

CHAPTER 2

Alternatives



2 ALTERNATIVES

This chapter describes the alternatives being evaluated in this EIS, and summarizes how they were developed. It discusses each alternative's permanent facilities and operations, as well as temporary construction activities. It also briefly describes alternatives that are no longer being considered. The chapter concludes with a discussion of separate projects that are in this project's vicinity, and the next steps in the project's development.

2.1 Proposed Alternatives

The project is considering four alternatives, as shown on Figure 2-1:

- The No-Build Alternative maintains the existing facility but does not improve it; this alternative provides a basis for comparing the effects of the Build alternatives.
- The Preferred Alternative (a modified Elliot Point 2 Alternative) would relocate the terminal to the western portion of the Mukilteo Tank Farm as part of an integrated multimodal center; the existing terminal would be removed.
- The Existing Site Improvements Alternative would construct an improved multimodal facility by replacing the existing Mukilteo ferry terminal with an expanded terminal at the current site.
- The Elliot Point 1 Alternative would relocate the terminal to the eastern portion of the Mukilteo Tank Farm as part of an integrated multimodal center and remove the existing terminal.

The Preferred Alternative and the Elliot Point 1 Alternative assume transfer of the Mukilteo Tank Farm from the U.S. Air Force to the Port of Everett, consistent with federal legislation passed in 2001 (see *Section 2.4*).

2.1.1 No-Build Alternative

The No-Build Alternative provides a baseline against which to compare the effects of the Build alternatives. It includes what would be needed to maintain the existing ferry terminal at a functional level. Under the No-Build Alternative, an improved multimodal transportation facility to meet future demand or operational needs would not be developed. Instead, the No-Build Alternative assumes that maintenance and structure replacements would occur in accordance with legislative direction to maintain and preserve ferry facilities, but WSDOT would make no investments to improve the operation, safety, security, or capacity at the terminal. Figure 2-2 shows the key elements of the terminal and the areas that would be affected by planned maintenance and preservation activities.



Figure 2-1. Alternatives



Figure 2-2. No-Build Alternative

As called for by the Long-Range Plan, a system-wide vessel replacement will be implemented independent of the Mukilteo Multimodal Project. WSDOT plans to replace the current 124-vehicle vessels operating on this route with 144-vehicle vessels. This is assumed to occur with the No-Build Alternative or with any of the Build alternatives. For the Mukilteo-Clinton route, WSDOT plans to replace one vessel in 2014/2015 and the other in 2027.

Marine Components

Nearly all of the ferry docking, loading, and unloading facilities would need to be replaced over time because they will have reached the end of their lifespan by 2040. Replacement wingwalls and fixed dolphins would be constructed. A new transfer span, including hydraulic-lifting mechanisms and structures, and a bridge seat foundation would be constructed. A concrete trestle would replace the existing timber trestle extending from the land to over the water, and the existing bulkhead would be reconstructed. The replacements would include removal of existing creosote-treated timber piles supporting the structures, and installation of steel or concrete replacement piles.

The Port of Everett existing fishing pier and seasonal day moorage would remain at its current location near the ferry dock. During the replacement of the ferry docking facilities, when normal ferry service would be unavailable, WSDOT might use this facility to provide passenger-only service, which would require modification of the fishing pier and make it temporarily unavailable for fishing.

Land Components

The existing vehicle holding area would remain where it is today. The terminal supervisor's building, passenger building, and the three existing toll booths would be replaced at their current locations. Employee parking would remain at its current location. This alternative does not provide a fully secured holding area connecting to the ferry, because the terminal area crosses public streets that must remain open.

Access by buses to the ferry terminal and by vehicles to waterfront businesses, parks, and the NOAA Mukilteo Research Station would be largely unchanged. A stoplight at the trestle would continue to be used to periodically insert gaps in the queue of vehicles leaving the ferry.

Transit Facilities

The two existing bus bays would remain at the same location near the SR 525/Front Street intersection. Access to the Sound Transit Mukilteo Station, approximately 2,000 feet away, would be unchanged. No terminal components would be located on the Mukilteo Tank Farm.

2.1.2 Preferred Alternative (Elliot Point 2)

Following the release of the Draft EIS and after considering comments received on it, WSDOT concluded the Elliot Point 2 Alternative best meets the project's purpose and need. The team considered suggestions from commenters and refined Elliot Point 2's design to further improve its ability to meet the purpose and need, reduce environmental impacts, or enhance other benefits. WSDOT collaborated with

interested tribes and others to determine a culturally sensitive design approach to guide the project. The modified alternative is called the “Preferred Alternative” in this Final EIS.

The Preferred Alternative (Figure 2-3) would remove the existing ferry terminal and relocate it to the western portion of the Mukilteo Tank Farm as part of an integrated multimodal facility. The alternative would construct a new roadway connection from SR 525 east to the ferry terminal, Mukilteo Station, and the transit center.

The changes to the Elliot Point 2 Alternative were designed to:

- Minimize queuing on SR 525
- Improve the layout of the ferry slip and passenger buildings while continuing to avoid any construction that could affect a shell midden—a sensitive archaeological site
- Avoid impacts to the Sound Transit Mukilteo Station’s existing parking
- Avoid reducing the general parking supply in Mukilteo’s central waterfront area
- Provide a continuous walkway along the shoreline from the First Street extension to the transit center
- Develop potential design features that reflect the site’s cultural and historic significance to Native American tribes
- Accommodate a relocated fishing pier and seasonal day moorage
- Extend First Street from SR 525 to the Mount Baker railroad crossing to improve emergency access and egress

Many of the elements of these design refinements are interconnected. The refinements would realign the initial section of the First Street extension to retain commuter rail parking immediately adjacent to the Mukilteo Station and create additional public parking spaces. They would also shift the layout of the transit center, ferry berth, and several terminal buildings to provide more room to store vehicles in holding lanes and help minimize queues back onto SR 525. The overall footprint of the alternative and its major elements remain similar to how Elliot Point 2 appeared in the Draft EIS.

Culturally Sensitive Design

Recognizing the historic significance of the Elliot Point area, the project will be developed with cultural elements in its design. For example:

- Traditional motifs and objects, and narrative content
- Building and facility design, such as landscaping, materials, and form
- Commemorative signs, drawings, and photography
- Public educational displays

The pictures below show examples of cultural identity features in a design.



“Mother Salmon” by Si Low Leet Sa Limmi
Source: Jones and Jones



Simulation of a concept for the terminal building interior with longhouse style design
Source: Jones and Jones

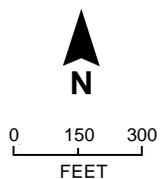
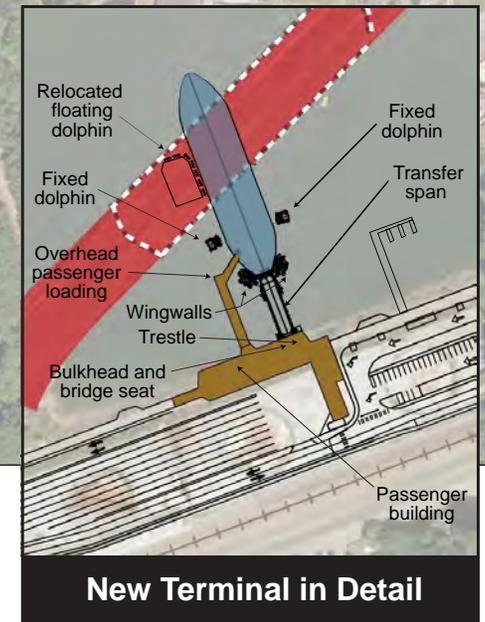
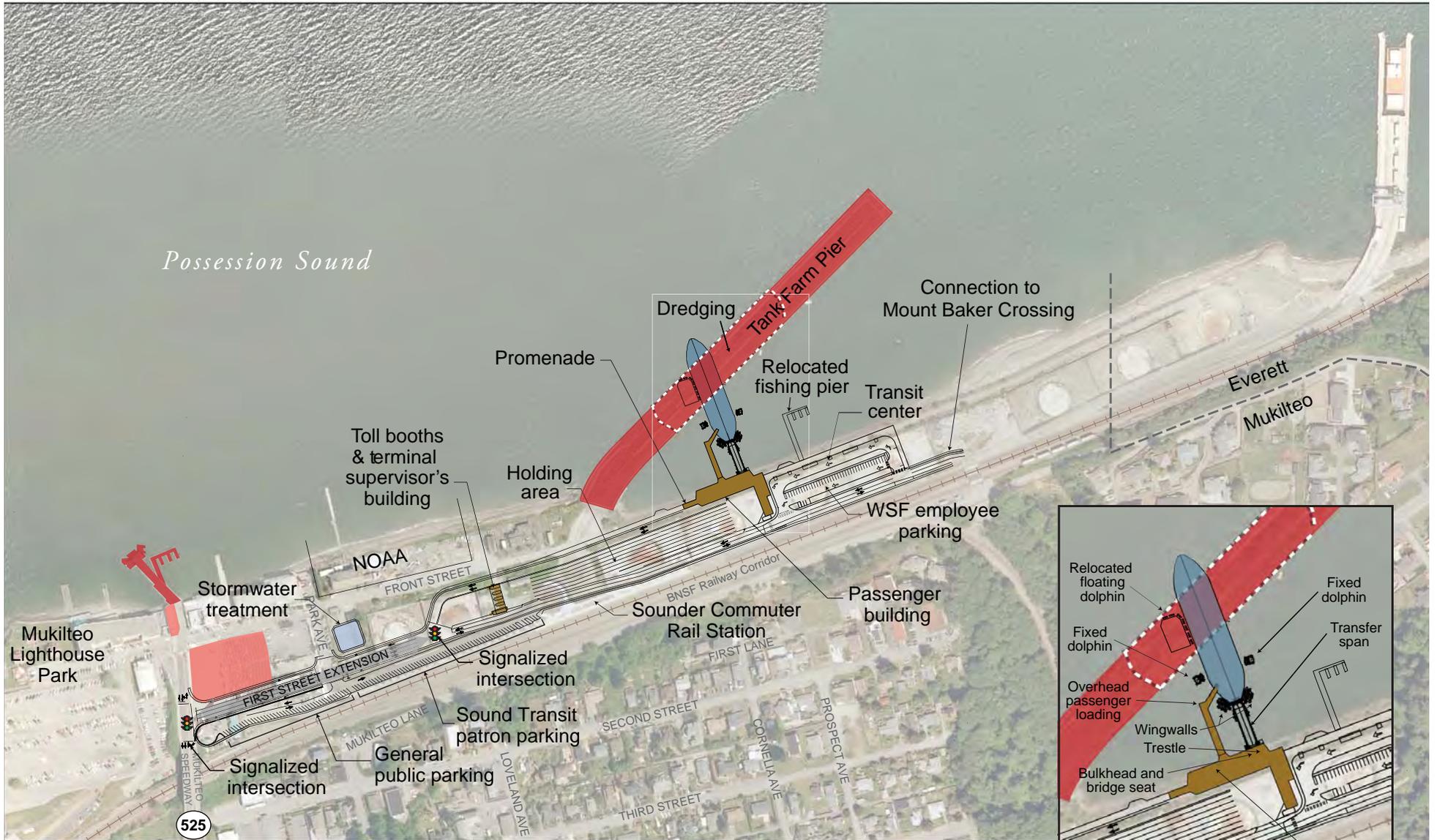


Figure 2-3. Preferred Alternative (Elliot Point 2)

By retaining the commuter rail parking near the station, the refinements avoid the need to replace commuter rail parking within the transit center. This allows a more compact footprint of the transit center and also accommodates a ferry employee parking area that was previously proposed at SR 525 and First Street.

Other modifications would shift the ferry slip west and refine the siting for the passenger building and overhead loading. This refinement improves the terminal layout, continues to avoid construction within the shell midden, and allows more room for vehicles in holding lanes. The passenger building would parallel the shoreline to bridge the approach to the ferry trestle and allow the building to incorporate a continuous pedestrian pathway along the shoreline, as called for in the City of Mukilteo's Shoreline Master Plan (City of Mukilteo 2011). A terminal supervisor's building would be located on top of the toll booths, instead of as a separate building.

Other modifications include measures to mitigate impacts identified in the Draft EIS. WSDOT initiated a collaborative planning and cultural design process with interested Native American tribes to guide further design efforts and explore opportunities for commemorative or interpretive sites or other design treatments. WSDOT also responded to requests suggesting the fishing pier and seasonal day moorage be relocated as a part of the new multimodal facility.

Marine Components

The Preferred Alternative would construct in-water facilities that include the features needed for the ferry berth, including new wingwalls and fixed dolphins. A floating dolphin would be relocated from the existing ferry terminal. The alternative would construct a new transfer span, including hydraulic-lifting mechanisms and structures and a bridge seat foundation, as well as a new concrete trestle and bulkhead. Because there is no beach and the water is deeper at this location, the ferry slip is near to the shore, which allows the trestle to be shorter than other alternatives, requiring fewer piles to support the trestle. The Preferred Alternative would install new concrete or steel piles for the trestle, the transfer span and overhead passenger loading, the fixed dolphins, the new passenger building, and the relocated fishing pier.

The Tank Farm Pier, which includes an estimated 3,900 piles, would be removed. The existing pier has accumulated a sediment mound beneath it, so a navigation channel about 500 feet wide would need to be dredged to provide an average lowest tide navigation depth of -28 feet, which would require dredging to a depth of -30 feet. Approximately 19,500 cubic yards of material would be dredged. The areas on either side of the existing pier are deeper and no dredging is needed elsewhere. The existing ferry berth and all of its marine structures, including the Port of Everett fishing pier and day moorage, would be removed. This would remove approximately 300 more piles.

Land Components

The land components of the Preferred Alternative are arranged to avoid excavation within a prehistoric archaeological site containing a shell midden. Fill and pavement would be used to avoid intersecting the midden, and buildings would be designed with foundations outside the midden. First Street would be realigned and extended as a four-lane roadway, beginning on a retained fill structure from a new signalized

intersection with SR 525, descending to near existing grade at Park Avenue, and continuing to a signalized entrance to the new ferry terminal. This extension would then continue as a two-lane roadway to a new bus transit and paratransit facility and the Mount Baker railroad crossing. Utilities would be extended to the terminal and the Mount Baker crossing. The Preferred Alternative would modify the access road to the Mukilteo Station and its parking, which would also be between the BNSF railroad and the new First Street extension. It also would develop a public parking area between the BNSF railroad and the new First Street, near SR 525, to replace displaced street parking. This would require cutting into the existing hillside and building retaining walls.

The extended roadway would provide sidewalks and bicycle lanes and generally follow the southern portion of the Mukilteo Tank Farm. One section would have an additional lane for transit layover.

The vehicle holding area would be on the eastern part of the Mukilteo Tank Farm site, with a holding capacity of up to 266 vehicles. The holding area was expanded compared to other alternatives to provide more capacity. This helps reduce queues extending onto SR 525, compared to the Elliot Point 2 design used for the Draft EIS. The terminal supervisor's building would be on the second story above the toll booths on the west end of the holding area.

A new two-story passenger and maintenance building would be aligned parallel to the shoreline to avoid placing a building foundation into the shell midden. It would bridge over the vehicle driveway to the ferry trestle, and an overhead passenger loading ramp would connect to the second story.

A pedestrian walkway from First Street would connect to a waterfront promenade. The walkway would connect to the passenger building and allow continuous pedestrian access along the waterfront.

New overhead lighting would illuminate First Street and the terminal facilities, including the vehicle holding area and the transit center. The site would also include landscaped areas and viewpoints. A stormwater treatment facility would be located near Front Street, east of Park Avenue.

Security fences and gates would surround the holding area and the paid passenger areas of the terminal, which would allow WSDOT to meet U.S. Coast Guard requirements during periods of heightened security.

The upland elements of the existing ferry terminal on the Mukilteo waterfront would be removed, including its buildings. The existing vehicle holding area and existing ferry employee parking areas near the current terminal would be vacated.

Transit Facilities

A transit center with six new bus bays serving scheduled routes and paratransit would be constructed east of the new terminal, with an area near the transit facility for ferry passenger drop-off and pick-up. The same area would also include designated ferry employee parking.

The extended and realigned First Street would include an inbound bus and paratransit stop for the existing Mukilteo Station, with transit vehicles continuing

their routes to the ferry terminal. Outbound transit routes would board at the new transit center east of the ferry terminal.

2.1.3 Existing Site Improvements Alternative

This alternative would construct an improved multimodal facility by replacing the existing Mukilteo ferry terminal with an expanded terminal and multimodal center on and around the current site. This expansion would improve some local traffic and safety features at the terminal facility as well as some of the multimodal transportation connections. It would provide capacity for growth in transit service at the terminal and would place buses closer to the Mukilteo Station than they are at the existing terminal. The key features of this alternative are shown on Figure 2-4.

Marine Components

All of the existing ferry facility features would be replaced. The new facility would be oriented nearly due north to allow for the potential development of a future second slip (in the existing footprint) and better alignment with SR 525. This orientation would address line-of-sight issues for Front Street traffic, pedestrians, and vehicles unloading from the ferry.

Construction of the new facility would include new wingwalls and fixed dolphins; a new concrete trestle; a transfer span, including hydraulic-lifting mechanisms; and a bridge seat foundation. New piles would be placed to support these components. The floating dolphin would be relocated from the current facility. WSDOT would also rebuild the bulkhead beneath the trestle and the bulkhead beneath the adjacent parcel to the east, where the new passenger building would be located.

To accommodate the new marine components, the Port of Everett existing fishing pier and day moorage would be removed.

Land Components

The existing vehicle holding area would remain at the same general location, and would still store the equivalent of one-and-a-half 144-vehicle vessels, or approximately 216 vehicles. WSDOT would purchase the currently leased holding area for permanent ferry use.

Four new toll booths would be constructed near the existing ones. Employee parking would be provided in an area east of the holding lanes. To make room for the new toll booths, a small building that holds the office for the terminal supervisor would be rebuilt slightly east of its current location.

A new passenger building would be constructed east of the trestle approach on property to be acquired for the project. Overhead passenger loading ramps would connect to the second story of the new passenger building.

Access and circulation to and from the ferry terminal would be revised. Front Street and Park Avenue would become one-way streets. First Street would be extended westward to a new signalized intersection with SR 525, providing an outlet for vehicles circulating from the waterfront area on Front Street and Park Avenue, and also providing a more direct route for vehicles, bicycles, and pedestrians to and from Mukilteo Station to the east. There would be minor improvements to SR 525, including continuous sidewalks. A

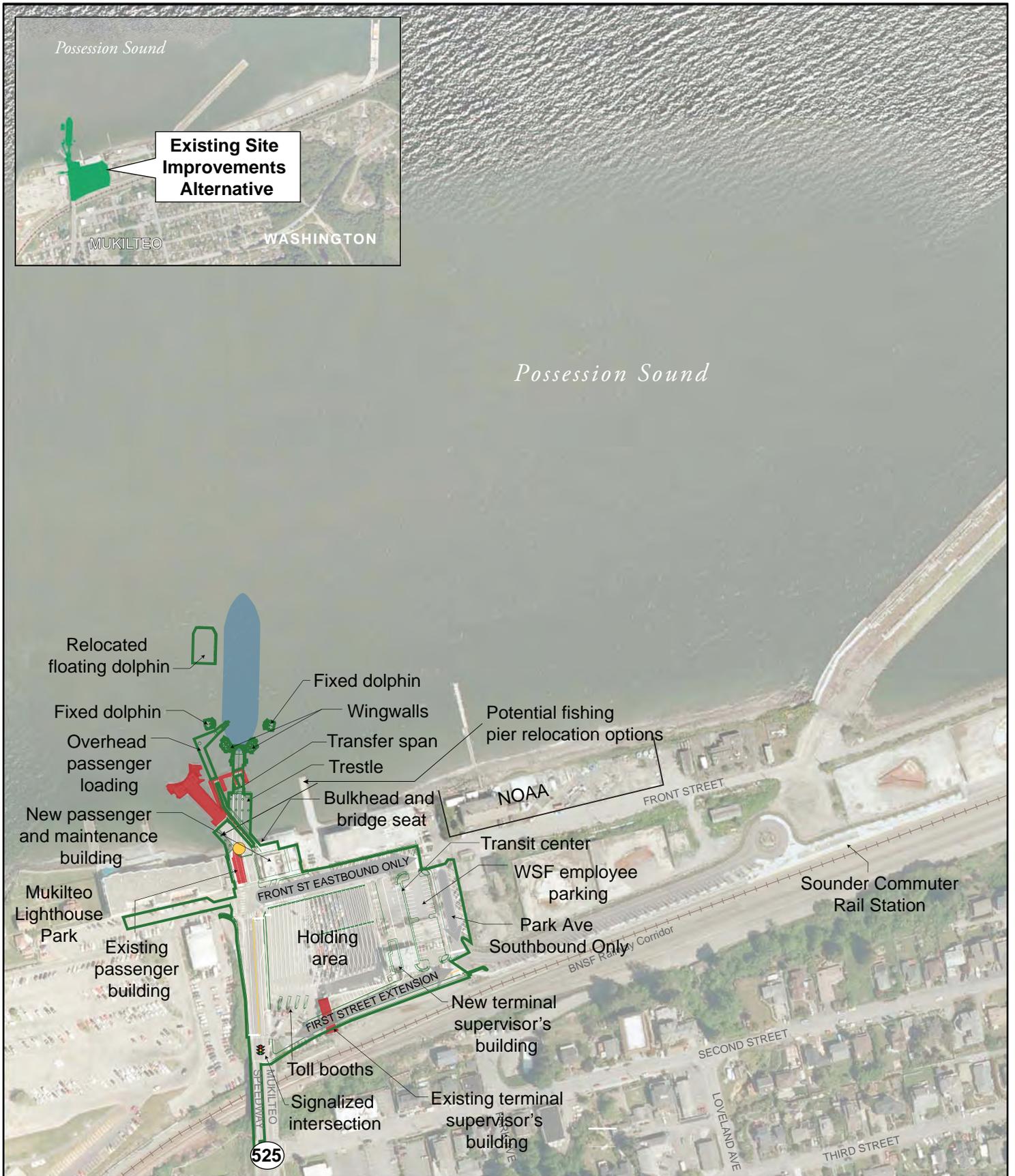


Figure 2-4. Existing Site Improvements Alternative

stoplight would remain on the trestle, which would continue to provide gaps in the queue of offloading ferry traffic, facilitating passenger vehicle access to the waterfront area. An area would be provided along Front Street near the new passenger terminal for ferry passenger drop-off and pick-up. This alternative also includes stormwater management improvements and other utility upgrades needed to accommodate transit and roadway improvements.

This alternative would not allow the terminal areas to be fully secured between the entrance and the ferry.

Transit Facilities

A new transit center would be constructed east of the holding lanes, combined with a parking area for ferry employees. It would include six new bus bays serving scheduled routes and paratransit service. Compared to the existing bus stops on SR 525, the new transit center would be closer to Mukilteo Station but farther from the ferry. The new transit center would be designed to meet the increased demand for transit expected in the future.

Inbound vehicles, bicycles, and pedestrians to the Mukilteo Station could follow the same path as today (over the SR 525 bridge and using Front Street and Park Avenue to reach First Street), but they could also use the new First Street extension and signalized intersection at SR 525.

2.1.4 Elliot Point 1 Alternative

This alternative would build a new ferry terminal at the eastern portion of the Mukilteo Tank Farm. Its key features are shown on Figure 2-5. This alternative was modified after the Draft EIS to reduce impacts to a public shoreline access area at the Port of Everett's Mount Baker Terminal.

Marine Components

New wingwalls and fixed dolphins would be constructed, and the floating dolphin for the existing ferry dock would be relocated to serve this site. A new transfer span, including hydraulic-lifting mechanisms and a bridge seat foundation, would be constructed. In addition, a new concrete trestle and bulkhead would be constructed. Because the shoreline slopes more gradually in this location, the ferry slip would be a minimum of 250 feet away from the top of the current riprap shoreline. This constraint would require a longer trestle leading to the transfer span and towers, and new piles to support the trestle. The wingwalls and dolphins would also require new piles.

A new passenger building and a maintenance building would be built over water upon the new concrete trestle. An overhead passenger loading ramp would connect to the second story of the new passenger building.

The Tank Farm Pier, which contains an estimated 3,900 piles, would be removed. A channel approximately 500 feet wide would need to be dredged to provide an average lowest tide navigation depth of -28 feet, which would require dredging to a depth of -30 feet through part of the area currently occupied by the pier. Approximately 19,500 cubic yards of material would be dredged.