3.12 Historic and Archaeological Resources
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3.12.1 Studies and Coordination

This discussion is based on the following reports, which are included in this FEIS by reference:

- **SR 509/South Access Road EIS Discipline Report: South Airport Link** (CH2M HILL August 2001)
- **Technical Memorandum: SR 509/South Access Road Alternative C2 Minimized** (CH2M HILL September 2001)
- **SR 509/South Access Road EIS: I-5 Improvements Report** (CH2M HILL October 2001)

These reports are included in this FEIS by reference. Site files of the Washington State Office of Archaeology and Historic Preservation (OAHP) and the King County Cultural Resources Division were examined to check for any historic or prehistoric sites previously found within the project area. For the purpose of this analysis, the project area has been defined as the cities of SeaTac, Des Moines, Kent, and Federal Way and unincorporated King County in the immediate vicinity of the proposed SR 509 extension and South Access Road and along the I-5 corridor between the proposed SR 509 interchange and South 310th Street. These jurisdictions were contacted for information about known cultural resources. The Des Moines Historical Society was also contacted for information.

Cultural resource survey and excavation reports pertinent to the project area were examined at OAHP to gain an understanding of the types and density of cultural resources that could be present. The National Register of Historic Places (NRHP) and the Washington State Register of Historic Places (WSRHP) were checked to see if any listed properties were within the proposed alignment of the three build alternatives.

During preparation of the Final Environmental Impact Statement, Proposed Master Plan Update Development Action at Seattle-Tacoma International Airport (Port of Seattle and FAA 1996), useful documentation of cultural resources in the project area was compiled. The Airport Master Plan and the proposed project share large areas of overlap. Efforts to identify potential historic properties in the project area focused on examination of buildings not otherwise reviewed by Shapiro & Associates for the Airport Master Plan.
Tribal consultations occurred to secure information about traditional cultural properties and/or culturally sensitive locations within or adjacent to the project area that should be avoided.

Following the completion of the literature review and records search, a reconnaissance was conducted of the three build alternative alignments. The reconnaissance involved driving through the Areas of Potential Effect (APE) of each project alternative to identify and then record previously unrecorded historic properties. The APE is the anticipated ground-disturbing footprint of construction, lay down areas, and one-property deep on either side of the proposed alternative right-of-way. A separate reconnaissance survey to identify archaeological sites was also conducted.

Because systematic cultural resource surveys for the APE had not been previously conducted, all buildings located within the APE that appeared to be potentially eligible for inclusion in the NRHP were recorded. Recording each property of potential historical or architectural significance entailed photographing each building and preparing an OAHP Historic Property Inventory Form. Within the APE, seven individual properties of potential historical or architectural significance were identified. The inventory forms for these properties were included in the Historical and Archaeological Preservation Discipline Report (CH2M HILL January 2000), and were updated in July 2002.

The archaeological reconnaissance survey attempted to examine all open, easily accessible areas within the APE. Unfortunately, much of the project area could not be systematically examined because the area has been dramatically altered by urban development (roads/buildings/structures) or obscured by dense, impenetrable vegetation (Des Moines Creek Park, neighborhoods “cleared” of homes by the Port of Seattle Noise Remedy Program, now overgrown with vegetation). Geotechnical borings and test pits associated with preconstruction activities were archaeologically monitored at locations near the intersection of the existing SR 509 terminus at Des Moines Memorial Drive South. No significant cultural deposits were observed in the 4 borings and 12 backhoe test pits (Luttrell 2001).

### 3.12.2 Affected Environment

**Background Cultural Resource Information**

**Prehistory**

The project area is located within the Southern Puget Sound archaeological study area (Wessen 1985). This study area encompasses all of King County and most of northwestern Washington. Over 325 cultural resource surveys have been conducted within this study area, with most efforts focused in King and Pierce counties. Over 300 prehistoric sites have been recorded that
include shell middens, lithic scatters (the remains of chipped stone tools and tool manufacturing debris), and wet sites (sites in water-saturated areas). Indian burials have been found in association with 14 of the shell middens. Archaeological sites within the Southern Puget Sound area date between 11,000 and 250 years B.P. (before present) (Wesson 1985, Thompson and Stilson 1988). Two dugout cedar canoes were found in the project area at Angle Lake (sites 45-KI-422 and -423). See the Historical and Archaeological Preservation Discipline Report (CH2M HILL January 2000) for a more in-depth discussion.

Ethnography

During the ethnographic period, there were two Coast Salish groups that may have used the natural resources within the project area. The Green and White River people (now Muckleshoot) occupied the White River Valley to the west of Des Moines; the Duwamish people occupied the central Puget Sound near Seattle (Spier 1936). The Muckleshoot Tribe consists of descendants of the White and Green River Indians and the Duwamish Indians.

Coast Salish cultures were maritime adapted, exploiting both terrestrial and aquatic mammalian resources, as well as harvesting the abundant fish, berries, and roots that were present (Greengo 1966, Jorgenson 1969). At European contact, the project area was used by the Duwamish Tribe and several major Duwamish villages were located along the Green River and along the shoreline of Puget Sound (Campbell 1981, Thompson and Stilson 1988). Known campsites of the St-ka-mish (Green River) and the Skopahmish (White River) Indians were located just south of the project area (King County Site Files, No. 0064).

According to Kennedy (1989), there is ample evidence of Duwamish and Muckleshoot travel through the Des Moines area. The tribes liked to come over the hills, following the streambeds, to catch spawning salmon and dig for clams. Shell mounds have been found on the beaches and near the mouths of Des Moines, Massey, and McSorley Creeks. An Indian grave was uncovered while sluicing down the bank on the northwest side of the Van Gasken-Pedersen property to fill in Des Moines Creek for a millpond.

The project area also abounds with Indian stories and legends. One of the earliest stories implies that this area was once an island, as told by Tom Milroy (an upper-Puyallup Indian informant) to anthropologists Thomas T. Waterman and Arthur Ballard (Kennedy 1989).

Several Indian place names are located in the general project vicinity (Waterman ca. 1920). These include Three Tree Point (S-he-lahb) [“loading things into a canoe”]; Qah-weils [“glistening white”—a white rock now under the east side of the parking lot of Anthony’s HomePort Restaurant east of the Des Moines marina float B; Ko-KWOI-It-sah [“Blanket Rock”—
located at Redondo; *Tsike’ib* [“swift, cold stream”] located just north of Des Moines (Des Moines Creek); *D.Lkok* [one of the forks of Des Moines Creek]; *Ba’xkwab* [“prairie”—an open space in the timber], now the present site of downtown Des Moines; *Tca’gKqks* [“the first one in”—Massey Creek]; and *Tca’xgwEs* [McSorley Creek].

**Historical Background**

While navigating down the east side of Vashon Island in 1792, British naval Captain George Vancouver observed smoke hanging over the forest where local Indians had set fire to the underbrush to drive out their quarry deer (Kennedy 1989). Following Vancouver’s initial visit, Puget Sound remained untraveled by Europeans for 32 years. On November 28, 1824, James McMillan embarked with a party of 40 to locate a site for a new Hudson’s Bay Company post on Puget Sound. During their return trip, McMillan’s party was driven ashore at Three Tree Point, just north of present day Des Moines (Kennedy 1989).

In 1833, Hudson’s Bay Company constructed Fort Nisqually to secure fur-trading holdings in the area, and a few years later, a fur trading post was built just south of the proposed project (Nikulla 1977). Hudson’s Bay Company constructed this secondary post because the Indians in the area were friendly and using the area as a campground and because there were trails to the site through the dense, otherwise impenetrable forest (Nikulla 1977). The spot was also close to the Sound and allowed for easy transportation of goods and furs.

This secondary post was abandoned in 1846 when the 49th parallel was designated as the U.S./Canadian boundary and, in 1869, the U.S. paid Hudson’s Bay Company for its rights and claims. In the early 1880s, Jacob Reith settled on the abandoned Hudson’s Bay post through a 640-acre timber claim (Nikulla 1977). A recent cultural resource survey of the original Indian campground, Reith homesite, and the Hudson’s Bay post site indicates no remains are currently observable (Larson and Lewarch [ed.] 1994).

In the mid-1850s, the state militia erected a blockhouse in the vicinity to protect white settlers during the Indian uprisings. Its exact location is uncertain but is believed to have been either south of Three Tree Point and north of Massey Creek or at the present Masonic Home site in Zenith (Kennedy 1989).

The Puyallup to Duwamish segment of the historic Military Road, which passes along the eastern edge of the project area, was constructed in 1858 but was in many places a rough trail, winding around stumps and unfit for wagons.
Des Moines’ first settler, John Moore, acquired a 154-acre land claim from the government in July 1872 under the provisions of the Homestead Act (Bagley 1929). Due to unpaid taxes, Moore’s land was sold to John Murray in 1881 and, in turn, Murray sold it to F.O. Chezum in 1886 for $600 (Kennedy 1989). F.A. Blasher, who arrived in 1888 from Iowa, convinced other Midwesterners to follow him to the area (Warren 1981). Active development of a townsite began in 1889 when J.W. Kleeb, O.W. Barlow, and Blasher organized the Des Moines Improvement Company. They laid out a townsite on about 120 acres of the original Moore land claim. Kleeb called the city Des Moines after his former home in Iowa (Bagley 1929).

Good stands of fir and cedar made lumbering an important industry in the early days. The first sawmill was built by the Des Moines Improvement Company in 1889 and was sold in 1900 to William Van Gasken. Des Moines’ easily accessible shoreline and deep harbor facilitated hauling logs to the mills. The steep hillside above Des Moines included valleys and several streams, which was ideal terrain for logging. During this period, the extensive logging of the Des Moines Creek Canyon probably occurred (Lyons 1992). Oxen were driven up the valleys to drag down the heavy timbers to the water’s edge (Eyler and Yeager 1972).

Town growth was rapid, according to an 1890 advertisement in a southwestern Washington business directory, which claimed that Des Moines had some 300 houses, business blocks, a school, churches, mercantile houses, hotels, blacksmith and wagon shops, a chair factory, a boat manufactory, brick yards, and the only tin factory on the coast (Kennedy 1989). In 1890, James Markwell came to the area to start a shingle bolt business that employed about 25 men. At his mill were a bunkhouse and cookshack. Markwell also drove the pilings and built a dock out from the old Indian burial grounds, on the northwest side of the Van Gasken property. In 1918, a millpond was excavated at the Markwell mill site, exposing a Native American burial site (Kennedy 1989).

Despite considerable promotion and speculation, the area began to decline after 1891 until 1903, when property once again was avidly sought by those seeking retreat from city life in pleasant country surroundings (Warren 1981). The Southern Pacific Land Company filed a plat in late 1891, adding 40 acres south of the Town of Des Moines plat. In 1890, James Hyatt built a three-story hotel and started a store in this same building. In 1908, Herman and Annie Draper established their home for children in the former Hyatt Hotel; it was still operating as such on the eve of the Great Depression (Bagley 1929). In the early 1890s, Robert and Anna Hanke started a second hotel in the area.

The Des Moines Wharf and Improvement Company, which was organized in late 1892 by Hanke, John Flynn, and William Martin, constructed the wharf at Des Moines. Beginning in the 1880s, a succession of small steamers (known as the Mosquito Fleet) linked the area with neighboring communities.
on the Sound until 1919 (Warren 1981). Transportation to outside communities also was available by walking or riding to the Interurban stations at neighboring Kent or O’Brien in the White River Valley. Even before brick-surfaced roads replaced the rutted mud or gravel roads in 1916, bus service to Seattle was inaugurated (Warren 1981).

Telephone service came to the area by 1908, provided by Pacific Telephone and Telegraph Company. Fred Russell started a water works in 1914, but as late as 1929, most property owners still drew water from their own wells. By the 1920s, electricity was supplied by Puget Sound Power & Light Company (Bagley 1929). Even as late as the 1920s, the area had no public sewer system, and citizens maintained their own septic tanks.

In 1915, changes took place in the area that had far reaching effects. Until 1915, most transportation was by water, providing residents equal access to both Seattle and Tacoma. When the first roads to the area were built, they came from Seattle. With convenient land access, the Mosquito Fleet and local ties with Tacoma declined. As a result of better roads and the automobile, the area experienced another growth spurt during and after World War I, which continued through the Great Depression because of the availability of inexpensive housing (Kennedy 1989).

Prior to the completion of the “Brick Highway” (Des Moines Memorial Drive) in 1916, much work had to be done to the existing gravel road before it could be bricked. Curves were straightened, wet spots and springs were filled in or drained, and in 1912/13, a bridge was built across Des Moines Creek (canyon). By 1922/23, the bridge had worn out, the canyon was filled in, and Des Moines Creek was channeled through culverts (Kennedy 1989).

Other important transportation links included the Kent-Des Moines Road, which was first just a trail around the turn of the century but was later improved to a winding two-lane road. In the 1920s and 1930s, (SR 99 Pacific Highway South) was built to Tacoma. Throughout the first decades of the 20th century, a car-ferry service between Vashon Island and Des Moines embarked at the dock on S. 227th Street (Kennedy 1989).

Although there were several attempts to establish small industries, the area depended primarily on its lumber and shingle mills, chicken ranches, and truck gardens. During World War II, defense plants south of Seattle attracted a sizable number of new residents.

The Boeing Company was a major factor that contributed to population growth in the area during and after World War II. But the most important event was the decision to build the Seattle-Tacoma Airport at Bow Lake; ground breaking took place on January 2, 1942 (Eyler and Yeager 1972).
As the airport grew in the post-war years, it took the homes and property of many of the pioneer families. Most of these families stayed in the vicinity but moved away from the immediate airport area. In recent years, the Port of Seattle has implemented a Noise Remedy Program, consisting chiefly of noise insulation improvements to affected residences and businesses. In many cases, the remaining stock of pre-World War II and/or historic housing units have been subject to noise abatement window retrofits. The replacement of original windows with modern triple-pane insulated windows has compromised the original architectural integrity of these remaining houses.

**Known/Recorded Historic and Archaeological Resources**

Hillgrove Cemetery (King County Historic Site Survey, No. 0844), which is located at South 200th Street near 16th Avenue South, is the final resting place of numerous local pioneers (Eyler and Yeager 1972). Prior to 1900, the dead were taken to Kent or Seattle for burial. In 1900, Frederick Kindling, who lived on the south side of 200th Street east of Des Moines Way, donated a 1 acre piece of ground for a cemetery.

In the post-war years, vandalism became a major problem in the cemetery, but in the early 1970s, the Maywood Garden Club took on the cemetery as a special project and made many improvements. In 1975, local Girl and Boy Scouts of Maywood School were also working to improve the cemetery (Draper 1975).

Cemeteries are generally excluded from NRHP listing unless they derive their primary importance from graves of persons of transcendent importance, from age, from distinctive design, or from association with important historic events. The Hillgrove Cemetery does not appear to meet any of these requirements. Hillgrove Cemetery was determined ineligible for listing in the NRHP (Shapiro & Associates 1995).

Recently, a small shell mound was discovered in Marine View Park (City of Normandy Park) after a winter storm in January 1996 (Leeds 1996). This prehistoric archaeological site was designated 45-KI-446 by the OAHP and is located outside the project area.

For the *Final Environmental Impact Statement, Proposed Master Plan Update Development Action at Seattle-Tacoma International Airport* (Port of Seattle and FAA 1996), Shapiro & Associates undertook a comprehensive review of known/recorded cultural resources. The Master Plan area overlaps large portions of the project area. Shapiro & Associates conducted a literature search, an evaluation of previously inventoried properties, and a field survey. A total of 67 sites (two previously recorded and 65 newly identified) were recorded within the area to be acquired for construction of the proposed airport Master Plan alternatives. OAHP determined that none of the 67 properties were NRHP-eligible. In the spring of 1995, the Cities of Burien,
Des Moines, and Normandy Park designated a number of historic resources that had been included in the Airport Community Coalition Historic Properties Survey as locally significant; none of these resources are in the SR 509 project area.

Ms. Melanie Draper (Des Moines Historical Society) provided a list of 12 historic properties in Des Moines. None of the structures are located within the project area.

**Traditional Cultural Properties**

Traditional cultural properties (TCPs) are one of a number of historic property types that can be eligible for listing in the NRHP. “Culture” is understood to mean the traditions, practices, lifeways, arts, crafts, and social institutions of any community, be it an Indian tribe, a local ethnic group, or people of the nation as a whole. “Traditional” refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. A TCP can be:

- A location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world
- A rural community whose organization, buildings and structures, or patterns of land use reflect the cultural traditions valued by its long-term residents
- An urban neighborhood that is the traditional home of a particular cultural group and that reflect its beliefs and practices
- A location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules or practice
- A location where a community has traditionally carried out its economic, artistic, or other cultural practices important in maintaining its historical identity

A TCP can be defined as one that is eligible for inclusion in the NRHP because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community’s history, and (b) are important in maintaining the continuing cultural identity of the community (Parker and King 1990).

Recently, Larson and Lewarch (1991) reported that no studies of Duwamish traditional cultural use have been undertaken in the general project vicinity but suggest that Waterman’s (1920) thesis on geographic names is a good source of information on areas with potential Duwamish or Muckleshoot cultural significance. As noted previously, Waterman’s (1920 and 1922)
studies documented several spots on the landscape that were named by the local tribes. These "place-names" can be TCPs if they designate spots that have high cultural importance to the tribes today and meet NRHP eligibility criteria.

In order that TCPs are adequately considered in this analysis, several local tribes were contacted to solicit information about traditional Indian use of the project area (see Studies and Coordination above). Consultations with tribes have not resulted in the identification of TCPs in the immediate project area.

**Historic Properties**

The field investigation identified historic properties potentially eligible for listing on the NRHP, which is the official federal list of cultural resources worthy of preservation. Cultural resources listed in the NRHP include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture. The criteria for eligibility for NRHP are defined as:

- 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,

- that are associated with events that have made a significant contribution to the broad patterns of our history; or

- that are associated with the lives of persons significant in our past; or

- that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

- that have yielded, or may be likely to yield, information important in prehistory or history.

Seven properties of potential historic or architectural significance lie within the APE (see Figures 3.12-1 through 3.12-3).

No known state or NRHP-listed or NRHP-eligible buildings or structures are located within the APE. The completed Historic and Archaeological Report was submitted to the State Historic Preservation Officer (SHPO) for review in accordance with Section 106 of the Historic Preservation Act of 1966 (as amended) and 36 CFR Part 800. Properties within the APE are not eligible for listing in the NRHP due to their low level of integrity.
FIGURE 3.12-1
Locations of Historic Properties – Alternative B
SR 509: Corridor Completion/I-5/South Access Road Environmental Impact Statement

Legend
- SR 509/South Access Road Improvements
- Bridge
- Location of Historic Properties
  e.g., 1829 South 222nd Street, Des Moines

North

0 1/4 1/2 3/4 1 MILES

Legend
- SR 509/South Access Road Improvements
- Bridge
- Location of Historic Properties
  e.g., 1829 South 222nd Street, Des Moines
FIGURE 3.12-2
Locations of Historic Properties – Alternative C2 (Preferred)
SR 509: Corridor Completion/I-5/South Access Road Environmental Impact Statement

Legend
- SR 509/South Access Road Improvements
- Bridge
- Location of Historic Properties
e.g., 1829 South 222nd Street, Des Moines
FIGURE 3.12-3
Locations of Historic Properties – Alternative C3

SR 509: Corridor Completion/I-5/South Access Road Environmental Impact Statement

Legend
- SR 509/South Access Road Improvements
- Bridge
- Location of Historic Properties
  e.g., 1829 South 222nd Street, Des Moines

North

0 1/4 1/2 3/4 1
MILES

Des Moines
Memorial Dr.
S 20th St.
8th Ave. S
13
14

Sea-Tac International Airport
South Access Road

SEATAC
Angle Lake
Orillia Rd.

North
Property No. 4—19422 Des Moines Way South, SeaTac, Washington (98148)

This one-story residence has a full basement and a wide beveled board siding (10 inch) that is common in the area. Windows are six-over-one double hung wood sashes except for an aluminum slider in the south elevation. All of the original windows are covered with aluminum storm windows. An exterior battered brick chimney is located on the south elevation. The low, front gable roof is covered with composition shingles and has brackets under the projecting eaves. A modern garage with a gable roof and plywood siding is located behind the residence. Although this building is a relatively intact example of a simple, front gable Craftsman house, it is a plain example of a common building type in the area. It has no architectural significance and no association with historically important people or events. It is unlikely to be eligible for listing on the NRHP.

Property No. 5—19434 Des Moines Way South, SeaTac, Washington (98148)

This one and one-half story, rectangular building was constructed in 1926. It has a full basement and beveled board siding. Windows are one-over-one double hung wood sashes in sets of two and three. The windows are covered with aluminum storm windows. A small solarium window was added to the south elevation. The front door in the west elevation was replaced and a wood railing added to the small front porch. A large aluminum window is located in the half-story in the north elevation. A shed roofed dormer is located in the front of the side-gable roof. Exposed purlins and knee braces are located at the eaves. Although this building is a relatively intact example of a simple, front gable Craftsman house, it is a plain example of a common building type in the area. It has no architectural significance and no association with historically important people or events. It is unlikely to be eligible for listing on the NRHP.

Property No. 6—1205 South 196th Street, SeaTac, Washington (98148)

This is a one and one-half story Tudor-style residence built in 1929. It has a rectangular floor plan and a full basement with concrete walls. The front facing cross gable has an oriel on the first floor and a small leaded glass window in the upper half-story, which is the only original window remaining. The rest were replaced with triple-glazed vinyl windows that simulate six-over-six double hung windows. The high-pitched roof with flush eaves is covered with composition shingles. A one and one-half story garage is located just east of the residence. The stucco building has a medium-pitched composition shingle roof. A leaded glass window is located in the west gable end in the upper half-story. This is a simple example of a Tudor-style residence with replacement windows. Preliminary analysis suggests this building is not eligible for listing on the NRHP.
Property No. 9—2604 208th Avenue South, SeaTac, Washington (98198)

This is a simple single-story vernacular residence with a basement. It has narrow beveled board siding. Windows are wood frame in a mixture of one-over-one double hung, fixed, and casement styles. An exterior red brick chimney is located on the west elevation. The gable roof has clipped corners and is covered with composition shingles. At the time of recordation, a project was underway to convert the attic to living space. A door had been cut into the west gable and an exterior wood stairway was under construction. This simple vernacular residence is not architecturally significant, has no association with historically important people or events, and is unlikely to be eligible for listing on the NRHP.

Property No. 10—2413 208th Avenue South, SeaTac, Washington (98148)

This is a rectangular 1½ story Craftsman-style residence. It has wide beveled board siding and one-over-one double hung wood sash windows, with the exception of the large, single pane front window, which is probably a modern replacement. A small porch with a gabled roof projects slightly from the front of the building. The front gable roof has composition shingles and knee braces under the eaves. This building was moved to its current location in 1955. This simple Craftsman-style residence is not architecturally significant, has no association with historically important people or events, and is unlikely to be eligible for listing on the NRHP.

Property No. 13—19405 Des Moines Drive South, Des Moines, Washington (98198)

This is a single-story residence constructed in 1937. The original exterior siding has been covered or replaced with asbestos shingles. The house has a gable roof with a small center gable forming the porch over the front door on the east elevation. The roof is covered with composition shingles. The front door has been replaced with a new metal door and the windows have been replaced with new vinyl windows. The simple vernacular residence has no architectural significance and no association with historically important people or events. It is unlikely to be eligible for listing in the NRHP.

Property No. 14—20704 24th Avenue South, SeaTac, Washington (98148)

This is a single-story residence on a concrete basement foundation. The house was constructed in 1940 and its exterior walls are covered with clapboard siding. All original windows have been replaced with aluminum windows. The house has a gable roof with a small porch gable extending over the door on the south-facing façade. The roof is covered with composition shingles. The eaves project only slightly with no exposed rafters or joists. The building has no architectural significance and the replacement windows
have compromised the structure’s integrity. The property has no known association with important people or events. This property is unlikely to be eligible for listing in the NRHP.

3.12.3 Environmental Impacts

The Advisory Council on Historic Preservation's regulations implementing Section 106 of the NHPA create a process by which federally assisted undertakings are reviewed for their effect on properties listed on the NRHP or those determined to be eligible for listing.

The Criteria of Effect and Adverse Effect are applied to determine whether the proposed project could affect the property and whether those effects should be considered adverse. If the undertaking could change in any way the characteristics that qualify the property for inclusion in the NRHP, for better or for worse, it is considered to have an effect. If the undertaking could diminish the integrity of such characteristics, it is considered to have an adverse effect.

**Alternative A (No Action)**

No impacts would occur to known state or NRHP listed or eligible cultural resource sites.

**Alternatives B, C2, and C3**

Once constructed and operational, none of the build alternatives would produce any long-term impacts on known state or NRHP listed or eligible cultural resource sites. Impacts during project construction, and associated mitigation measures, are discussed in *Construction Activity Impacts and Mitigation*, Section 3.12.5.

3.12.4 Mitigation Measures

Because no long-term impacts on state or NRHP listed or eligible cultural resource sites are anticipated, no mitigation is proposed. Possible impacts associated with project construction and associated mitigation measures, are discussed in the *Construction Activity Impacts and Mitigation* section immediately following.

3.12.5 Construction Activity Impacts and Mitigation

**Construction Impacts**

As previously noted, there are no recorded archaeological sites in the APE that could be impacted by the proposed project. Because the APE has generally been drastically altered by urban development, the likelihood of
encountering unknown sites during construction is remote. The Construction Mitigation Measures for Archaeological Sites section below discusses the steps that would be taken if an unrecorded site were encountered during construction.

No historic buildings or buildings eligible for listing in the NPHP occur within the project APE. No construction activity impacts to historic properties would occur.

**Construction Mitigation Measures for Archaeological Sites**

Archaeological monitoring occurs when a qualified archaeologist observes/inspects subsurface ground-disturbing construction operations. If the archaeological monitor observes what appear to be cultural deposits, construction would be temporarily halted in the “find” location until a preliminary analysis of the find could be made. Archaeological monitoring would be conducted where construction is scheduled in areas of high probability for containing archaeological sites (but which exhibit no outward indications that such sites are actually present). Archaeological monitoring is often conducted in areas where preconstruction subsurface testing is not feasible. If required, archaeological monitoring would be undertaken by an archaeologist who meets the Secretary of the Interior’s standards and guidelines (36 CFR 61).

In the event that potentially significant archaeological remains are found during construction, the following typical late discovery procedures followed by WSDOT would be applied here.

**WSDOT’s Late Discovery Procedures**

WSDOT has operational procedures to deal with inadvertent discoveries of cultural or historical resources during construction. The following generally describes WSDOT’s procedures.

If a WSDOT field inspector is notified a discovery has been made, either from the project archaeologist monitoring construction in archaeologically sensitive areas or from the construction contractor’s field staff, the matter would immediately be brought to the attention of designated WSDOT officials.

WSDOT might then issue a “Stop Work Order” in the immediate area until an assessment by the police and/or the project archaeologist could be made. Construction crews are often reassigned to other tasks in another area (typically at least 50 to 100 feet away). Pending arrival of knowledgeable personnel, WSDOT would preserve the discovery site to prevent further damage.
WSDOT field personnel would locate the excavation (such as by cross streets) in order to better direct other people to the site by phone. WSDOT office staff would be verbally briefed by field personnel as to the circumstances of the discovery. If bones were involved, especially on the surface or buried shallowly, then the police from the local jurisdiction would be called to the site by WSDOT to determine if it is a crime scene. If the bones seem to be of a human origin, the reporting officer would contact the Medical Examiner (usually the County Medical Examiner) to begin a possible criminal investigation.

If the project archaeologist is not already on-scene, WSDOT staff would contact the designated project archaeologist. In addition, designated WSDOT Region personnel would be advised of the situation and developments as they occur. The WSDOT Regional Environmental and Special Services office would serve as the hub of information. Telephone or e-mail contacts to and from the field would occur as each development occurs. The goal would be “full communication” to facilitate adjustment to possible changing conditions.

At the first indication of a possible link of the discovered remains to an Indian tribe, the SHPO would be called immediately and would decide ultimate disposition of cultural and human remains.

**Traditional Cultural Properties**

No TCPs have been identified in the project area. Should ongoing consultations with the Tribes result in the identification of TCPs in the project area, additional consultations with the Tribes, SHPO, and WSDOT would be required to determine NRHP eligibility and develop acceptable mitigation measures.

**Construction Mitigation for Historic Properties (Buildings)**

- No historic properties or properties eligible for listing in the NRHP occur within the project APE. Therefore, no mitigation is required.