Fauntleroy Terminal Trestle & Transfer Span Replacement Project
Planning and Environmental Linkages
Level 1 Screening Summary

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Introduction

The Fauntleroy ferry terminal in West Seattle serves more than three million riders per year—supporting Washington State Ferries’ (WSF) “Triangle” route between Fauntleroy, Southworth and Vashon Island. The Triangle route is part of State Route 160 and is served on the east side by Fauntleroy Way, a City of Seattle street. The terminal faces several challenges, including:

- Aging, seismically vulnerable parts of the terminal are overdue for replacement.
- Rising sea levels risk damage to the terminal structures from debris during future high tides.
- A small dock with capacity for about 80 cars serving three Issaquah Class ferries that hold 124 cars each.
- Vehicles backing up along Fauntleroy Way exceed holding lane capacity, and one lane serves two destinations.
- An inefficient loading process and other operational challenges.
- Safety conflicts between people walking, biking and driving at the intersection of the terminal and Fauntleroy Way SW.
- Accommodating growth in ferry ridership as forecasted in the 2040 Long Range Plan (LRP).

The purpose of WSF’s SR 160—Fauntleroy Ferry Terminal—Trestle and Transfer Span Replacement Project is to improve operations on the Triangle ferry route and preserve and upgrade the facilities serving the mainland terminus of SR 160. WSF plans to meet the project purpose by:

- Replacing seismically vulnerable and aging terminal structures to meet current structural, seismic, water quality, storm and tsunami design standards.
- Raising the elevation of the terminal to account for future sea level rise and the increasing frequency and intensity of storms.
- Providing operational efficiencies that support reliable service while meeting service levels projected for the route in the 2040 LRP.
- Providing efficient and safe loading and fare processing for pedestrians, vehicles and bicycles.
- Improving multimodal connectivity and investing in technology that enhances customer experience and accommodates ridership growth, consistent with the 2040 LRP.

Purpose of this report

This document summarizes one of the first steps in the project planning phase, the initial screening of alternatives. It describes the alternatives WSF considered and the findings of Level 1 screening.
PEL process overview

WSF is very early in the process of determining how to replace the Fauntleroy Ferry Terminal. Before any design and construction can begin, WSF must complete planning and environmental review. WSF is conducting a Planning and Environmental Linkages (PEL) Study in partnership with the Federal Highway Administration. The PEL study framework encourages early involvement with the public, tribes and agencies to help WSF identify transportation issues, environmental concerns, community values and economic goals early and more effectively in project planning. The following graphic summarizes PEL milestones and key activities.

Community engagement

WSF is engaging Triangle route communities, including three advisory groups, to help shape the new terminal. Each advisory group represents Fauntleroy, Southworth and Vashon Island communities to balance perspectives and collaborate during development of project alternatives and screening criteria.

The Level 1 screening results reflect initial input from the Community and Technical advisory groups. WSF will continue to engage the broader community and advisory groups, including the Executive Advisory Group, and refine the alternatives throughout the PEL study process. All PEL community engagement activities will comply with federal requirements (23 U.S.C 168 and 23 U.S.C. 139).
Development of alternatives

WSF developed the initial list of alternatives based on suggestions community members shared with WSF over the past several years and input from advisory groups. Each alternative includes the following key elements at this early stage in the planning process.

- **Dock location**: WSF evaluated dock locations near the existing terminal in Fauntleroy, and at locations the community suggested over the past several years, including areas to the south and north of the existing terminal.

- **Capacity**: WSF’s design standard for purposes of comparing alternatives is 186 vehicles, which is 1.5 times the size of the Issaquah Class ferry that serves this route. Each alternative can accommodate 186 vehicles on the dock itself or a combination of the dock and shoulder.

- **Operational elements**: WSF also considered operational elements to improve terminal efficiency, like Good To Go! and advance ticketing systems. These elements are integral to some alternatives and could supplement other alternatives as they are refined further.

- **Resiliency and reliability**: All the alternatives WSF evaluated include replacing the terminal with a seismically stable dock built to accommodate rising sea levels.

**Operational elements**

Some Level 1 alternatives include operational elements to improve terminal efficiency, specifically Good To Go! and advance payment systems. These elements are integral to alternatives A-2 and A-3 in the Level 1 screening and may also be considered with other alternatives in Level 2.

Operational elements that WSF could pair with alternatives include*:

- **Good To Go!** Expanding Washington State’s tolling system to apply to ferry service. This could include a toll gantry and/or toll booth.

- **Advance payment systems**. Ferry riders could pay their fare before arriving to the ferry terminal.

- **Overhead loading**. A raised structure over the terminal would allow walk-on passengers to board the ferry separately from vehicle traffic.

- **Reservations**. Expand WSF’s vehicle reservations system so Fauntleroy/Vashon/Southworth customers could reserve a spot on the ferry before arriving at the dock.

Although outside the scope of this project, the following elements could be added in the future:

- **Second operating slip**. All the alternatives allow adding a second slip for ferries to dock while another ferry unloads and loads passengers.

- **Ferry electrification infrastructure**. All of the alternatives do not preclude adding infrastructure to enable charging hybrid-electric ferries.

*Not all operational elements apply to all alternatives. See alternatives on the following pages for details.*
Level 1 screening overview

During the initial round of screening, WSF focused on evaluating how well alternatives, or possible solutions, meet the project’s PEL purpose and need compared to current conditions.

Screening criteria

WSF scored the alternatives based on the following criteria:

- **Purpose and need criteria:**
  - Ability to meet requirements for structural reliability.
  - Ability to accommodate projected sea level rise.
  - Ability to improve operational efficiency (i.e. minimize dwell time, process vehicles more efficiently, maintain on time performance).
  - Ability to reduce the number of conflict points between traffic modes (safety for people driving, walking and biking).
  - Ability to meet operational requirements (186 vehicles on the dock or in upland holding, access and maneuverability for an Issaquah Class ferry, connection to a minor arterial street).
  - Ability to keep the current sailing schedule.
  - Ability to enhance multimodal connections, connect to transit and/or allow for growth in walk-ons, bicycles and vanpools.

- **Additional criteria:**
  - Ability to avoid changes to parks and recreational areas (Section 4(f)/6(f), RCO-funded projects).
  - Ability to avoid changes to traffic circulation on local streets near ferry terminal.
  - Project cost (design, planning, right of way, risk, construction).
  - Alignment with current project schedule.
  - Project feasibility—amount of additional right of way needed beyond existing terminal footprint (for expanded footprint, utilities, or construction).
  - Permitting and coordination (level of coordination with Tribes and other partners, permitting complexity).
  - Changes to existing policies and regulations that risk project delay.
Level 1 screening findings

WSF developed 15 alternatives for Level 1 screening, including two alternatives in Elliott Bay, two alternatives in the Burien/Des Moines areas and 11 alternatives in the Fauntleroy area. WSF screened each alternative at a high level using the Level 1 criteria.

All of the alternatives in Fauntleroy maintain the same ferry crossing time and would allow WSF to keep the current sailing schedule and the number of sailings and peak period departures. For these alternatives, WSF could consider solutions to reduce conflicts between people walking, biking and driving. The alternatives at the terminal’s current location also maintain access to transit service, while the alternatives that move the terminal to a new location in Fauntleroy do not.

The results of Level 1 screening are shown on the following page. Based on the results, WSF will advance all alternatives that keep the terminal in the existing location to Level 2 screening for further analysis and refinement. WSF will not carry forward alternatives at Elliott Bay, the Burien/Des Moines areas, and at other locations in Fauntleroy which do not meet three or more Level 1 criteria.

Alternatives advancing to Level 2 screening
- A-1: Replace dock at same size and location
- A-2: Replace dock at same size and location and add Good To Go!
- A-3: Replace dock at same size and location and add advance ticketing
- A-4: Replace dock at same size and location and add two-lane holding on Fauntleroy Way
- A-5: Replace dock at same size and location and add two direction approach for holding
- A-6: Replace dock at same size and location and add remote holding at 47th Ave and Fauntleroy Way
- A-7: Replace dock at same size and location and add remote holding at Lincoln Park
- B: Expand existing dock at Fauntleroy—124 vehicle capacity
- C: Expand existing dock at Fauntleroy—186 vehicle capacity

Alternatives NOT advancing to Level 2 screening
- D: South Lincoln Park terminal
- E: Lowman Beach terminal
- F: Move terminal to Colman Dock
- G: Move terminal to Southwest Elliott Bay (Jack Block Park, Seacrest Park, T5 area)
- H: Move terminal to Burien
- I: Move terminal to Des Moines
### Screening matrix

#### Level 1 Screening

<table>
<thead>
<tr>
<th>Alternatives advancing to Level 2 screening</th>
<th>Alternatives not advancing to Level 2 screening</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A-1:</strong> Replace dock at same size and location</td>
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</tr>
<tr>
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<td><strong>H:</strong> Move terminal to Burien</td>
</tr>
<tr>
<td><strong>A-3:</strong> Replace dock at same size and location and add advance ticketing</td>
<td><strong>I:</strong> Move terminal to Des Moines</td>
</tr>
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</tr>
<tr>
<td><strong>A-5:</strong> Replace dock at same size and location and add two-direction approach for holding</td>
<td><strong>A-6:</strong> Replace dock at same size and location and add two-lane holding at 47th and Fauntleroy Way</td>
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</tr>
</tbody>
</table>

#### Criteria for Level 1 screening compared to existing conditions

- Ability to meet requirements for structural reliability.
- Ability to accommodate projected sea level rise (Resilience).
- Ability to improve operational efficiency (i.e. minimize dwell time, process vehicles more efficiently, maintain on time performance).
- Ability to reduce the number of conflict points between traffic modes (safety of vehicles, bicycles and pedestrians).
- Ability to meet operational requirements (186 vehicles on the dock or in upland holding, access and maneuverability for an Issaquah class vessel, connection to a minor arterial).
- Ability to keep current sailing schedule (number of peak departures and crossing time).
- Ability to enhance multimodal connections, connect to transit and/or allow for growth in walk-ons, bicycles and vanpools.
- Ability to avoid changes to parks and recreational areas (Section 4(f)/6(f), RCO-funded projects).
- Requires changes to traffic circulation on local streets in ferry terminal area.
- Project cost (design, planning, right of way, risk, construction) alignment with funding.
- Alignment with current project schedule.
- Project feasibility—amount of additional right of way needed beyond existing terminal footprint (for expanded footprint, utilities, or construction).
- Permitting and coordination (level of coordination with external partners, permitting complexity, Tribal coordination).
- Policy risk.

#### Key:

- High likelihood to meet criteria
- Moderate likelihood to meet criteria
- Low to no likelihood to meet criteria
Alternatives advancing to Level 2 screening

A-1: Replace dock at same size and location

Alternative A-1 replaces the dock at the same size and location as the existing facility and could hold up to 80 vehicles, with the shoulder holding lane the same length as it is today to accommodate a total of 186 vehicles.

Additional considerations: Alternative A-1 meets many core elements of the purpose and need but does not improve operational efficiency beyond what exists today.
A-2: Replace dock at same size and location and add Good To Go!

**Features**
- Replaces dock but would not change size
- Holding for up to 80 vehicles on dock
- Holding lane on Fauntleroy Way for 106 vehicles
- Holds 186 vehicles total
- Good To Go!

**Operational elements (to consider in Level 2)**
- Advance payment systems
- Overhead loading

**Alternative A-2** replaces the dock at the same size and location as the existing facility and could hold 80 vehicles, with the shoulder holding lane the same length as it is today to accommodate a total of 186 vehicles. This alternative also includes Good To Go! for operational efficiency.

**Additional considerations**: WSF has not yet studied how Good To Go! or similar systems could work for the ferry system or this route. The related changes to the existing fare structure and implementation of a new program could delay the project schedule.
A-3: Replace dock at same size and location and add advance ticketing

**Features**
- Replaces dock but would not change size
- Holding for up to 80 vehicles on dock
- Holding lane on Fauntleroy Way for 106 vehicles
- Holds 186 vehicles total
- Advance ticketing

**Operational elements (to consider in Level 2)**
- Good To Go!
- Overhead loading

**Alternative A-3** replaces the dock at the same size and location as the existing facility and could hold 80 vehicles, with the shoulder holding lane the same length as it is today. This alternative also includes an advance ticketing system for greater operational efficiency.

**Additional considerations:** WSF needs to evaluate the potential benefits and impacts of an advance ticketing system and request authorization to change fare collection processes—a process and policy change that could delay the project schedule.
A-4: Replace dock at same size and location and add two-lane holding on Fauntleroy Way

**Features**
- Replaces dock but would not change size
- Holding for up to 80 vehicles on dock
- Two lane holding on Fauntleroy Way for 106 vehicles: west lane for Southworth, east lane for Vashon
- Converts a section of Fauntleroy Way to one-way only northbound
- Holds 186 vehicles total

**Operational elements (to consider in Level 2)**
- Good To Go!
- Advance payment systems
- Overhead loading

**Additional considerations:** Effects on traffic circulation require more coordination with Seattle Department of Transportation (SDOT). Changes to terminal access would impact transit routing and connections and access to private properties. This alternative may improve operational efficiency by separating vehicles headed to Southworth and Vashon Island.

**Alternative A-4** replaces the dock at the same size and location as the existing facility and could hold up to 80 vehicles. This alternative also converts the southbound lane on Fauntleroy Way to a second holding lane, converting Fauntleroy Way to a one-way street heading north (away from the terminal).
A-5: Replace dock at same size and location and add two direction approach for holding

Alternative A-5 replaces the dock at the same size and location as the existing facility and could hold up to 80 vehicles. To support vehicle processing, this alternative includes separate approach routes and vehicle holding for the two destinations served by the Fauntleroy terminal. Vehicles traveling to Vashon Island would line up along Fauntleroy Way and vehicles headed to Southworth would access the terminal from SW Wildwood Place.

Additional considerations: Effects on traffic circulation require more coordination with SDOT. Changes to terminal access would impact transit routing and connections, neighborhood connectivity and access to private properties. It is unclear whether SW Wildwood Place could accommodate both ferry holding and local traffic.
A-6: Replace dock at same size and location and add remote holding at 47th Ave and Fauntleroy Way

**Features**
- Replaces dock but would not change size
- Holding for up to 80 vehicles on dock
- Build remote holding lot at 47th Ave SW and Fauntleroy Way for 106 vehicles
- Use holding lane on shoulder of Fauntleroy Way to access terminal
- Holds 186 vehicles total

**Operational elements (to consider in Level 2)**
- Good To Go!
- Advance payment systems
- Overhead loading

**Alternative A-6** replaces the dock at the same size and location as the existing facility and holds up to 80 vehicles. This alternative includes a remote holding lot near 47th Ave SW that holds up to 106 vehicles to accommodate a total of 186 vehicles.

**Additional considerations:** This alternative requires more coordination with SDOT to modify traffic circulation, purchasing additional right of way to build the remote holding lot and operational changes to how vehicles are managed at the terminal.
A-7: Replace dock at same size and location and add remote holding at Lincoln Park

Alternative A-7 replaces the dock at the same size and location as the existing facility and could hold up to 80 vehicles. This alternative uses the existing south parking lot at Lincoln Park to hold up to 106 vehicles, accommodating a total of 186 vehicles.

Additional considerations: In addition to the factors associated with building a remote holding lot mentioned under A-6, this alternative requires more coordination with permitting agencies and impacts Lincoln Park.
B: Expand existing dock at Fauntleroy—124 vehicle capacity

Alternative B replaces the dock with a longer dock that could hold up to 124 vehicles. Fewer cars would need to line up outside the terminal, so the holding lane on Fauntleroy Way shows a line of 62 vehicles to accommodate a total of 186 vehicles.

Additional considerations: Expanding the dock requires more extensive coordination with partner agencies and Tribes for more complex permitting.
C: Expand existing dock at Fauntleroy—186 vehicle capacity

*Alternative C* replaces the dock with a wider dock that could hold up to 186 vehicles without vehicles lining up on Fauntleroy Way. This alternative improves operational efficiency by holding more vehicles on the dock.

*Additional considerations:* Expanding the dock to accommodate 186 vehicles would require more extensive permitting, coordination with King County Wastewater Treatment Division over impacts to the Barton Street Pump Station adjacent to the existing terminal, and impacts Cove Park.
Alternatives not advancing to Level 2 screening

Based on the results of Level 1 screening, the following alternatives do not meet several core elements of the project purpose and need. These alternatives failed to meet at least three of the Level 1 criteria. The alternatives at South Lincoln Park and Lowman Beach require purchasing significantly more right of way, reconfiguring local streets to create ferry access and provide fewer connections to transit. Moving the Fauntleroy ferry terminal out of West Seattle to Downtown Seattle, Southwest Elliott Bay, Burien or Des Moines would drastically increase sailing times and decrease frequency of sailings reducing the amount of ferry service to Vashon Island and Southworth. In addition, moving the terminal to a new location would require purchasing right of way and other factors that would increase projects costs well beyond the current project budget. WSF does not plan to advance the following alternatives to Level 2 screening.

Alternatives NOT advancing to Level 2 screening

- D: South Lincoln Park terminal
- E: Lowman Beach terminal
- F: Move terminal to Colman Dock
- G: Move terminal to Southwest Elliott Bay (Jack Block Park, Seacrest Park, T5 area)
- H: Move terminal to Burien
- I: Move terminal to Des Moines
Alternative D replaces the terminal with a new dock at the south end of Lincoln Park. This alternative holds up to 186 vehicles without any vehicles lining up on Fauntleroy Way.

Additional considerations: The steep slopes in this area make it difficult to connect ferry riders to transit. This alternative also impacts Lincoln Park and requires purchasing new right of way land to build the terminal and supporting infrastructure. These factors would increase the overall project cost, affect schedule and require extensive permitting and coordination with multiple partner agencies.
Alternative E replaces the terminal with a new dock at Lowman Beach. This alternative holds up to 186 vehicles.

Additional considerations: Lowman Beach Park is surrounded by steep slopes and residential homes. Building a ferry terminal in this area would cause significant changes to traffic circulation on residential streets because there are no existing minor arterial roadways. The steep slopes in this area also make it difficult to connect ferry riders to transit. This alternative also impacts Lowman Beach Park and requires purchasing new right of way land to build the terminal and supporting infrastructure. These factors would increase the overall project cost, affect schedule and require extensive permitting and coordination with multiple partner agencies.
F: Move terminal to Colman Dock

**Alternative F** relocates the dock to the existing Colman Dock facility in downtown Seattle.

**Additional considerations:** WSF is currently replacing the aging and seismically vulnerable Colman Dock to maintain its critical role as a regional transportation hub. Bringing an additional three million riders per year through WSF’s busiest terminal would create operational inefficiencies and impact Seattle/Bainbridge, Seattle/Bremerton and Fauntleroy/Vashon/Southworth passengers. There is no space for holding additional vehicles at this location. Building a dock at this location also requires extensive coordination with local agencies, including the City of Seattle and Tribal governments.

G: Move terminal to Southwest Elliott Bay (Jack Block Park, Seacrest Park, T5 area)

**Alternative G** replaces the Fauntleroy ferry terminal with an expanded dock within Southwest Elliott Bay, such as near Jack Block Park, Seacrest Park, or T5 terminal. This alternative holds up to 186 vehicles.

**Additional considerations:** There are fewer transit connections in this area than the current terminal at Fauntleroy. Building a ferry terminal in this area would also impact Jack Block or Seacrest parks or access to those parks and requires purchasing new right of way to build the terminal and supporting infrastructure. Building a dock at this location also creates completely new travel patterns, increasing traffic on surrounding streets. These factors would increase the overall project cost, affect schedule and require extensive permitting and coordination with Port of Seattle, the City of Seattle and other partner agencies.
H and I: Move terminal to Burien or Des Moines

**Alternative H** replaces the Fauntleroy ferry terminal with a new dock in Burien holding up to 186 vehicles.

**Alternative I** replaces the Fauntleroy ferry terminal with a new dock in Des Moines holding up to 186 vehicles.

**Additional considerations:** There are fewer transit connections in Burien and Des Moines than the current terminal at Fauntleroy. Building a ferry terminal in these areas may impact nearby parks or waterfront, depending on the specific location, and requires purchasing new right of way land to build the terminal and supporting infrastructure. There are few minor arterials to connect to ferry terminals in these areas. Building a ferry terminal in Burien or Des Moines would create completely new travel patterns, increasing traffic on surrounding streets. These factors would increase the overall project cost, affect schedule and require extensive permitting and coordination with multiple partner agencies.
Next steps

WSF plans to share the results of Level 1 screening with the broader Triangle route communities in late Spring 2022. The next step is Level 2 screening to refine the range of alternatives before advancing to the NEPA environmental review process. Level 2 screening includes more detailed analysis and identifies benefits and tradeoffs of each alternative. WSF will also study a No Build alternative that simply maintains the existing terminal to compare all of the Build alternatives. At this phase, WSF will compare alternatives on performance, cost, benefits and effects—with a focus on environmentally sensitive resources that may affect permitting and communities. WSF will continue to engage its three advisory groups and conduct robust community engagement before completing the PEL study report by mid-2023.