

B | Draft Section 4(f) Evaluation

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SR 502 CORRIDOR WIDENING

IMPROVING SAFETY • INCREASING CAPACITY • REDUCING CONGESTION

I-5 TO BATTLE GROUND

Draft Section 4(f) Evaluation

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June 2009

This Project is also referred to as
“SR 502/I-5 to Battle Ground – Add Lanes”.

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1 Introduction to requirements and purpose for evaluation

1.1 What is Section 4(f)?

Section 4(f) of the Department of Transportation Act of 1966 (referred to simply as “Section 4(f)”) stipulates that US Department of Transportation (USDOT) agencies cannot approve a transportation program or project requiring the use of Section 4(f) property unless the following conditions apply:

- The transportation program or project will not have more than a *de minimis* impact on the area; or
- There is no feasible and prudent alternative to the using the property; and
- The transportation program or project includes all possible planning to minimize harm to the property resulting from such use.

If a feasible and prudent avoidance alternative exists, it must be selected. If such an alternative does not exist, then a Section 4(f) Evaluation must be prepared to verify the lack of a feasible and prudent avoidance alternative, identify the alternative that causes the least harm in light of the Section 4(f) statute’s preservation purpose, and demonstrate that the least harm alternative includes “all possible planning” to minimize harm to the Section 4(f) property.

A Section 4(f) evaluation must identify all Section 4(f) properties in the study area for the project. For those Section 4(f) properties that the project causes impacts to, the evaluation includes a description of the Section 4(f) properties, a description of the uses of those properties, and identification and evaluation of potential avoidance alternatives, and measures to minimize harm resulting from unavoidable uses of Section 4(f) properties.

1.1.1 Legislation Establishing Section 4(f)

Section 4(f) refers to a section of the US Department of Transportation Act of 1966 was subsequently codified in Title 49 United States Code (USC) as 49 USC 1651(b)(2) and 49 USC 1653(f). A similar provision was also adopted in 23 USC 138, which applies only to the Federal-Aid Highway Program. In 1983, the original statute was recodified without substantive change as 49 USC 303; both statutes are commonly referred to as Section 4(f).

Since 1966, Section 4(f) has undergone several changes, most recently in 2005 under the Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU), when the statute was revised to clarify and simplify its regulatory requirements, in part by adding the *de minimis* impact provisions mentioned above. The USDOT adopted a final rule for implementing the revised law in the Code of Federal Regulations (CFR) at 23 CFR 774 on March 12, 2008.



DEFINITION

WHAT IS SECTION 4(f) PROPERTY?

Section 4(f) property refers to land that is subject to Section 4(f). This includes:

- Publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or
- An historic site of national, state, or local significance that is included in or is eligible for inclusion in the National Register of Historic Places (23 CFR 774.17).



DEFINITION

WHAT IS A FEASIBLE AND PRUDENT AVOIDANCE ALTERNATIVE?

A feasible and prudent avoidance alternative is one that avoids use of Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property.

An alternative is not “feasible” if it cannot be built as a matter of sound engineering judgment.

An alternative is not prudent if it does not meet the stated purpose and need of the project; it results in unacceptable safety or operational problems; it causes severe social, economic, or environmental impacts; it results in additional costs of an extraordinary magnitude; it causes other unique problems; or it involves multiple factors specified above that cumulatively cause impacts of extraordinary magnitude.

The full definition can be found in 23 CFR 774.17.



DEFINITION

WHAT IS ALL POSSIBLE PLANNING?

All possible planning means that all reasonable measures identified in the Section 4(f) evaluation to minimize harm or mitigate for adverse impacts and effects must be included in the project.

The full definition can be found in 23 CFR 774.17.

1.2 How does Section 4(f) apply to this project?

The Federal Highway Administration is the National Environmental Policy Act co-lead agency for the SR 502 Corridor Widening Project, along with Washington State Department of Transportation. The project is eligible for federal-aid highway funds, so it is subject to Section 4(f).

The SR 502 Corridor Widening Project is located west of Battle Ground in north Clark County, Washington. As illustrated in Exhibit 1, the project extends from NE 15th Avenue (approximately 1 mile east of I-5) to NE 102nd Avenue, where city street improvements begin.

DEFINITION

NATIONAL REGISTER OF HISTORIC PLACES EVALUATION CRITERIA:

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

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

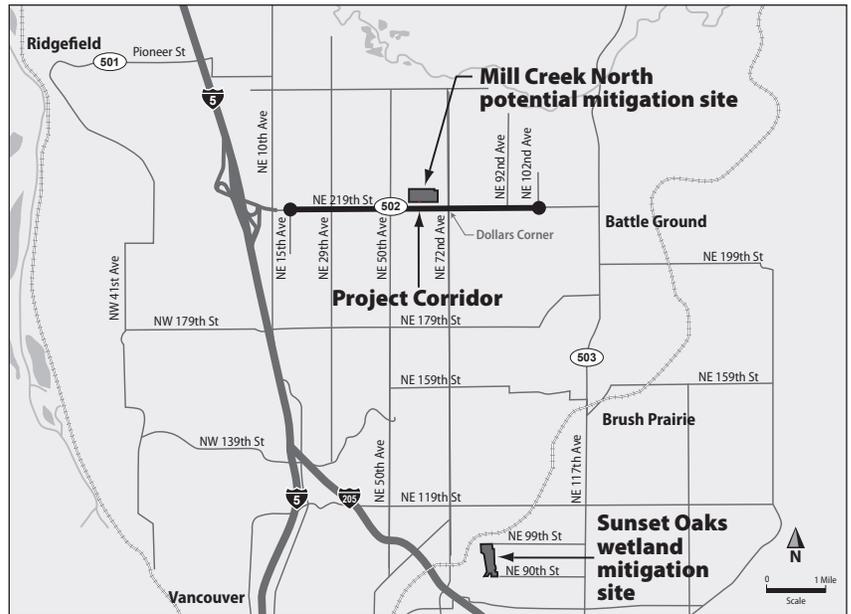


Exhibit 1: Project vicinity map

The Section 4(f) study area, shown in Exhibit 2, encompasses all of the alternatives examined for SR 502 Corridor Widening Project. There are six historic properties in the study area that are considered Section 4(f) property because they are eligible for listing on the National Register of Historic Places.

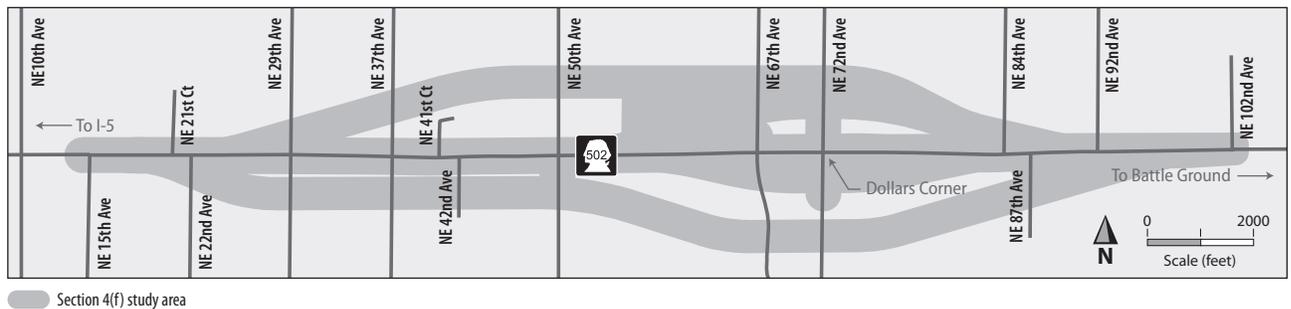


Exhibit 2: Section 4(f) evaluation study area

1.3 What constitutes a use of Section 4(f) property?

In accordance with 23 CFR 774.17 (2008), use of Section 4(f) properties occurs when:

- Land is permanently incorporated into a transportation facility (in other words, the land is acquired to accommodate proposed improvements);
- There is a temporary occupancy of land that is adverse in terms of the statute's preservation purposes; or
- Proximity effects are so severe that the protected activities, features, or attributes that qualify a property for protection under Section 4(f) are substantially impaired or diminished (commonly referred to as a "constructive use").

1.4 When does a use of Section 4(f) property have a *de minimis* impact?

For historic sites, a *de minimis* impact means that the Federal Highway Administration has determined, in accordance with 36 CFR part 800 (The Advisory Council on Historic Preservation's regulation for implementing Section 106 of the National Historic Preservation Act) that no historic property is affected by the project or that the project will have "no adverse effect" on the historic property in question.

1.5 What is the purpose of the draft Section 4(f) evaluation?

The purpose of this draft Section 4(f) evaluation is to:

- Identify the Section 4(f) properties within the study area;
- Indicate whether the project alternatives would require a use of any Section 4(f) properties;
- Describe any impacts to Section 4(f) property that the project may have as a result of such use;
- Examine avoidance alternatives and determine if any are feasible and prudent; and
- If no avoidance alternatives are feasible and prudent, then identify the alternative that will cause the least overall harm to Section 4(f) property and demonstrate that this alternative includes all possible planning to minimize harm to Section 4(f) property.

2 Description of the Proposed Action

2.1 What is the purpose of the project and why is it needed?

SR 502 serves as one of two primary access routes from Battle Ground and north Clark County to the regional highway system (I-5) and the Portland–Vancouver metropolitan area. As Clark County's population has dramatically grown over the last decade, automobile traffic has



KEY POINT

METHODS USED IN THIS EVALUATION

A study area was established for this evaluation as shown in Exhibit 2. The study area was defined as a 650 foot corridor centered on the alignment of each of the alternatives. Information on Section 4(f) properties in the study area was drawn from the *Cultural Resource Survey for the SR 502 Corridor Widening Project, Clark County*. In addition, information on potential Section 4(f) property around the off-corridor alternatives, was gathered through research of Clark County tax records and a field reconnaissance. Maps and local agency plans were reviewed to determine if there were any existing or planned parks, recreation areas, or wildlife sanctuaries in the study area. Maps of the alternatives were overlaid with the identified Section 4(f) properties to evaluate impacts.

increased, leading to an increase in traffic congestion on SR 502. The rate of collisions on SR 502 in the project corridor (as shown in Exhibit 1) also has increased steadily over the past several years.

Continued population growth in Battle Ground and the surrounding areas is expected to substantially increase traffic on the corridor in the future. The need for the SR 502 Corridor Widening Project therefore, Therefore, the need for the project is to reduce collision rates and decrease congestion on SR 502. By 2033, traffic volume is projected to triple in number without the project; and travel times within the corridor could triple or quadruple compared to today.

Washington State Department of Transportation developed a range of initial alternatives for improving safety and mobility on SR 502 between I-5 and Battle Ground, Washington. These included roadway expansion concepts to make improvements directly to the existing SR 502 corridor, which follows NE 219th Street; building a new roadway segment running either to the north or south of the current alignment; making capacity improvements to the existing roadway; and substantially expanding transit along the corridor. These alternatives were developed through a process that included the public’s input at open house meetings from February 2007 through May 2008. The Proposed Action is a result of combining the best characteristics of the five on-corridor alternatives and the Transportation System Management/Transportation Demand Management Alternative to address the project’s purpose and need, meet design standards, address public concerns, and minimize effects to properties and environmentally sensitive areas.

Additional information on the purpose and need for the project can be found in Chapter 1, *Introduction to the Project* of the draft environmental impact statement, and additional detail on the project’s history can be found in Chapter 2, *Developing the Alternatives*.

2.2 What is the Proposed Action?

The Proposed Action would widen and make additional improvements to the existing SR 502 as shown in Exhibit 3.



Exhibit 3: Extent of Proposed Action (Pink Alternative)

Signals would be added at three intersections (NE 29th Avenue, NE 50th Avenue, and NE 92nd Avenue), and the existing signalized intersection at NE 72nd Avenue would be improved. SR 502 would be a limited access facility with fewer driveway connections than currently exist today. A median treatment, such as a barrier or curb, would be installed throughout the length of the corridor with breaks at the signalized intersections and two side streets, including a directional median opening at NE 67th Avenue and a directional median opening located between NE 79th Avenue and NE 82nd Avenue (location to be selected in final design). The median treatment would restrict turns to right-in/right-out movements at minor intersections and driveways along the corridor except at the four signalized intersections where u-turns would be allowed and the two directional median breaks where left-turns would be allowed from SR 502. Crosswalks would be installed at signalized intersections.

Under the Proposed Action, two 12-foot travel lanes would be constructed in each direction with a median treatment separating westbound and eastbound travel (Exhibit 4). Ten-foot wide paved shoulders that could be used by pedestrians and bicyclists would be constructed along the north and south side of SR 502 for the entire corridor, and sidewalks would be provided in the rural commercially zoned area near Dollars Corner – located at the intersection of SR 502 and NE 72nd Avenue. The right of way width for the corridor would be approximately 150 feet throughout the corridor.

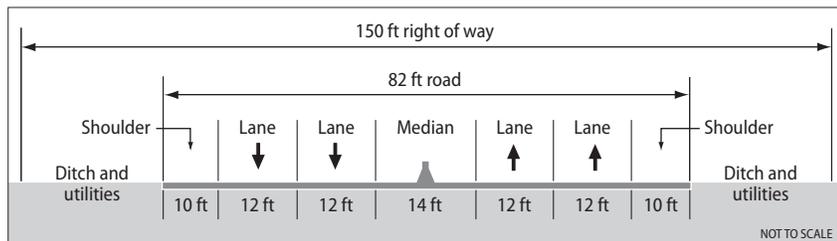


Exhibit 4: Typical right of way cross section of SR 502 under the Proposed Action

The Proposed Action would include a stormwater detention and treatment facility system designed to treat approximately 34 acres of impervious surface. In addition, two potential mitigation sites have been identified to mitigate wetland, fish habitat, and stream effects associated with the Proposed Action. Sunset Oaks is a 32-acre site located approximately six miles southeast of the project corridor. Washington State Department of Transportation is also considering acquisition of a 68-acre site adjacent to the project corridor, known as Mill Creek North. Section 8 includes an evaluation of mitigation sites to identify and analyze an avoidance alternative for the Mill Creek North potential mitigation site, which would impact the J.B. Williams house. Other mitigation sites may be identified as the project progresses. All

attempts to avoid impacts to Section 4(f) resources will be made in locating additional mitigation sites; all potential mitigation sites will be analyzed for avoidance alternatives, similar to the evaluation provided in Section 8.

The Proposed Action includes minor shifts in alignment to the north and south in order to minimize environmental impacts. There is a Class I forested wetland located west of NE 84th Avenue on the north side of SR 502 for which the road has been shifted south to avoid impacts to the wetland such as filling it or removing vegetation that serves as a buffer around the wetland. This shift results in greater impacts to the Thomas farmstead; however, as explained later in this document, impacts to both the Blair farmstead and the Thomas farmstead cannot be avoided. The road has also been shifted north in the Dollars Corner vicinity to avoid removal of riparian vegetation along Mill Creek, which would result in negative impacts to fish habitat in this fish-bearing stream due to stream channel realignment, increased stream temperatures, increased sedimentation, and increased turbidity.

Measures incorporated in the design of the Proposed Action to avoid, minimize, and mitigate impacts to Section 4(f) properties are discussed later in Sections 5 and 7.

Additional detail on the Proposed Action can be found in Chapter 2, *Developing the Alternatives* of the draft environmental impact statement.

2.3 What other alternatives were considered?

Alternatives to the Proposed Action were considered and included:

- Five on-corridor alternatives that would widen and reconfigure the existing SR 502 alignment (NE 219th Street);
- Two off-corridor alternatives that would relocate SR 502 to a new roadway either north or south of the existing alignment;
- A Transportation System Management/Transportation Demand Management Alternative (TSM/TDM) with two different options; and
- A No Build Alternative.

There are a number of components which are common to all of the build alternatives described in Sections 2.3.1 through 2.3.8 below and are the same as the Proposed Action. Under each of the alternatives considered, signals would be added at three intersections (NE 29th Avenue, NE 50th Avenue, and NE 92nd Avenue), and the existing signalized intersection at NE 72nd Avenue would be improved. SR 502 would be a limited access facility with fewer driveway connections than currently exist today. A median treatment would be installed

throughout the length of the corridor with breaks at the signalized intersections. The on-corridor alternatives (Yellow, Purple, White, Red/Brown, and Orange) and the Transportation System Management/Transportation Demand Management alternative would also include directional median openings at NE 67th Avenue and a side street between NE 79th Avenue and NE 82nd Avenue where left-turns from SR 502 would be allowed to better facilitate travel routes in the Dollars Corner area.

Except for the Transportation System Management/Transportation Demand Management, the cross-section for the on-corridor and off-corridor build alternatives would be the same as that of the Proposed Action, as shown in Exhibit 4. The right of way width for the corridor would be approximately 150 feet throughout the corridor. These alternatives would include a stormwater detention and treatment facility system. The Sunset Oaks and Mill Creek North mitigation sites identified for the Proposed Action would likely be used for any of the on-corridor or off-corridor alternatives considered.

There are also distinct differences between the on-corridor and off-corridor alternatives considered. The off-corridor alternatives would create a completely new facility for SR 502, and the old facility would be transferred to the county. Thus, there would be two facilities: NE 219th Street would provide local circulation while SR 502 would provide a limited access connection between I-5 and Battle Ground. The on-corridor alternatives combine the local circulation function and the connection between I-5 and Battle Ground in a single facility.

Each of the alternatives considered is described and illustrated below.

2.3.1 Yellow On-Corridor Alternative

The Yellow Alternative would hold the existing NE 219th Street southern right of way boundary and would widen the existing right of way (approximately 75 feet wide) to the north to 150 feet. The Yellow Alternative was examined as an option to efficiently widen SR 502 using the existing roadway. This approach maximizes use of the existing roadway, thus minimizing land needed for new right of way, creation of new impervious surface, and environmental impacts



Exhibit 5: Yellow Alternative: widen NE 219th St, hold south right of way line

2.3.2 Purple On-Corridor Alternative

The Purple Alternative would hold the existing NE 219th Street centerline and widen the existing right of way (approximately 75 feet wide) symmetrically to the north and south to 150 feet. The Purple Alternative, like the Yellow Alternative, was examined as a logical and efficient option to expand upon the existing roadway. This approach maximizes use of the existing roadway, thus minimizing land needed for new right of way, creation of new impervious surface, and environmental impacts.



Exhibit 6: Purple Alternative: widen NE 219th St symmetrically

2.3.3 White On-Corridor Alternative

The White Alternative would hold the existing NE 219th Street northern right of way boundary and would widen the existing right of way (approximately 75 feet wide) to the south to 150 feet. The White Alternative, similar to the Yellow and Purple alternatives, was examined as an option to maximize use of the existing roadway, thus minimizing land needed for new right of way, creation of new impervious surface, and environmental impacts.



Exhibit 7: White Alternative: widen NE 219th St, hold north right of way line

2.3.4 Red/Brown On-Corridor Alternative

The Red/Brown Alternative would hold the existing NE 219th Street centerline and would widen the existing right of way (approximately 75 feet wide) symmetrically to 150 feet along NE 219th Street except at Dollars Corner, where it would follow a route to the north of the commercial area. This alternative was based on the concept of maximizing use of the existing roadway, but varied from the Yellow, Purple, and White alternatives in that this alternative was designed to avoid business displacements and impacts at the Dollars Corner commercial area by veering north of this intersection.



Exhibit 8: Red/Brown Alternative: North Dollars Corner

2.3.5 Orange On-Corridor Alternative

The Orange Alternative would hold the existing NE 219th Street centerline and would widen the existing right of way (approximately 75 feet wide) symmetrically to 150 feet along NE 219th Street except at Dollars Corner, where it would follow a route to the south of the commercial area. Like the Red/Brown Alternative, this alternative was based on the concept of maximizing use of the existing roadway, but varied from the Yellow, Purple, and White alternatives in that this alternative was designed to avoid business displacements and impacts at the Dollars Corner commercial area; however, the Orange Alternative would vary from the Red/Brown Alternative, as it would veer south of Dollars Corner instead of north of the intersection.

Washington State Department of Transportation determined that the Orange Alternative did not meet design standards in the vicinity of Dollars Corner. Under this alternative, the distance between the NE 219th Street/NE 72nd Avenue intersection and the new SR 502 roadway/NE 72nd Avenue intersection to the south would be insufficient to accommodate the necessary storage lengths for left-turns from NE 72nd Avenue west onto NE 219th Street and east onto the new SR 502 roadway. The alignment of the Orange Alternative could not be shifted further south to provide the needed spacing on NE 72nd Avenue because this would have resulted in significantly increased adverse effects to Mill Creek. Therefore, Washington State Department of Transportation determined that this alternative was not feasible to construct, and it is not evaluated further in this draft Section 4(f) evaluation.



Exhibit 9: Orange Alternative: South Dollars Corner

2.3.6 Blue Off-Corridor Alternative

The Blue Alternative would be a new off-corridor road with a 150-foot right of way running parallel to NE 219th Street to the north. This alternative was developed to provide a facility that would require no changes in access and no displacement of businesses at Dollars Corner by creating an entirely new roadway to the north. Under this alternative, the existing NE 219th Street would be retained as a local road.



Exhibit 10: Blue Alternative: North off-corridor

2.3.7 Aqua Off-Corridor Alternative

The Aqua Alternative would be a new off-corridor road with a 150-foot right of way running parallel to NE 219th Street to the south. Like the Blue Alternative, this alternative was developed to provide a facility that would require no changes in access and no displacement of businesses at Dollars Corner by creating an entirely new roadway; however, this alternative would place that new roadway to the south of the existing corridor. Under the Aqua Alternative, the existing NE 219th Street would be retained as a local road.



Exhibit 11: Aqua Alternative: South off-corridor

DEFINITION

WHAT IS TRANSPORTATION SYSTEM MANAGEMENT?

Transportation System Management strategies identify options that may add capacity to the existing roadway without adding travel lanes to the corridor. These strategies include signal improvements, intersection lane configuration improvements, and increased transit service.

2.3.8 Transportation System Management/Transportation Demand Management Alternative

The Transportation System Management/Transportation Demand Management (TSM/TDM) Alternative would retain the existing two travel lanes for SR 502 but the roadway would be widened for safety and mobility. Paved roadway shoulders would be provided, and signals with designated eastbound and westbound left-turn lanes would be added at NE 29th Avenue, NE 50th Avenue and NE 92nd Avenue. Additional turn lanes and signal improvements would be provided at NE 72nd Avenue, and a median treatment would be installed throughout the length of

the corridor with breaks at the signalized intersections and two side streets, including a directional median opening at NE 67th Avenue, and a directional median opening located between NE 79th Avenue and NE 82nd Avenue. Improvements in this alternative would be constructed within the existing right of way (approximately 75 feet in width), so no right of way acquisition would be required.

A second option for the Transportation System Management/Transportation Demand Management Alternative would be the addition of substantially increased transit service along the corridor including local service (the only service now is non-stop, express commuter service) with the addition of bus stops/pullouts within the study area plus the improvements described for the first option above.

The Transportation System Management/Transportation Demand Management Alternative would create some new impervious surface with the widening of the roadway shoulders and the addition of the median treatment; however, it would create less impervious surface than the on-corridor and off-corridor alternatives described earlier, and likely would not need to use the Mill Creek North Potential Mitigation Site for wetland mitigation.

2.3.9 No Build Alternative

The No Build Alternative would maintain the current configuration of SR 502 without improvements other than routine maintenance. SR 502 would remain a two-lane roadway with numerous driveway points. The Dollars Corner intersection at SR 502/NE 72nd Avenue would have a traffic signal as it does today, while the other intersections would only have stop signs controlling the side-street movements.

3 Description of Section 4(f) properties

3.1 What types of Section 4(f) property are not affected by the project?

The study area does not include any public park lands, outdoor recreation areas, or wildlife or waterfowl refuges. There are five publicly-owned parcels, but they are not open to the general public or used for recreational purposes.

Eighteen archaeological sites have been identified within the study area. Shovel testing and larger test units were excavated at these sites to assess the potential for buried archaeological materials. One site revealed a high concentration of artifacts that retained integrity, and so this site is recommended as eligible for listing on the National Register of Historic Places under Criterion D. However, Section 4(f) is not applicable to this site per 23 CFR 774.13(b), which states: “Section 4(f) does not apply if



DEFINITION

WHAT IS TRANSPORTATION DEMAND MANAGEMENT?

Transportation Demand Management strategies identify options that may reduce the demand for additional capacity on the existing roadway without adding travel lanes to the corridor. These strategies include enhanced transit, carpooling, and other travel demand reduction strategies.

FHWA after consultation with the State Historic Preservation Officer and the Advisory Council on Historic Preservation determines that the archaeological resource is important chiefly because of what can be learned by data recovery... and has minimal value for preservation in place.” The excavations revealed at the remaining 17 sites lacked integrity due to agricultural disturbance and other development in the area.

3.2 What Section 4(f) properties are affected?

The *Cultural Resource Survey for the SR 502 Corridor Widening Project, Clark County* identified six historic properties as shown on Exhibit 12, which are eligible for listing on the National Register of Historic Places, and thus qualify as Section 4(f) property.

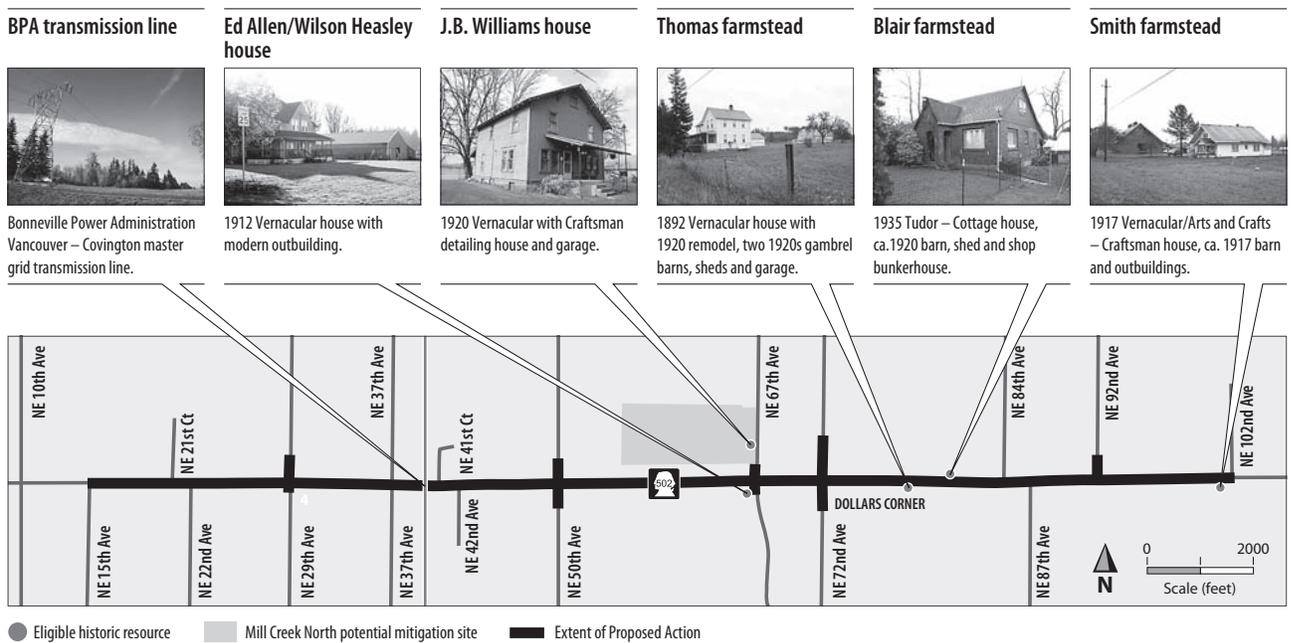


Exhibit 12: Location of Section 4(f) properties

Supplemental research to identify potential Section 4(f) property present near the alignment of the off-corridor alternatives was conducted using tax assessor records. These records identified six farms dating from 1920–1940; however, a field visit revealed that all have been modified and/or architecturally modest, and therefore, none of the sites near the off-corridor alternatives qualify as Section 4(f) property.

Each of the six historic sites that meet the criteria for Section 4(f) property are illustrated and described below. Appendix K, *Historic Resources Inventory Forms and Area of Potential Effects Map* of the draft environmental impact statement includes the inventory forms completed during the cultural resource survey for these six sites.

3.2.1 Bonneville Power Administration Vancouver–Covington transmission line

Transmission lines and towers located within the study area are part of the Bonneville Power Administration master grid constructed between 1939 and 1945 to supply power throughout the Pacific Northwest from Bonneville Dam. The transmission line was constructed in 1939 as part of the original master grid to supply electricity to King County. The first segment of the line constructed in 1939 proceeded as far as Kelso and the final segment reached Covington in 1941, opening the line from Vancouver to Covington.

As shown in Exhibit 14, the transmission line extends across SR 502 between NE 37th Avenue and NE 41st Court, running north to south. The steel tower just north of SR 502 appears to be an original Type A single-circuit suspension tower and would not require relocation under the Proposed Action. This transmission line was evaluated by Bonneville Power Administration in 1987 as part of the Bonneville Power master grid and was recommended to be eligible for listing in the National Register of Historic Places as part of the Bonneville Power Administration Grid Discontiguous District.

The Proposed Action has been designed to avoid the need to relocate or remove and replace the tower on the north side of SR 502, as illustrated in Exhibit 14. The Proposed Action would have no impact on the Bonneville Power Administration Vancouver–Covington transmission line.



Exhibit 13: The 1939 Bonneville Power Administration Vancouver–Covington Master Grid transmission line



Exhibit 14: The Bonneville Power Administration Vancouver–Covington transmission line and the Proposed Action

3.2.2 Ed Allen/Wilson Heasley house

The Ed Allen/Wilson Heasley house was constructed in 1912 and is located at the southwest corner of SR 502 and NE 67th Avenue approximately one-quarter mile west of Dollars Corner. The farmhouse's dominant feature is its pyramidal roof with opposing gables topped by a central interior chimney.



Exhibit 15: The 1912 Ed Allen/Wilson Heasley house and a modern outbuilding

Despite modifications to the structure, the overall historic form is recognizable and the modifications are reversible, so it is eligible for listing in the National Register of Historic Places because of its architectural distinction.

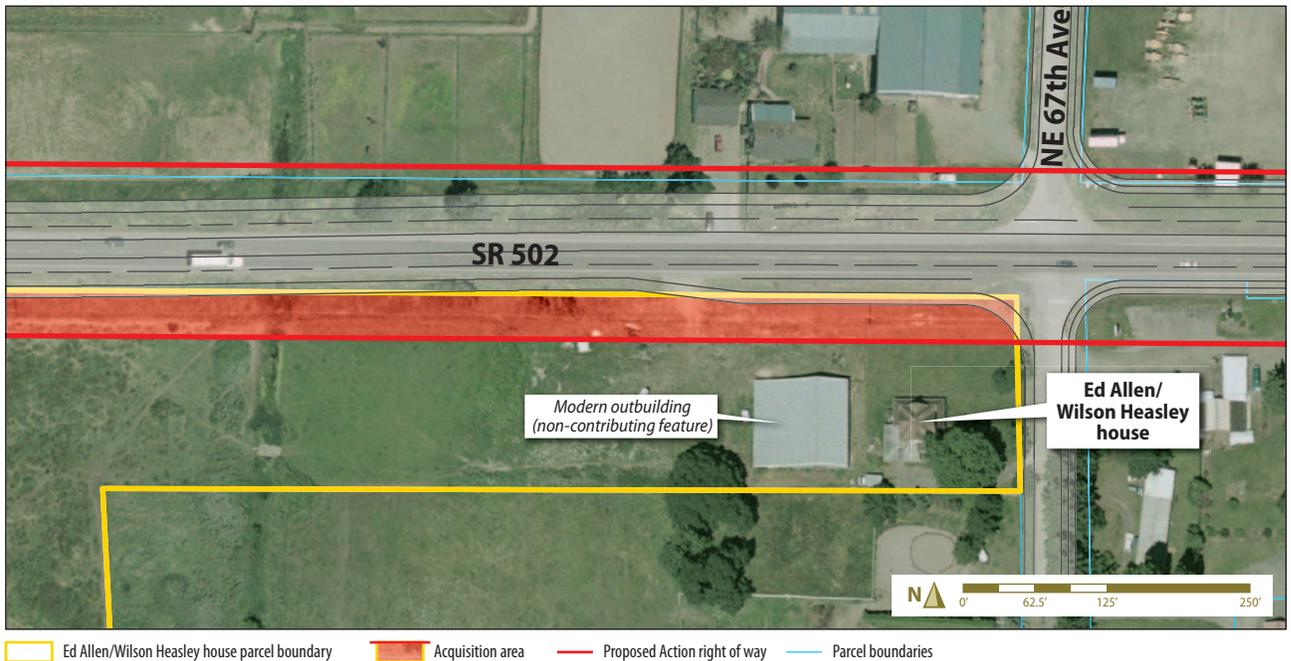


Exhibit 16: The Ed Allen/Wilson Heasley house and the Proposed Action

The house is surrounded by a grass-covered yard and a grove of mature deciduous trees, shading the east and south sides of the house. The house is the only significant feature on this property; the modern metal

clad agricultural building located west of the dwelling is not historically significant. The home was once part of a 90-acre farm, but was later subdivided and now sits on a 14-acre parcel. As shown in Exhibit 16, approximately one-half of an acre of the parcel upon which the Ed Allen/Wilson Heasley house is located would be acquired from this parcel under the Proposed Action; however, the Proposed Action would avoid use of this Section 4(f) property as the Proposed Action would not cause impacts to the structure, and the vegetation between the roadway and the structure is not historically significant.

3.2.3 J.B. Williams house

The J.B. Williams house is part of the former 1904 J.B. Williams farmstead. The 1920 Vernacular house exhibits some Craftsman detailing and is located on a 68-acre parcel on the west side of NE 67th Avenue, north of SR 502. The house, circa 1920 garage, and newer (1960s) shop/machine shed remain on the farmstead; other associated farmstead buildings are no longer present, reducing the integrity of the historic farmstead. The house has been identified as a historically significant structure, and the garage, located southwest of the house, is a contributing significant feature.



Exhibit 17: The 1920 J.B. Williams house

The house retains historic integrity and conveys its associations with early twentieth-century farming in the Battle Ground vicinity. The house, which is currently uninhabited, is a remnant of an early twentieth-century development formerly associated with the broader rural agricultural community.

The house is located at the east edge of the former Patterson Swale, a large intermittent marsh. A grouping of mature, deciduous trees lies west of the house along the embankment.

Washington State Department of Transportation would acquire the entire parcel as a mitigation site. As illustrated in Exhibit 18, this parcel would be used for the creation and enhancement of wetlands and habitat areas through excavation and planting. Stormwater ponds would also be constructed on this site to treat and detain stormwater from the Proposed Action.

The effects of the Proposed Action require a mitigation site of significant complexity and scale. This parcel is extremely well suited to meet the requirements for a mitigation site for a variety of reasons, including:

- Standard wetland mitigation protocol requires that the mitigation wetland provide the same overall functions and benefits as the impacted areas. In the Mill Creek North basin, the Proposed Action will cause impacts to a category 1 riverine wetland occurring in a headwater position, as well as impacts to critical fish habitat for steelhead associated with Mill Creek North. The J.B. Williams property contains the headwaters to the primary branch of Mill Creek north and includes significant opportunities for mitigating the impacts to critical fish habitat, making it a perfect functional match to the impact area.
- The Williams parcel provides 27 acres of wetland rehabilitation area (factors in buffer offset requirements) immediately adjacent to the affected wetland and stream, and at least six acres of wetland creation, which meet the mitigation requirements in the Mill Creek watershed for the Proposed Action.
- The site allows for mitigation in very close proximity to the impacts, perfectly matching wetland function and landscape position, which is a desired outcome for resource agencies regulating the mitigation. The northern two-thirds of the Mill Creek North basin would not support feasible or successful riverine wetland mitigation of the required scale, as this part of the basin primarily consists of forested upland terraces of the East Fork Lewis River, with Mill Creek flowing through a deep forested ravine. The J.B. Williams property is located within the limited portion of the southern one-third of the basin that could support the required riverine mitigation.
- The J.B. Williams property is a large site that provides greater habitat connectivity benefits than a piece-meal approach of multiple, small sites across the landscape. Suitable rehabilitation sites of this size, providing the opportunity to restore hydrology and hydrologic function to significantly degraded wetland systems, located in the correct landscape/watershed position in the Mill Creek North watershed are extremely limited.

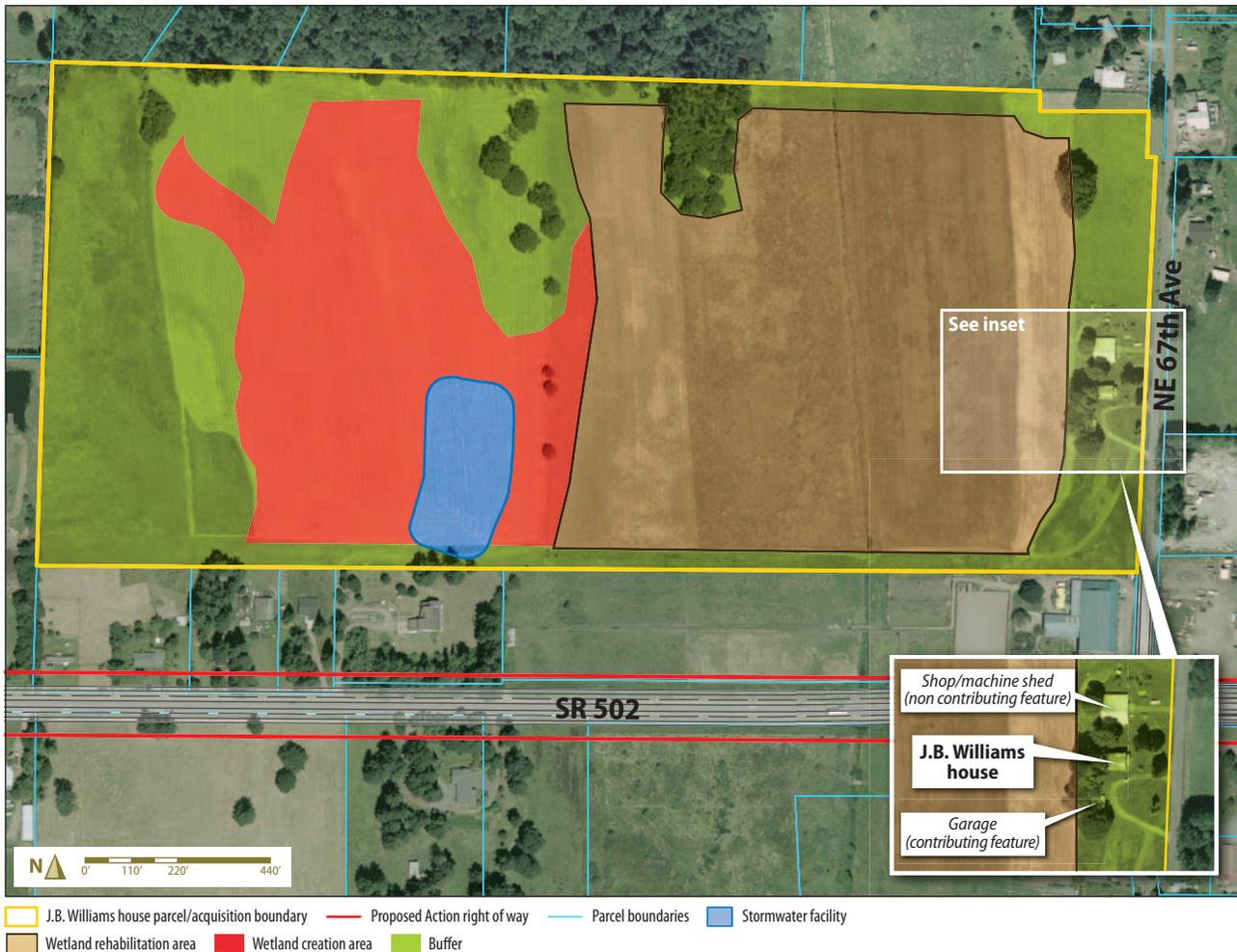


Exhibit 18: The J.B. Williams house and the Proposed Action

- Except for the J.B. Williams property, the Mill Creek North watershed is zoned R-5 (one house per five acres) and RC-1 (rural center with 1 acre minimum lot sizes), supporting residential, commercial, Christmas trees farms, and commercial timber land uses. Parcels in these zones are smaller than in the R-20 zone, in which the J.B. Williams property is located, and most of the R-5 zone does not include suitable topography for riverine wetland mitigation. It would be very difficult to put together a contiguous group of willing sellers of small parcels that happen to be in the correct landscape position and adjacent to Mill Creek to meet the mitigation requirements.
- Historically, the site was a large wetland/slough before it was farmed. Construction of the mitigation facility will restore the site's historic wetland and stream functions to pre-agricultural conditions.
- The US Fish and Wildlife Service and the National Oceanic and Atmospheric Administration support the use of this particular property in order to achieve mitigation goals.

- Mitigation on the J.B. Williams property maximizes watershed benefits by enhancing headwater function/storage and reducing the erosive effect on down stream habitat during storm events. Clark County requires that wetland impacts are mitigated within the same basin where the impacts occurred. In this case, Mill Creek North is part of the East Fork Lewis River basin, but the impacts occur within headwater wetland systems with specific functions. There is very limited opportunity to provide the scale of wetland mitigation needed within headwater areas of this particular basin, and the J.B. Williams property has the significant advantage of allowing Washington State Department of Transportation to replace function and benefit to the impacted sub basin (Mill Creek North).
- This parcel provides an opportunity to protect and enhance a mature and intact stand of Oregon White Oak, a globally endangered plant community within the context of a comprehensive, multi-resource mitigation site.
- Wetland mitigation on this site will increase the flood storage capacity, reducing the risk of flooding to homes and businesses in the study area.
- It is the policy of Washington State Department of Transportation not to condemn for mitigation property. For early mitigation site selection, analysis, and purchase, Washington State Department of Transportation identifies and works with property owners willing to sell. The owner of the J.B. Williams property has expressed willingness to sell.

Using this property as the mitigation site would likely necessitate removal of the house because this structure does not currently have a permitted septic system and may not be located such that one can be constructed. Because the purpose and need for the mitigation site is distinct from the purpose and need for the overall project, a separate evaluation for the required mitigation site has been prepared and is included in Section 8.

3.2.4 Thomas farmstead

The Thomas farmstead is a fairly intact 1892–1920s farmstead located on the south side of SR 502 approximately one-quarter mile east of Dollars Corner. Approximately seven acres located in the northern portion of the 57-acre parcel are recognized as the historically significant property that reflects the historic significance and integrity of the farmstead. As shown in Exhibit 20, approximately one-half acre would be acquired under the Proposed Action.

This farm was associated with the Thomas family, a family of German immigrants, and with the local farming industry within the Battle



Exhibit 19: The 1892 main house (left) and an associated gambrel barn on the Thomas farmstead



Exhibit 20: The Thomas farmstead and the Proposed Action

Ground vicinity. This farmstead is a good, intact example of early dairy farming in the region. Census records show that logging and farming were the primary occupations of settlers in the study area – often going hand-in-hand since many of the homesteads were heavily timbered and needed to be cleared before use as farmland. It is possible that one of the early owners of the property viewed the timbered parcels as an investment by selling cut logs and then later leasing or selling the agricultural lands.

The structures on the farmstead consist of a two-story 1892 Gothic Vernacular farmhouse with a 1920s porch entry alteration, two circa 1920 two-story gambrel-roofed barns, a one-story garage, and two one-story sheds. The barns were used for “Dollars Corner Barn Dances” for a time; and a 1964 USGS topographic map shows what appears to be a horse racing track on the eastern half of the property. All of the buildings are contributing features of the historically significant farmstead.

The Proposed Action would require removal of the house on the Thomas farmstead in order to accommodate the widened roadway; however mitigation options will include an investigation as to whether the house can be relocated, as discussed in Section 5.3.

3.2.5 Blair farmstead

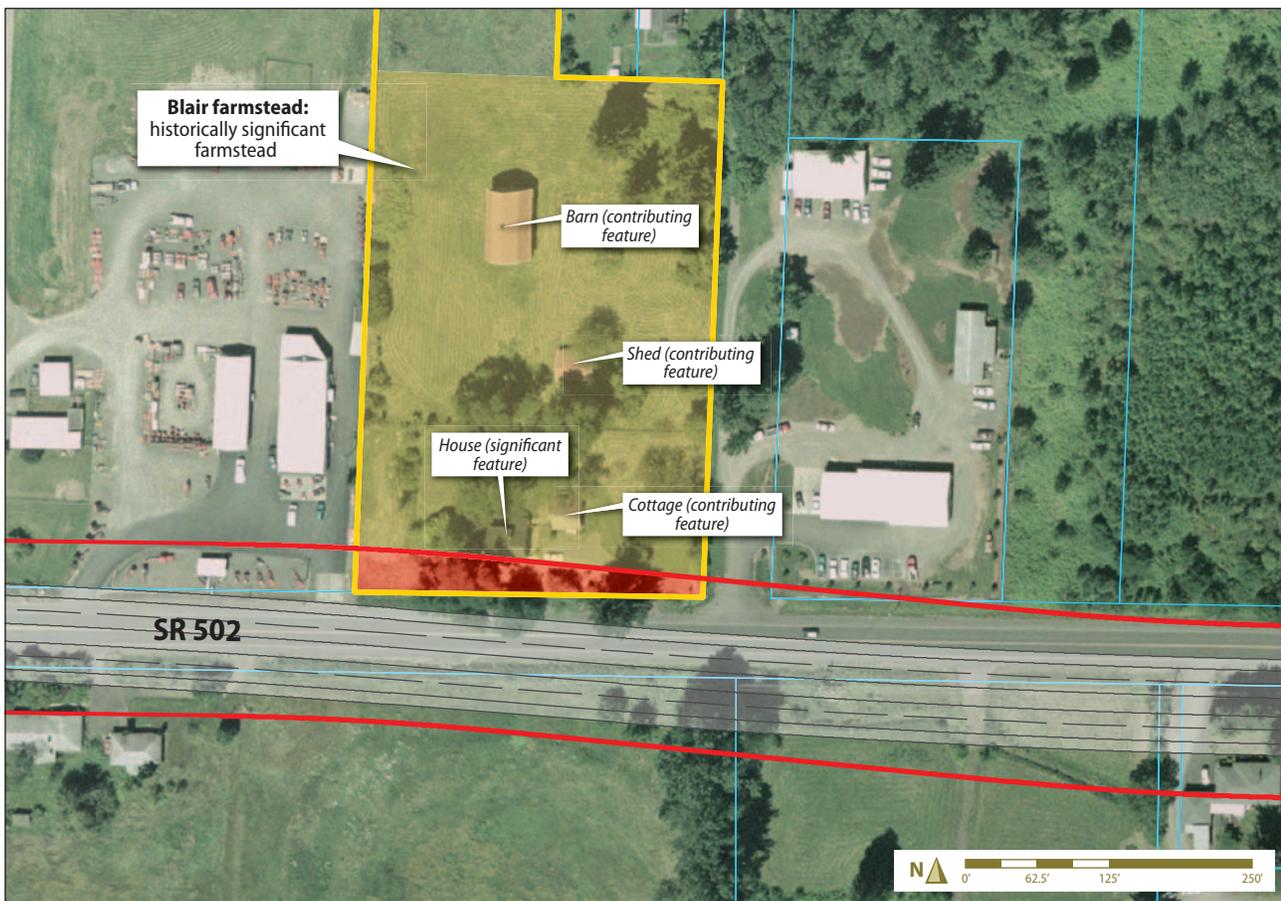
The Blair farmstead, circa 1920, is located on SR 502 approximately one-half mile east of Dollars Corner on the northwest corner of SR 502 and NE 82nd Avenue. The southern three acres of the five acre parcel represent the historic significance and integrity of the farmstead. As shown in Exhibit 22, approximately one-fifth of an acre would be acquired under the Proposed Action.



Exhibit 21: The Blair farmstead main residence (c. 1920)

This farmstead includes an intact example of a one and one-half story single-family Tudor Cottage constructed of clinker brick, which is locally distinctive in its use of materials. The farm grouping retains integrity of setting maintaining many of the agricultural outbuildings including a three-story gambrel roof barn, a one-story shed, and a one-story cottage/shop adjacent to the main residence, which was used as a mechanical shop with rooms for farmhands. All of the structures are contributing features of the historically significant farm grouping.

This farm is associated with the dairy industry that flourished in northern Clark County during the first half of the twentieth century and became a major industry in the vicinity of Battle Ground. Cattle were grazed in meadow clearings before settlers even cleared timber in order to establish farmlands. As farmers' herds began producing more milk than their families could use, they sought markets for their dairy products. Battle Ground's first cheese factory was established in 1903, and a number of cooperative dairy associations were formed in the 1920s and later merged into the Clark County Dairyman's Association in 1942. By 1955, approximately 485 farms containing 9,000 head of



Blair farmstead parcel boundary Farmstead area Acquisition area Proposed Action right of way Parcel boundaries

Exhibit 22: The Blair farmstead and the Proposed Action

cattle were located between Battle Ground and Vancouver with more than one-third of these being dairy cattle.

With the incorporation of all possible planning measures as described in Section 5.1.5, the Federal Highway Administration has determined and the Washington State Department of Archaeological and Historic Preservation has concurred that the Proposed Action would result in No Adverse Effect to the Blair Farmstead under Section 106. This would result in a Section 4(f) *de minimis* impact to the Blair Farmstead due to the removal of vegetation adjacent to the roadway.

3.2.6 Smith farmstead

The Smith farmstead is located at the southwest corner of SR 502 and NE 102nd Avenue. The parcel is 43 acres in size, and approximately one acre of the northern portion represents the historically significant farmstead. As shown in Exhibit 24, approximately one-half acre would be acquired under the Proposed Action. The original land patent for this Section 4(f) property was a homestead entry filed by a Swedish immigrant in 1876. Similar to the Blair farmstead, the Smith farmstead is associated with farming and dairy ranching in northern Clark County during the late nineteenth and early twentieth centuries.



Exhibit 23: The 1917 main house (right) and the c. 1920 Dutch dairy barn (left) of the Smith farmstead

The farmstead consists of a one and one-half story Vernacular Craftsman-style single family house constructed in 1917, a detached garage, a one and one-half story Dutch dairy barn, and two additional outbuildings. The house is a historically significant feature and the barn and outbuildings are contributing significant features of the farmstead; the garage is not a contributing significant feature.

The Proposed Action would require removal of the barn in order to accommodate the proposed roadway, as well as removal of vegetation located between the roadway and the structures on the farmstead.

Mitigation options will include an investigation as to whether design modifications can be made to the Proposed Action to avoid removal of the barn or whether the barn can be relocated, as discussed in Section 5.2.

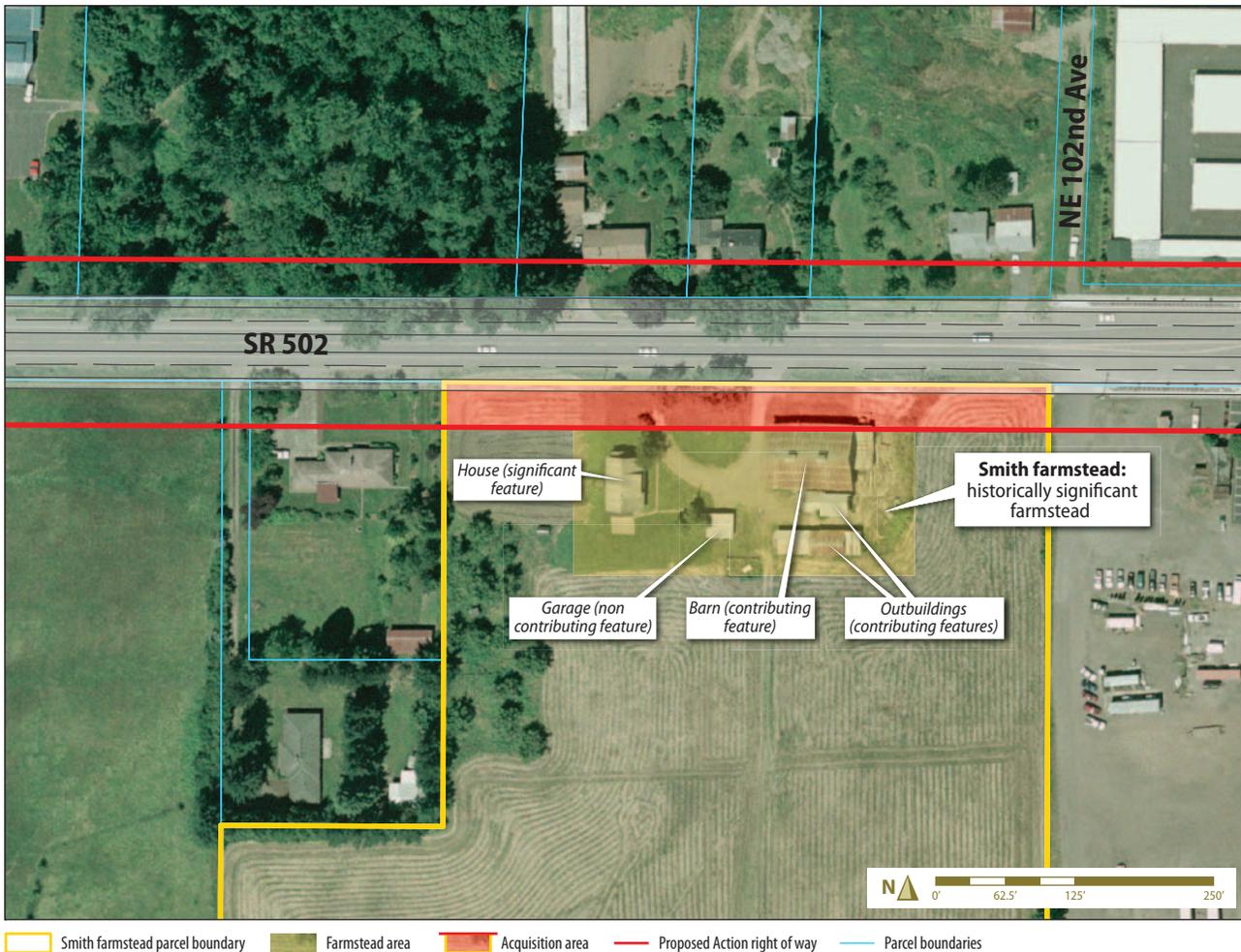


Exhibit 24: The Smith farmstead and the Proposed Action

3.3 What other historic sites are not subject to Section 4(f)?

The *Cultural Resource Survey for the SR 502 Corridor Widening Project, Clark County* identified a total of 89 historical resources, including the six historic properties determined to be eligible for listing in the National Register of Historic Places. All 89 resources are documented in the *Cultural Resource Survey for the SR 502 Corridor Widening Project, Clark County*. The non-eligible resources, which are therefore not Section 4(f) properties, include houses, commercial buildings, mobile homes, barns, garages, sheds, other outbuildings, a concrete culvert, and a rock arch landscape feature.

Supplemental research to identify potential Section 4(f) property present near the alignment of the off-corridor alternatives was conducted using tax assessor records. These records identified six farms

dating from 1920–1940; however, a field visit revealed that all have been modified and/or architecturally modest. Consequently, none of the sites near the off-corridor alternatives qualify as Section 4(f) property.



DEFINITION

WHAT IS A *DE MINIMIS* IMPACT?

For historic sites, a *de minimis* impact means that the Federal Highway Administration has determined, in accordance with 36 CFR part 800 (The Advisory Council on Historic Preservation's regulation for implementing Section 106 of the National Historic Preservation Act) that no historic property is affected by the project or that the project will have "no adverse effect" on the historic property in question.

4 Impacts to Section 4(f) properties

Each of the alternatives described in Section 2.3 would cause impacts to Section 4(f) properties, with the exception of the Transportation System Management/Transportation Demand Management Alternative and the No Build Alternative (see the evaluation of avoidance alternatives in Section 6). Exhibit 25 summarizes the impacts of each alternative on Section 4(f) properties before the incorporation of measures to minimize harm. Sections 4.1 through 4.10 provide a more detailed description of the direct and indirect (proximity) impacts of each alternative.

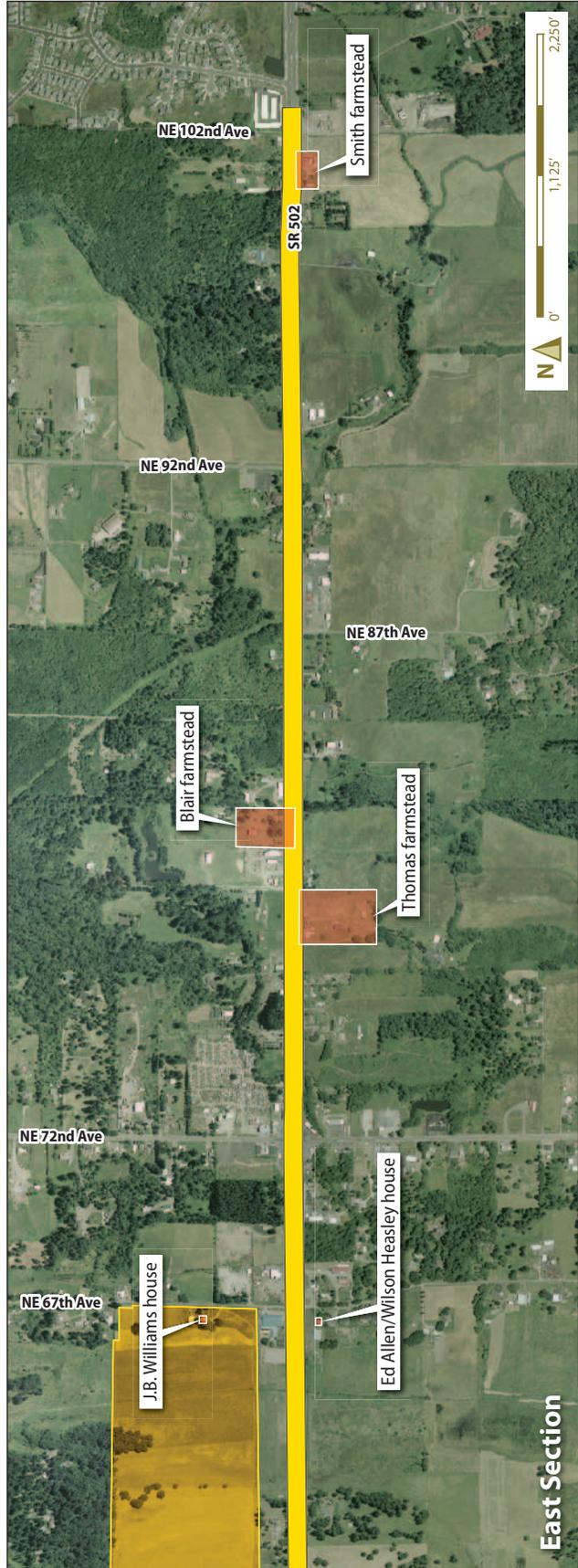
Exhibit 33, presented later in Section 7, presents a complete analysis of the impact of each alternative on Section 4(f) and other resources after the incorporation of measures to minimize harm.

Exhibit 25: Summary of impacts to Section 4(f) properties by alternative before incorporation of measures to minimize harm

ALTERNATIVE	IMPACTS TO SECTION 4(F) PROPERTIES					
	BPA transmission line	Ed Allen/Wilson Heasley house	J.B. Williams house	Thomas farmstead	Blair farmstead	Smith farmstead
Yellow	<i>De Minimis</i> impact	Avoid	Use	Avoid	Use	Use
Purple	<i>De Minimis</i> impact	Avoid	Use	Use	Use	Use
White	Avoid	Avoid	Use	Use	Avoid	Use
Red/Brown	<i>De Minimis</i> impact	Avoid	Use	Avoid	<i>De minimis</i> impact	Use
Pink (proposed action)	Avoid	Avoid	Use	Use	Use	Use
Blue	Avoid	Avoid	Use	Avoid	<i>De minimis</i> impact	Use
Aqua	Avoid	Avoid	Use	<i>De minimis</i> impact	Avoid	Use
TSM/TDM	Avoid	Avoid	Avoid	Avoid	Avoid	Avoid
No Build	Avoid	Avoid	Avoid	Avoid	Avoid	Avoid

4.1 How would the Yellow On-Corridor Alternative affect Section 4(f) property?

The Yellow Alternative would cause impacts to four of the historic properties by widening the existing corridor to the north by approximately 75 feet and holding the existing southern right of way boundary (see Exhibit 26). Direct impacts to these properties would include:



Mill Creek North potential mitigation site

Exhibit 26: The Yellow Alternative and Section 4(f) properties

- **Bonneville Power Administration Vancouver–Covington transmission line:** This alternative would require relocation or removal and replacement of the tower, which is adjacent to SR 502 and is part of the Bonneville Power Administration Vancouver–Covington transmission line. This relocation or removal would likely result in a *de minimis* impact if the Federal Highway Administration determined and the Washington State Department of Archaeological and Historic Preservation concurred that this is No Adverse Effect under Section 106) as the tower itself is not a historic structure, but this action would be a minor change to the historic transmission line. Acquisition of land or an easement would change the land use from one public use (utility) to another (transportation) for this property.
- **J.B. Williams house:** Like the other alternatives, the property that includes J.B. Williams house would likely be acquired as a mitigation site, requiring removal of the house. Acquisition of the property would change the agricultural land use to a public use as a mitigation site, restoring the historic wetland and stream function as mitigation for the project’s wetland and habitat impacts.
- **Blair farmstead:** This alternative would require removal of the house and cottage/shop on the Blair farmstead. Acquisition of right of way on this property would change the agricultural land use to a transportation land use.
- **Smith farmstead:** This alternative would require removal of the barn, which is a contributing feature to the historic farmstead. Vegetation between the roadway and the farmstead structures would also be removed, altering the historic setting of the farmstead. Acquisition of right of way on this property would change the agricultural land use to a transportation land use.

The Yellow Alternative would not require the acquisition of any right of way from the parcel on which the Ed Allen/Wilson Heasley house is located or the Thomas farmstead, and therefore, would avoid use of these Section 4(f) properties.

The Yellow Alternative would potentially change access points to properties located adjacent to SR 502 including access to the Bonneville Power Administration Vancouver–Covington transmission line; relocation of the driveway access from SR 502 to NE 82nd Avenue for the remaining portion of the Blair farmstead; relocation of the driveway access from SR 502 to NE 67th Avenue for the Ed Allen/Wilson Heasley house; and consolidation of driveway accesses for the Thomas farmstead and the Smith farmstead.

Proximity impacts that may occur to these historic properties include:

- **Air quality:** The study area is in attainment for all National Ambient Air Quality Standards criteria pollutants, so it is considered to have air quality as good as or better than specified by these standards. Modeling shows that the alternatives would not cause a violation of the applicable National Ambient Air Quality Standards, and future carbon monoxide levels along the corridor are expected to be similar to today's levels. The alternatives are not expected to have significant effects on levels of particulate matter since they would not result in substantial changes in the overall number of trips being made in the study area.
- **Visual quality:** The Yellow Alternative could have visual impacts to Section 4(f) properties. Relocation of the tower for the Bonneville Power Administration Vancouver–Covington transmission line would be a minor visual change to the setting of the historic transmission line. Removal of the J.B. Williams house, the Blair farmstead house and cottage/shop, and the barn on the Smith farmstead would visually change the agricultural setting of these properties. Vegetation around the properties would also likely be altered. Removal of any vegetation within the existing right of way could slightly change the visual setting of the Thomas farmstead and Ed Allen/Wilson Heasley house, although the road would not be located any closer to these properties than it is currently.
- **Noise:** Noise levels under the Yellow Alternative would be expected to increase slightly for the remaining structures of the Blair farmstead and the Smith farmstead since the new roadway would be located closer to the house than its current alignment. The other Section 4(f) properties that would potentially be affected by noise would be removed or relocated under this alternative.
- **Water quality:** Stormwater detention and treatment and wetland mitigation are proposed for any of the build alternatives, which would result in no net change of water quality for the Section 4(f) properties.

The proximity impacts of the Yellow Alternative will not result in a constructive use of any of the Section 4(f) properties.

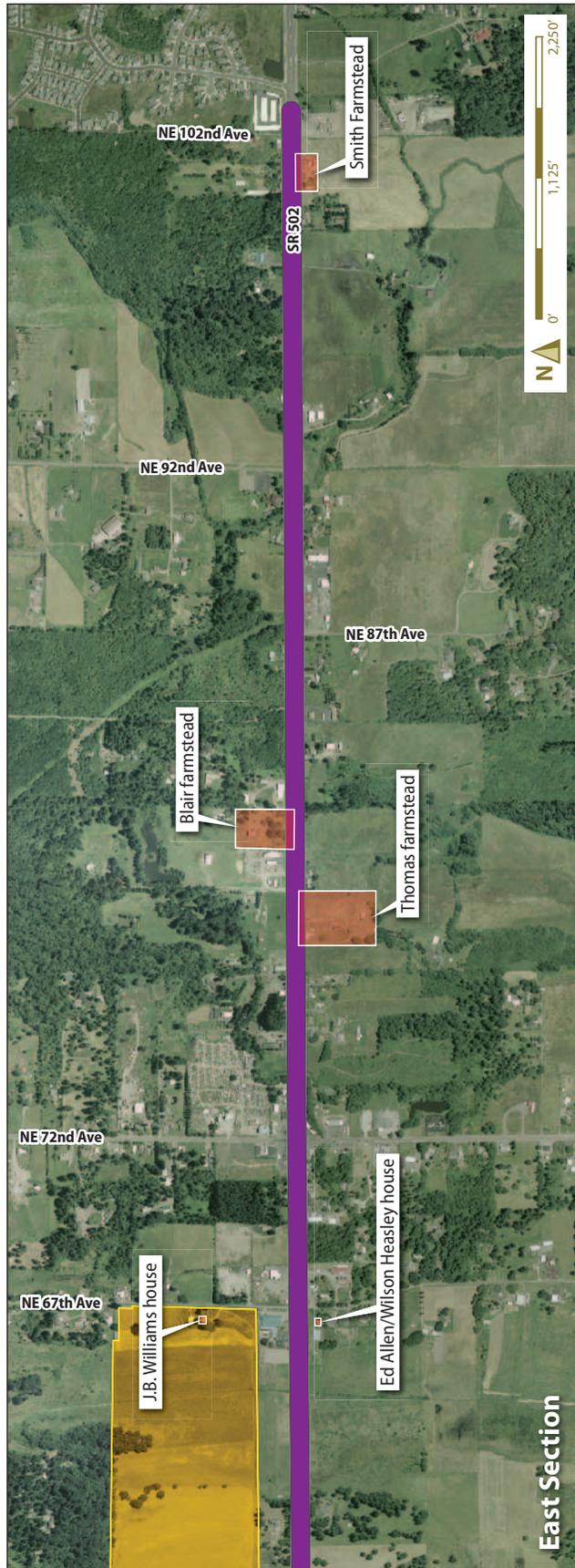
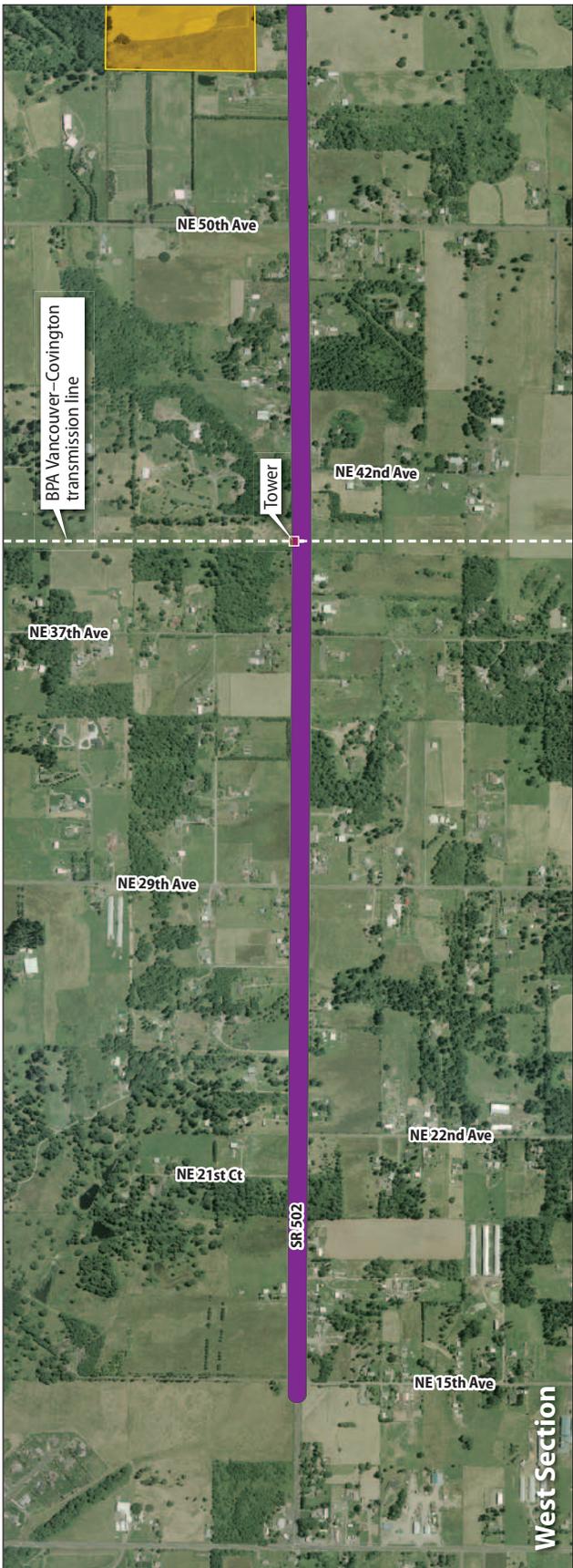
4.2 How would the Purple On-Corridor Alternative affect Section 4(f) property?

The Purple Alternative would cause impacts to five historic properties by widening the existing corridor symmetrically from the existing centerline to the north and the south by a total of approximately 75 feet (see Exhibit 27). Direct impacts of these properties would include:

- **Bonneville Power Administration Vancouver–Covington transmission line:** This alternative would require relocation or removal and replacement of the tower, which is adjacent to SR 502 and is part of the Bonneville Power Administration Vancouver–Covington transmission line. This relocation or removal would likely result in a *de minimis* impact (if the Federal Highway Administration determined and the Washington State Department of Archaeological and Historic Preservation concurred that this is No Adverse Effect under Section 106) as the tower itself is not a historic structure, but this action would be a change to the historic transmission line. Acquisition of land or an easement would change the land use from one public use (utility) to another (transportation) for this property.
- **J.B. Williams house:** Like the other alternatives, the property that includes J.B. Williams house would likely be acquired as a mitigation site, requiring removal of the house. Acquisition of the property would change the agricultural land use to a public use as a mitigation site, restoring the historic wetland and stream function as mitigation for the project’s wetland and habitat impacts.
- **Thomas farmstead:** This alternative would require removal of the house on the Thomas farmstead. Acquisition of right of way on this property would change the agricultural land use to a transportation land use.
- **Blair farmstead:** This alternative would require removal of the house on the Blair farmstead. Acquisition of right of way on this property would change the agricultural land use to a transportation land use.
- **Smith farmstead:** This alternative would require removal of the barn, which is a contributing feature to the historic farmstead. Vegetation between the roadway and the farmstead structures would also be removed, altering the historic setting of the farmstead. Acquisition of right of way on this property would change the agricultural land use to a transportation land use.

The Purple Alternative would not cause impacts to the Ed Allen/Wilson Heasley house, and therefore would avoid use of this Section 4(f) property.

The Purple Alternative would potentially change access points to properties located adjacent to SR 502 including access to the Bonneville Power Administration Vancouver–Covington transmission line; relocation of the driveway access from SR 502 to NE 82nd Avenue for the remaining portion of the Blair farmstead; relocation of the driveway access from SR 502 to NE 67th Avenue for the Ed Allen/Wilson Heasley house; and consolidation of driveway accesses for the remaining portion of the Thomas farmstead and the Smith farmstead.



Mill Creek North potential mitigation site

Exhibit 27: The Purple Alternative and Section 4(f) properties

Proximity impacts that may occur to these historic properties include:

- **Air quality:** The study area is in attainment for all National Ambient Air Quality Standards criteria pollutants, so it is considered to have air quality as good as or better than specified by these standards. Modeling shows that the alternatives would not cause a violation of the applicable National Ambient Air Quality Standards, and future carbon monoxide levels along the corridor are expected to be similar to today's levels. The alternatives are not expected to have significant effects on levels of particulate matter since they would not result in substantial changes in the overall number of trips being made in the study area.
- **Visual quality:** The Purple Alternative could have visual impacts to Section 4(f) properties. Relocation of the tower for the Bonneville Power Administration Vancouver–Covington transmission line would be a minor visual change to the setting of the historic transmission line. Removal of the J.B. Williams house, the Blair farmstead house and cottage/shop, the Thomas farmstead house, and the barn on the Smith farmstead would visually change the agricultural setting of these properties. Vegetation around the properties would also likely be altered. Removal of any vegetation and expansion of the roadway closer to the Ed Allen/Wilson Heasley house could slightly change the visual setting of the historic house, although the setting is not considered a significant component of this Section 4(f) property.
- **Noise:** Noise levels would be expected to increase slightly for the Ed Allen/Wilson Heasley house and the remaining structures on the Thomas farmstead, the Blair farmstead, and the Smith farmstead since the new roadway would be located closer to the structures than its current alignment. The other Section 4(f) properties that would potentially be affected by noise would be removed or relocated under this alternative.
- **Water quality:** Stormwater detention and treatment and wetland mitigation are proposed for any of the build alternatives, which would result in no net change of water quality for the Section 4(f) properties.

The proximity impacts of the Purple Alternative will not result in a constructive use of any of the Section 4(f) properties.

4.3 How would the White On-Corridor Alternative affect Section 4(f) property?

The White Alternative would cause impacts to three historic properties by widening the existing corridor to the south by approximately 75 feet and holding the existing northern right of way boundary (see Exhibit 28). Direct impacts to these properties would include:



Mill Creek North potential mitigation site

Exhibit 28: The White Alternative and Section 4(f) properties

- **J.B. Williams house:** Like the other alternatives, the property that includes the J.B. Williams house would likely be acquired as a mitigation site, requiring removal of the house. Acquisition of the property would change the agricultural land use to a public use as a mitigation site, restoring the historic wetland and stream function as mitigation for the project's wetland and habitat impacts.
- **Thomas farmstead:** This alternative would require removal of the house on the Thomas farmstead. Acquisition of right of way on this property would change the agricultural land use to a transportation land use.
- **Smith farmstead:** This alternative would require removal of the barn, which is a contributing feature to the historic farmstead. Vegetation between the roadway and the farmstead structures would also be removed, altering the historic setting of the farmstead. Acquisition of right of way on this property would change the agricultural land use to a transportation land use.

The White Alternative would have no effect on the Blair farmstead or the Bonneville Power Administration Vancouver–Covington transmission line as these properties are located on the north side of the roadway, and this alternative would hold the existing northern right of way boundary. The alternative would not affect the Ed Allen/Wilson Heasley house, and therefore, would avoid use of this Section 4(f) property as well.

The White Alternative would potentially change access points to properties located adjacent to SR 502: relocation of the driveway access from SR 502 to NE 82nd Avenue for the Blair farmstead; relocation of the driveway access from SR 502 to NE 67th Avenue for the Ed Allen/Wilson Heasley house; and consolidation of driveway accesses for the remaining portion of the Thomas farmstead and the Smith farmstead.

Proximity impacts that may occur to these historic properties include:

- **Air quality:** The study area is in attainment for all National Ambient Air Quality Standards criteria pollutants, so it is considered to have air quality as good as or better than specified by these standards. Modeling shows that the alternatives would not cause a violation of the applicable National Ambient Air Quality Standards, and future carbon monoxide levels along the corridor are expected to be similar to today's levels. The alternatives are not expected to have significant effects on levels of particulate matter since they would not result in substantial changes in the overall number of trips being made in the study area.
- **Visual quality:** The White Alternative could have visual impacts to Section 4(f) properties. Removal of the J.B. Williams house, the

Thomas farmstead house, and the barn on the Smith farmstead would visually change the agricultural setting of these properties. Vegetation around the properties would likely be altered. Removal of the non-significant outbuilding at the Ed Allen/Wilson Heasley house and vegetation within the widened right of way would slightly change the visual setting of the Ed Allen/Wilson Heasley house. Removal of vegetation within the existing right of way could be a minor change in the visual setting of the Blair farmstead and the Bonneville Power Administration Vancouver–Covington transmission line, although the road would not be located any closer to these properties than it is currently

- **Noise:** The White Alternative would cause the road to be located closer to the Ed Allen/Wilson Heasley house and the remaining structures on the Thomas farmstead and Smith farmstead than its existing alignment, so noise from the roadway could be greater than current levels; however, the other remaining Section 4(f) properties (Blair farmstead, Bonneville Power Administration Vancouver–Covington transmission line) would not have noise impacts.
- **Water quality:** Stormwater detention and treatment and wetland mitigation are proposed for any of the build alternatives, which would result in no net change of water quality for the Section 4(f) properties.

The proximity impacts of the White Alternative will not result in a constructive use of any of the Section 4(f) properties.

4.4 How would the Red/Brown On-Corridor Alternative affect Section 4(f) property?

The Red/Brown Alternative would cause impacts to four historic properties by widening the existing corridor symmetrically from the existing centerline to the north and the south by a total of approximately 75 feet, following a route north of Dollars Corner (see Exhibit 29). Direct impacts to these properties would include:

- **Bonneville Power Administration Vancouver–Covington transmission line:** This alternative would require relocation or removal and replacement of the tower, which is adjacent to SR 502 and is part of the Bonneville Power Administration Vancouver–Covington transmission line. This relocation or removal would likely result in a *de minimis* impact (if the Federal Highway Administration determined and the Washington State Department of Archaeological and Historic Preservation concurred that this is No Adverse Effect under Section 106) as the tower itself is not a historic structure, but this action would be a change to the historic transmission line. Acquisition of land or an easement would change the land use from one public use (utility) to another (transportation) for this property.

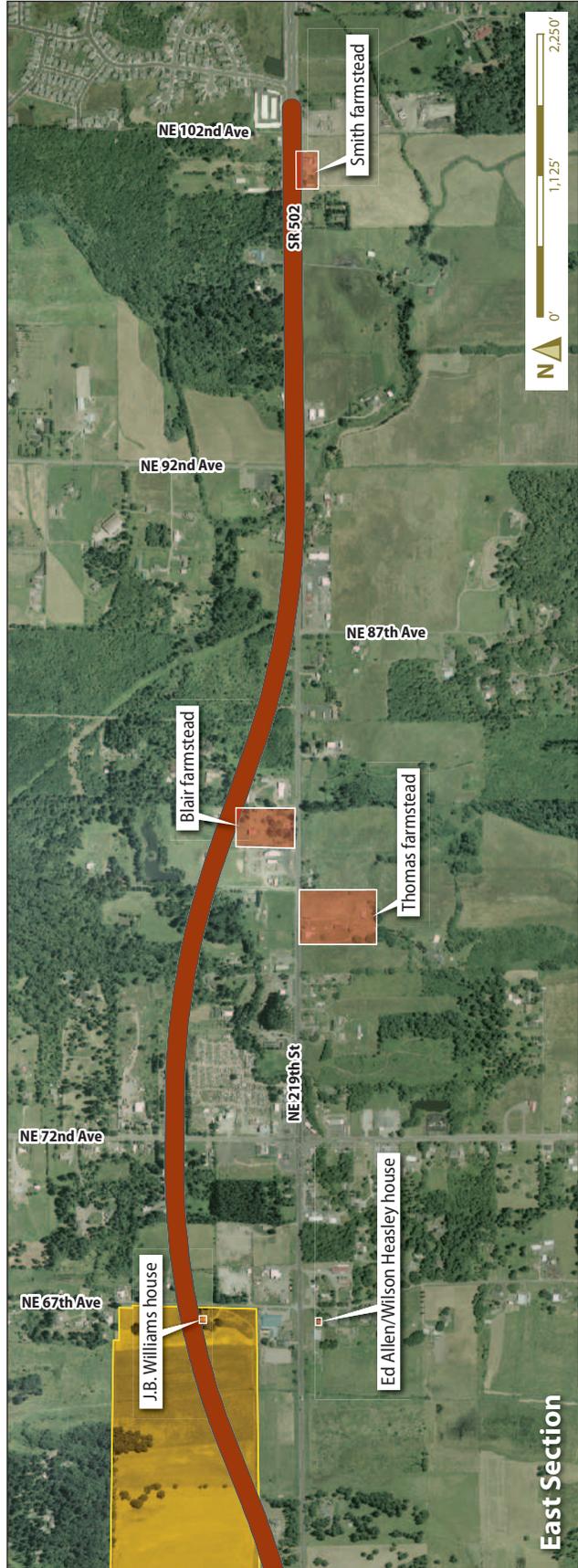
- **J.B. Williams house:** This alternative would cross the property that includes the J.B. Williams house and require removal of the barn, which is not a significant historic property. Like the other alternatives, the remainder of the property containing the J.B. Williams house would likely be acquired as a mitigation site, requiring removal of the historic home in addition to the barn. Acquisition of the property would change the agricultural land use to a public use as a mitigation site, restoring the historic wetland and stream function as mitigation for the project's wetland and habitat impacts.
- **Blair farmstead:** This alternative would cross through the northeast corner of the Blair farmstead is located; while this would not require impacts to the structures of the historically significant farmstead, it would slightly change the setting of the farmstead, and thus the alternative would likely have a *de minimis* impact (if the Federal Highway Administration determined and the Washington State Department of Archaeological and Historic Preservation concurred that this is No Adverse Effect under Section 106). Acquisition of right of way on this property would change the agricultural land use to a transportation land use.
- **Smith farmstead:** This alternative would require removal of the barn, which is a contributing feature to the historic farmstead. Vegetation between the roadway and the farmstead structures would also be removed, altering the historic setting of the farmstead. Acquisition of right of way on this property would change the agricultural land use to a transportation land use.

The Red/Brown Alternative would not affect the Ed Allen/Wilson Heasley house or the Thomas farmstead, and therefore, would avoid use of these Section 4(f) properties.

The Red/Brown Alternative would potentially change access points to properties located adjacent to SR 502 for the portion of the alignment that is on-corridor including access to the Bonneville Power Administration Vancouver–Covington transmission line. This alternative would also result in the consolidation of driveway accesses for the remaining portion of the Smith farmstead.

Proximity impacts that may occur to these historic properties include:

- **Air quality:** The study area is in attainment for all National Ambient Air Quality Standards criteria pollutants, so it is considered to have air quality as good as or better than specified by these standards. Modeling shows that the alternatives would not cause a violation of the applicable National Ambient Air Quality Standards, and future carbon monoxide levels along the corridor are expected to be similar to today's



Mill Creek North potential mitigation site

Exhibit 29: The Red/Brown Alternative and Section 4(f) properties

levels. The alternatives are not expected to have significant effects on levels of particulate matter since they would not result in substantial changes in the overall number of trips being made in the study area.

- **Visual quality:** The Red/Brown Alternative could have visual impacts to Section 4(f) properties. Relocation of the tower for the Bonneville Power Administration Vancouver–Covington transmission line would be a minor visual change to the setting of the historic transmission line. Removal of the J.B. Williams house and the barn on this property, plus the new alignment of the roadway through the J.B. Williams house property would visually change the agricultural setting of this property. Similarly, the new alignment of the roadway through the Blair farmstead north of the structures would slightly visually change the setting of this farmstead even though all of the structures would be retained. Removal of the barn on the Smith farmstead would change the agricultural setting of this farmstead. Vegetation around the properties would also likely be altered. The visual setting of the Ed Allen/Wilson Heasley house and the Thomas farmstead would not be changed, as neither of these would be adjacent to the new roadway.
- **Noise:** The Red/Brown Alternative would likely cause increased noise levels for the structures on Blair farmstead because the new roadway would run on the north side of the structures, and the existing roadway, which would be retained as a local road, would remain on the south side of the structures. Noise levels would also be expected to increase slightly for the remaining structures of the Smith farmstead since the new roadway would be located closer to the house than its current alignment. However, the other remaining Section 4(f) properties (Ed Allen/Wilson Heasley house and Thomas farmstead) would not have noise impacts as the new roadway would be located further from them than the existing SR 502 alignment.
- **Water quality:** Stormwater detention and treatment and wetland mitigation are proposed for any of the build alternatives, which would result in no net change of water quality for the Section 4(f) properties.

The proximity impacts of the Red/Brown Alternative will not result in a constructive use of any of the Section 4(f) properties.

4.5 How would the Pink On-Corridor Alternative (Proposed Action) affect Section 4(f) property?

The Pink Alternative is the Proposed Action, which is a hybrid alternative developed from the other on-corridor alternatives and the Transportation System Management/Transport Demand Management Alternative. This alternative would cause impacts to four historic properties by widening the existing corridor by approximately 75 feet