



Tacoma Dome

Link Extension

Supporting Materials for
2022-2023 Screening

February 2023

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Acronyms and Abbreviations

Board	Sound Transit Board
I-5	Interstate 5
NEPA	National Environmental Policy Act
Puyallup Tribe of Indians	Puyallup Tribe of the Puyallup Reservation
SEPA	State Environmental Policy Act
SR	State Route
TDLE	Tacoma Dome Link Extension

INTRODUCTION

In 2018 and 2019, Sound Transit conducted an alternatives development process to identify station and alignment alternatives to study in the Tacoma Dome Link Extension (TDLE) Environmental Impact Statement. That process included three levels of screening: prescreening, Level 1, and Level 2 alternatives evaluation. The alternatives development process began with early scoping under the State Environmental Policy Act (SEPA) in April 2018 and scoping under the National Environmental Policy Act (NEPA) and SEPA in April 2019. Information on early scoping, scoping, and the development of the alternatives is included in Appendix I, Alternatives Development Supporting Documents.

In July 2019, the Sound Transit Board of Directors (Board) identified the alternatives for study in this Draft Environmental Impact Statement. The Board also identified a Preferred Alternative in the South Federal Way and Tacoma segments as well as in a portion of the Fife Segment, which included the Fife Station. At that time the Preferred Alternative, shown in Figure 1, was supported by the Puyallup Tribe of the Puyallup Reservation (Puyallup Tribe of Indians) and local jurisdictions.

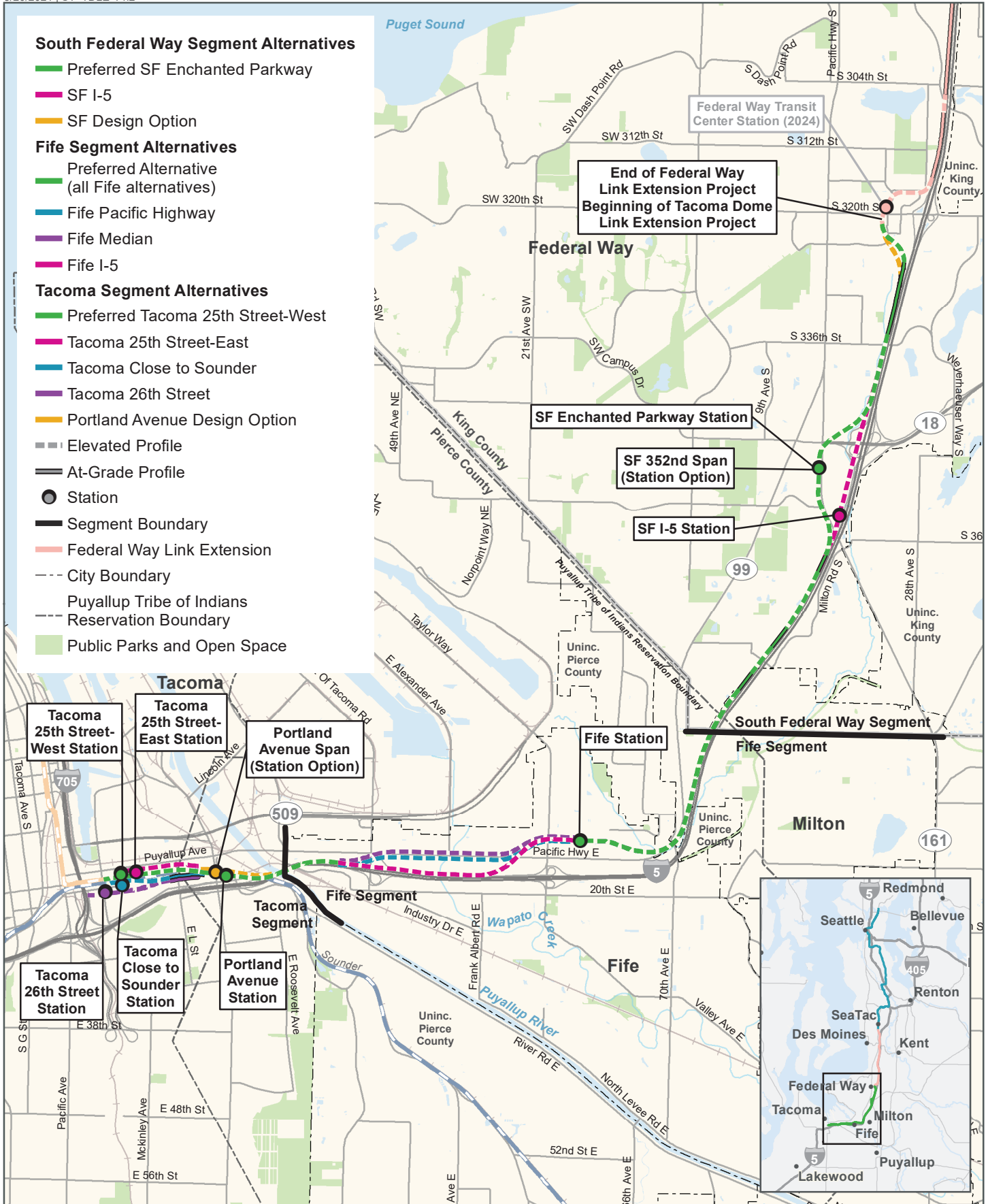
Potential Fife Station Options

While analyzing the alternatives for the Draft Environmental Impact Statement, Sound Transit identified challenges related to the preferred Fife Station location being sited inside the boundary of the Fife Ditch Tributary 1 floodplain. Federal regulations, including Executive Order 11988 and USDOT Order 5650.2, require an alternative that avoid adverse effects in the floodplain be analyzed in the Draft Environmental Impact Statement. The City of Fife's planning efforts for a new City Center, as well as the location of the State Route (SR) 167 Completion and SR 167/Interstate-5 (I-5) to SR 509 Expressway projects, were also considered during the identification of potential station options. Figure 2 shows the potential station locations, which have not been designed and will be refined if moved forward to study in the Draft Environmental Impact Statement. Table 1 contains the preliminary screening of potential Fife station options.

Potential Additional Alternatives in South Federal Way to Milton

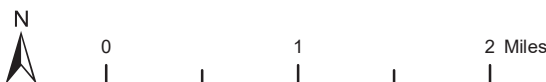
While analyzing the alternatives for the Draft Environmental Impact Statement, additional information on areas sensitive for known cultural resources within the limits of the Preferred Alternative in the South Federal Way Segment were identified. Therefore, Sound Transit is exploring alternative alignments in the South Federal Way area. Figure 3 shows the approximate alignments, which have not been designed and will be refined if moved forward to study in the Draft Environmental Impact Statement. Table 2 contains the preliminary screening of potential additional alternatives.

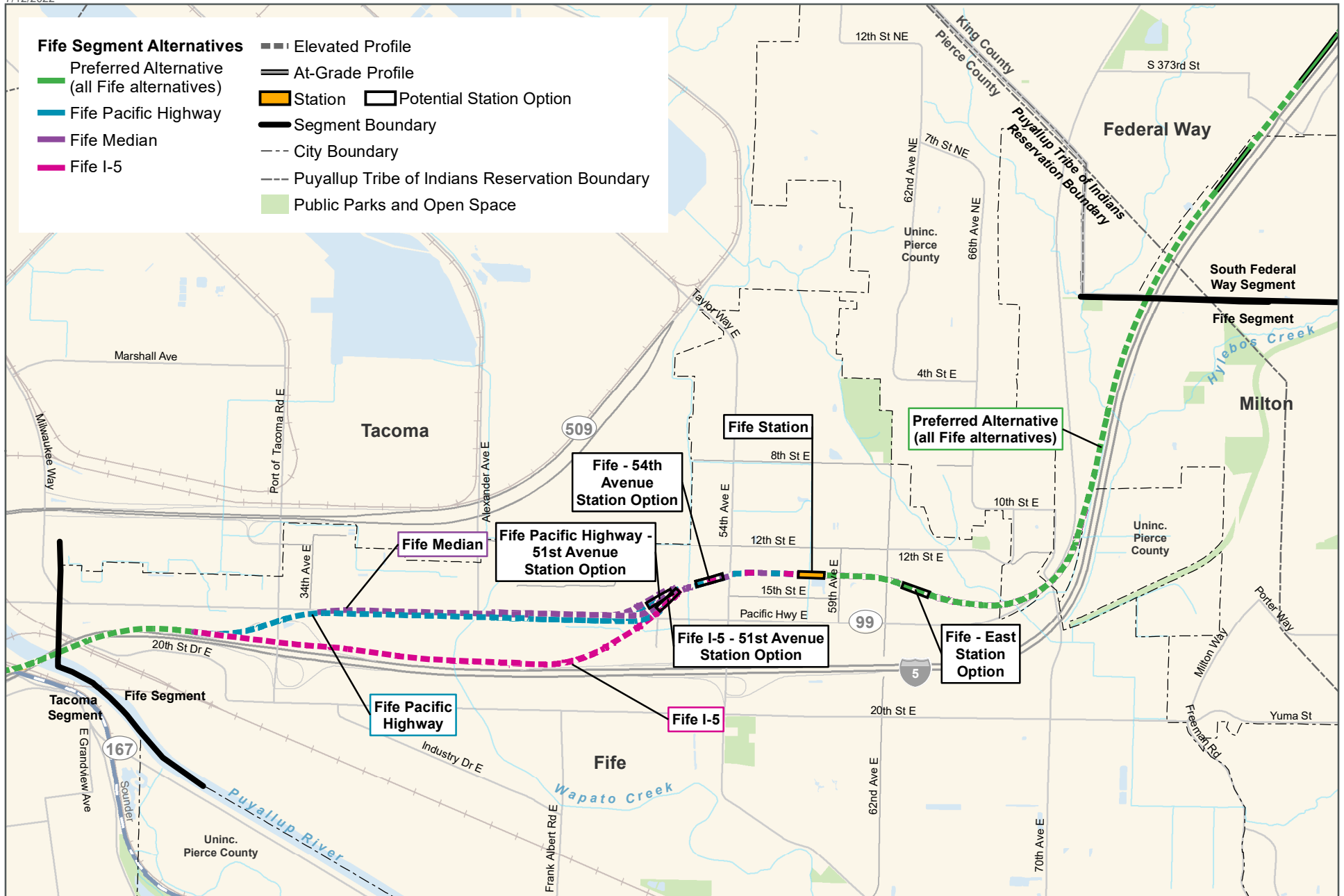
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Data Sources: King and Pierce County, Cities of Federal Way, Fife, Milton, Tacoma (2019).

FIGURE 1
 Alternatives Identified in 2019 for Study in the
 Draft Environmental Impact Statement
 Tacoma Dome Link Extension





Data Sources: King and Pierce County, Cities of Federal Way, Fife, Milton, Tacoma (2019).

FIGURE 2
Potential Fife Station Options



Table 1 Screening Results for Potential Fife Station Options

Measure	Methodology	Performance Rating Notes (all options have center platforms)				
		Fife - East Station Option (all alternatives)	Fife Pacific Highway - 54th Avenue Station Option	Fife I-5 - 54th Avenue Station Option	Fife Pacific Highway - 51st Avenue Station Option	Fife I-5 - 51st Avenue Station Option
Objective: Provide effective transportation solutions to meet mobility, access, and capacity needs						
F.1: Travel time	Estimated based on alignment length, percent of alignment with horizontal speeds below 55 mph	Travel time is similar to the 10% design. Magnitude of O&M costs would be similar for all station options.	Travel time increased slightly (a few seconds) more than other options due to reduced speeds at curves.	Travel time increased slightly (a few seconds) from 10% design due to reduced speeds at curves.	Travel time increased slightly (a few seconds) from 10% design due to reduced speeds at curves.	Travel time increased slightly (a few seconds) from 10% design due to reduced speeds at curves.
F.2: Daily and annual projected project ridership (2042)	Average daily projected riders (baseline estimate provided for Fife station area, with qualitative differences noted for station/alignment alternatives) Fife: 12,900 Daily Northbound (NB); 12,900 Daily Southbound (SB)	12,900 NB; 12,900 SB	12,900 NB; 12,900 SB	12,900 NB; 12,900 SB	12,900 NB; 12,900 SB	12,900 NB; 12,900 SB
F.3: Projected station boardings (2042)	Projected station boardings (baseline estimate provided for Fife station area, with qualitative differences noted for station/alignment alternatives) Fife: 1,700 daily NB boardings; 900 daily SB boardings	2,600 daily boardings	2,600 daily boardings	2,600 daily boardings	2,600 daily boardings	2,600 daily boardings
F.4: Proximity to PSRC growth centers and manufacturing/industrial centers	% PSRC Growth Center and/or manufacturing/industrial center within 10-minute walkshed	No PSRC regional growth center or manufacturing/industrial center. No potential to support growth centers.	Station near Port of Tacoma, PSRC manufacturing/industrial center area. Minimal potential to support growth centers.	Station near Port of Tacoma, PSRC manufacturing/industrial center area. Minimal potential to support growth centers.	Station near Port of Tacoma, PSRC manufacturing/industrial center area. Minimal potential to support growth centers.	Station near Port of Tacoma, PSRC manufacturing/industrial center area. Minimal potential to support growth centers.
F.5: Population (persons/acre) and job (jobs/acre) densities	Existing and future (2040) population and employment densities within 10-minute walkshed	Population density: 2.4 (existing); 3.0 (future) Employment density: 1.8 (existing); 2.8 (future)	Population density: 2.6 (existing); 3.3 (future) Employment density: 3.1 (existing); 4.9 (future)	Population density: 2.6 (existing); 3.3 (future) Employment density: 3.1 (existing); 4.9 (future)	Population density: 2.6 (existing); 3.3 (future) Employment density: 3.1 (existing); 4.9 (future)	Population density: 2.6 (existing); 3.3 (future) Employment density: 3.1 (existing); 4.9 (future)
Objective: Support sustainable land use plans, transit oriented development, and multimodal station access						
F.6: Consistency with adopted civic and community planning and land use, evaluating elements such as local and tribal development goals, current and planned development, current and anticipated zoning, and/or comprehensive plans	Assessment of the civic and land use documents that are relevant and up to date in each station area. Evaluate each station location against the relevant documents/civic plans rating each plan as "consistent with TOD around alternative location" (+), "neutral", or "inconsistent with TOD around alternative location" (-)	This station option is located on property currently zoned Small Lot Residential and Regional Commercial, adjacent to property zoned Single Family Residential, more Regional Commercial, and some Industrial. The area currently zoned Regional Commercial is proposed to be changed to Mixed Commercial/High Density Residential, which could provide additional opportunity for transit oriented development near the station.	Located entirely on property zoned Regional Commercial, adjacent to property zoned Business Park, Industrial, and Community Commercial. The property where the station is proposed to be located is planned to be zoned Mixed Commercial/High Density Residential, with no change in zoning proposed for other nearby property.	Located entirely on property zoned Regional Commercial, adjacent to property zoned Business Park, Industrial, and Community Commercial. The property where the station is proposed to be located is planned to be zoned Mixed Commercial/High Density Residential, with no change in zoning proposed for other nearby property.	Located on property currently zoned Regional Commercial and Business Park. The property currently zoned Regional Commercial is proposed to be rezoned as Mixed Commercial/High Density Residential along with adjacent to areas currently zoned Neighborhood Commercial.	Like Pacific Highway - 51st Avenue South, except located on more property currently zoned Business Park, which is not anticipated to change. Both 51st Avenue Station Options are located near property currently zoned regional commercial but proposed to be amended to Mixed Commercial/High Density Residential and some industrial property.
F.6b: Consistency with City of Fife City Center planning * Measure added for 2022 Fife station option screening	Assessment of station location related to the Fife Center of Local Importance (COLI) - City Center identified in the Comprehensive Plan and additional ongoing City Center planning efforts	The Fife - East Station Option would be located outside of the Fife COLI - City Center, adjacent to the eastern boundary.	The Fife Pacific Highway - 54th Avenue Station Option would be located within the Fife COLI - City Center, just inside the western boundary.	The Fife I-5 - 54th Avenue Station Option would be located within the Fife COLI - City Center, just inside the western boundary.	The Fife Pacific Highway - 51st Avenue Station Option would be located on the western boundary of the Fife COLI - City Center, partially within and partially outside the boundary.	The Fife I-5 - 51st Avenue Station Option would be located on the western boundary of the Fife COLI - City Center, partially within and partially outside the boundary.
F.7: Likelihood of station area redevelopment into transit-oriented neighborhood	Assessment of degree to which the station area has land available to support development into a transit-oriented neighborhood, as measured by the amount of land within 1/4 mile walking distance of station that has a relatively greater likelihood to redevelop into transit-supportive uses	This station option has some likelihood of redeveloping within a 1/4-mile walking distance. Some land not developable as it will be limited by SR 167; other land is unlikely to redevelop due to existing established uses and incompatible zoning.	This station option has some likelihood of redeveloping within a 1/4-mile walking distance. Some land is not likely to redevelop due to its location near the Port of Tacoma; other nearby land is tribally owned.	This station option has some likelihood of redeveloping within a 1/4-mile walking distance. Some land is not likely to redevelop due to its location near the Port of Tacoma; other nearby land is tribally owned.	This station option has some likelihood of redeveloping within a 1/4-mile walking distance. Some land is not likely to redevelop due to its location near the Port of Tacoma; other nearby land is tribally owned.	This station option has some likelihood of redeveloping within a 1/4-mile walking distance. Some land is not likely to redevelop due to its location near the Port of Tacoma; other nearby land is tribally owned.
F.8: Inventory of nonmotorized barriers within 1/2 mile of the station	Assessment of barriers within 1/2 mile of TDLE station areas (barriers list: (1) topography (hills) that limit the walkshed, (2) wide roads, (3) highways, (4) bodies of water, (5) railways)	SR 99 is located to south of the station (which has 5 lanes of traffic and is difficult to cross), and SR 167 will be located to the northeast. It is also located in an area with a sparser street grid and not within an area where the street will be expanded. However, this station is located near a crossing of I-5 to the southeast of the station via the Wapato Way E bridge. There will also be a shared-use path adjacent to SR 167, located to the northeast of the station.	This station location is located on 54th Avenue, which is a wide (5 lane) street with a high volume of truck traffic. Pacific Highway is also located to the south of the station and has 5 lanes and higher truck volumes. However, the station is located just west of an area that is planned to have an improved streetgrid.	This station location is located on 54th Avenue, which is a wide (5 lane) street with a high volume of truck traffic. Pacific Highway is also located to the south of the station and has 5 lanes and higher truck volumes. However, the station is located just west of an area that is planned to have an improved streetgrid.	This station location is located near 54th Avenue, which is a wide (5-lane) street with a high volume of truck traffic. Pacific Highway is also located to the south of the station and has 5 lanes and higher truck volumes. However, the station is located one block away, which provides some improvement for nonmotorized access, and there is an existing signalized crossing of Pacific Highway.	This station location is located near 54th Avenue, which is a wide (5-lane) street with a high volume of truck traffic. Pacific Highway is also located to the south of the station and has 5 lanes and higher truck volumes. However, the station is located one block away, which provides some improvement for nonmotorized access, and there is an existing signalized crossing of Pacific Highway.
F.9: Presence of amenities that can catalyze development of transit-oriented neighborhoods	Assessment of amenities that can catalyze complete transit-oriented neighborhoods in station area.	This station location is furthest from the amenities located west of 54th Avenue	The station is closer to amenities concentrated west of 54th Avenue and along Pacific Highway, which include restaurants, retail, and some services.	The station is closer to amenities concentrated west of 54th Avenue and along Pacific Highway, which include restaurants, retail, and some services.	The station is closest to amenities concentrated west of 54th Avenue and along Pacific Highway, which include restaurants, retail, and some services.	The station is closest to amenities concentrated west of 54th Avenue and along Pacific Highway, which include restaurants, retail, and some services.
F.10: Proximity to local bus, and other transit facilities and services	Distance to nearest existing bus stop; measure of the level of diversion that could be required	Stop: Pacific Hwy E & 62nd Ave E (route 500, 60-minute freq) Distance: 1,120 feet	Stop: Pacific Hwy E & 54th Ave E (route 500, 60-minute freq) Distance: 1,250 feet	Stop: Pacific Hwy E & 54th Ave E (route 500, 60-minute freq) Distance: 1,250 feet	Stop: Pacific Hwy E & 52nd Ave E (route 500, 60-min freq) Distance: 660 feet	Stop: Pacific Hwy E & 52nd Ave E (route 500, 60-minute freq) Distance: 500 feet
F.11: Ease of vehicular pickup/drop-off for a variety of users	Assessment of ease of access to pickup/drop-off at stations due to nearby street network and congestion using proposed station concepts.	Vehicle delay increase of 87 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 118 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 118 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 185 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 185 seconds at 5 nearby intersections compared to No-Build Alternative

Table 1 Screening Results for Potential Fife Station Options (continued)

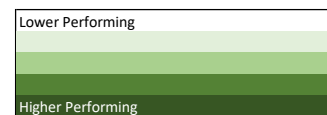
Measure	Methodology	Performance Rating Notes (all options have center platforms)				
		Fife - East Station Option (all alternatives)	Fife Pacific Highway - 54th Avenue Station Option	Fife I-5 - 54th Avenue Station Option	Fife Pacific Highway - 51st Avenue Station Option	Fife I-5 - 51st Avenue Station Option
F.12: Connections with local and regional bicycle facilities (existing and planned) and access to stations	Ratio of existing and funded bicycle facility miles (greenway, lanes, protected lanes, trails) to total roadway miles within a 10-minute bikeshed	Located within close proximity and with potential for direction connection to SR 167 regional trail; proximity to bike lanes on Pacific Highway, proximity and direct connections to Interurban Trail Existing: 0.19 Funded: 0.40	Located near bike lanes on Pacific Highway, with connections to Interurban Trail Existing: 0.17 Funded: 0.25	Located near bike lanes on Pacific Highway, with connections to Interurban Trail Existing: 0.17 Funded: 0.25	Located near bike lanes on Pacific Highway, with connections to Interurban Trail Existing: 0.17 Funded: 0.25	Located near bike lanes on Pacific Highway, with connections to Interurban Trail Existing: 0.16 Funded: 0.25
F.13: Connections with local pedestrian facilities (existing and planned) and pedestrian access to stations	Ratio of existing and funded pedestrian facility miles (trails, sidewalks) to total roadway miles within a 10-minute walkshed of stations	Existing: 0.26 Funded: 1.16	Existing: 0.64 Funded: 0.67	Existing: 0.64 Funded: 0.67	Existing: 0.53 Funded: 0.53	Existing: 0.52 Funded: 0.52
Objective: Preserve the environment						
F.14: Potential effects to wetlands	Extent and quality of wetlands within 100-foot buffer of each alternative	Permanent impact footprint encompasses all parts of a Category IV wetland.	Minor impacts to a Category IV wetland associated with Fife Ditch	Minor impacts to a Category IV wetland associated with Fife Ditch	Minor impacts to a Category IV wetland associated with Fife Ditch	Minor impacts to a Category IV wetland associated with Fife Ditch
F.15: Potential effects to streams/stream crossings	Number of impacts to streams and stream crossings within 100-foot buffer of each alternative	No streams or stream buffers in the permanent or temporary impact footprints.	Permanent impacts to a surface-flowing segment of Fife Ditch, temporary impacts to the stream buffer. Guideway crosses the open Fife Ditch stream. If 52nd Ave E is extended to 12th St E by the City of Fife and Sound Transit, the Fife Ditch may need to be relocated slightly west.	Permanent impacts to a surface-flowing segment of Fife Ditch; temporary impacts to the stream buffer. Guideway crosses the open Fife Ditch stream. If 52nd Ave E is extended to 12th St E by the City of Fife and Sound Transit, the Fife Ditch may need to be relocated slightly west.	Permanent impacts to a surface-flowing segment of Fife Ditch, temporary impacts to the stream buffer (smaller area of buffer impacts, compared to the 54th Ave Station Option). Guideway crosses open Fife Ditch stream and the station would be built directly over a piped reach of the stream. Piped reach of stream would potentially need to be relocated outside of station footprint.	Permanent impacts to a surface-flowing segment of Fife Ditch, temporary impacts to the stream buffer (smaller area of buffer impacts, compared to the 54th Ave Station Option). Guideway crosses open Fife Ditch stream and the station would be built directly over a piped reach of the stream. Piped reach of stream would potentially need to be relocated outside of station footprint.
F.16: Potential to affect protected species and habitats	Number of impacts to habitats or areas where endangered, threatened, or sensitive species have a primary association (based on Priority Habitats and Species data from the Washington Department of Fish and Wildlife within 100-foot buffer of each alternative)	No impacts to streams or other areas with which Priority Species have a primary association.	Fife Ditch is accessible to ESA-listed fish, but poor habitat conditions likely discourage use.	Fife Ditch is accessible to ESA-listed fish, but poor habitat conditions likely discourage use.	Fife Ditch is accessible to ESA-listed fish, but poor habitat conditions likely discourage use.	Fife Ditch is accessible to ESA-listed fish, but poor habitat conditions likely discourage use.
F.17: Potential effects to vegetated areas	Estimated area of vegetation removal	Site is largely developed, but it includes patches of grassland, wetland, and non-native forest habitat.	Site is largely developed. Some landscaping trees and a patch of grassland habitat (mowed grass) are present.	Site is largely developed. Some landscaping trees and a patch of grassland habitat (mowed grass) are present.	Site is largely developed. Some landscaping trees and a patch of grassland habitat (mowed grass) are present.	Site is largely developed. Some landscaping trees and a patch of grassland habitat (mowed grass) are present.
F.18: Potential effects to floodplains/water resources	Number of impacts to or floodplains/floodways (additive) within 100-foot buffer	Station site is east of Fife Ditch Tributary floodplain and west of the Hylebos Creek floodplain, and does not cross any streams.	The station platform is over 100 ft away from mapped floodplains; however, the footprint for station area facilities (potentially parking/bus stops) is within 100 feet of Fife Ditch Tributary 1 floodplain to the east (54th Avenue) and Fife Ditch floodplain to the north (12th Street).	The station platform is over 100 feet away from mapped floodplains; however, the footprint for station area facilities (potentially parking/bus stops) is within 100 feet of Fife Ditch Tributary 1 floodplain to the east (54th Avenue) and Fife Ditch floodplain to the north (12th Street).	Station site is further away from Fife Ditch Tributary floodplain and Fife Ditch floodplain compared to 54th Avenue options.	Station site is further away from Fife Ditch Tributary floodplain and Fife Ditch floodplain compared to 54th Avenue options.
F.19: Presence of geologic hazard areas (steep slopes, erosion, or landslide hazard areas)	Number of geologic hazard areas (steep slope, erosion, landslide hazard areas)	Lahar hazard zone and high liquefaction susceptibility.	Lahar hazard zone and high liquefaction susceptibility.	Lahar hazard zone and high liquefaction susceptibility.	Lahar hazard zone and high liquefaction susceptibility.	Lahar hazard zone and high liquefaction susceptibility.
F.20: Estimated number of affected parcels	Assessment of potential property impacts and general estimate of acreage (needed for station)	14 parcels (10 full and 4 partial impact) 6 full takes are Commercial, 2 Public (Qwest/CenteryLink), 1 vacant residential (NRHP-eligible house), 1 occupied residential (Also, 1 new Tribal parcel corner clipped would need easement and 1 new Tribal temporary construction easement) Station footprint approximately 544,000 square feet	21 parcels (10 full and 11 partial) All full takes are Commercial [greater impact to Fife Business Park buildings compared to Fife I-5 - 54th but less than 51st options; slightly higher square footage than 51st options] Station footprint approximately 486,000 square feet	17 parcels (8 full, 9 partial) All full takes are Commercial [greater impact on Fife Business Park buildings compared to Fife I-5 - 51st option] Station footprint approximately 432,000 square feet	17 parcels (8 full, 9 partial) All full takes are Commercial [greater impact on Fife Business Park buildings compared to Fife I-5 - 51st option] Station footprint approximately 432,000 square feet	14 parcels (8 full, 6 partial) All full takes are Commercial [slightly less impact to Fife Business Park buildings than Fife Pacific Hwy 51st option] Station footprint approximately 401,000 square feet
F.21: Estimated number of affected parcels with major economic activity generators	Assessment of potential property impacts that have a major economic activity generator (such as Costco, Home Depot, Port of Tacoma property, strip malls)	None	Three parcels - One strip mall building Fife Square (3693), Les Schwab (3700), and SE corner of Fife Business Park (3772) but less impact to buildings on large Fife Business Park (3772) parcel than 51st options.	Two parcels - One strip mall building Fife Square (3693) and Les Schwab (3700)	Three parcels - Impacts to approximately 5 Fife Business Park buildings, 2 of which are large (3722/3789) and a commercial building (corner of 52nd Ave and Pac Hwy, 4-6 tenant spaces) (3742)	Three parcels - Impacts to approximately 4 business park buildings, 1 of which is large (3722/3789) and a commercial building (corner of 52nd Ave and Pac Hwy, 4-6 tenant spaces) (3742)
F.22: Estimated number of displacements by property type; impacts to important community facilities (such as churches, hospitals, and community centers) will also be factored into this rating	Estimated number of potential property impacts for station by property type	1 Industrial (partial), 2 Residential (fulls), 7 Commercial (fulls) properties would be impacted Estimate approximately 6 business displacements - 3544/3548 CenturyLink, 3522 Premier Trailer Leasing, 3524 Matheson Trucking, 3505 Hawk's Auto Repair, 3490/3505 Commercial Sales/Energy Conversions Inc., 3473 Concrete Services (sold Nov 24, 2021)	11 commercial parcels would have business displacements Les Schwab = 2 parcels, 3748 Tavern = 2 parcels, 3756 - Kings Inn. 3772 Fife Business Park (I-5 would impact this parcel less) 3721 - small warehouse building 3693 - multiple businesses in Fife Square - barber, restaurants, Antique store (closed), Dollar Tree, locksmith 3692, 3698, 3710 - three 2-story office buildings with multiple businesses 3722 - Marine Engineers Beneficial Association	10 commercial parcels would have business displacements Les Schwab = 2 parcels, 3748 Tavern = 2 parcels, 3756 - Kings Inn. 3693 - multiple businesses in Fife Square - barber, restaurants, Antique store (closed), Dollar Tree, locksmith 3721 - small warehouse building 3692, 3698, 3710 - three 2-story office buildings with multiple businesses 3722 - Marine Engineers Beneficial Association	10 commercial parcels would have business displacements 3748 Tavern (and parking, 2 parcels), 3756 Kings Motor Inn, 3757 Taco Time, several buildings in the Fife Business Park (3760, 3768, 3772, 3789), 3721 - small warehouse building, 3742 - 4-6 businesses, one is religious/church tenant. (# of properties with displacements greater than full takes because of large Fife Business Park parcels)	9 commercial parcels would have business displacements 3748 Tavern (and parking, 2 parcels), 3756 Kings Motor Inn, 3757 Taco Time, several buildings in the Fife Business Park (3768, 3772, 3789), 3721 - small warehouse building, 3742 - 4-6 businesses, one is religious/church tenant (# of properties with displacements greater than full takes because of large Fife Business Park parcels)
F.23: Estimated number of tribal parcels potentially affected	Number tribal-owned parcels affected by each alternative	One additional tribal parcel would be impacted, SW corner permanent footprint (3487), parcel is also impacted by WSDOT. One additional TCE parcel (at 62nd & SR 99) .	Station site would not impact Tribal trust parcels.	Station site would not impact Tribal trust parcels.	Station site would not impact Tribal trust parcels.	Station site would not impact Tribal trust parcels.

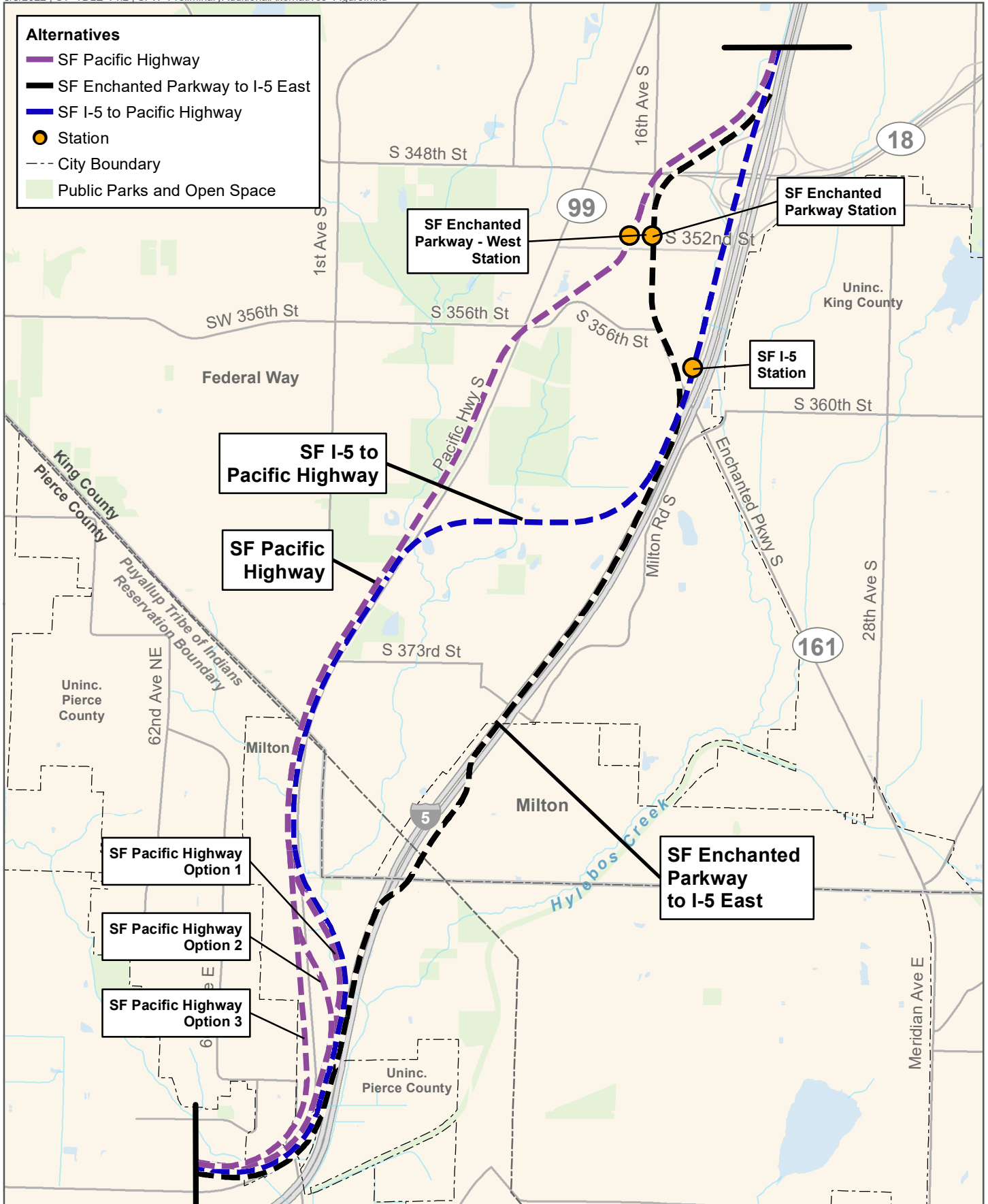
Table 1 Screening Results for Potential Fife Station Options (continued)

Measure	Methodology	Performance Rating Notes (all options have center platforms)				
		Fife - East Station Option (all alternatives)	Fife Pacific Highway - 54th Avenue Station Option	Fife I-5 - 54th Avenue Station Option	Fife Pacific Highway - 51st Avenue Station Option	Fife I-5 - 51st Avenue Station Option
F.24: Potential effects on Section 4(f) parks and recreational resources	Number of impacts and estimated area of potential permanent impacts to parks and recreational resources within 100-foot buffer of each alternative	One Section 4(f) resource is located within the construction footprint of the East Station Option; the same 4(f) property would be used by the guideway for all TDLE alternatives through Fife.	No Section 4(f) resources are located within the footprint of the Fife Pacific Highway - 54th Avenue Station Option, although the guideway for all TDLE alternatives through Fife would use one Section 4(f) property.	No Section 4(f) resources are located within the footprint of the Fife I-5 - 54th Avenue Station Option, although the guideway for all TDLE alternatives through Fife would use one Section 4(f) property.	No Section 4(f) resources are located within the footprint of the Fife Pacific Highway - 51st Avenue Station Option, although the guideway for all TDLE alternatives through Fife would use one Section 4(f) property.	No Section 4(f) resources are located within the footprint of the Fife I-5 - 51st Avenue Station Option, although the guideway for all TDLE alternatives through Fife would use one Section 4(f) property.
F.25: Potential effects on Section 4(f) historic resources (buildings) and properties that are listed in or eligible for NRHP	Number of impacts to Section 4(f) resources and properties listed in or eligible for the NRHP within 100-foot buffer of each alternative	East Station Option would displace one eligible property at 1309 62nd Avenue E; the same 4(f) property would be used by the guideway for all TDLE alternatives through Fife. No additional known NRHP listed or eligible resources within 100-foot buffer.	The guideway for all TDLE alternatives through Fife would use one eligible Section 4(f) property (1309 62nd Avenue E). No known NRHP listed or eligible resources within 100-foot buffer of the Fife Pacific Highway - 54th Avenue Station Option.	The guideway for all TDLE alternatives through Fife would use one eligible Section 4(f) property (1309 62nd Avenue E). No known NRHP listed or eligible resources within 100-foot buffer of the Fife I-5 - 54th Avenue Station Option.	The guideway for all TDLE alternatives through Fife would use one eligible Section 4(f) property (1309 62nd Avenue E). No known NRHP listed or eligible resources within 100-foot buffer of the Fife Pacific Highway - 51st Avenue Station Option.	The guideway for all TDLE alternatives through Fife would use one eligible Section 4(f) property (1309 62nd Avenue E). No known NRHP listed or eligible resources within 100-foot buffer of the Fife I-5 - 51st Avenue Station Option.
F.26: Potential effects on cultural and archaeological resources	Number of potential impacts and probability to encounter cultural and/or archaeological resources within 100-foot buffer of each alternative	Directly adjacent to and potential to affect one NRHP eligible pre-contact archaeological site. Archaeological site 45PI1555 (historic-period site) is within station area - recommended not NRHP-eligible but not yet determined. Close proximity to Hylebos Creek, high probability area.	No known cultural/archaeological resources in station area.	No known cultural/archaeological resources in station area.	No known cultural/archaeological resources in station area.	No known cultural/archaeological resources in station area.
F.27: Potential effects to viewsheds along the alignment and potential for impacts to view-dependent businesses	Assessment of impacts to protected views and view-dependent businesses	No effects to protected views or parcels with view-dependent businesses.	No effects to protected views or parcels with view-dependent businesses.	No effects to protected views or parcels with view-dependent businesses.	No effects to protected views or parcels with view-dependent businesses.	No effects to protected views or parcels with view-dependent businesses.
F.28: Potential effects on sensitive noise and vibration receptors	Number of potentially affected sensitive receptors within 350-foot buffer of each alternative; sensitive receptors include residences and "others" (schools, churches, parks, hotels, hospitals, libraries, cemeteries, etc.)	Three properties. Two properties directly across 62nd from station site: St Paul Chong Hasang Church (multiple receptors, main church and secondary buildings) Rainier View Senior Apartments (multiple receptors/approx 50 units) One residence directly north of station area.	None (King's Motor Inn would be displaced)	None (King's Motor Inn would be displaced)	Residences on 49th Ave E are more than 350 feet from station platform, but would be within 350 feet of station facilities such as parking. Additional building removed closest to houses for Pacific Hwy alignments compared to I-5 alignment. (King's Motor Inn would be displaced).	Residences on 49th Ave E are more than 350 feet from station platform, but some would be within 350 feet of station facilities such as parking (fewer than with the Pacific Hwy alignment because the I-5 alignment's station area would not extend as far north). (King's Motor Inn would be displaced)
F.29: Potential effects on existing and planned traffic (general purpose and freight traffic) on local network	Assessment of intersection level of service, and effects on traffic circulation and access for both automobiles and freight, including potential number of lane restrictions, turn restrictions, and driveways impacted	Vehicle delay increase of 87 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 118 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 118 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 185 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 185 seconds at 5 nearby intersections compared to No-Build Alternative
F.30: Potential effects on freight movement	Assessment of impacts to level of service on freight corridors	Vehicle delay increase of 63 seconds at 2 intersections on 54th freight corridor compared to No-Build Alternative	Vehicle delay increase of 91 seconds at 2 intersections on 54th freight corridor compared to No-Build Alternative	Vehicle delay increase of 91 seconds at 2 intersections on 54th freight corridor compared to No-Build Alternative	Vehicle delay increase of 111 seconds at 2 intersections on 54th freight corridor compared to No-Build Alternative	Vehicle delay increase of 111 seconds at 2 intersections on 54th freight corridor compared to No-Build Alternative
F.31: Potential avoidance of hazardous waste	Number of hazardous materials sites within 1/8 mile of each alternative	9 total hazardous materials sites	15 total hazardous materials sites	15 total hazardous materials sites	17 total hazardous materials sites	17 total hazardous materials sites
F.32: Potential effects on parking demand and supply	Assessment of impacts on parking supply (review of impacts to parcels with parking)	Parcels with parking that are potentially impacted: 10 parcels Parcels with more than 50% of parking potentially impacted: 7 parcels Parking acreage potentially impacted: 4.9 acres	Parcels with parking that are potentially impacted: 13 parcels Parcels with more than 50% of parking potentially impacted: 7 parcels Parking acreage potentially impacted: 4.9 acres	Parcels with parking that are potentially impacted: 14 parcels Parcels with more than 50% of parking potentially impacted: 7 parcels Parking acreage potentially impacted: 4.9 acres	Parcels with parking that are potentially impacted: 16 parcels Parcels with more than 50% of parking potentially impacted: 8 parcels Parking acreage potentially impacted: 6.6 acres	Parcels with parking that are potentially impacted: 20 parcels Parcels with more than 50% of parking potentially impacted: 7 parcels Parking acreage potentially impacted: 5.8 acres
Objective: Support equitable mobility						
F.33: Potential benefits to low-income or minority populations	Assessment of how well station serves low-income/minority and traditionally underserved or transit-dependent populations (e.g., population with no car, population younger than 18 and older than 65) compared to baseline; the baseline is the percentage of minority or low-income population and transit-dependent populations in each city that the station area serves	Fife is composed of 34.3% minority and 31.0% low-income populations. This station area has a 36% minority and 29% low-income population; therefore, the station would serve slightly more minority populations and slightly fewer low-income populations compared to Fife as a whole.	Fife is composed of 34.3% minority and 31.0% low-income populations. This station area has a 46% minority and 34% low-income population; therefore, the station would serve more minority and low-income populations compared to Fife as a whole.	Fife is composed of 34.3% minority and 31.0% low-income populations. This station area has a 46% minority and 33% low-income population; therefore, the station would serve more minority and low-income populations compared to Fife as a whole.	Fife is composed of 34.3% minority and 31.0% low-income populations. This station area has a 41% minority and 32% low-income population; therefore, the station would serve more minority and low-income populations compared to Fife as a whole. The Fife 51st Avenue Station Options are located within 1/2 mile of a large low-income apartment complex; the closest of any of the Fife Station Options.	Fife is composed of 34.3% minority and 31.0% low-income populations. This station area has a 41% minority and 32% low-income population; therefore, the station would serve more minority and low-income populations compared to Fife as a whole. The Fife 51st Avenue Station Options are located within 1/2 mile of a large low-income apartment complex; the closest of any of the Fife Station Options.

Table 1 Screening Results for Potential Fife Station Options (continued)

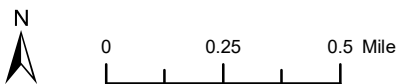
Measure	Methodology	Performance Rating Notes (all options have center platforms)				
		Fife - East Station Option (all alternatives)	Fife Pacific Highway - 54th Avenue Station Option	Fife I-5 - 54th Avenue Station Option	Fife Pacific Highway - 51st Avenue Station Option	Fife I-5 - 51st Avenue Station Option
F.34: Potential for impacts on low-income and/or minority populations	Potential for displacement to affect Environmental Justice populations (minority and low-income)	The Fife East Station Option has a slightly greater percentage of minority population and slightly lower percentage of low-income populations compared to Fife as a whole. However, 2 residential displacements are anticipated, as well as 7 commercial and 1 industrial property. This could impact low-income or minority populations. The Fife East Station Option is the only potential station option that would displace residential properties, but will displace fewer commercial properties than the other station options.	This station option has a higher percentage of minority and low-income populations compared to Fife as a whole and would affect 21 parcels (10 full and 11 partial). All of the full takes/displacements are of commercial property. This could impact low-income or minority populations.	This station option has a higher percentage of minority and low-income populations compared to Fife as a whole and would affect 17 parcels (10 full and 7 partial). All of the full takes/displacements are of commercial property. This could impact low-income or minority populations.	This station option has a higher percentage of minority and low-income populations compared to Fife as a whole and would affect 17 parcels (7 full and 9 partial). All of the full takes/displacements are of commercial property, many of which are located in a business park with numerous businesses on one property. This could impact low-income or minority populations.	This station option has a higher percentage of minority and low-income populations compared to Fife as a whole and would affect 14 parcels (8 full, 6 partial). All of the full takes/displacements are of commercial property, many of which are located in a business park with numerous businesses on one property. This could impact low-income or minority populations.
Objective: Provide a financially sustainable and constructible project						
F.35: Preliminary conceptual estimate	Preliminary conceptual estimates based on conceptual design quantities and current Sound Transit unit pricing. <i>Preliminary conceptual estimates are not the project's budget. They are to be used for comparisons among alternatives.</i>	The total alignment length is comparable to 10% design. Guideway structure costs are increased with this station option due to close proximity of the station structure and special trackwork to the SR 167 crossing. Not located in the center of the business district and has limited business displacements and relocations, resulting in lower real estate costs than the other station options.	The total alignment length is comparable to 10% design. Guideway structure costs are similar to the 10% design. Increased number of business displacements and relocations than the 10% design, but fewer than the 51st Avenue options. The real estate costs would likely be less than those for the 51st Avenue options. Fife Ditch may need to be relocated slightly west. In general, the Pacific Hwy options will have higher costs than the I-5 costs based on 10% design cost estimates.	The total alignment length is comparable to 10% design. Guideway structure costs are similar to the 10% design. Increased number of business displacements and relocations than the 10% design, but fewer than the 51st Avenue options. The real estate costs would likely be less than those for the 51st Avenue options. Fife Ditch may need to be relocated slightly west.	The total alignment length is comparable to 10% design. Guideway structure costs are increased with this station option due to the need for 2 single-track long spans at the skewed and curved Pacific Hwy crossing. Option has the highest potential of business displacements and relocations resulting in highest real estate costs. Piped reach of stream would potentially need to be relocated. In general, the Pacific Hwy options will have higher costs than the I-5 costs based on 10% design cost estimates.	The total alignment length is comparable to 10% design. Guideway structure costs are increased slightly with this station option due to the need for two single-track long spans at Pacific Hwy crossing. Option has higher potential of business displacements and relocations resulting in higher real estate costs. Piped reach of stream would potentially need to be relocated.
F.36: Operating estimate	Assessment of potential magnitude of operations and maintenance (O&M) estimates based on travel time	Travel time is similar to the 10% design. Magnitude of O&M costs would be similar for all station options.	Travel time increased slightly (a few seconds) more than other options due to reduced speeds at curves, but magnitude of O&M costs would be similar for all station options.	Travel time increased slightly (a few seconds) from 10% design due to reduced speeds at curves, but magnitude of O&M costs would be similar for all station options.	Travel time increased slightly (a few seconds) from 10% design due to reduced speeds at curves, but magnitude of O&M costs would be similar for all station options.	Travel time increased slightly (a few seconds) from 10% design due to reduced speeds at curves, but magnitude of O&M costs would be similar for all station options.
F.37: Potential conflicts with major utilities and structures, such as existing or planned transportation infrastructure	Potential impacts on known major utilities or structures (e.g., power lines, transportation infrastructure)	Utilities: Area is largely clear of any utilities, no impacts to major utilities. Planned infrastructure: Station option adjacent to WSDOT's SR 167/I-5 to SR 509 Expressway Project, future frontage road.	For both Pacific Highway and I-5 alignments, 54th Ave Station option will likely have minimal to no impacts to major utilities as the proposed station location is largely over existing buildings or area where major utilities are scarce.	For both Pacific Highway and I-5 alignments, 54th Ave Station options will likely have minimal to no impacts to major utilities as the proposed station location is largely over existing buildings or area where major utilities are scarce.	This option would likely produce minimal impacts to utilities as it is largely inline with previous alternative alignments that kept utility impacts minimized. No impacts to major utilities but potential impacts to utilities in 54th Avenue and the Taco Time/Kings Motor Inn parking lot.	This option would likely produce a few impacts to existing utilities because there are utilities in 54th Avenue but also several CenturyLink telecom ducts located in the Taco Time/Kings Motor Inn parking lot. One of the pieces of the CenturyLink system located in the parking lot is an SAE (serving area interface), which are more costly and difficult to relocate than most standard vaults; would be preferable to design to avoid.
F.38: Number of sites requiring environmental remediation within the project footprint of an alternative	Assessment of the number of sites requiring environmental remediation within the project footprint of an alternative	0 hazardous materials sites requiring remediation.	0 hazardous materials sites requiring remediation.	0 hazardous materials sites requiring remediation.	0 hazardous materials sites requiring remediation.	0 hazardous materials sites requiring remediation.
F.39: Unique construction challenges (potential for transportation, noise, vibration, and visual effects)	Assessment of temporary construction impacts to community, including potential for transportation, noise, vibration, and visual effects that could disrupt the community	Would require close coordination on construction timing with WSDOT and SR 167 to SR 509 Expressway Project and frontage road if construction periods overlap. Church and residential facility directly across 62nd.	Guideway skew (angle) crossing Pacific Hwy adjacent to station more challenging than I-5 alignment.	Construction of station and Pacific Highway crossing adjacent to station would require additional close coordination with WSDOT, Fife, and Port compared to if it was just the guideway. Guideway construction for an I-5 alternative would be in close proximity to Chateau Rainier.	Guideway skew (angle) exiting station crossing Pacific Hwy more challenging than I-5 alignment.	Construction of station and Pacific Highway crossing adjacent to station would require additional close coordination with WSDOT, Fife, and Port compared to if it was just the guideway. Guideway construction for an I-5 alternative would be in close proximity to Chateau Rainier.
F.40: Availability and potential to use publicly owned right-of-way and publicly owned property	Amount of publicly owned right-of-way and publicly owned property (individual parcels in public ownership) available per conceptual design of alignment	Not applicable for additional station screening	Not applicable for additional station screening	Not applicable for additional station screening	Not applicable for additional station screening	Not applicable for additional station screening
F.41: Capability to accommodate future expansion included in the Sound Transit Long-Range Plan	Capability of station location and alignment to accommodate future expansion included in the Sound Transit Long-Range Plan	Not applicable for additional station screening	Not applicable for additional station screening	Not applicable for additional station screening	Not applicable for additional station screening	Not applicable for additional station screening
F.42: Assessment of operational elements (e.g., reliability based on track alignment, tail tracks and pocket track at Tacoma Dome, number of at-grade crossings, if any)	Consideration of operational elements (e.g., potential reliability, track alignment, tail tracks and pocket track at Tacoma Dome and South Federal Way, number of at-grade crossings, if any)	Comparable to 10%	Comparable to 10%	Comparable to 10%	Station spanning 51st (minor roadway) not as preferable for long term operations.	Station spanning 51st (minor roadway) not as preferable for long term operations.
F.43: Overall schedule risk	Consideration of potential risks to schedule (i.e. potential to increase schedule)	Risk associated with potential cultural resources is highly sensitive on East. Additional coordination with WSDOT on SR 167 / 509 and frontage road crossings.	Increased number displacements and relocations	Increased number displacements and relocations	Increased number displacements and relocations	Increased number displacements and relocations





Data Sources: King and Pierce County, Cities of Federal Way, Fife, Milton, Tacoma (2019); USFWS NWI.

FIGURE 3
Potential Additional Alternatives in South Federal Way to Milton



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Table 2 Screening of Potential Additional Alternatives

Measure	Methodology	Performance Rating Notes				
		SF Pacific Highway (SF Enchanted Parkway - West Station)			SF I-5 to Pacific Highway (SF I-5 Station)	SF Enchanted Parkway to I-5 East (SF Enchanted Parkway Station)
		Option 1 (Guideway furthest east near Porter Way)	Option 2 (Guideway shifts west of Option 1)	Option 3 (Guideway west of Pacific Highway)		
Objective: Provide Effective Transportation Solutions to meet Mobility, Access, and Capacity Needs						
SF.1: Travel time	Estimated based on alignment length, percent of alignment with horizontal speeds below 55 MPH	Travel time would increase slightly due to an increased guideway length added by this alternative, and slightly slower curves getting to/from Pacific Highway. Approximate percentage of alignment length below 55 mph: 45%	Travel time would increase slightly due to an increased guideway length added by this alternative, and slightly slower curves getting to/from Pacific Highway. Approximate percentage of alignment length below 55 mph: 41%	Travel time would increase slightly due to slightly slower curves getting to Pacific Highway and near 70th Avenue E. Approximate percentage of alignment length below 55 mph: 31%	Travel time would increase slightly due to an increased guideway length added by this alternative. Approximate percentage of alignment length below 55 mph: 41%	Travel time would increase slightly due to the lower speeds associated with the introduced curves to/from the east side of I-5. Approximate percentage of alignment length below 55 mph: 37%
SF.2: Daily and annual projected project ridership (2042) ¹	Average daily projected riders (baseline estimate provided for South Federal Way station area, with qualitative differences noted for station/alignment alternatives) South Federal Way: 12,730 Daily NB; 12,730 Daily SB	Moderate ridership potential due to relative potential for transit oriented development growth and multimodal station access (abundance of existing big-box retail and proximity to I-5).			Moderate ridership potential due to relative potential for transit oriented development growth and multimodal station access (abundance of existing big-box retail and proximity to I-5).	Moderate ridership potential due to relative potential for transit oriented development growth and multimodal station access (abundance of existing big-box retail and proximity to I-5).
SF.3: Projected station boardings (2042) ¹	Projected station boardings (baseline estimate provided for South Federal Way station area, with qualitative differences noted for station/alignment alternatives) South Federal Way: 1,100 Daily NB; 330 Daily SB	Moderate level of projected station boardings due to relative potential for transit oriented development growth and multimodal station access (abundance of big-box retail and proximity to I-5).			Moderate level of projected station boardings due to relative potential for transit oriented development growth and multimodal station access (abundance of big-box retail and proximity to I-5).	Moderate level of projected station boardings due to relative potential for transit oriented development growth and multimodal station access (abundance of big-box retail and proximity to I-5).
SF.4: Proximity to Puget Sound Regional Council growth centers and manufacturing/industrial Centers ¹	% Puget Sound Regional Council Growth Center and/or manufacturing/industrial center within 10-minute walkshed	0% No Puget Sound Regional Council regional growth center or manufacturing/industrial center.			0% No Puget Sound Regional Council regional growth center or manufacturing/industrial center.	0% No Puget Sound Regional Council regional growth center or manufacturing/industrial center.
SF.5: Population (persons/acre) and job (jobs/acre) densities ¹	Existing and future (2040) population and employment densities within 10-minute walkshed (PSRC Land Use Vision Dataset)	Population densities (existing 236/future 259) and employment densities (existing 66/ future 85). High population density, high population growth. Medium job density, high job growth.			Population densities: existing 326/future 344 Employment densities: existing 70/future 82 Highest population density, lowest population growth. Highest job density, lowest job growth.	Population densities (existing 236/future 259) and employment densities (existing 66/ future 85). High population density, high population growth. Medium job density, high job growth.
Objective: Support Sustainable Land Use Plans, Transit Oriented Development, and Multimodal Station Access						
SF.6: Consistency with adopted civic and community planning and land use, evaluating elements such as: local and tribal development goals, current and planned development, current and anticipated zoning, and/or comprehensive plans	Assessment of the civic and land use documents that are relevant and up to date in each station area. Evaluate each station location against the relevant documents/civic plans rating each plan as “consistent with TOD around alternative location”(“+”), “neutral”, or “inconsistent with TOD around alternative location”(“-)	Land use, zoning, and current comprehensive planning is not compatible with mixed-use transit-oriented development with mixed residential and commercial uses in proximity to transit. The City of Federal Way is currently updating their comprehensive plan (anticipated to be adopted in 2024), adding a chapter and subarea plan for the South Federal Way station area.			Land use, zoning, and current comprehensive planning is not compatible with mixed-use transit-oriented development with mixed residential and commercial uses in proximity to transit and its proximity to I-5 limits access and available land for TOD. The City of Federal Way is currently updating their comprehensive plan, adding a chapter and subarea plan for the South Federal Way station area.	Land use, zoning, and current comprehensive planning is not compatible with mixed-use transit oriented development with mixed residential and commercial uses in proximity to transit. The City of Federal Way is currently updating their comprehensive plan (anticipated to be adopted in 2024), adding a chapter and subarea plan for the South Federal Way station area.
SF.7: Likelihood of station area redevelopment into transit-oriented neighborhood	Assessment of degree to which the station area has land available to support development into a transit-oriented neighborhood, as measured by the amount of land within a ¼ mile walking distance of station that has a relatively greater likelihood to redevelop into transit-supportive uses	Total acreage in walkshed: 52.4-56.6 Acreage not available for redevelopment: 8.9-9.4 acres (16.6-16.9%) The station is farther from I-5, which results in more land overall that could redevelop.			Total acreage in walkshed: 36.3 Acreage not available for redevelopment: 15.1 acres (41.7%) The station is adjacent to I-5, which results in less land overall that is available for redevelopment.	Total acreage in walkshed: 55.1 Acreage not available for redevelopment: 8.8 acres (16.0%) The station is farther from I-5, which results in more land overall that could redevelop.

Table 2 Screening of Potential Additional Alternatives (continued)

Measure	Methodology	Performance Rating Notes				
		SF Pacific Highway (SF Enchanted Parkway - West Station)			SF I-5 to Pacific Highway (SF I-5 Station)	SF Enchanted Parkway to I-5 East (SF Enchanted Parkway Station)
		Option 1 (Guideway furthest east near Porter Way)	Option 2 (Guideway shifts west of Option 1)	Option 3 (Guideway west of Pacific Highway)		
SF.8: Inventory of nonmotorized barriers within a ½ mile of the station ¹	Assessment of barriers within half-mile of TDLE station areas (barriers list: (1) Topography (hills) that limit the walkshed, (2) Wide roads, (3) Highways, (4) Bodies of water, (5) Railways)	Station is one of the best from a barriers point of view. Even though it has many large roads surrounding it (Enchanted Parkway, SR 99, 348th Street to the north,) it is on the same block as all the amenities at Federal Way Crossing, and the crossing over 352nd Street is relatively less difficult compared to other alternatives and stations in Level 2 screening.			This station has lower connectivity. The station is bounded by I-5 with an difficult to cross overpass and the sidewalks end on the other side. Enchanted Parkway to the west is difficult to cross. The Washington State Department of Transportation's planned exit ramps and roundabout will create additional nonmotorized barriers. There is a substantial grade change to the west that limits the potential for future connectivity across Enchanted Parkway. This location is bounded by I-5 and Enchanted Parkway to the south and is most impacted by the steep grade west of Enchanted Parkway.	Station is one of the best from a barriers point of view. Even though it has many large roads surrounding it (Enchanted Parkway, SR 99, 348th Street to the north,) it is on the same block as all the amenities at Federal Way Crossing, and the crossing over 352nd Street is relatively less difficult compared to other alternatives and stations in Level 2 screening.
SF.9: Presence of amenities that can catalyze development of transit-oriented neighborhoods	Assessment of amenities that can catalyze complete transit-oriented neighborhoods in station area.	This station could impact the following amenities that can catalyze transit oriented development: Biscuits Café, Puerto Vallarta Mexican Restaurant, BECU, Catapult, and LA Fitness in Federal Way Crossing, but mostly leaves Federal Way Crossings intact. It also could impact the concrete plant, which is incompatible as a transit oriented development amenity. Better connectivity to retail.			This station has no amenities to the south or east, except Todd Beamer High School to the southwest. Retail amenities clustered around 348th Street can be accessed to north via a several minute walk.	This station could impact the following amenities that can catalyze transit-oriented development: Biscuits Café, Puerto Vallarta Mexican Restaurant, and the BECU, but mostly leaves Federal Way Crossings intact. It also could impact the concrete plant, which is incompatible as a transit-oriented development amenity. Better connectivity to retail.
SF.10: Proximity to local bus, and other transit facilities and services	Distance to nearest existing bus stop; measure of the level of diversion that could be required.	About 450 to 525 feet from the southbound bus stop at Enchanted Parkway and S 352nd Street. Moderate amount of transit diversion.			1,070 feet from the northbound bus stop at Enchanted Parkway and S 356th Street. Highest amount of transit diversion.	450 feet from the southbound bus stop at Enchanted Parkway and S 352nd Street. Moderate amount of transit diversion.
SF.11: Ease of vehicular pickup/drop-off for a variety of users ¹	Assessment of ease of access to pick-up/drop-off at stations due to nearby street network and congestion using proposed station concepts.	<ul style="list-style-type: none"> • Drivers from all directions would be able to access the pick-up/drop-off area and then continue in any direction • Left-turn access out of the lot possible at west driveway • Left turns out of the lot may incur more delay than SF 3, SF 8, and SF 9 (options located on the east side of Enchanted Parkway that were evaluated in Level 2 screening) 			Due to the presence of the roundabouts, drivers from all directions would be able to access the pickup/drop-off area and then continue in any direction except directly eastbound on SR 18 or southbound on I 5.	<ul style="list-style-type: none"> • Drivers from all directions would be able to access the pick-up/drop-off area and then continue in any direction • Left-turn access out of the lot possible at west driveway • Left turns out of the lot may incur more delay than SF 3, SF 8, and SF 9 (options located on the east side of Enchanted Parkway that were evaluated in Level 2 screening)
SF.12: Connections with local and regional bicycle facilities (existing and planned) and access to stations ¹	Ratio of existing and funded bicycle facility miles (greenway, lanes, protected lanes, trails) to total roadway miles within a 10-minute bikeshed	Moderate ratio of existing and funded bike facility miles to roadway miles. Existing: 0.22 Funded: 0.22			Moderate ratio of existing and funded pedestrian facilities to roadway miles, low topographical challenges. Existing: 0.66 Funded: 0.70 The planned roundabout on Enchanted Parkway and S 356th Street will create a large impediment to pedestrian access directly adjacent to the station.	Moderate ratio of existing and funded bike facility miles to roadway miles. Existing: 0.22 Funded: 0.22
SF.13: Connections with local pedestrian facilities (existing and planned) and pedestrian access to stations ¹	Ratio of existing and funded pedestrian facility miles (trails, sidewalks) to total roadway miles within a 10-minute walkshed of stations	High ratio of existing and funded pedestrian facility miles to roadway miles, low topographical challenges. Existing: 0.82 Funded: 0.86			Moderate ratio of existing and funded pedestrian facilities to roadway miles, low topographical challenges. Existing: 0.66 Funded: 0.70 The planned roundabout on Enchanted Parkway and S 356th Street will create a large impediment to pedestrian access directly adjacent to the station.	High ratio of existing and funded pedestrian facility miles to roadway miles, low topographical challenges. Existing: 0.82 Funded: 0.86
Objective: Preserve the Environment						
SF.14: Potential effects to wetlands	Extent and quality of wetlands within 100-foot buffer of each alternative	Incremental impacts to wetland complex at existing Pacific Highway/West Fork Hylebos Creek crossing. Impacts to wetlands associated with lower reaches of West Fork Hylebos Creek and along the main stem of Hylebos Creek. If the station platform is parallel to Enchanted Parkway, guideway impacts the periphery of a large, high-quality wetland for approximately 1,000 linear feet just south of S 356th Street.	Incremental impacts to wetland complex at existing Pacific Highway/West Fork Hylebos Creek crossing. Impacts to wetlands along the main stem of Hylebos Creek. If the station platform is parallel to Enchanted Parkway, guideway impacts the periphery of a large, high-quality wetland for approximately 1,000 linear feet just south of S 356th Street.	Incremental impacts to wetland complex at existing Pacific Highway/West Fork Hylebos Creek crossing. Impacts to forested habitat in and near wetlands along the main stem of Hylebos Creek. If the station platform is parallel to Enchanted Parkway, guideway impacts the periphery of a large, high-quality wetland for approximately 1,000 linear feet just south of S 356th Street.	Approximately 1,000 linear-foot crossing of a large, high-quality wetland complex southwest of Todd Beamer High School. Impacts to wetland complex downstream of existing Pacific Highway/West Fork Hylebos Creek crossing. Impacts to wetlands associated with lower reaches of West Fork Hylebos Creek and along the main stem of Hylebos Creek.	Minor impacts (<1 acre) to small, isolated wetlands along I-5 and near southernmost crossing of West Fork Hylebos Creek. Impacts to wetlands along the main stem of Hylebos Creek.

Table 2 Screening of Potential Additional Alternatives (continued)

Measure	Methodology	Performance Rating Notes				
		SF Pacific Highway (SF Enchanted Parkway - West Station)			SF I-5 to Pacific Highway (SF I-5 Station)	SF Enchanted Parkway to I-5 East (SF Enchanted Parkway Station)
		Option 1 (Guideway furthest east near Porter Way)	Option 2 (Guideway shifts west of Option 1)	Option 3 (Guideway west of Pacific Highway)		
SF.15: Potential effects to streams/stream crossings	Impacts to streams and stream crossings and riparian habitat within 100-foot buffer of each alternative	6 stream crossings. * Crosses East Fork Hylebos Creek tributary north of I-5/SR 18 interchange * No impacts to West Fork Hylebos Creek tributary * Impacts to forested riparian habitat at existing Pacific Highway/West Fork Hylebos Creek crossing * Impacts to riparian habitat along approximately 1,600 linear feet of the lower reaches of West Fork Hylebos Creek (including 2 crossings) * Parallels Stream SMI-01 for approximately 900 linear feet * Impacts to riparian habitat (mostly shrub-dominated) along main stem of Hylebos Creek If the station platform is parallel to Enchanted Parkway, potential effects to riparian habitat near headwaters of West Fork Hylebos Creek tributary just south of S 356th Street.	4 stream crossings. * Crosses East Fork Hylebos Creek tributary north of I-5/SR 18 interchange * No impacts to West Fork Hylebos Creek tributary * Impacts to forested riparian habitat at existing Pacific Highway/West Fork Hylebos Creek crossing * No impacts along the lower reaches of West Fork Hylebos Creek * Parallels Stream SMI-01 for approximately 600 linear feet * Impacts to riparian habitat (mostly shrub-dominated) along main stem of Hylebos Creek If the station platform is parallel to Enchanted Parkway, potential effects to riparian habitat near headwaters of West Fork Hylebos Creek tributary just south of S 356th Street.	4 stream crossings. * Crosses East Fork Hylebos Creek tributary north of I-5/SR 18 interchange * No impacts to West Fork Hylebos Creek tributary * Impacts to forested riparian habitat at existing Pacific Highway/West Fork Hylebos Creek crossing * No impacts along the lower reaches of West Fork Hylebos Creek * Impacts to forested riparian habitat along main stem of Hylebos Creek If the station platform is parallel to Enchanted Parkway, potential effects to riparian habitat near headwaters of West Fork Hylebos Creek tributary just south of S 356th Street.	7 stream crossings (possibility of reducing to 5, pending design refinements). * Impacts to East Fork Hylebos Creek tributary near I-5/SR 18 interchange (approximately 1,600 linear feet) * Crossing of West Fork Hylebos Creek tributary and high-quality riparian habitat * Impacts to mixed forested/disturbed riparian habitat at existing Pacific Highway crossing of West Fork Hylebos Creek * Impacts to riparian habitat along approximately 1,600 linear feet of the lower reaches of West Fork Hylebos Creek (including 2 crossings) (impacts may be reduced through design refinements) * Parallels Stream SMI-01 for up to 900 linear feet * Impacts to riparian habitat (mostly shrub-dominated) along main stem of Hylebos Creek	3 stream crossings. * Impacts to East Fork Hylebos Creek tributary near I-5/SR 18 interchange (approximately 1,600 linear feet) * Impacts to lower West Fork Hylebos Creek riparian area (approximately 800 linear feet) * No impacts to West Fork Hylebos Creek tributary or West Fork Hylebos Creek at existing Pacific Highway crossing * Parallels Stream SMI-01 for approximately 900 linear feet * Impacts to riparian habitat (mostly shrub-dominated) along main stem of Hylebos Creek
SF.16: Potential to affect protected species and habitats	Impacts to habitats or areas where endangered, threatened, or sensitive species have a primary association (based on Priority Habitats and Species data from the Washington Department of Fish and Wildlife within 100-foot buffer of each alternative)	Impacts to fish-bearing streams at the existing Pacific Highway/West Fork Hylebos Creek crossing, along the lower reaches of West Fork Hylebos Creek, and at the crossing of the main stem of Hylebos Creek. Affects more fish-bearing streams than Options 2 and 3.	Impacts to fish-bearing streams at the existing Pacific Highway/West Fork Hylebos Creek crossing and at the crossing of the main stem of Hylebos Creek near Wapato Way.		Impacts to fish-bearing streams at crossing of West Fork Hylebos Creek tributary, downstream of existing Pacific Highway/West Fork Hylebos Creek crossing, along the lower reaches of West Fork Hylebos Creek, and at the crossing of the main stem of Hylebos Creek.	Impacts to fish-bearing streams at the crossing of West Fork Hylebos Creek adjacent to I-5 and at the crossing of the main stem of Hylebos Creek.
SF.17: Potential effects to vegetated areas	Impacts to high-quality vegetation	Impacts to edges of large patches of mature forest along Pacific Highway. Alignment passes through areas of forested habitat associated with lower reaches of West Fork Hylebos Creek and mainstem Hylebos Creek, affecting more forested habitat than Options 2 and 3. If the station platform is parallel to Enchanted Parkway, guideway affects forested area near headwaters of West Fork Hylebos Creek tributary just south of S 356th Street.	Impacts to edges of large patches of mature forest along Pacific Highway. Alignment passes through areas of forested habitat associated with mainstem Hylebos Creek. If the station platform is parallel to Enchanted Parkway, guideway affects forested area near headwaters of West Fork Hylebos Creek tributary just south of S 356th Street.	Impacts to edges of large patches of mature forest along Pacific Highway. Alignment passes through areas of forested habitat associated with mainstem Hylebos Creek, affecting slightly more forested area than Option 2 but less than Option 1. If the station platform is parallel to Enchanted Parkway, guideway affects forested area near headwaters of West Fork Hylebos Creek tributary just south of S 356th Street.	Impacts through forested habitat in wetland complex southwest of Todd Beamer High School. Impacts to edges of large patches of mature forest along Pacific Highway; additional impacts to forested areas downstream of existing Pacific Highway/West Fork Hylebos Creek crossing. Alignment passes through areas of forested habitat associated with lower reaches of West Fork Hylebos Creek and mainstem Hylebos Creek.	Impacts to narrow strips of vegetation (which includes mature forest in some areas) along I-5. Alignment passes through areas of forested habitat associated with mainstem Hylebos Creek.
SF.18: Potential effects to floodplains/ water resources	Impacts to FEMA floodplains/floodways (both mapped) within 100-foot buffer	Floodplain crossing approximately 935 feet, including mapped FEMA floodway crossings just north of Porter Way as well as directly north of the roundabout at Pacific Highway and Wapato Way E.	Floodplain crossing approximately 415 feet, including mapped FEMA floodway crossings just north of Porter Way as well as directly north of the roundabout at Pacific Highway and Wapato Way E.	Floodplain crossing approximately 350 feet, including mapped FEMA floodway crossings just north of Porter Way as well as directly north of the roundabout at Pacific Highway and Wapato Way E.	Floodplain crossing approximately 935 feet, including mapped FEMA floodway crossings just north of Porter Way as well as directly north of the roundabout at Pacific Highway and Wapato Way E.	Floodplain crossing approximately 515 feet, including mapped FEMA floodway crossings just north of Porter Way as well as directly north of the roundabout at Pacific Highway and Wapato Way E.
SF.19: Presence of geologic hazard areas (steep slopes, erosion, or landslide hazard areas)	Impacts to geologic hazard areas (steep slope, erosion, landslide hazard areas)	Lahar hazard zone in southern portion of alternative. Generally low liquefaction susceptibility in Federal Way and Milton, high liquefaction susceptibility in Unincorporated Pierce County and Fife.			Lahar hazard zone in southern portion of alternative. Generally low liquefaction susceptibility in Federal Way and Milton, high liquefaction susceptibility in Unincorporated Pierce County and Fife.	Lahar hazard zone in southern portion of alternative. Generally low liquefaction susceptibility in Federal Way and Milton, high liquefaction susceptibility in Unincorporated Pierce County and Fife.
SF.20: Estimated number of affected parcels and total acreage	Assessment of parcels potentially affected (partial and full) and general estimate of acreage of land converted from other land uses to a transportation use.	Estimated number of affected parcels: 92 -103 King County: 48-59 Pierce County: 44 Estimated potential acres impacted: 88 - 96 acres King County: 61-69 acres Pierce County: 27 acres	Estimated number of affected parcels: 89 -100 King County: 48-59 Pierce County: 41 Estimated potential acres impacted: 92 - 100 acres King County: 61-69 acres Pierce County: 31 acres	Estimated number of affected parcels: 116-127 King County: 48-59 Pierce County: 68 Estimated potential acres impacted: 93 - 101 acres King County: 61-69 acres Pierce County: 32 acres	Estimated number of affected parcels: 109 King County: 54 Pierce County: 55 Estimated potential acres impacted: 75 acres King County: 48 acres Pierce County: 27 acres	Estimated number of affected parcels: 61 King County: 37 Pierce County: 24 Estimated potential acres impacted: 49 acres King County: 33 acres Pierce County: 16 acres

Table 2 Screening of Potential Additional Alternatives (continued)

Measure	Methodology	Performance Rating Notes				
		SF Pacific Highway (SF Enchanted Parkway - West Station)			SF I-5 to Pacific Highway (SF I-5 Station)	SF Enchanted Parkway to I-5 East (SF Enchanted Parkway Station)
		Option 1 (Guideway furthest east near Porter Way)	Option 2 (Guideway shifts west of Option 1)	Option 3 (Guideway west of Pacific Highway)		
SF.21: Estimated number of affected parcels with major economic activity generators	Assessment of potential property impacts that have a major economic activity generator (such as Costco, Home Depot, Port of Tacoma property, strip malls)	Approximately 20-26 businesses displaced, including 2-3 strip mall retail centers, 3 commercial/office uses, 9 auto service providers.	Approximately 22-28 businesses displaced, including 2-3 strip mall retail centers, 7 commercial/office uses, 7 auto service providers.	Approximately 17-23 businesses displaced, including 2-3 strip mall retail centers, 5 commercial/office uses, 3 auto service providers.	Approximately 11-16 businesses displaced, including 1 auto dealer, 10 auto service providers, and 1 industrial business.	Approximately 17-23 businesses displaced, including 2-3 strip mall retail centers, 1 industrial business, 3 commercial uses, 3 auto service providers, 1 boat dealer, and 1 office (Container Storage).
SF.22: Estimated number of displacements by property type; impacts to important community facilities (such as churches, hospitals, and community centers) will also be factored into this rating	Estimated number of potential property impacts from alignment and station by property type	Residential Displacements: 87 units (84 units in former Red Lion) Commercial Displacements: 20-26 Hospitals = 0 Libraries = 0 Police + Fire = 0 Community Centers = 0 Schools = 1 (frontage of Montessori Academy at Spring Valley)	Residential Displacements: 85 units (84 units in former Red Lion) Commercial Displacements: 22-28 Hospitals = 0 Libraries = 0 Police + Fire = 0 Community Centers = 0 Schools = 1 (frontage of Montessori Academy at Spring Valley)	Residential Displacements: 109 units (84 units in former Red Lion) Commercial Displacements: 17-23 Hospitals = 0 Libraries = 0 Police + Fire = 0 Community Centers = 0 Schools = 1 (frontage of Montessori Academy at Spring Valley)	Residential Displacements: 8 units Commercial Displacements: 11-16 Hospitals = 0 Libraries = 0 Police + Fire = 0 Community Centers = 0 Schools = 1 (frontage of Montessori Academy at Spring Valley)	Residential Displacements: 124 units (36 units in CrossPointe Apartments, 84 units in former Red Lion) Commercial Displacements: 17-23 Hospitals = 0 Libraries = 0 Police + Fire = 0 Community Centers = 0 Schools = 0
SF.23: Estimated number of tribal parcels potentially affected	Number of tribal-owned parcels affected by each alternative	Potential effects on one Tribal property.	Potential effects on three Tribal properties. Temporary construction easements would be needed on three additional properties.	Potential effects on five Tribal properties.	Potential effects on one Tribal property.	Temporary construction easements would be needed on two Tribal properties.
SF.24: Potential effects on Section 4(f) parks and recreational resources	Impacts and estimated area of potential permanent impacts to parks and recreational resources within 100-foot buffer of each alternative	A small portion of permanent and temporary footprint traverse the Hylebos Wetlands to the east near S 356th Street and Hylebos Wetlands to the west, south of S 363rd Street and the West Hylebos Osaka Property, all of which are identified as open space in the Federal Way Parks, Recreation and Open Space Plan. If the station platform is parallel to Enchanted Parkway, guideway would have greater impacts to the Hylebos Wetlands.		A small portion of permanent and temporary footprint traverse the Hylebos Wetlands to the east near S 356th Street and Hylebos Wetlands to the west, south of S 363rd Street, all of which are identified as open space in the Federal Way Parks, Recreation and Open Space Plan. Option 3 would be adjacent to the and the West Hylebos Osaka Property, but would not cross it. If the station platform is parallel to Enchanted Parkway, guideway would have greater impacts to the Hylebos Wetlands.	A small portion of permanent and temporary footprint traverse the Hylebos Wetlands to the west, south of S 363rd Street and the West Hylebos Osaka Property, all of which are identified as open space in the Federal Way Parks, Recreation, and Open Space Plan.	None.
SF.25: Potential effects on Section 4(f) historic resources (buildings) and properties that are listed in or eligible for the National Register of Historic Places	Estimated number of impacts to Section 4(f) resources and properties listed in or eligible for the National Register of Historic Places within 100-foot buffer of each alternative Resources assessed not eligible for listing in the NRHP, in consultation with SHPO, are not included (consultation in progress as of May 2022).	An estimated 24-25 historic-period resources not currently formally evaluated for NRHP eligibility and one NRHP-eligible resource (Gethsemane Cemetery). No Section 4(f) historic resources or properties that are listed in or eligible for the NRHP have been identified within the SF Pacific Highway Alternative footprint.		An estimated 34 historic-period resources not currently formally evaluated for NRHP eligibility, one NRHP-eligible resources (Gethsemane Cemetery), and one presumed NRHP-eligible resource not visible from the ROW. No Section 4(f) historic resources or properties that are listed in or eligible for the NRHP have been identified within the SF Pacific Highway Alternative footprint.	An estimated 16 historic-period resources not currently formally evaluated for NRHP eligibility and one NRHP-eligible resource (Gethsemane Cemetery). No Section 4(f) historic resources or properties that are listed in or eligible for the NRHP have been identified within the SF I-5 to Pacific Highway Alternative footprint.	An estimated two historic-period resources not currently formally evaluated for NRHP eligibility and one NRHP-eligible resource (Gethsemane Cemetery). No Section 4(f) historic resources or properties that are listed in or eligible for the NRHP have been identified within the SF Enchanted Parkway to I-5 East Alternative footprint.
SF.26: Potential effects on cultural and archaeological resources	Estimated number of potential impacts and probability to encounter cultural and/or archaeological resources within 100-foot buffer of each alternative	Three archaeological sites, one archaeological isolate, and one cemetery are within 100-foot buffer of the alternative. One of the archaeological sites and the archaeological isolate are precontact. The other two archaeological sites date to the historic period. Undeveloped portions of the alternative have a low to high probability of containing archaeological resources.			Three archaeological sites, one archaeological isolate, and one cemetery are within 100-foot buffer of the alternative. One of the archaeological sites and the archaeological isolate are precontact. The other two archaeological sites date to the historic period. Undeveloped portions of the alternative have a low to high probability of containing archaeological resources.	Four archaeological sites, one archaeological isolate (historic-period), and two cemeteries are within 100-foot buffer the of alternative. Three of the archaeological sites date to the historic period and one is precontact. All sites are historic-period. Undeveloped portions of the alternative have a low to high probability of containing archaeological resources.

Table 2 Screening of Potential Additional Alternatives (continued)

Measure	Methodology	Performance Rating Notes				
		SF Pacific Highway (SF Enchanted Parkway - West Station)			SF I-5 to Pacific Highway (SF I-5 Station)	SF Enchanted Parkway to I-5 East (SF Enchanted Parkway Station)
		Option 1 (Guideway furthest east near Porter Way)	Option 2 (Guideway shifts west of Option 1)	Option 3 (Guideway west of Pacific Highway)		
SF.27: Potential effects to view sheds along the alignment and potential for impacts to view-dependent businesses	Assessment of impacts to protected views and view-dependent businesses	No effects to protected viewsheds or parcels with view dependent businesses.			No effects to protected viewsheds or parcels with view dependent businesses.	No effects to protected viewsheds or parcels with view dependent businesses.
SF.28: Potential effects on sensitive noise and vibration receptors	Estimated number of potentially affected sensitive receptors within 350-foot buffer of each alternative; sensitive receptors include residences and "others" (schools, churches, parks, hotels, hospitals, libraries, cemeteries, etc.)	An estimated 99-100 residential buildings (100-123 units), one hotel, one school, one church, one cemetery, and a rehab clinic within 350 feet.	An estimated 110-111 residential buildings (111-135 units), one hotel, one school, one church, one cemetery, and a rehab clinic within 350 feet.	An estimated 115-116 residential buildings (165-189 units), one hotel, one school, one church, one cemetery, and a rehab clinic within 350 feet.	An estimated 115 residential buildings (159 units) (including an apartment complex with multiple buildings), one hotel, one school, one church, one cemetery, and a rehab clinic within 350 feet.	An estimated 72 residential buildings (165 units) (including an apartment complex with multiple buildings), and a rehab clinic within 350 feet.
SF.29: Potential effects on existing and planned traffic (general purpose and freight traffic) on local network	Assessment of intersection level of service, and effects on traffic circulation and access for both automobiles and freight, including potential number of lane restrictions, turn restrictions, and driveways impacted (permanent conditions)	Some added delay (up to 10 seconds) at intersections compared to without the project (S 352nd Street/Enchanted Parkway).			Some added delay (up to 20 seconds) at intersections compared to without the project (S 348th Street/Enchanted Parkway, S 356th Street/Pacific Highway).	Some added delay (up to 10 seconds) at intersections compared to without the project (S 352nd Street/Enchanted Parkway).
SF.30: Potential effects on freight movement	Assessment of impacts to level of service on freight corridors (permanent conditions)	Some added delay at intersections compared to without project.			Some added delay at intersections compared to without project.	Some added delay at intersections compared to without project.
SF.31: Potential avoidance of hazardous waste	Estimated number of hazardous materials sites within 1/8 mile of each alternative: 5 - 0 to 5 hazardous materials sites 4 - 6 to 10 hazardous materials sites 3 - 11 to 15 hazardous materials sites 2 - 16 to 20 hazardous materials sites 1 - 21+ hazardous materials sites	20 hazardous materials sites.		17 hazardous materials sites.	17 hazardous materials sites.	12 hazardous materials sites.
SF.32: Potential effects on parking demand and supply	Assessment of impacts on parking supply (review of impacts to parcels with parking)	Parcels with parking that are potentially impacted: 24-25 parcels Parcels with more than 50% of parking potentially impacted: 8 parcels Parking acreage potentially impacted: 8.68-9.04 acres	Parcels with parking that are potentially impacted: 28-29 parcels Parcels with more than 50% of parking potentially impacted: 8 parcels Parking acreage potentially impacted: 8.30-8.66 acres	Parcels with parking that are potentially impacted: 32-33 parcels Parcels with more than 50% of parking potentially impacted: 14 parcels Parking acreage potentially impacted: 9.42-9.78 acres	Parcels with parking that are potentially impacted: 22 parcels Parcels with more than 50% of parking potentially impacted: 10 parcels Parking acreage potentially impacted: 9.32 acres	Parcels with parking that are potentially impacted: 17 parcels Parcels with more than 50% of parking potentially impacted: 5 parcels Parking acreage potentially impacted: 5.52 acres
Objective: Support Equitable Mobility						
SF.33: Potential benefits to low-income or minority populations ¹	Assessment of how well station serves low-income/minority and traditionally underserved or transit-dependent populations (e.g., population with no car, population younger than 18 and older than 65) compared to baseline; the baseline is the percentage of minority or low-income population and transit-dependent populations in each city that the station area serves	Federal Way is composed of 35.9% minority and 35.0% low-income populations. This station area has a 36.3% minority and 34.6% low-income population; therefore, the station would serve slightly more minority low-income populations compared to Federal Way as a whole.			Federal Way is composed of 35.9% minority and 35.0% low-income populations. This station area has a 31.3% minority and 29.5% low-income population; therefore, the station would serve slightly fewer minority low-income populations compared to Federal Way as a whole.	Federal Way is composed of 35.9% minority and 35.0% low-income populations. This station area has a 36.3% minority and 34.6% low-income population; therefore, the station would serve slightly more minority low-income populations compared to Federal Way as a whole.
SF.34: Potential for impacts on low-income and/or minority populations	Potential for displacement to affect Environmental Justice populations (minority and low-income)	Displacement would include known low-income residential buildings.			Displacement would include known low-income residential buildings.	Displacement would include known low-income residential buildings.

Table 2 Screening of Potential Additional Alternatives (continued)

Measure	Methodology	Performance Rating Notes				
		SF Pacific Highway (SF Enchanted Parkway - West Station)			SF I-5 to Pacific Highway (SF I-5 Station)	SF Enchanted Parkway to I-5 East (SF Enchanted Parkway Station)
		Option 1 (Guideway furthest east near Porter Way)	Option 2 (Guideway shifts west of Option 1)	Option 3 (Guideway west of Pacific Highway)		
Objective: Provide a Financially Sustainable and Constructible Project						
SF.35: Preliminary conceptual estimate	Preliminary conceptual estimates based on conceptual design quantities and current Sound Transit unit pricing. <i>Preliminary conceptual estimates are not the project's budget. They are to be used for comparisons among alternatives.</i>	Adds approximately 500 linear feet of guideway costs to the project to cover the additional length to travel west to Pacific Highway (SR 99) and back east to I-5. Depending on the alignment location along Pacific Highway, this alignment could see a half or full street improvements, along with wetland and environmental mitigation measures needed due to impacts along Pacific Highway.		The overall alignment length for this alternative is approximately the same as the preferred alignment along I-5 so additional guideway costs will be minimal with this alignment. Depending on the alignment location along Pacific Highway, this alignment could see a half or full street improvements, along with wetland and environmental mitigation measures needed due to impacts along Pacific Highway.	Adds the largest amount of new guideway structure, approximately 2,000 linear feet. Additional costs for minimizing wetland disturbance during construction will be required. The highest additional costs will be due to the additional guideway structure cost along with wetland/environmental mitigation costs.	Adds approximately 100 linear feet. The highest additional costs will be related to the two I-5 crossings with piers in the median, and the traffic control and safety measures (temporary falsework, etc.) in place to get this work completed.
SF.36: Operating estimate	Assessment of potential magnitude of O&M estimates based on travel time	Travel time would increase slightly due to an increased guideway length added by this alternative, and slightly slower curves getting to/from Pacific Highway, but would not drastically increase operating estimates.		Travel time would increase slightly due to slightly slower curves getting to Pacific Highway and near 70th Avenue E.	Travel time would increase slightly due to an increased guideway length added by this alternative. It is assumed that travel time would increase compared to SF Pacific Highway, but would not drastically increase operating estimates.	Travel time would increase slightly due to the lower speeds associated with the introduced curves to/from the east side of I-5. It is assumed that travel time would increase compared to SF Pacific Highway, but would not drastically increase operating estimates.
SF.37: Potential conflicts with major utilities and structures, such as existing or planned transportation infrastructure	Potential impacts on known major utilities or structures (e.g. power lines, transportation infrastructure)	On the southeast side of the S 356th Street/Pacific Highway intersection, there is a large BPA Transmission pole with lines heading west and north. An alignment that curves through the S 356th Street intersection will likely have an impact to these poles/lines and require adjustment to the poles and lines. In addition, there are telecom/power poles along the east side of Pacific Highway for the length of the corridor. It is unknown whether utilities are also undergrounded within the roadway corridor, but any roadway improvement would trigger undergrounding these lines. Any stormwater systems within the roadway would also need to be reestablished with the new roadway footprint.			No known major utilities or structures that would be impacted by this alignment north of S 364th Street. Impacts south of S 364th Street are the same as SF Pacific Highway.	This alignment is in the vicinity of a fuel pipeline that runs parallel to I-5 on the east side. According to GIS map, it appears that the alignment would have sufficient distance from the pipeline for the majority of the alignment, but the southern end may be close enough to be in conflict. In addition, there are sign bridges crossing both NB and SB I-5 just south of the currently proposed alignment. These would need to be evaluated to determine whether proper sight distance is still provided. If not, the sign bridges would need to be relocated.
SF.38: Number of sites requiring environmental remediation within the project-footprint of an alternative	Assessment of the number of sites requiring environmental remediation within the project footprint of an alternative	8 Sites potentially requiring remediation.	8 Sites potentially requiring remediation.	7 Sites potentially requiring remediation.	6 Sites potentially requiring remediation.	2 Sites requiring remediation.
SF.39: Unique construction challenges (potential for transportation, noise, vibration, and visual effects)	Assessment of temporary construction impacts to community, including potential for transportation, noise, vibration, and visual effects that could disrupt the community	Lesser amount of unique construction challenges other than constructing in and near wetland areas. The option would cross over the Hylebos Creek twice on the south end near Porter Way, requiring a structure system in place to construct without substantially impacting the ecosystem below. Construction activities could require lane closures on Pacific Highway for safety and street improvements.	Least amount of unique construction challenges other than constructing in and near wetland areas. Construction activities could require lane closures on Pacific Highway for safety and street improvements.	This alternative has potential of being closer to a residential community on the north side of SR 99 along the Fife Curve, which could result in additional noise, vibration, and visual effects on the homes. Construction activities could require lane closures on Pacific Highway for safety and street improvements.	Construction would extend through the Hylebos Creek stream and wetland areas, requiring some unique construction methodologies to avoid harmful impacts to the ecosystem. It is possible that construction falsework/bridges will need to be developed to keep the construction equipment off the ground. Construction activities could require lane closures on Pacific Highway for safety and street improvements.	Construction would require a double crossing of I-5, over active vehicular traffic. Structures will need to be put in place to allow construction to safely continue over traffic. This could result in short-term closures of lanes and/or shoulders while the structures are being put in place.
SF.40: Availability and potential to use publicly-owned right-of-way and publicly-owned property	Amount of publicly-owned ROW and publicly-owned property (individual parcels in public ownership) available per conceptual design of alignment	The Pacific Highway corridor is generally 100 ft in width, which is wide enough for the City's future roadway improvement plans. A guideway along the east or west side of the roadway would be placed within private property to allow room for road widening.			The Pacific Highway corridor is generally 100 ft in width, which is wide enough for the City's future roadway improvement plans. A guideway along the east or west side of the roadway would be placed within private property to allow room for road widening. The portion of the guideway that extends through the wetlands east of Pacific Highway would be a combination of public and private owned land, with the public (Federal Way) land containing Hylebos Creek and wetlands.	Along the west side of I-5, the guideway would be in WSDOT right-of way where possible. The I-5 crossings and supporting piers for these crossings would be within the I-5 right-of-way, with the piers in the median. Once the alignment crosses I-5, it would be within private property on the east side in order to provide sufficient width for WSDOT future compatibility.
SF.41: Capability to accommodate future expansion included in the Sound Transit Long Range Plan	Capability of station location and alignment to accommodate future expansion included in the ST Long Range Plan	Not applicable			Not applicable	Not applicable

Table 2 Screening of Potential Additional Alternatives (continued)

Measure	Methodology	Performance Rating Notes				
		SF Pacific Highway (SF Enchanted Parkway - West Station)			SF I-5 to Pacific Highway (SF I-5 Station)	SF Enchanted Parkway to I-5 East (SF Enchanted Parkway Station)
		Option 1 (Guideway furthest east near Porter Way)	Option 2 (Guideway shifts west of Option 1)	Option 3 (Guideway west of Pacific Highway)		
SF.42: Assessment of operational elements (e.g., reliability based on track alignment, tail tracks and pocket track at Tacoma Dome, number of at grade crossings, if any)	Consideration of operational elements (e.g., potential reliability, track alignment, special trackwork, number of at grade crossings, if any)	No known impacts to operational elements.			No known impacts to operational elements.	No known impacts to operational elements.
SF.43: Overall schedule risk	Consideration of potential risks to schedule (i.e. potential to increase schedule)	Possible slight increase to project schedule in order to construct the additional civil improvements (roadway reconstruction of Pacific Highway and local coordination) and the additional 500 linear feet of guideway and added structures. Also potential increase to project schedule due to working within the Hylebos wetland area and lengthened construction to minimize impacts.	Possible slight increase to project schedule in order to construct the additional civil improvements (roadway reconstruction of Pacific Highway and local coordination) and the additional 500 linear feet of guideway and added structures.	Possible slight increase to project schedule in order to construct the additional civil improvements (roadway reconstruction of Pacific Highway and local coordination), and potentially a more complex bridge structure to get over the SR 167 Diverging Diamond interchange if TDLE can no longer place a column within a median area.	Increase to project schedule due to the additional 2,000 linear feet of guideway that would be built with this alternative and the additional civil improvements (roadway reconstruction of Pacific Highway and local coordination). The specialized construction methodologies through Hylebos Creek and wetland system would also add to the project schedule.	Partially within a sensitive historically mapped property boundary. A major schedule risk is due to the potential discovery of unknown resources, although prior investigation would be done to minimize the risk for unanticipated findings. Coordination and scheduling with WSDOT to construct over I-5 could potentially increase the project schedule.

Notes:

1. Station locations are in the same or nearly the same locations as the Level 2 screening . For measures that assess station-related criteria: the SF Enchanted Parkway Station is equivalent to the SF 2 West Enchanted/S 352nd results; the SF I-5 Station is equivalent to the SF 9 I-5/Jet results presented in the Level 2 Alternatives Evaluation prepared by Sound Transit in 2019.
2. SF I-5 to Pacific Highway includes the same alignment as SF Pacific Highway - Option 1 in the vicinity of Porter Way. SF I-5 to Pacific Highway could also be paired with the Option 2 and 3 alignments.

