*	Preferred Tunnel 15th Avenue Station Option (IBB-2b)*	Elevated 15th Avenue Alternative (IBB-3)
Not Applicable	Not Applicable	Fishermen's Terminal Historic District	2000 West Emerson Place (1735 West Thurman Street)	Various	Fishermen's Terminal Historic District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Permanent Proximity Effects</i>
951c	709704	Seattle First National Bank - Fishermen's Terminal Branch	2000 West Emerson Place	1964	Eligible (Criterion C), contributes to Fishermen's Terminal Historic District (Criterion A)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
951e	159029	Fishermen's Terminal Fishing Vessel Owners Winch House	2000 West Emerson Place	1916	Eligible (Criterion A), contributes to Fishermen's Terminal Historic District	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Permanent Proximity Effects</i>
951f	716640	Fishermen's Terminal Fishing Vessel Owners Marine Ways	2000 West Emerson Place (1511 West Thurman Street)	1919	Eligible (Criterion A), contributes to Fishermen's Terminal Historic District (Criterion A)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Adversely Affected: <i>Construction Disruption and Permanent Proximity Effects</i>
952d	721259	United States Plywood Corporation Power House	4025 13th Avenue West	1938	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Elevated 14th Avenue Alternative (IBB-1a)	Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)	Preferred Tunnel 14th Avenue Alternative (IBB-2a)*	Preferred Tunnel 15th Avenue Station Option (IBB-2b)*	Elevated 15th Avenue Alternative (IBB-3)
1537	342178	Seattle City Light - Ballard Substation	1415 Northwest 49th Street	1918	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1539	43813	Leary Substation	1414 Northwest Leary Way	1954	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1554	719625	Edith Macefield House	1438 Northwest 46th Street	1900	Eligible (Criterion A)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1555a	90521	Industrial Building	1130 Northwest 45th Street	1910	Eligible (Criterion A)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1562	344017	Office Building	3220 17th Avenue West	1955	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1646	720146	Canal Apartments	1223 West Nickerson Street	1926	Eligible (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
1875a	43297	Northwest Builders Hardware	1100 West Ewing Street	1957	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
2183	388861	Duplex	1145 Northwest 56th Street	1945	Eligible (Criterion C)	Adversely Affected: Property Demolition	Adversely Affected: Property Demolition	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
3156	344287	Interbay Pharmacy	1613 West Dravus Street	1959	Eligible (Criteria A and C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected

Survey Number	WISAARD Property Number	Property Name	Address	Construction Date	National Register Eligibility Status ^a	Preferred Elevated 14th Avenue Alternative (IBB-1a)	Elevated 14th Avenue Alignment Option (from Prospect Street Station/15th Avenue) (IBB-1b)	Preferred Tunnel 14th Avenue Alternative (IBB-2a)*	Preferred Tunnel 15th Avenue Station Option (IBB-2b)*	Elevated 15th Avenue Alternative (IBB-3)
3232	723016	Madera on Queen Anne Condominiums	3608 14th Avenue West	1967	Eligible (Criterion C) (pending consultation)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
LIN-1	42541	Ballard Bridge	Spanning Salmon Bay	1919	National Register Listed (Criterion C)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Adversely Affected: Permanent Proximity Effects
LIN-15	88822	Seattle & Montana Railway/Great Northern Railway Main Line/Seattle Lake Shore & Eastern Railroad Ballard Branch Line	Ballard, Seattle	1890	Eligible (Criterion A)	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected	Not Adversely Affected
Total Number of Adversely Affected Properties	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	7	7	4	3	10

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

Note: Assessments of effects to individual historic properties are preliminary and have not been formally determined by FTA. Final effects determinations are pending additional consultation with the State Historic Preservation Officer, Tribes, and other consulting parties.

^a Unless noted as "pending consultation," the State Historic Preservation Officer has concurred with determinations of National Register eligibility.

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

The application of criteria of adverse effect to historic properties for Option IBB-1b would be the same as described for Preferred Alternative IBB-1a, with the following exceptions.

- Residences at 3440 15th Avenue West (607), 3442 15th Avenue West (608), and 3220 15th Avenue West (618) would be demolished as a result of this alignment option and thus would be adversely affected.
- Superior Concrete Products Company at 3615 15th Avenue West (647), Sweden Freezer Manufacturing Company at 3401 Thorndyke Avenue West (651), and Keller Supply Co. at 3205 17th Avenue West (659) would not be acquired for this alignment option and thus would not be adversely affected.

Preferred Tunnel 14th Avenue Alternative (IBB-2a)*

Preferred Alternative IBB-2a* would result in the demolition of historic properties, resulting in adverse effects to these properties:

- An apartment complex at 5700 14th Avenue Northwest (504)
- Superior Concrete Products Company at 3615 15th Avenue West (647)
- Sweden Freezer Manufacturing Company at 3401 Thorndyke Avenue West (651).
- Keller Supply Co. at 3205 17th Avenue West (659).

This alternative would require partial property acquisitions for the following resources:

- An office building at 3220 17th Avenue West (1562). However, only a small portion of the property would be acquired. The building itself would not be modified in any way, and neither access nor use would be compromised. The undertaking would not alter or diminish the resources' integrity of location, design, materials, workmanship, setting, feeling, or association; therefore, it would not be adversely affected by this alternative.

Visible above-ground project components include the Ballard Station entrances and the top 20 feet of Interbay Station. The presence of these station would convert the industrial character of the surrounding areas to transportation and would not have the potential to alter or diminish any aspect of a historic property's integrity.

Preferred Tunnel 15th Avenue Station Option (IBB-2b)*

The application of criteria of adverse effect to historic properties for Preferred Option IBB-2b* would be the same as described for Preferred Alternative IBB-2a*, with the following exceptions:

- The apartment complex at 5700 14th Avenue Northwest (504) would not be demolished or acquired for this alignment option and thus would not be adversely affected.
- The duplex at 1145 Northwest 56th Street (2183) would not be acquired nor would it be in direct proximity of this alignment option, and thus would not be adversely affected.

Elevated 15th Avenue Alternative (IBB-3)

Alternative IBB-3 would result in the demolition of historic properties, resulting in adverse effects to these properties:

- Lyle Branchflower Company Processing Warehouse at 4507 Shilshole Avenue Northwest (10a)

- Lyle Branchflower Company Cold Storage Building/North Star Ice Equipment Building at 4511 Shilshole Avenue Northwest (10b)
- Nelson Chevrolet Storage Lot Office Building at 1510 Northwest 50th Street (476)
- Residence at 3220 at 15th Avenue West (618)
- Superior Concrete Products Company at 3615 15th Avenue West (647)

The permanent elevated guideway would require partial property acquisition (but not full demolition) of the resource on the east end of the Fishermen's Terminal Historic District, resulting in an adverse effect. The new guideway would diminish the property's integrity of setting and feeling. Two individual National Register-eligible resources contained within the district – the Fishermen's Terminal Fishing Vessel Owners Winch House at 2000 West Emerson Place (951e), and the Fishermen's Terminal Fishing Vessel Owners Marine Ways at 2000 West Emerson Place (1511 West Thurman Street) (951f) – would also be adversely affected by this alternative. Although the Fishing Vessel Owners resources would not be demolished, the business would likely be displaced. Therefore, the effect to these resources would be adverse.

The remaining individually eligible resource within the district, the Seattle First National Bank - Fishermen's Terminal Branch at 2000 West Emerson Place (951c), is sufficiently far from construction or operation of the project, and would not be adversely affected.

The permanent elevated guideway would be in direct, immediate proximity to three properties, which would permanently diminish their integrity of setting and feeling. Construction impacts would also affect these properties; the effects would be adverse. These properties are:

- A building at 1510 Northwest Leary Way (482).
- The Ballard Bridge (LIN-1).

This alternative would require partial property acquisitions for the following resources:

- The Nelson Chevrolet Showroom at 1521 Northwest 50th Street (477). However, only a small portion of the surface parking lot on the property would be acquired. The building itself would not be modified in any way, and neither access nor use would be compromised. The undertaking would not alter or diminish the resources' integrity of location, design, materials, workmanship, setting, feeling, or association; therefore, it would not be adversely affected by this alternative. Further, demolition of the adjacent and associated Nelson Chevrolet Storage Lot Office Building at 1510 Northwest 50th Street (476) would not alter or diminish the showroom's integrity of location, design, materials, workmanship, feeling, or integrity and would not constitute an adverse effect.
- The Elmer & Moody Company Woodwork at 3635 Thorndyke Avenue West (648). However, only a small portion of the surface parking lot on the property would be acquired. The building itself would not be modified in any way, and neither access nor use would be compromised. The undertaking would not alter or diminish the resources' integrity of location, design, materials, workmanship, setting, feeling, or association; therefore, it would not be adversely affected by this alternative.

The remaining historic properties within this segment are sufficiently far from construction and operation of the project that they would not experience an effect, direct or indirect, that would alter or diminish any aspect of integrity. Although the new guideway would be visible from several historic properties in the area, it would be on an existing transportation corridor or across the street. The introduction of a new transportation facility in this location is consistent with the existing built environment context and would not be a substantial visual intrusion. This change would not alter or diminish any aspect of integrity.

10.6 Potential Indirect or Cumulative Effects

All project Build Alternatives would have the potential to affect historic or archaeological resources within the study area. The settings surrounding these resources have been altered by older development, recent redevelopment, and general changes in uses surrounding them. The reasonably foreseeable future actions in the project vicinity may also have direct impacts on historic or archaeological resources in the WSBLE study area. Incrementally, new infrastructure and development patterns have changed and will continue to change the historic setting of resources as a result of past and ongoing urbanization.

Construction of the WSBLE could encourage population growth and transit-oriented development in the station areas. Potential effects could include demolition or substantial alteration of historic properties for redevelopment. Future redevelopment in station areas would be consistent with adopted zoning and the City of Seattle's Comprehensive Plan (2018), which currently allows greater density in the station areas than exists today. The City's Landmark ordinance, which would apply to the demolition or substantial alteration of historic structures that meet the City of Seattle's Landmark criteria, would help to reduce loss of historic resources. Furthermore, any changes in zoning by the City could result in redevelopment of historic properties and long-term alteration to the scale and character of neighborhoods, which could have indirect impacts on historic properties. Redevelopment also has the potential to disturb archaeological resources. Incrementally, the WSBLE Project could contribute to a cumulative impact on historic and archaeological resources.

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11 SUMMARY AND RECOMMENDATIONS

11.1 Summary

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The agency must consult with the State Historic Preservation Officer, affected Tribes, and other consulting parties to seek ways to avoid, minimize, or mitigate adverse effects. Historic properties are defined as any district, site, building, structure, or object, listed in or eligible for inclusion in the National Register.

As demonstrated in this report, the WSBLE Project traverses some of Seattle's oldest and densest neighborhoods. Regardless of the alternative, the project would result in adverse effects to historic properties.

Archaeological resources might be encountered during construction of all alternatives for the WSBLE. In the West Seattle Link Extension, the SODO and Duwamish segments, where archaeological materials deposited during the nineteenth century to transform the tidelands into habitable property are abundant and ubiquitous have the highest probability to encounter archaeological resources. The greatest area of archaeological sensitivity, however, surrounds the area of the Duwamish Waterway. Although this river corridor has been heavily modified, intact archaeological resources have been identified and could be encountered by alternatives to the south of the West Seattle Bridge. The Delridge and West Seattle Junction segments might encounter historical-period archaeological materials, with a lower possibility of encountering intact precontact archaeological materials.

In the Ballard Link Extension, those areas of the SODO Segment that were former tide flats are likely to retain historical-period refuse associated with efforts to build up the area for industry and habitation. The prospects for precontact archaeological materials in these former tide flats are lower. Through most of the Chinatown-International District and Downtown Seattle, construction-related ground disturbance could encounter historical-period archaeological resources as the corridor traverses one of the most densely historically populated areas of the city. As the corridor turns northward approaching Smith Cove, the potential for identifying intact precontact resources rises with the proximity to water and the water crossings largely because these areas were important to precontact people for procurement resources. This area, while heavily modified historically, is of known importance to ethnographic populations and should be considered very high sensitivity. While the possibility of encountering precontact archaeology diminishes moving north from Salmon Bay, the inverse is likely regarding historical-period archaeological resources. The early historical development of the Ballard area suggests that historical-period archaeological resources could be encountered along any of the new alignments.

All segments, with the exception of SODO, have alternatives that would result in adverse effects to built environment historic properties. Few alternatives within the segments would have no adverse effects, and no combination of alternatives between segments would result in an end to end project alternative that would avoid adverse effects in either the West Seattle Link Extension or the Ballard Link Extension.

11.2 Resolution of Adverse Effects

In both extensions, adverse effects to historic built environment and archaeological resources would be avoided where possible through project planning, design, and the application of required best management practices during construction. Where adverse effects to National Register-eligible or -listed resources cannot be avoided or minimized, FTA and Sound Transit would develop a memorandum of agreement or programmatic agreement in consultation with the State Historic Preservation Officer, Tribes, and other consulting parties under Section 106.

Typical mitigation measures that could be included in a memorandum of agreement or programmatic agreement are listed below; additional options can also be found through the Washington State Department of Archaeology and Historic Preservation (2020):

- Modifying the undertaking through redesign, re-orientation, or other similar changes.
- 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 would develop a detailed monitoring and inadvertent discovery plan for review by the State Historic Preservation Officer and Tribes. The plan would include research questions and outline protocols to ensure the proper treatment of archaeological resources that may be identified during construction.

11.2.1 Minimization of Adverse Effects

The following minimization measures would be incorporated into the project to avoid potential adverse effects, when appropriate, consistent with 36 Code of Federal Regulations Part 800.5(b). General minimization efforts to be incorporated into the project that could further minimize effects on historic properties would include the following:

- Seismically or structurally upgrade buildings that might be subject to structural impacts.
- Take precautions that historic properties are protected from vibrations, excavations, and damage from heavy equipment.
- Protect facades of affected historic buildings from an accumulation of excessive dirt and dust during construction, and/or clean them in an appropriate manner at the conclusion of construction. Sound Transit would consult with the State Historic Preservation Officer before implementing any protection or cleaning methods.

- Control fugitive dust using measures listed in Appendix L4.6F, Air Quality Best Management Practices, of the Draft Environmental Impact Statement.
- Maintain access to historic properties to the extent possible.
- Restrict construction haul routes to existing, heavily used public rights-of-way and avoid historic districts when practicable.

11.2.1.1 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:

- In addition to meeting City of Seattle regulatory requirements and the design guidelines described in Sections 4.2.5 and 4.3.5, Visual and Aesthetic Resources, of the Draft Environmental Impact Statement, Sound Transit has developed mitigation measures for areas with visual impacts. Mitigation measures would be further refined if necessary in coordination with the City of Seattle as the project design advances.
- Sound Transit would coordinate with the City of Seattle and adjacent communities through design review to promote visual unity in station areas.
- Through design review in coordination with the City of Seattle, Sound Transit would consider measures to minimize impacts to visual quality from the bridge alternatives over Salmon Bay, such as design guidelines and context-sensitive design.
- Sound Transit would surplus the remainder of the parcels, not needed after construction, which could potentially be redeveloped consistent with Sound Transit's Transit Oriented Development Policies and City of Seattle plans.
- When possible, Sound Transit would preserve existing vegetation.
- Sound Transit would plant appropriate vegetation within and adjoining the project right-of-way to replace existing street trees and other visually important vegetation removed for the project, or to provide screening for sensitive visual environments and/or sensitive viewers. New plantings would be consistent with Sound Transit operations and maintenance requirements.
- Sound Transit would design exterior lighting at stations, tail tracks, and hi-rail access to minimize height and use source shielding to avoid lighting bulbs that would be directly visible from residential areas, streets, and highways. Shielding would also limit spillover light and glare in residential areas.
- During construction, Sound Transit would provide visual screening along some areas where construction activities would be seen by nearby sensitive viewers. Visual screening would include construction of a barrier to screen ground-level views into construction areas where practical. Nighttime construction lighting would be shielded and directed downward to avoid light spillover onto adjacent sensitive uses.

11.2.1.2 Minimization of Noise and Vibration Effects

Section 7, Noise and Vibration Mitigation Measures, of the Noise and Vibration Technical Report (Appendix N.3) provides a description of means to reduce and monitor potential noise and vibration effects during tunnel construction. The entire content of the report is not reiterated in this report, but key noise and vibration minimization strategies are summarized below.

11.2.1.2.1 Noise

Although noise-related adverse effects to historic properties 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 Link Noise Mitigation Policy. 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 identified noise impacts, sound walls were the selected method of reducing noise levels, consistent with Sound Transit's Link Noise Mitigation Policy (Sound Transit 2004). Sound walls are effective at eliminating most predicted noise impacts in both the West Seattle Link and Ballard Link extensions.

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.

11.2.1.2.2 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:

- 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.** Avoiding nighttime construction in residential neighborhoods and arrange with businesses to avoid interfering with sensitive daytime activities. Local ordinances would be followed unless variances are obtained.
- **Equipment location.** Locating stationary construction equipment as far as possible from vibration-sensitive sites.

- **Continuous vibration monitoring.** Monitoring can be implemented at particularly sensitive receivers if needed.
- **Alternative construction methods.** Using alternative construction methods to minimize the use of impact and vibratory equipment (e.g., pile-drivers and compactors).

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Attachment N.5A
Table of Surveyed Properties

Attachment N.5B
Photographs of Historic Properties

Attachment N.5C
Built Environment Inventory Plan
and Historic Context

Attachment N.5D
Archaeological Survey and Inventory Plan

Attachment N.5E
Archaeological Sensitivity Areas

Attachment N.5F
Agency and Tribal Consultation Letters
