Existing Conditions

How did we collect information on cultural resources?

WSDOT obtained background information on the APE by examining environmental reports, ethnographies, histories, historic maps, tax records, photographs, site records, and previous cultural survey reports on file at a number of agencies and organizations. Through this background research, we identified previously recorded archaeological resources, historic and architectural resources, and other cultural resources in the Bellevue Nickel Improvement Project APE and vicinity. We conducted field investigations to identify any previously unrecorded cultural resources and evaluated their historic significance within county, state, and federal guidance. The specific methods used to complete these tasks are detailed below.

Agencies and Organizations Consulted for Background Information Included:

- Washington State Office of Archaeology and Historic Preservation
- King County
- King County Archives
- King County Department of Assessments
- Washington State Archives, Puget Sound Regional Branch
- King County Historic Preservation Program
- King County Assessor's Office
- University of Washington Libraries
- Seattle Public Library
- King County Road Services Division
- City of Bellevue
- Bellevue History Center
- Bellevue Historical Society
- Eastside Heritage Center
- Bellevue Regional Library

How did we determine the Area of Potential Effect?

We began investigating the Bellevue Nickel Improvement Project by identifying parties interested in the project and defining the project APE. According to 36 CFR 800, the APE is the area within which an undertaking may cause direct or indirect changes to the character of any historic properties (36 CFR 800.16[d]). The APE can extend beyond the actual area where construction is planned. We conducted visual reconnaissance of the I-405 project corridor and surface roads adjacent to the corridor to determine the extent to which the project has the potential to directly and indirectly affect historic properties. We consulted with King County, the DAHP, and the

What guidance is available to help in identifying archaeological, historic, and architectural resources?

The Secretary of the Interior's "Standards and Guidelines for Archaeology and Historic Preservation" provide general guidance for how to identify cultural resources. Importantly, they identify two levels of survey: reconnaissance and intensive survey. The principles of reconnaissance survey are applied to windshield and walkover survey. Intensive survey is a thorough survey of an area sufficient to determine the historic significance of cultural resources, and may include shovel testing and detailed architectural descriptions. The DAHP publishes detailed guidance on how to conduct background research, field investigation, and reporting for research sufficient to meet the requirements of Section 106 investigations in the state of Washington.

appropriate tribes to obtain their views and comments regarding the definition of the APE and to identify any concerns they may have regarding cultural resources within the APE in accordance with the implementing regulations of the NHPA (36 CFR 800) (Appendix B). The DAHP has concurred with our APE (Appendix B).

The horizontal limits of the APE are approximately one property removed from the boundary of the corridor and reflect the extent to which the project has the potential to affect historic properties indirectly (Exhibit 7). The project will directly affect only historic properties that are within the footprint of the project. Because the project will not directly affect any known buildings or structures, potential direct effects are limited to unknown archaeological resources. The vertical extent of the APE is limited to the maximum depth of ground disturbance associated with project construction.

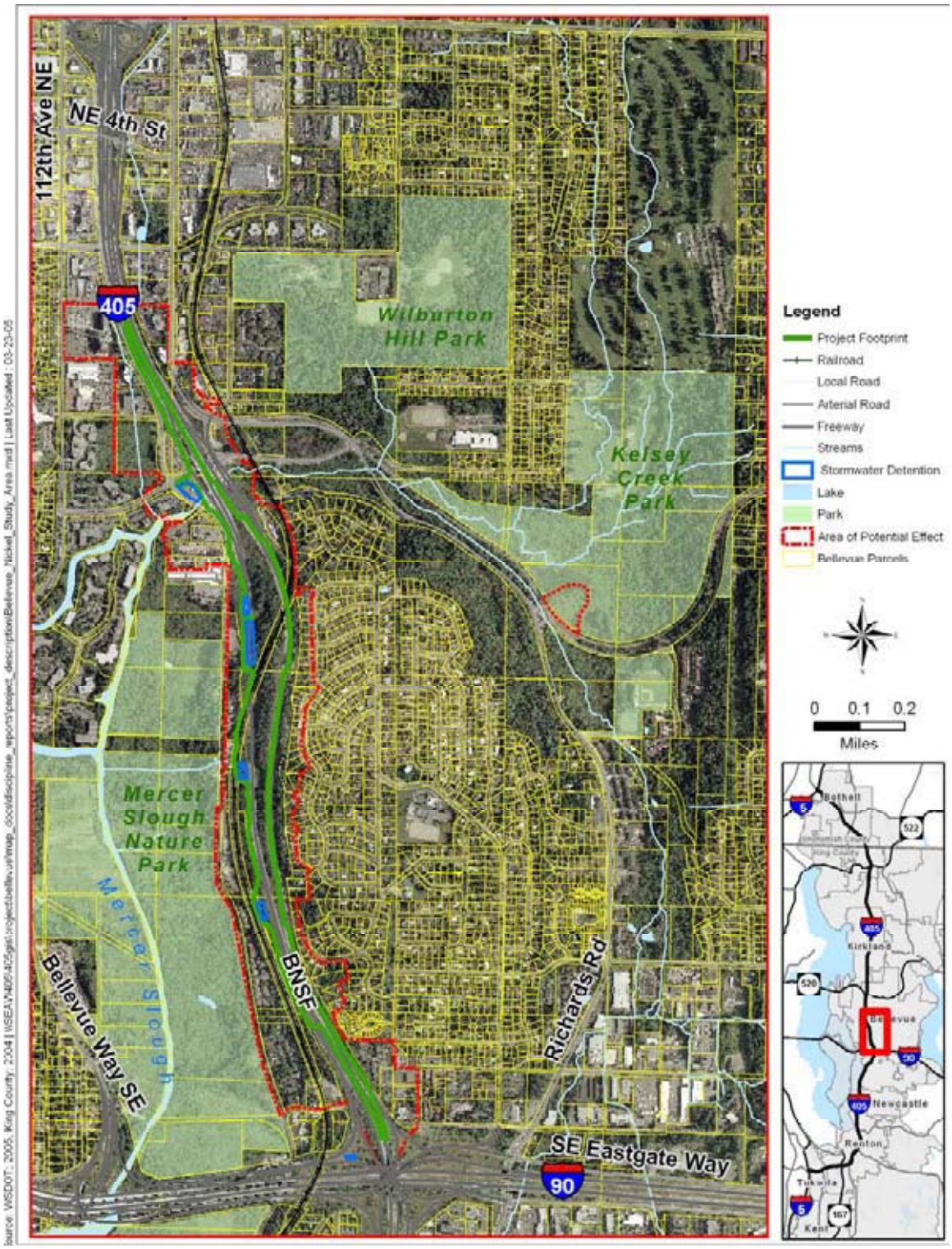
The APE for archaeological resources is limited to the portion of the project where ground-disturbing activities will be conducted, such as areas for demolition, construction, staging, equipment storage locations, stormwater management facilities, and potential wetland and stream mitigation sites.

The area of ground disturbance will extend no more than 30 meters on either side of the existing I-405 roadway, and will include locations for ramps, interchanges, stormwater management facilities, temporary construction areas, wetland and stream mitigation sites, and other project features. We included information on Kelsey Creek in our analysis because it occurs within our APE. The conceptual stream mitigation plan has subsequently located all stream mitigation required for the Bellevue Nickel Improvement Project at "Median Stream" within the I-405 ROW, and we now know we will not use Kelsey Creek for this purpose."

How did we identify archaeological resources?

WSDOT researched archaeological site forms and survey reports on file at DAHP to identify previously recorded prehistoric and historic-period archaeological resources within the APE. We also used environmental, ethnographic, and historic data to identify potential archaeological resource locations. Topographic maps were used to identify areas of flat terrain adjacent to perennial water sources (available year-round) where prehistoric resources were likely to be located. We also examined a variety of historic maps including General Land Office (GLO) maps, Sanborn fire insurance maps, street atlases, and others to identify areas of past

Exhibit 7. Area of Potential Effect (APE)



land use and to locate historic features that might have left archaeological remains. Although most of these structures no longer exist, the maps indicate where historic-period cultural resources could be encountered. We also visited locations where research suggested resources might be located in order to determine the extent to which modern intrusions may have disturbed such resources.

Finally, archaeologists conducted field investigations within the APE using reconnaissance and intensive survey techniques. We inspected aerial photographs and conducted windshield surveys to determine the potential for unidentified archaeological resources within the APE. The APE for archaeological resources is defined as the portion of the project that has the potential to directly affect archaeological resources through construction activities.

We also conducted pedestrian surveys in areas where ground-disturbing activities will extend more than 30 meters from the existing I-405 roadway, such as proposed locations for stormwater detention ponds and wetland and stream mitigation sites. We walked transects spaced at 20-meter intervals and excavated shovel probes in areas that appeared to be sensitive for buried archaeological remains. Archaeologists excavated 35-centimeter-diameter shovel probes to an average depth of 40 centimeters below ground surface, depending on subsurface conditions, and screened excavated material through 0.6-centimeter mesh mounted on shaker screens. Archaeologists photographed the survey areas and recorded observations regarding subsurface stratigraphy, cultural materials present, disturbances, topography, and vegetation.

We excavated a total of 26 shovel probes (35 centimeters in diameter) to an average depth of 40 centimeters below ground surface. All shovel probes tested negative for archaeological remains (Exhibit 8). We did not identify any cultural materials as a result of the subsurface investigation.

Exhibit 8 Shovel Probe Test Results

Shovel Probe Number	Location	Depth	Soil Description
1	Pond B	50 cm (1.6 ft)	Moderately loose, very moist, brown sandy silt with many roots above moderately compact, moist, brow sand with charcoal staining and small to medium sized subangular to subrounded gravels and cobbles
2	Pond B	50 cm (1.6 ft)	Moderately compact, very moist, brown sandy silt with many roots above compact, very moist, brown-ta with small to medium sized subangular to subrounded gravels and cobbles
3	Pond B	50 cm (1.6 ft)	Compact, very moist, brown sandy silt with many roots above compact, very moist, brown-tan silty sand to medium sized subangular to subrounded gravels and cobbles
4	Pond C	40 cm (1.3 ft)	Moderately loose, very moist, brown sandy silt overlying lighter brown sandy silt, transitioning to compa light brown-grey-tan mix with flecks of charcoal and small to large subrounded to subangular gravels an
5	Pond C	35 cm (1.1 ft)	Moderately loose, moist, brown sandy silt overlying lighter brown sandy silt, transitioning to compact, m brown-grey-tan mix with flecks of charcoal and small to large subrounded to subangular gravels and col
6	Pond C	45 cm (1.5 ft)	Loose, moist, dark brown sandy silt overlying loose, moist, brown silty sand; chunk of coal at 15 cm; po clay at 33 cm; small to large subrounded to subangular gravels and cobbles
7	Pond C	40 cm (1.3 ft)	Loose, moist, dark brown sandy silt overlying loose, moist, brown silty sand
8	Pond D	45 cm (1.5 ft)	Moderately loose, moist, dark brown sandy silt with roots overlying moderately compact, moist, brown s
9	Pond D	45 cm (1.5 ft)	Moderately loose, moist, dark brown sandy silt with roots overlying moderately compact, moist, brown s
10	Fill Pad Site	40 cm (1.3 ft)	Moderately compact, moist, black muck with roots overlying moderately compact, moist, dark brown mu
11	Fill Pad Site	43 cm (1.4 ft)	Moderately compact, moist, black muck with roots overlying compact, moist, dark brown muck
12	Fill Pad Site	40 cm (1.3 ft)	Moderately compact, moist, black muck with roots overlying compact, moist, dark brown muck
13	Fill Pad Site	42 cm (1.4 ft)	Moderately compact, moist, black muck with roots overlying moderately compact, moist, dark brown mu

Exhibit 8 Shovel Probe Test Results

Shovel Probe Number	Location	Depth	Soil Description
14	Fill Pad Site	40 cm (1.3 ft)	Moderately compact, moist, black muck with roots overlying moderately compact, moist, dark brown mu
15	Fill Pad Site	40 cm (1.3 ft)	Moderately compact, moist, black muck with roots overlying moderately compact, moist, dark brown mu
16	Fill Pad Site	40 cm (1.3 ft)	Moderately compact, moist, black muck overlying moderately compact, moist, dark brown muck
17	Fill Pad Site	40 cm (1.3 ft)	Moderately compact, moist, black muck overlying moderately compact, moist, dark brown muck
18	Fill Pad Site	40 cm (1.3 ft)	Moderately compact, moist, black muck overlying moderately compact, moist, dark brown muck
19	Fill Pad Site	35 cm (1.1 ft)	Moderately compact, moist, black muck with roots overlying compact, moist, dark brown muck
20	Fill Pad Site	40 cm (1.3 ft)	Moderately loose, moist, black muck with many roots overlying moderately compact, moist, dark brown
21	Fill Pad Site	40 cm (1.3 ft)	Moderately loose, moist, black muck with many roots overlying moderately compact, moist, dark brown
22	Fill Pad Site	45 cm (1.5 ft)	Moderately compact, moist, black muck with roots overlying moderately compact, moist, dark brown mu

The project archaeologist conducted a pedestrian survey at the proposed location for Stormwater Detention Pond A, at the intersection of Lake Washington Boulevard SE and SE 8th Street (Exhibit 9), and determined the site to have low probability for archaeological resources due to the high level of previous ground disturbance.

The proposed location for Stormwater Detention Pond B is situated between I-405 and the Burlington Northern Santa Fe Railway (Exhibit 10). Although the area has experienced extensive ground disturbance associated with previous freeway and railway construction, intact archaeological deposits may be present beneath these disturbances. It remains moderately sensitive to archaeological deposits due to its location along the west-facing slope above Mercer Slough. The project archaeologist excavated three shovel probes but did not observe any archaeological remains.

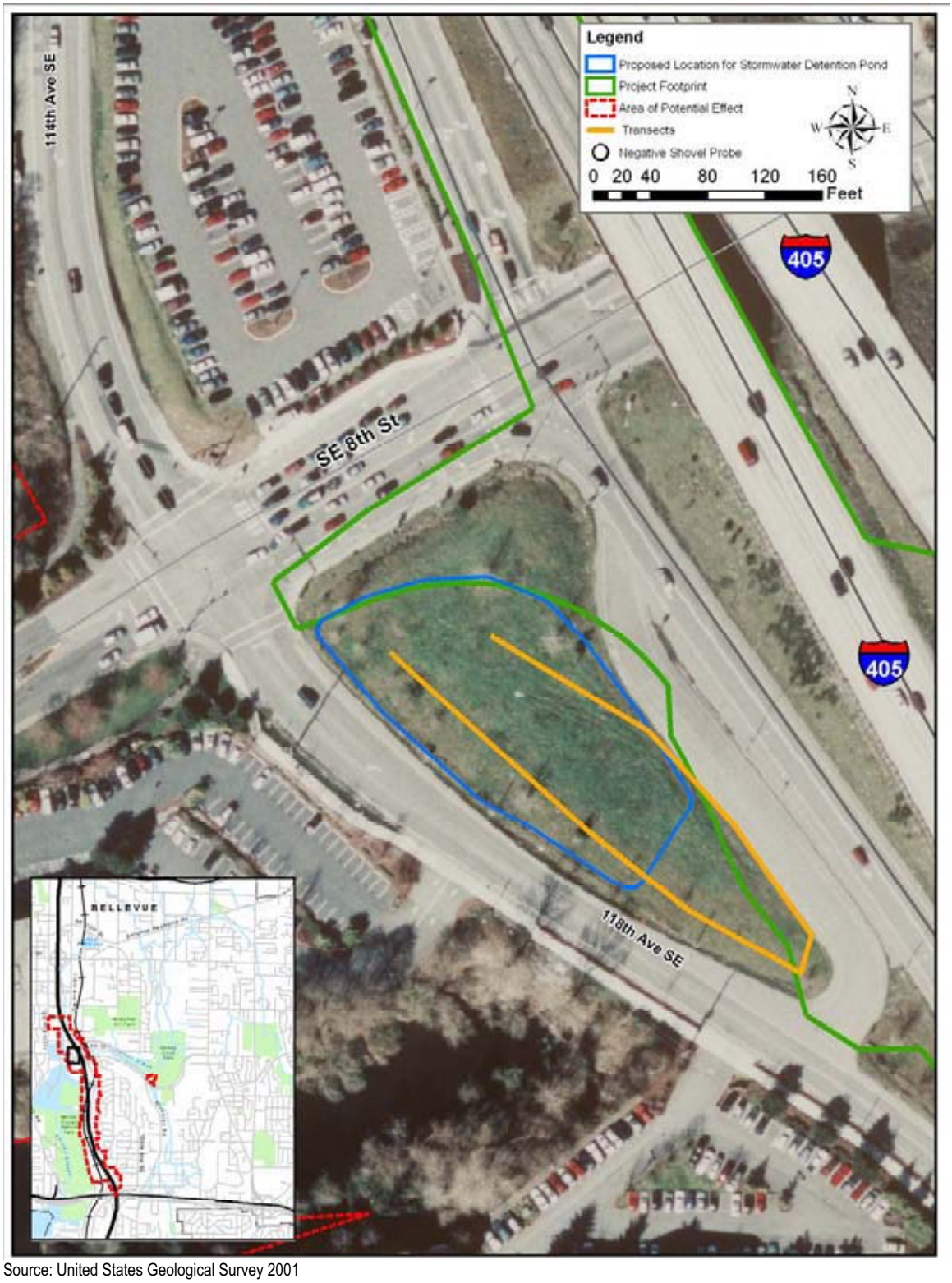
Site conditions are similar at the proposed location for Stormwater Detention Pond C; most of the area surrounding this location has been heavily disturbed as a result of railway and freeway construction and associated landscaping (bordered by I-405 on the east and the Burlington Northern Santa Fe [BNSF] Railway on the west).

Proposed Location – Stormwater Detention Pond A (looking north)

Proposed Location – Stormwater Detention Pond B (looking south)

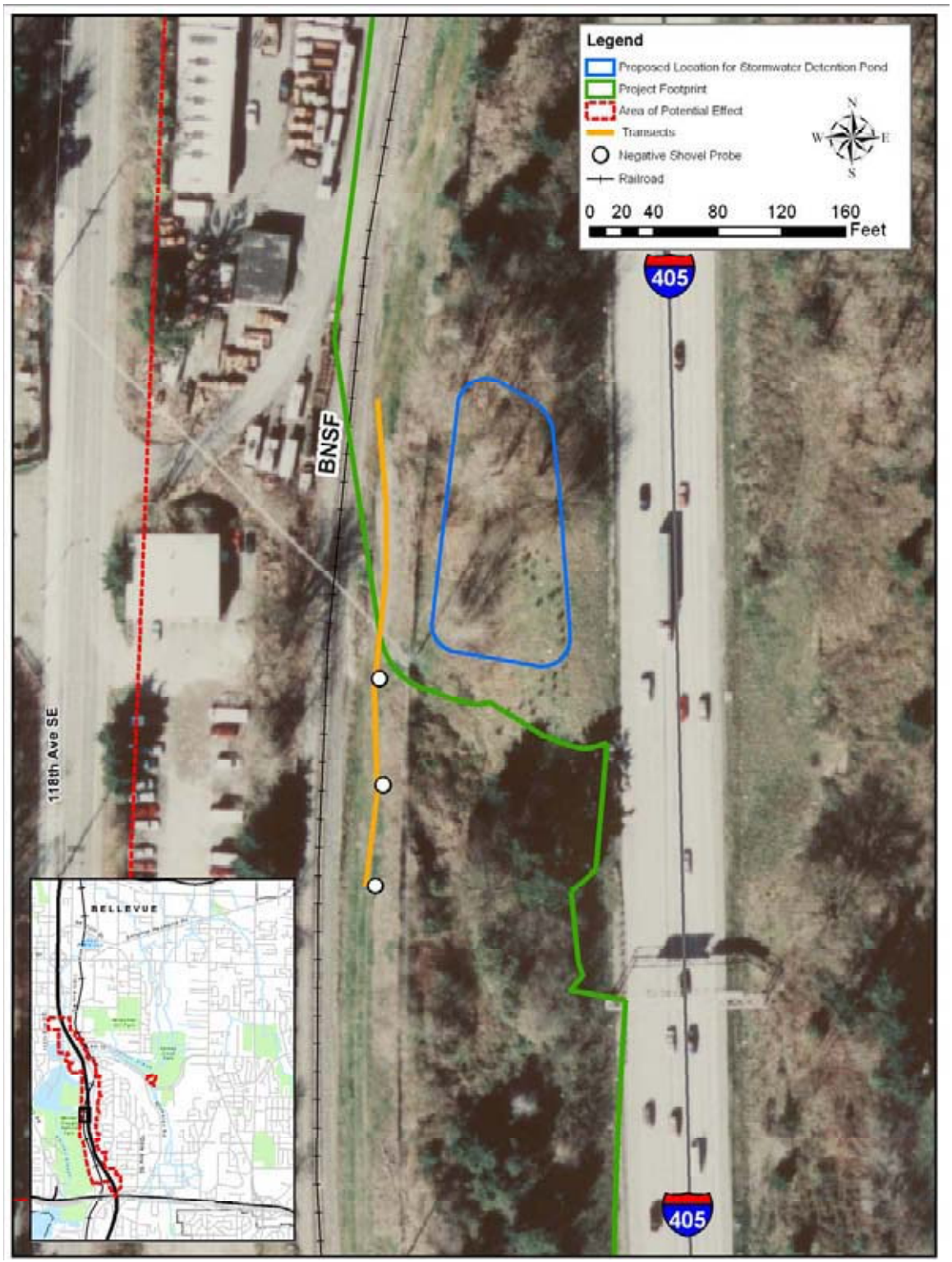
Proposed Location – Stormwater Detention Pond C (looking southwest)

Exhibit 9. Pedestrian Survey at Proposed Location for Stormwater Detention Pond A



Source: United States Geological Survey 2001

Exhibit 10. Pedestrian Transects and Shovel Probes in Vicinity of Proposed Location for Stormwater Detention Pond B



Source: United States Geological Survey 2001

Proposed Location – Stormwater Detention Pond D (looking west)

West Tributary within Kelsey Creek Park (looking northwest)

Fill Pad Site Proposed for Wetland Mitigation

Again, despite these alterations, the vicinity of proposed Stormwater Detention Pond C is moderately sensitive to archaeological deposits due to its location above Mercer Slough. The archaeologist excavated four shovel probes (Exhibit 11) but did not observe any archaeological remains.

The proposed location for Stormwater Detention Pond D is in the northwest quadrant of the I-90/I-405 interchange. Although the area has experienced ground disturbance associated with previous freeway construction, it remains moderately sensitive to archaeological deposits due to its proximity to the mouth of Mercer Slough and documented ethnographic resources (see Appendix C). The project archaeologist excavated two shovel probes in the immediate vicinity of the proposed location for Pond D (Exhibit 12). The survey did not encounter any archaeological remains.

Plans for wetland creation (to compensate for placement of a 3-acre fill pad) in the southern portion of Kelsey Creek Park required the project archaeologist to conduct pedestrian and subsurface surveys in areas east of the I-405 project corridor (Exhibit 13).

Exhibit 11. Pedestrian Transects and Shovel Probes in Vicinity of Proposed Location for Stormwater Detention Pond C

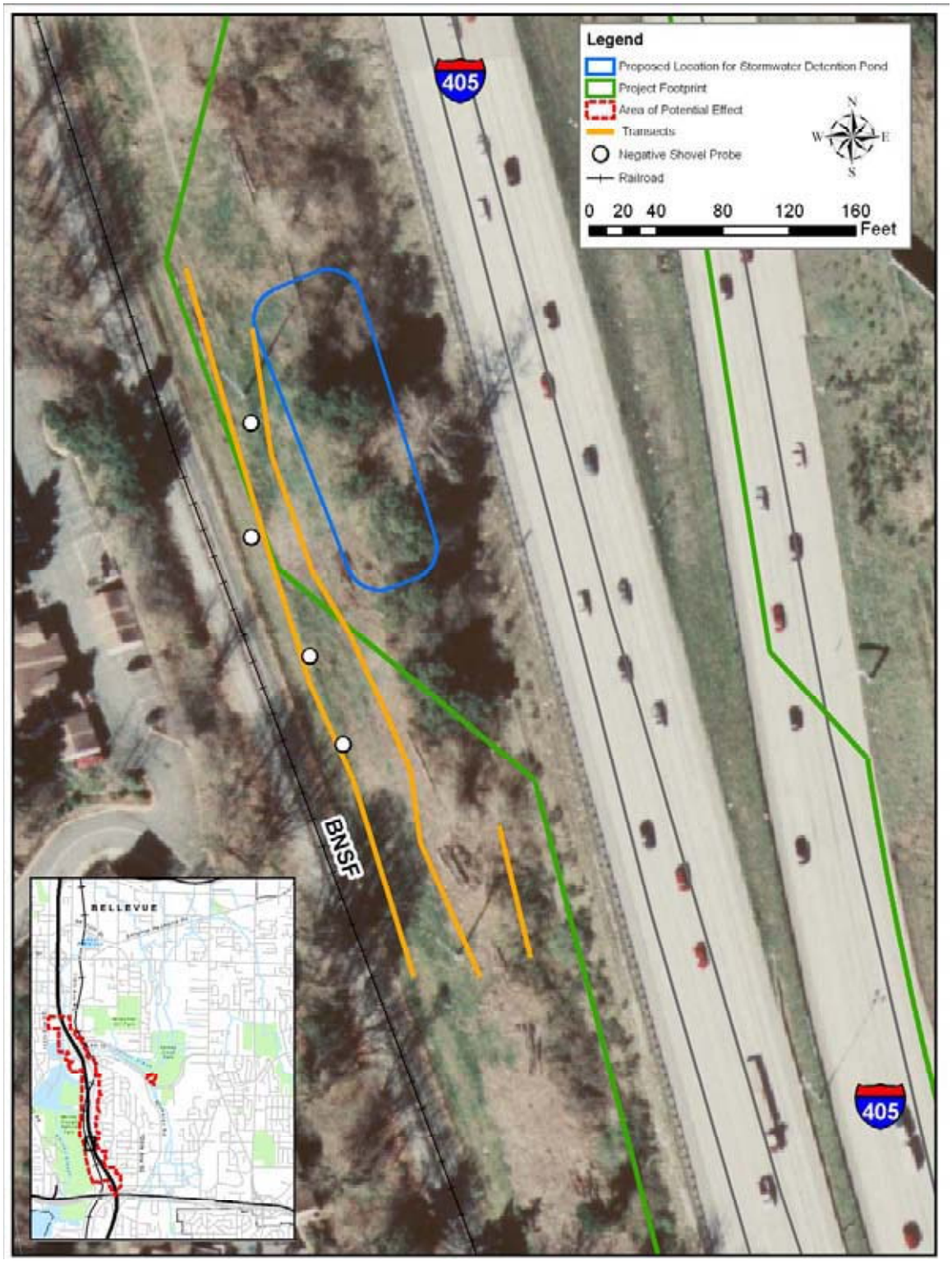
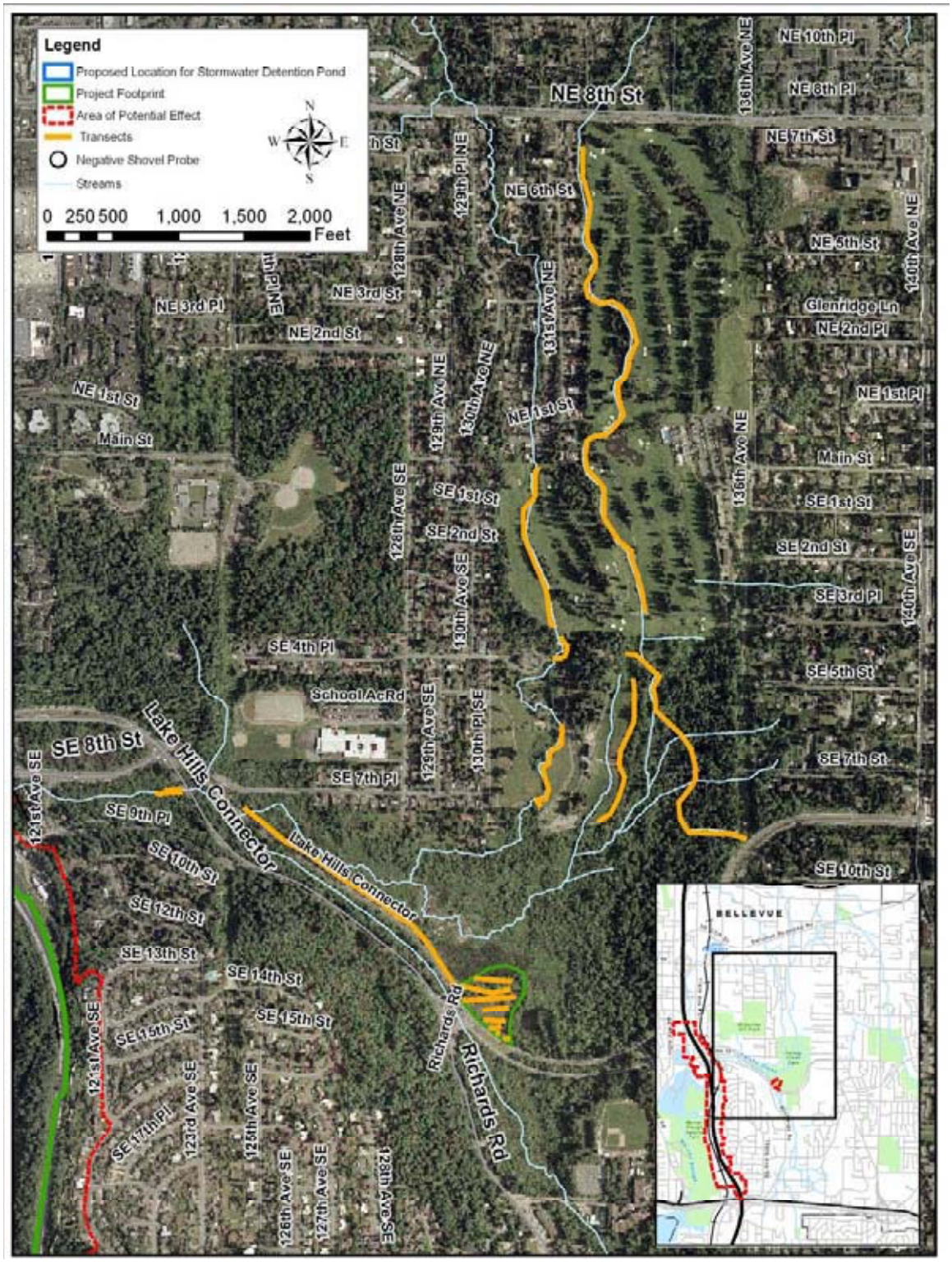


Exhibit 12. Shovel Probes at Proposed Location for Stormwater Detention Pond D

Exhibit 13. Pedestrian Transects and Shovel Probes in Vicinity of Kelsey Creek Mitigation Site



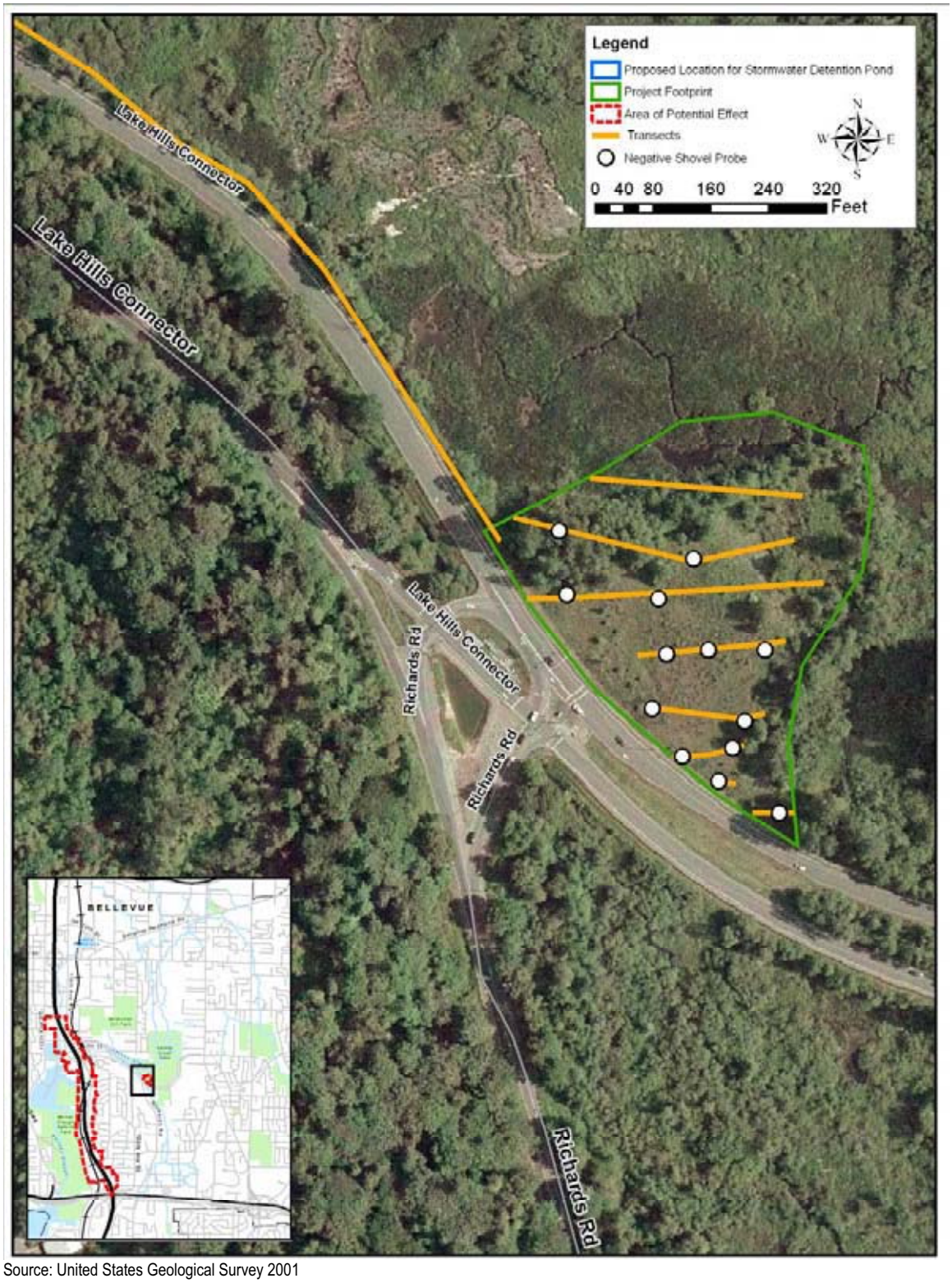
The fill pad site at the south end of the park has experienced moderate ground disturbance (e.g., from camping and motor vehicle use). We walked eight east-west trending transects within the site boundaries but heavy vegetation prevented access to the eastern and northern portions of the site. We excavated 13 shovel probes in areas that were not heavily disturbed or inundated with standing water (Exhibit 14). The survey did not encounter any archaeological remains.

What potentially eligible historic resources are in the APE?

As previously discussed, we identified a potential historic district within the project APE (see Exhibit 7). Norwood Village is a good example of the type of post-World War II housing that is eligible for listing in the NRHP under Criterion C for possessing distinctive design characteristics and being associated with important local architects. Its period of significance spans from 1950 to 1955, the time during which the neighborhood was designed and built.

Norwood Village is a unique architect-designed, small, affordable post-World War II housing community. It followed the national trend of suburban development and large-scale corporate (also known as "merchant builder") communities associated with the 1948 Amendments to the Fair Housing Act. The L-shaped ranch houses with basements, horizontal window bands, patios, and wide fireplaces reflect both the national trends and also illustrate distinctive features of the Northwest Contemporary style. (See Appendix C for a more detailed discussion of this potential historic district.)

Exhibit 14. Pedestrian Transects and Shovel Probes within Boundary of 3-Acre Fill Pad Site



Source: United States Geological Survey 2001

How did we identify historic and architectural resources?

What is an historic district?

Historic districts may contain a variety of resource types but these resources are held together by a common historic theme and time period. Historic districts, like other historic properties, must also have definable boundaries.

"A district possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development " (National Park Service Bulletin #15 1990).

WSDOT used similar methods to the archaeological survey to identify and evaluate historic and architectural resources. We analyzed archival records, historic property inventory forms, historic and aerial photographs, and historic maps on file at DAHP, the King County Archives, the King County Department of Assessments, and the Puget Sound Regional Branch of the Washington State Archives. We also consulted a variety of historic maps and histories on the Bellevue area on file at libraries and other institutions to identify historic and architectural resources that may not have been previously recorded on local or state forms. In addition to these standard research techniques, we accessed available online King County Assessor's tax record databases to identify all above-ground resources 50 years of age and older within the APE. This information allowed us to identify architectural properties that were on record and to evaluate them during our fieldwork for the Bellevue Nickel Improvement Project.

What is a windshield survey?

Windshield surveys (also called reconnaissance surveys) are "visual or predictive surveys that identify the general distribution, location, and nature of historic resources within a given area. A reconnaissance survey of the built environment generally entails the field identification of resources that appear to meet broad survey requirements. Documentation at this level rarely exceeds property address, observational information on architectural style and features, and photographic information.... Reconnaissance surveys are often conducted to establish the boundaries for intensive surveys to follow."

"Reconnaissance surveys literally consist of driving around a community and noting the general distribution of buildings, structures, and neighborhoods representing different architectural styles, periods and modes of construction.... Because reconnaissance surveys record only observable information, they may not provide sufficient information with which to make determinations of eligibility beyond architectural significance."

(Washington State Standards for Cultural Resource Reporting, p. 15).

Finally, we conducted a windshield survey of all historic resources within the Bellevue Nickel Improvement Project APE. All historic resources will be recorded in the Washington State DAHP Historic Property Inventory Database. As part of the field investigations, we revisited previously identified buildings and structures to assess their current state and architectural integrity. We also recorded all properties more than 50 years old that were not previously recorded in state files. We examined the neighborhoods located east and west of the project to determine whether an historic district might be present that had not been previously identified. A relatively new publication from the National Park Service entitled *Historic Residential Suburbs: Guidelines for Evaluation and Documentation for the National Register of Historic Places* (Ames 2002) was particularly helpful in assessing the potential for an historic district within the APE.

We then conducted the field portion of the windshield survey of these resources. The tax database provided the year of construction as well as the property's current use. We maintained a database to track each of these resources by tax parcel number and address to ensure that we appropriately mapped them (Appendix E). During the field survey, we recorded key architectural features, took photographs, and preliminarily evaluated each resource's historic significance.

How did we identify other cultural resources?

We consulted with tribes that may be affected by the project to help identify traditional cultural use areas and areas of historic land use within the APE. These traditional cultural properties (TCPs) include districts, sites, buildings, structures, and objects valued by a community for the role they play in sustaining the community's cultural integrity.

Tribes Contacted for Information Regarding the Area of Potential Effect:

- Muckleshoot Indian Tribe
- Snoqualmie Indian Tribe
- Tulalip Tribes
- Confederated Tribes and Bands of the Yakama Nation
- Duwamish Tribe

What tribal consultations did we include?

WSDOT initiated tribal consultation by sending letters describing the proposed project to the designated cultural representative of the federally recognized Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Tulalip Tribes, and the Confederated Tribes and Bands of the Yakima Nation, as well as the non-federally recognized Duwamish Tribe (Appendix B). We followed up these letters with telephone calls to each tribal representative to gather information regarding traditional cultural use areas and historic land use in the APE. We also conducted ethnographic research in response to concerns raised by the Muckleshoot Tribe during preparation of the *I-405 Corridor Program NEPA/SEPA Draft Environmental Impact Statement* (WSDOT 2002). One primary source is T.T. Waterman's *Puget Sound Geography* (ca. 1920), which contains location and descriptive information of many Indian place names in the region. Following archival and literature review of ethnographic materials on file at various agencies and institutions, including the University of Washington Libraries, we reviewed the results with the Muckleshoot representatives to address their desire to participate in more detailed consultation. The remaining tribes have communicated their concerns during follow-up telephone conversations.

What is a Traditional Cultural Property?

The National Park Service defines a traditional cultural property as "a property that is eligible for inclusion in the National Register 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 properties " (King 1998).

The concept of TCPs has evolved as people recognized that a strict interpretation of National Register criteria might inadvertently cause a researcher to overlook a property type that is important to certain people but may not be easily identified without the benefit of local knowledge. A specific location within a landscape such as a lake, for example, might have historic significance because of an event or a traditional practice that occurred there, but there may be no written record or obvious visible trace of the event or practice.

What Historic, Cultural, and Archaeological Resources are in the APE?

To determine what historic, cultural, and archaeological resources were in the APE, we conducted background research on previous cultural resources studies and field investigations to identify any new resources that may be present within the APE. We determined that 11 historic resources were in the project APE. One of these is the Wilburton Trestle, a historic railroad trestle considered eligible for the NRHP. Eight new historic structures were identified that are within a potential historic district, Norwood Village. Finally, we surveyed two historic

resources, but did not recommend them as eligible for the NRHP. The DAHP has concurred with all of our NRHP recommendations (Appendix B).

Have researchers conducted previous cultural resources studies in the area?

Our archival and literature review of cultural resources studies on file at the DAHP revealed that 10 previous studies had been done within 1 mile of the project area (Exhibit 15). We briefly discuss the most relevant of these here.

The earliest cultural resources study consisted of an historic resources survey for the Washington State Department of Highways along the I-90 corridor, from I-5 to a point just west of I-405 (Stratton and Lindeman 1977). The archaeologists identified a small grove of English holly near the east shore of Lake Washington, which could indicate a previous settlement that may survive archaeologically but they did not identify any archaeological site. Moreover, this property is not currently listed in either the WHR or the NRHP. The archaeologists further noted substantial alteration at the east end of the project area due to residential development and previous highway construction.

Eastern Washington University's Archaeological and Historical Services conducted two separate reconnaissance surveys associated with WSDOT highway improvement projects within the current APE (Robinson 1982a, 1982b). The archaeologists did not identify any cultural resources during fieldwork and determined these areas to have low probability for containing intact archaeological deposits.

Historical Research Associates, Inc. conducted archaeological surveys at four locations in the vicinity of the current Eastgate Park-and-Ride, just east of the Bellevue Nickel Improvement Project APE (Hanum 2001). The archaeologists did not identify any cultural resources during the surveys and determined the area to have low archaeological sensitivity due to recent commercial development.

Exhibit 15. Previous Cultural Resource Investigations within 1 Mile of the Bellevue Nickel Improvement Project AP

Author(s)	Date	Title	Cultural Resources Identified
Stratton and Lindeman	1977	*Survey of Historical Resources: Corridor of Interstate 90 from Junction with Interstate 5 to the Vicinity of the Junction with Interstate 405, Washington State Department of Highways.*	Bellevue Holly Farm – 3.5-acre grove of English holly (ca. 1915-1925)
Soderberg	1980	*Wilburton Trestle (45KI262).* Historic American Engineering Record Inventory	45KI262 – Timber trestle (ca. 1904)
Thompson	1981	Letter report of cultural resources survey of Fugro Northwest's proposed commercial radio transmitter facility site	None
Robinson	1982a	Letter report of cultural resource reconnaissance for WSDOT's I-405: Factoria to Northup Way – HOV	None
Robinson	1982b	*I-90: Bellevue Access Study*	None
Krafft	1991	*Frederick W. Winters House (45KI606).* National Register of Historic Places Nomination Form	45KI606 – Historic building
Lyons	1992	*A Cultural Resource Overview of the Proposed Modifications to SR 520 Between 104th Avenue NE and SR 901, King County, Washington.*	Six resources recorded within one mile of S 520: 45KI9, 45KI10, 45KI90, 45KI191, 45KI192, and Highland School (no site number); resources not in project vicinity
Hanum	2001	*Eastgate Park-and-Ride Improvement Project: Cultural Resource Assessment, Bellevue, King County, Washington.*	None
Juell	2001	*Cultural Resources Inventory of the Proposed Washington Light Lanes Project: Route 5 Backbone, Interstate-405 (MP 0 to MP 11), from Interstate-5 to Interstate-90.*	None
Rooke	2002	Letter report of cultural resources survey of Cingular Wireless project site WA-479 (Texaco).	None

What previously identified archaeological resources are in the APE?

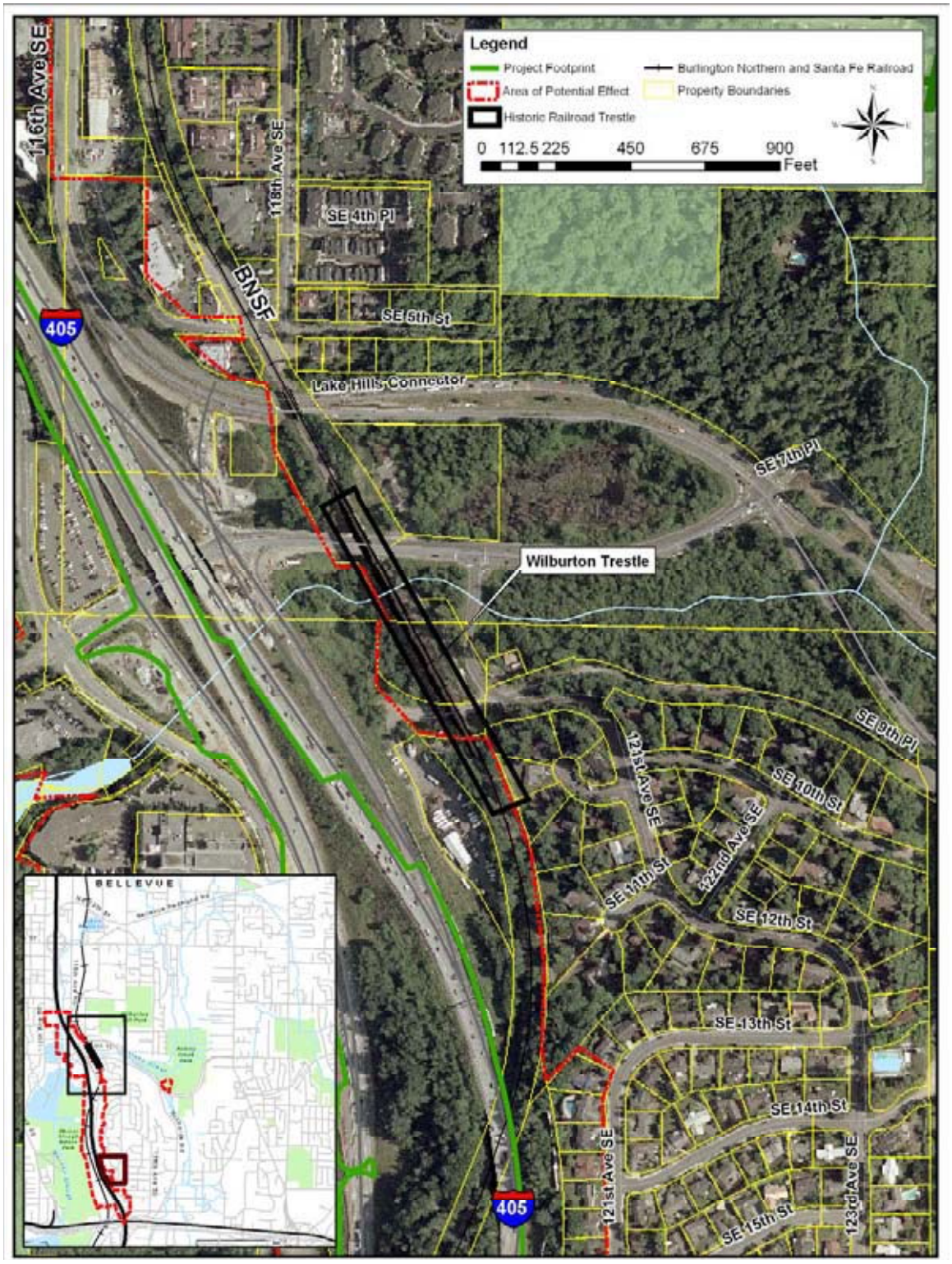
We also reviewed archaeological site forms for previously recorded prehistoric and historic period archaeological resources located within and in the vicinity of the APE. Site forms provide information on the variation of site types, site use, age range, and artifacts that may be encountered during construction activities associated with the Bellevue Nickel Improvement Project. We did not identify any previously recorded archaeological resources within the immediate vicinity of the APE. The nearest recorded archaeological resources are located approximately 5 miles to the northeast along the Sammamish River in Redmond.

The shoreline of Lake Washington has fluctuated several times over the last 7,000 years due to landslides and underwater slumping from large earthquakes (Karlin and Abella 1992). These changing ground surface elevations and fluctuating water levels of Lake Washington have resulted in prehistoric archaeological sites being either raised or inundated over time. (For a more detailed discussion of the environmental context and cultural sequence, refer to Appendix C.) Although ground disturbance associated with commercial and residential development has altered the landscape, intact archaeological deposits may still be buried within landslide debris and thick alluvial deposits beneath these disturbances.

What previously identified historic properties are in the APE?

The Wilburton Trestle is listed on the WHR and eligible for listing on the NRHP. The Trestle is immediately adjacent to the APE. A portion of this resource is actually inside the APE. The trestle is significant for its contribution to the history, architecture, and culture of the state of Washington (Appendix D). The Wilburton Trestle (45KI242) carries a single railroad track across the Mercer Slough/Kelsey Creek drainage, just east of the SE 8th Street interchange (Exhibit 16). This 30-meter-tall timber trestle is similar to the original structure built in 1904 by the Northern Pacific Railroad as part of a segment that transported coal from mines near Renton to the Bellevue area. Constructed with untreated timber, the trestle framing was completely replaced several times until the 1940s, when the entire structure was reconstructed with creosoted timber and timber treated with Wolman salts (Soderberg 1980).

Exhibit 16. Previously Identified Historic Properties in APE



Although it has been substantially altered since 1904, it is very similar to the original structure and survives as a visual reminder of the once-active coal industry. No properties were listed in the NRHP within the Bellevue Nickel Improvement Project APE.

What historic resources did we identify during the survey?

WSDOT identified a potential historic district along the east side of the Bellevue Nickel Improvement Project area (Exhibit 17). University of Washington faculty and renowned local architecture firms Bassetti and Morse, and Chairelli and Kirk developed Norwood Village in 1951. Eight houses within this neighborhood are within the Bellevue Nickel Improvement Project APE. For a more detailed discussion of the history of Norwood Village, see Appendix C.

Exhibit 17. Cultural Resources Identified During the Survey and Potential Norwood Village Historic District

Source: United States Geological Survey 2001