CULTURAL RESOURCE SURVEY FOR THE STAFFORD ROAD (PATTULO WAY TO ROSEMONT ROAD) IMPROVEMENTS PROJECT, CLACKAMAS COUNTY, OREGON

Prepared For
Murraysmith, Inc.
Portland, Oregon

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PROJECT:	Improvements to the existing roadway along SW Stafford Road between Pattulo Way and S Rosemont Road
TYPE:	Cultural resource survey
LOCATION:	Sections 16 and 21, Township 2 South, Range 1 East, Willamette Meridian
USGS QUAD:	*Lake Oswego, OR*, 7.5-minute, 2017
COUNTY:	Clackamas
PROJECT APE:	15.014 acres
AREA SURVEYED:	15.014 acres
SHPO PERMIT:	No. AP-3140
FINDINGS:	Archaeological Resources: • Two archaeological isolates (20/3052-1 and 20/3052-2) were identified within the project Area of Potential Effects (APE). • The archaeological resources are recommended to be not eligible for listing in the National Register of Historic Places. Historic Resources: • No historic-period buildings or structures were present within the APE.
PREPARERS:	Kelley Prince Martinez, M.S., R.P.A., and Jo Reese, M.A., R.P.A.

INTRODUCTION

Clackamas County is proposing improvements to the existing roadway along SW Stafford Road between Pattulo Way and S Rosemont Road in northwestern Clackamas County, Oregon (Figures 1 and 2). Proposed road improvements include widening SW Stafford Road to add bike lanes, realigning intersections at SW Johnson Road and SW Childs Road, adding a left turn lane at SW Johnson Road, and adding a traffic signal or roundabout at SW Childs Road. The improvements will increase safety and relieve congestion along SW Stafford Road and its intersections with SW Johnson Road and SW Childs Road. The project Area of Potential Effects (APE) extends beyond the existing road right-of-way and includes private property and parcels owned by Metro and the City of Lake Oswego. Shovel testing within the road right-of-way was conducted under a State of Oregon Archaeological Excavation Permit (No. AP-3140).

The project will require a U.S. Army Corps of Engineers permit. As such, the project is subject to review under Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations (36 CFR 800). To meet this compliance requirement, on behalf of Clackamas County Murraysmith, Inc., contracted with Archaeological Investigations Northwest, Inc. (AINW), to conduct a cultural resource survey of the project APE. All work was directed by AINW staff meeting the professional qualifications of the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation and following Oregon State Historic Preservation Office (SHPO) guidelines.

Prior to the cultural resource survey, AINW conducted an alternatives analysis to inform on the selection of a preferred alignment for the improvements (Martinez and Reese 2021). The alternatives analysis included background research and field reconnaissance to assess the likelihood of encountering pre-contact and historical resources in the project APE and to provide recommendations for further historic and archaeological survey within the APE.

AINW's cultural resource survey included background research, a pedestrian survey, and shovel testing within the project APE to determine if archaeological resources were present. Two historic-period isolates, a circa 1965 soda pop bottle (20/3052-1) and a glass insulator affixed high in a tree (20/3052-2), were identified as a result of the pedestrian survey. No artifacts were found during shovel testing. The archaeological isolates are recommended to be not eligible for listing in the National Register of Historic Places (NRHP).

There are no historic buildings or structures in the APE. The Shipley-Cook Farmstead, which is listed in the NRHP, borders the project APE but is not within it. Impacts to this historic property, and one of the heritage trees close to the APE (Figure 3), will be avoided.

AINW recommends a finding of "No Historic Properties Affected." No further cultural resource investigations are necessary for the undertaking.

If unanticipated archaeological resources, including human skeletal remains, are encountered during construction activities, all ground-disturbing activities near the find(s) must be halted and SHPO promptly notified. The area of the find(s) must be secured and protected from further disturbance.

LOCATION AND ENVIRONMENTAL SETTING

Located outside of the urban growth boundary between the cities of Lake Oswego and West Linn, the project APE is in unincorporated Clackamas County. The project vicinity is characterized by both residential and agricultural uses. The project APE is within Sections 16 and 21 of Township 2 South, Range 1 East, of the Willamette Meridian (Figures 1 and 2). The Tualatin River is approximately 0.37 kilometer (km) (0.23 mile [mi]) south of the southern extent of the APE, and Lake Oswego is located approximately 1.7 km (1.05 mi) north of the northern extent of the APE. The APE follows SW Stafford Road between Pattulo Way and S Rosemont Road and extends beyond the road right-of-way in some places to include areas along SW Stafford Road and at its intersections with SW Childs Road and SW Johnson Road. The northern portion of the APE is on a gradual south-facing slope, and the area features rolling hills. The APE crosses Pecan Creek, a tributary to the Tualatin River, immediately west of the intersection of SW Childs

Road and SW Stafford Road. The area northwest of the intersection of SW Stafford Road and SW Childs Road gently slopes downward towards Pecan Creek. Immediately south of the intersection of SW Childs Road and Stafford Road, the area west of the APE slopes steeply down to the southwest toward Pecan Creek. South of the intersection of SW Stafford Road and SW Johnson Road, the APE gradually slopes downhill toward the southwest and generally follows the existing road right-of-way. Given the slopes and rolling topography, there are several roadcuts and some fill areas in the APE.

The project APE is within the Willamette Valley physiographic province, which is located between the Coast Range to the west and the Cascade Range to the east. The Willamette Valley extends from the Columbia River to Cottage Grove, approximately 200 km (124 mi) to the south. The Willamette Valley consists primarily of broad, alluvial flats, which are interrupted by low-lying basalt hills (Franklin and Dyrness 1988:15-16). Much of the geology of the Willamette Valley is closely related to the geology of the Coast Range. However, the more recent geologic history of the Valley is tied to glacial events and the repeated failures of ice dams on glacial Lake Missoula, which caused catastrophic flooding along the Columbia River and back-flooded the Willamette Valley, depositing silt, sand, and gravels (Allen et al. 2009; Franklin and Dyrness 1988:15-16; Orr et al. 1992:203).

Cook's Butte rises 219 meters (m) (718 feet [ft]) above the Stafford Basin approximately 0.62 km (0.38 mi) west of the northern extent of the APE. While much of the APE is underlaid by the Sand Hollow basalt flow, which erupted in the middle Miocene, Cook's Butte is part of the Boring Lava field and is a shield volcano that has been extinct for approximately 300,000 years (Department of Geology and Mineral Industries 1989).

The project APE is within the *Pinus-Quercus-Pseudotsuga* vegetation zone. Vegetation in this zone is typically characterized by oak woodlands, grasslands, coniferous forests, and riparian forests (Franklin and Dyrness 1973). Vegetation within the project APE has changed over time as a result of agricultural activities during the nineteenth and twentieth centuries and modern residential development. Within the project APE, the vegetation is varied and consists of landscaped areas, grid-planted fir trees, agricultural fields, open landscapes with sparse Oregon ash trees, and dense stands of Douglas-fir with oak and bigleaf maple trees. Where forested, the understory consists of salal, vine maple, swordfern, stinging nettle, and hazel brush.

Three soil series are mapped within the APE: Cascade silt loam, Kinton silt loam, and Borges silty clay loam. The Cascade soil series consists of moderately deep, somewhat poorly drained soils that formed in silty materials. Cascade soils are found in upland areas (U.S. Department of Agriculture, Natural Resources Conservation Service [USDA-NRCS] 1999a). Cascade soils are mapped in the southern portion of the project APE. The Kinton series consists of deep, moderately well-drained soils formed in stratified lacustrine deposits. Kinton soils are found on long upland slopes and ridgetops (USDA-NRCS 1999b). Kinton soils are mapped in the central and northwestern portions of the APE. The Borges series consists of deep, poorly drained soils that developed in clayey alluvium. Borges soils are found in drainageways and concave areas on rolling uplands (USDA-NRCS 2002). Borges soils are mapped in the central and northern portions of the APE.

CULTURAL SETTING

Native Peoples

The APE is in the traditional territory of the Tualatin band of the Kalapuya and the Chinookan-speaking Clackamas (Mackey 2004:8; Silverstein 1990:533-534; Zenk 1990:548). Kalapuyan territory included much of the Willamette Valley and extended south to the Umpqua River drainage. The Tualatin people generally lived west of the Willamette River; their villages were located on the Tualatin Plains, the Tualatin River and its tributaries, and the north fork of the Yamhill River (Zenk 1990:548). The nearest recorded village to the project APE was located near the confluence of Dairy Creek and the Tualatin River, approximately 26.5 km (16.5 mi) northwest of the APE (Zenk 1990:548). This region included zones of dense timber along the Willamette River and its tributaries, as well as prairie and oak savannahs, offering Kalapuyan peoples diverse food resources (Zenk 1990:547). Much of their diet consisted of vegetal resources, including camas, wapato, tarweed seeds, hazelnuts, and acorns. The rich riverine and terrestrial environments of the Willamette Valley also provided Kalapuyan communities with various bird species, small mammals, black-tailed and white-tailed deer, elk, black bear, grasshoppers, caterpillars, lamprey eels, sturgeon, steelhead trout, and eulachon (Juntunen et al. 2005:46-47; Zenk 1990:547-548).

Kalapuyans lived in semi-subterranean multifamily houses in the winter, which were constructed from wood planks, bark, and often had earthen walls. Winter settlements were typically located in wooded areas above the floodplains, where households relied heavily on dried and stored foods that were harvested and processed from spring through fall (Juntunen et al. 2005:30-32; Zenk 1976:140-143, 1990:548-549). More transitory camps with simple brush shelters were used between the spring and fall, where mobile groups would hunt, fish, gather, and process seasonally available food resources (Juntunen et al. 2005:30; Zenk 1990:548-549).

The Clackamas lived along both sides of the Willamette River from present-day Portland to the north and present-day Canby to the south, in the area surrounding Willamette Falls, and in the Clackamas and Sandy River valleys (Silverstein 1990:534-535). Winter villages typically consisted of oblong, gable-roofed structures with cedar plank walls that housed multiple family groups (Ray 1938:124-126; Silverstein 1990:537-538). More temporary camps were inhabited during the fall and summer, as groups were more mobile, exploiting regional hunting, fishing, and gathering areas (Ellis 2013:58-60; Silverstein 1990:538). Willamette Falls, located approximately 7 km (4.3 mi) southeast of the APE, was a significant salmon fishing location for the Clackamas during the spring and summer months (Silverstein 1990:536).

Although salmon was a staple trade and food resource, the Clackamas also relied on other species of fish including sturgeon, steelhead trout, lampreys, and eulachon. Elk, deer, bear, and other large game were hunted outside of the major fishing season of late spring and summer. Smaller animals including racoons, beavers, rabbits, and otters were hunted for food and pelts. Camas, wapato, thistle, lupine, horsetail, bracken fern, cattail roots, and various berries were important plant resources for the Clackamas (Hajda 1994; Silverstein 1990:536-537). The procurement of many of these resources required travel from the main villages to seasonal camps from early spring to late fall. Much of the seasonally procured food resources were dried and cached at the villages for winter consumption (Curtis 1913:6; Hajda 1990:505-507; Silverstein 1990:535-537).

Anthropogenic burning in the Willamette Valley began between 3,000 and 5,000 years ago; this helped clear underbrush and created and maintained prairie landscapes. The controlled burning, which was often conducted at the end of the summer, also managed habitat for deer and elk populations (Ames and Maschner 1999:142; Boyd 1999a:110-122; Juntunen et al. 2005:25-26; Zenk 1990:547).

Traditional patterns of lifeways began to change prior to the permanent presence of European Americans in the region. Diseases such as measles, malaria, and smallpox—introduced by European and American traders, explorers, and missionaries—decimated Indigenous populations. The Tualatin and Clackamas peoples sustained devastating population losses as a result of such diseases, with estimates of an 88% population decline in much of the Willamette Valley and surrounding areas (Boyd 1999b:84-85; Juntunen et al. 2005:106-107; Zenk 1990:551). Indigenous groups were further impacted as European American resettlement began to accelerate in the mid-1800s, which displaced surviving Indigenous communities in the area and led to the negotiation of Indian land cessions through treaties with surviving populations (Beckham 1990).

The U.S. government entered treaty negotiations with members of the Kalapuya and Clackamas beginning in the 1850s; however, many of these treaties were never ratified by the U.S. Senate (Silverstein 1990; Zenk 1990:551). The Kalapuya Treaty of 1855 dispossessed the Kalapuya of their traditional lands with the promise of a permanent reservation (Jetté 2021; Zenk 1990:551). By 1856, the remaining Kalapuyan peoples were forcibly removed to the Grand Ronde Reservation in the eastern foothills of the Coast Range along with survivors from other interior western Oregon groups, including Clackamas, Molala, Upper Umpqua, Takelma, and Shasta (Zenk 1990:551). Federal recognition of the Grand Ronde Tribe was terminated in 1954. Despite forced removal and termination, Tribal members maintained connections to their traditional territories, including Willamette Falls (Confederated Tribes of the Grand Ronde 2021). The fight for restoration began in 1970, and in 1983, the Grand Ronde Restoration Act was signed, and treaty obligations were recognized.

Historical Context

The APE is in unincorporated Clackamas County in an area historically known as Hazelia or the Stafford Basin. Clackamas County was one of four original districts established by the Oregon Provisional Legislature in 1843 (Oregon Secretary of State 2021). Historically, Clackamas County covered portions of four present-day states and one Canadian province. By 1854, Clackamas County acquired its current boundaries (Oregon Secretary of State 2021).

American and British fur traders were the first nonindigenous people to extensively travel the Willamette Valley, although members of the Lewis and Clark Expedition travelled the region in 1805 and 1806 (Robbins 2021). The overland fur trade expanded from the Columbia River to the Willamette Valley in the first two decades of the nineteenth century. The Pacific Fur Company, its successor the North West Company, and the Hudson's Bay Company generally circumvented Kalapuyan regional interests and protocols, straining the relationships between the Indigenous community and European Americans in the region (Jetté 2006). In the 1830s, missionaries and retired fur traders settled in the lower Willamette Valley, preceding the flood of European American settlers to the area after the United States Congress passed the 1850 Donation Land Act (Gandy 2004; Juntunen et al. 2005:106-107; Robbins 2021). The Homestead Act of 1862 replaced the Donation Land Act and required residence on the land for five years

and evidence of improvements to the parcel. Homesteaders had seven years to file land claims (National Archives 2021).

The first recorded land survey of the APE dates to 1852, in which the land in the vicinity of the project APE was noted as "rolling and hilly-soil good 2nd rate clay loam" with "Timber large scattering fir etc." (General Land Office [GLO] 1852). A "Road from Tualatin Plains to Oregon City" is depicted on the 1852 GLO map along the approximate current alignment of S Rosemont Road, which intersects SW Stafford Road near the north end of the project APE. An unnamed road depicted on the 1852 GLO map follows the approximate current alignment of SW Childs Road (GLO 1852). No Donation Land Claims or structures are in the APE vicinity on the 1852 GLO map (GLO 1852). Three claims overlapping the project APE were granted between 1866 and 1876, which included Jesse and Nancy Bullock in 1866 (Bureau of Land Management [BLM] 1866; GLO 1862), Edward and Mary Ann Wilson in 1875 (BLM 1875; GLO 1862), and Ronald Crawford in 1876 (BLM 1876). No structures associated with the homesteads were shown to be within the project APE on the 1862 map (GLO 1862). Southwest Stafford Road, SW Childs Road, SW Johnson Road, and S Rosemont Road all appear in their approximate current alignments on the 1914 U.S. Geological Survey (USGS) topographic quadrangle map, although SW Stafford Road, SW Childs Road, and SW Johnson Road appear as unnamed. On the 1914 map, S Rosemont Road is labeled "Old Oregon City Road" (USGS 1914). Structures are shown on the 1914 map along SW Childs Road and towards the north end of the APE along SW Stafford Road (USGS 1914).

In 1861, Adam Randolph Shipley purchased 100 acres from Elijah Davidson, in what was originally part of Jesse Bullock's Donation Land Claim. Later that year, Shipley purchased another 320 acres from an adjacent Donation Land Claim that was claimed by Ronald Crawford. In 1863, Shipley expanded his landholdings when he purchased 100 acres from the Edward and Mary Ann Wilson claim. Over the next few years, Shipley acquired a total of 1,000 acres that stretched south to the Tualatin River. The Shipleys built their home and associated farm structures beginning in 1862 on what was Jesse Bullock's claim (Donovan and Lakin 2007), southeast of the present-day intersection of SW Stafford Road and S Rosemont Road, immediately west of the project APE. The land purchase and build dates on the Shipley parcel appear to be earlier than the original land claim issue dates, which may be attributed to a lag in processing and issuing the claims after the improvement and filing periods. The Shipley family was active in the Hazelia community and helped to organize the Oswego Grange (No. 175) in 1875, which was established to help protect the economic interests of local farmers and to provide a location for social events. The Grange was located on the Shipley property west of their home until 1890, when it was relocated to the city of Lake Oswego (Donovan and Lakin 2007).

James Preston Cook purchased the Shipley farmstead from the Shipley family in 1900. The Cook family continued growing the vineyard, which was planted by the Shipleys. The Cooks planted additional crops, a diverse variety of trees and shrubs, expanded the farm building complex, and raised pigs and cows on the farm. Many of the trees and shrubs planted by the Shipley and Cook families, which include cedar, mulberry, chestnut, Oregon ash, oak, madrone, maple, yew, magnolia, and black locust, are included in the Oregon Heritage Trees Inventory and Clackamas County Heritage Trees Inventory (Clackamas County n.d.; Oregon Travel Information Council 2021). While the farmstead is much smaller than it once was, the Cook family still owns what is now known as the Shipley-Cook Farmstead, which is listed in the NRHP and was recognized as a Century Farm in 2000 (Donovan and Lakin 2007).

The Fletcher-Luscher Farm is located immediately northeast of the intersection of SW Stafford Road and S Rosemont Road, which is northeast of the northernmost portion of the APE. J.B. and Daisy Fletcher purchased the farmstead from John A. Ficke in 1900, and they owned the property until 1904, when they sold the farm to Theodore Steinhilber. The farmstead had several owners until Rudolph Luscher purchased it in 1944 and operated the farmstead as a dairy. The farm complex includes a Queen Anne-style home, gambrel barn, chicken coop, and pumphouse, all of which were built in 1900. The Fletcher-Luscher Farm is eligible for listing on the NRHP (SHPO 2021g). The City of Lake Oswego purchased the 47.1-acre farm in 1991 and rehabilitated the barn and home. Currently, the farmstead is a city park known as the Luscher Farm, which houses community gardens, an heirloom garden, and the Rogerson Clematis Garden (City of Lake Oswego 2021).

The steep topography, numerous riparian areas, and rolling hills has generally hindered major development and urbanization in the Stafford Basin. The vicinity of the APE has generally been used as farmland and for low-density residential development beginning in the nineteenth century and extending into the present (HistoricAerials.com 1952, 1960, 1981, 2000, 2018; Metsker Maps 1928; Young 2013;).

PREVIOUS CULTURAL RESOURCE STUDIES

Prior to conducting fieldwork, AINW reviewed records online using the Oregon Archaeological Records Remote Access (OARRA) database administered by SHPO to determine if archaeological resources have been recorded or archaeological surveys have been completed within or near the project APE. In addition to this research, historical maps and other documents on file at AINW or available online were examined to determine the potential for encountering archaeological resources.

One cultural resource survey conducted for the construction of the roundabout at SW Stafford Road and S Rosemont Road partially overlaps the northernmost portion of the current project APE (Musil 2003). No archaeological resources were identified as a result of the pedestrian survey and occasional shovel scrapes (Musil 2003).

Nine other cultural resource studies have been conducted within 1.6 km (1 mi) of the current project APE.

- A cultural resource study was conducted for the expansion of an existing park and an area proposed for wetland filling at Luscher Farm (Wilson and Fagan 2007). The closest portions of the project were approximately 115 m (375 ft) northeast of the northern extent of the current project APE. No cultural resources were identified as a result of the pedestrian survey and shovel testing (Wilson and Fagan 2007).

- A cultural resource survey was conducted for the extension of the Stafford Basin Trail located approximately 0.8 km (0.5 mi) east of the northern extent of the current project APE. No cultural resources were identified as a result of the pedestrian survey and shovel testing (Marken and York 2011).

- A cultural resource study was conducted for the installation of a cell tower approximately 0.5 km (0.3 mi) north of the northern extent of the current project APE. No cultural resources were identified as a result of the pedestrian survey (Finley 2014).

- Three cultural resource studies were conducted for the replacement of the Stafford Road Bridge, which crosses the Tualatin River approximately 0.45 km (0.28 mi) south of the southern extent of the current project APE (O'Brien and Smits 2005; Smits and Reese 2007, 2008). Studies for the bridge replacement project extended south from the southern end of the current project APE. A possible well was identified during the pedestrian survey. Archaeological monitoring was recommended if ground-disturbing activities occurred within the vicinity of the well (Smits and Reese 2007). No cultural resources were identified as a result of the pedestrian survey and shovel testing conducted for the other two cultural resource studies (O'Brien and Smits 2005; Smits and Reese 2008).

- Three cultural resource studies were conducted for paving and lane expansion projects along Interstate 205 approximately 1.4 km (0.9 mi) south of the APE (Connolly 2017, 2018; Helzer and Dexter 2004). No cultural resources were identified in the vicinity of the current APE as a result of the pedestrian surveys and shovel testing for the three projects (Connolly 2017, 2018; Helzer and Dexter 2004). One cryptocrystalline silicate flake was identified on the ground surface during the pedestrian survey of the linear Interstate 205 widening project approximately 4.5 km (2.8 mi) southwest of the southern extent of the current project APE (Connolly 2018).

Recorded archaeological sites in the vicinity of the project APE are generally lithic scatters and historic-period debris scatters located along the Willamette and Tualatin Rivers east-northeast and southwest of the project APE, respectively. The nearest recorded archaeological site, 35CL376, is located approximately 2 km (1.25 mi) northwest of the current APE. The site is a dense pre-contact archaeological site along the historic shoreline of Lake Oswego, although the area is now inundated; the site was found during a period when the lake was drained. In total, 524 lithic artifacts were collected from the site, including 128 stone tools, 226 pieces of debitage, and 170 pieces of fire-cracked rock. Additionally, 73 pieces of bone were recovered from the site. Site 35CL376 represents Indigenous use of the area from throughout the early Archaic period into the Contact period. The site was recommended eligible for listing in the NRHP (Punke et al. 2011).

The OARRA database indicates that pre-contact Native American artifacts are reported to have been collected in the vicinity of the northern portion of the current project APE, although no specific information or documentation are available. Likewise, the database notes a Native American cemetery on Cooks Butte, which is approximately 0.62 km (0.38 mi) west of the APE. Lithic artifacts and burials are reported between the Tualatin River and Interstate 205, although no specific documentation is available (SHPO 2021g).

The Shipley-Cook Farmstead, listed in the NRHP, is immediately west of the northernmost portion of the APE, at the intersection of SW Stafford Road and S Rosemont Road (Figure 2). It is adjacent to the project APE, and it is the nearest historic resource. The NRHP-listed farmstead consists of an 1862 farmhouse with attached woodshed and cream separator building, a barn which was constructed in the 1860s or 1870s, and a chicken coop from 1928-1929 (SHPO 2021e). The Shipley-Cook Farmstead has

many heritage trees, including a mulberry tree that is at the edge of the project APE. The mulberry tree is located south of the driveway entrance to the farmstead and was planted in 1862 (Photo 1; Clackamas County n.d.) Six other historic resources representing the early European-American settlement period are located within 1.6 km (1 mi) of the current project APE, and all are eligible for listing in the NRHP (SHPO 2021a, 2021b, 2021c, 2021d, 2021e, 2021f).

Summary

One previous cultural resource study partially overlaps with a small portion of the northern end of the current project APE; no archaeological resources were identified as a result of the study. The nearest recorded archaeological site to the project APE is 35CL376. It is located approximately 2 km (1.25 mi) northwest of the APE and is a dense pre-contact site along the historic shoreline of Lake Oswego. Site 35CL376 was recommended to be eligible for listing in the NRHP. Close to the APE, The OARRA database indicates Native American artifacts and possible burials may have been identified in the vicinity of the project APE. Seven historic resources, including the adjacent NRHP-listed Shipley-Cook Farmstead, are located within 1.6 km (1 mi) of the current project APE, indicating early historic-period use of the vicinity. Pre-contact archaeological deposits, if present within the project APE, may include lithic scatters along terraces above waterways and drainages based on where sites have been found in the vicinity. Historic-period archaeological sites, if present, may be associated with the agricultural or residential development of the area, which began in the mid nineteenth century. However, much of the APE is confined to the road right-of-way, which has been disturbed by previous road construction, including cuts and fills in the hilly terrain, and utility installations, reducing the probability of encountering intact archaeological deposits.

A mulberry tree (Photo 1) that is listed on the Oregon Heritage Trees Inventory and Clackamas County Heritage Trees Inventory is at the edge of the APE, on the Shipley-Cook Farmstead. AINW recommends impacts to this tree be avoided and the tree protected.

CULTURAL RESOURCE SURVEY METHODS AND FINDINGS

The cultural resource survey was completed on June 29, July 12 and 13, and August 5, 2021, by AINW archaeologists Michael Lorain, B.S., Ryan Murphy, B.A., and Sarah Taylor, B.A., under the direction of Kelley Prince Martinez, M.S., R.P.A. AINW President and Senior Archaeologist Jo Reese, M.A., R.P.A., managed the project and provided general oversight. No historic resources are within the APE, although the Shipley-Cook Farmstead is adjacent. Two historic-period isolates were identified. No additional archaeological work is recommended.

Pedestrian Survey

The pedestrian survey was conducted on June 29, 2021, by AINW archaeologist Kelley Prince Martinez. The project APE was examined by walking one transect on each side of SW Stafford Road between Pattulo Way and S Rosemont Road where the APE was confined to the existing road right-of-way. Parallel transects spaced no more than 10 m (33 ft) apart were walked in areas of the APE that extended beyond the existing road right-of-way. Mineral soil visibility was limited by gravel and vegetation cover,

and less than 5% of the mineral soil surface was visible (Photos 2, 3, and 4). The entire 15.03-acre project area was surveyed. During the pedestrian survey, two historic-period isolates were identified within the project APE; these two isolates (20/3052-1 and 20/3052-2) are discussed in the *Results* section below.

Shovel Test Excavations

AINW excavated 18 shovel tests (ST-1 through ST-18) within the project APE to determine if subsurface archaeological resources were present (Table 1; Figures 2 and 3). The shovel tests were cylindrical, 30 centimeters (cm) (12 inches [in]) in diameter, and excavated to depths of at least 50 cm (20 in) below the surface. One shovel test (ST-9) was augered to 103 cm (40.6 in) below the surface with a 15-cm (6-in) diameter bucket auger. Soil compaction limited attempts to excavate shovel tests ST-4 and ST-7 deeper with the auger; these shovel tests were excavated with a shovel to depths of 80 and 83 cm (31.5 and 32.7 in), respectively (Table 1; Figure 2).

Sediments from the shovel tests were screened through nested 6.4- and 3.2-millimeter (¼- and ⅛-in) mesh hardware cloth. The shovel tests were backfilled upon completion and their locations mapped with sub-meter precision using a Trimble R1 Global Navigation Satellite System unit. No evidence of an archaeological site was observed during shovel testing.

Shovel tests ST-1 through ST-9 were excavated on a level terrace between 1 and 2 m (3.3 and 6.6 ft) above the east side of SW Stafford Road between SW Johnson Road and Zivney Lane. Shovel tests ST-1 through ST-4 were excavated east-northeast of the intersection of SW Stafford Road and SW Johnson Road in a stand of Douglas-fir trees, which was interrupted by a landscaped area and unnamed drainage (Photo 5). Shovel test ST-5 was excavated in the parcel immediately southeast of the intersection of SW Stafford Road and Zivney Lane in a grid of young Noble fir trees. Shovel test ST-6 was excavated on a slight west-facing slope in a planted grid of Douglas-fir trees. Shovel test ST-7 was excavated at the edge of a grass-covered agricultural field and shovel test ST-8 was excavated in a densely wooded area at the western edge of the agricultural field (Photo 6). Shovel tests ST-9 through ST-16 were excavated in the parcel immediately northwest of the intersection of SW Stafford Road and SW Childs Road. The grass-covered area featured sparse Oregon ash trees and the landform slopes gently toward Pecan Creek, which has been partially channelized through the parcel (Photo 7).

Shovel tests ST-17 and ST-18 were excavated in the road right-of-way in an area recently cleared of vegetation between SW Stafford Road and SW Johnson Road (Photo 8). The shovel tests were located in a level area near the toe of a west-facing slope and east and south of a natural gas pipeline.

Shovel tests ST-1 through ST-4, ST-8, and ST-18 encountered a dark brown compact silt loam overlying a compact yellowish brown silt loam consistent with the Cascade series mapped for the area (USDA-NRCS 1999a). Shovel test ST-17, in the area where vegetation had been recently cleared, encountered a dark grayish brown silty clay overlying a tannish brown fine-grained sandy silt, which contained fragments of plastic to approximately 38 cm (15 cm) below the ground surface. The soil abruptly transitioned to a compact orange-brown silt loam with iron and manganese concretions (Photo 9). The soil profile in shovel ST-17 is not consistent with soils mapped for the area, which may be due to disturbance when vegetation was cleared from the installation of the natural gas pipeline approximately 10 m (33 ft) to the west and 15 m (50 ft) to the north. Shovel tests ST-5 and ST-9 through

ST-16 encountered a compact grayish brown silty clay loam with sparse charcoal and burned earth consistent with the Borges series mapped for the area (Photo 10; USDA-NRCS 2002). Shovel test ST-9 was augered to 103 cm (41 in) below the surface; weathered gravels prevented the crew from augering deeper. Fragments of plastic, colorless glass and amber glass were identified in shovel test ST-5 to approximately 40 cm (16 in) below the surface, suggesting substantial ground disturbance in the immediate vicinity. Shovel test ST-5 was excavated to 60 cm (24 in) below the surface to test below the disturbance. Shovel tests ST-6 and ST-7 encountered a compact yellowish brown silt loam overlying a light brown silty clay loam consistent with the Kinton series mapped for the area (USDA-NRCS 1999b).

Two fragments of slag, a byproduct of iron smelting, were identified within the upper 20 cm (8 in) in shovel tests ST-13 and ST-18 (Photo 11). Both shovel tests were excavated within 10 m (33 ft) of the edge of SW Stafford Road. Slag was commonly used as fill in roadbed construction in the area (Bajdek et al. 2014; Carnegie Steel Company 1921:30-33; Stuart 2010:36). Due to the prevalence of slag in the area, it is not considered an artifact. No artifacts or other evidence of an archaeological site was observed during shovel testing.

Results

AINW identified two archaeological isolates (20/3052-1 and 20/3052-2) within the APE during the pedestrian survey (Figure 3). Resource forms for the historic-period isolates are in the Appendix.

Isolate 20/3052-1

Isolate 20/3052-1 is a historic-period Mountain Dew bottle that was identified along Pecan Creek and near a concrete culvert that carries Pecan Creek under SW Childs Road (Figure 3; Photos 12 and 13; Appendix). The area immediately south of Pecan Creek is built up approximately 2 m (6.6 ft) for the roadbed of SW Childs Road. Based on the remnant applied color label on the bottle and the embossed stamping on the bottle base, the bottle was manufactured in 1965 (Lockhart 2010; Lockhart and Hoenig 2018). The remnant label reads, "It'll Tickle Your Innards/Less than 1/10 of 1% Benzoate/U.S. Certified Color Added." Shovel test ST-9 was excavated approximately 5 m (16 ft) northeast of the isolate to determine if any subsurface archaeological deposits were present (Photo 14). No other historic-period or pre-contact artifacts were encountered. AINW recommends that isolate 20/3052-1 is not eligible for listing in the NRHP and no additional work is necessary for this resource.

Isolate 20/3052-2

Isolate 20/3052-2 is a historic-period aqua glass insulator, which was still mounted high in a Douglas-fir tree within the project APE (Figure 3; Photos 15 and 16; Appendix). The insulator is likely associated with a structure that was built on the parcel in 1930 (Clackamas County 2021). The structure was no longer on the parcel at the time of the pedestrian survey. The Douglas- fir tree and insulator are at the top of a south-facing slope approximately 1.5 m (5 ft) above SW Childs Road. There are buried utilities immediately north of the project APE in the vicinity of the isolate. The project design will not remove the tree. AINW recommends that isolate 20/3052-2 is not eligible for listing in the NRHP and no additional work is necessary for this resource.

SUMMARY AND RECOMMENDATIONS

AINW completed a cultural resource survey for the Stafford Road (Pattulo Way to Rosemont Road) Improvements project in Clackamas County, Oregon. No historic buildings or structures are within the APE. Eighteen shovel tests were excavated within the project APE to at least 50 cm (20 in) below the ground surface. During the pedestrian survey, two historic-period isolates were identified (20/3052-1 and 20/3052-2): one historic bottle along Pecan Creek and one aqua glass insulator, which was still attached to a tree. The isolates are recommended to be not eligible for listing in the NRHP. No archaeological resources were identified within the project APE during shovel testing. Based on these findings, AINW recommends a finding of "No Historic Properties Affected," and recommends no further cultural resource work for the undertaking.

A mulberry tree on the Shipley-Cook Farmstead that is listed on the Oregon Heritage Trees Inventory and Clackamas County Heritage Trees Inventory is at the edge of the project APE. AINW recommends the tree be avoided and protected. Also, all impacts should avoid the private land on which the adjacent Shipley-Cook Farmstead is located, as it is listed in the NRHP.

If unanticipated archaeological resources, including human skeletal remains, are encountered during construction activities, all ground-disturbing activities near the find(s) must be halted and the SHPO promptly notified. The area of the find(s) must be secured and protected from further disturbance.

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TABLE 1

RESULTS OF SHOVEL TESTS

Shovel Test No.	Depth (cmbs)	Results	Notes
ST-1	63	No Artifacts	
ST-2	61	No Artifacts	
ST-3	63	No Artifacts	
ST-4	80	No Artifacts	
ST-5	60	No Artifacts	
ST-6	60	No Artifacts	
ST-7	83	No Artifacts	
ST-8	62	No Artifacts	
ST-9*	103	No Artifacts	
ST-10	55	No Artifacts	
ST-11	62	No Artifacts	
ST-12	60	No Artifacts	
ST-13	60	No Artifacts	Slag 0-10 cmbs
ST-14	60	No Artifacts	
ST-15	55	No Artifacts	
ST-16	60	No Artifacts	
ST-17	60	No Artifacts	
ST-18	60	No Artifacts	Slag 0-20 cmbs

*Shovel test augered using a 15-cm (6-in) diameter bucket auger.
Note: cmbs = centimeters below the surface.

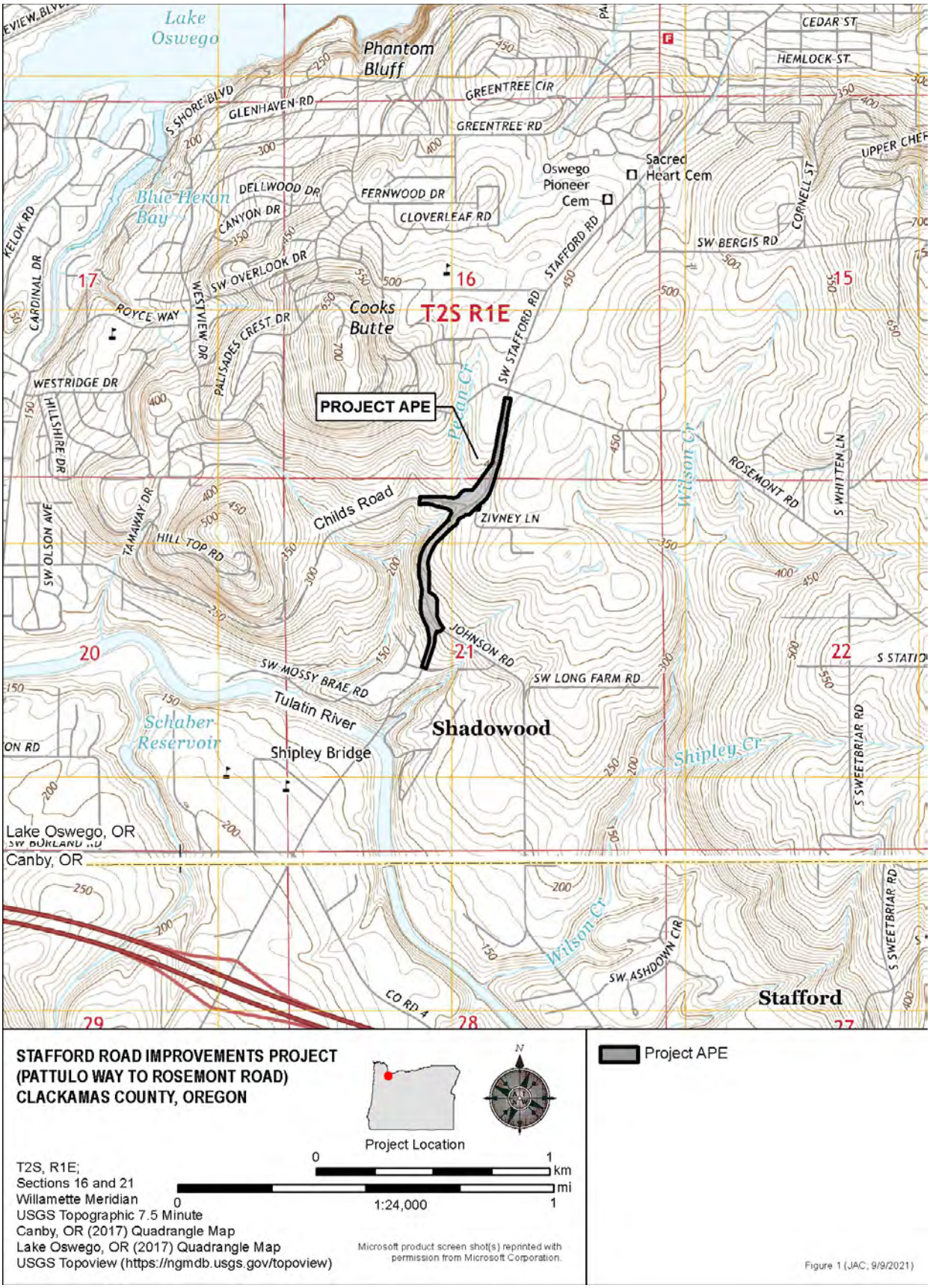


Figure 1. Location of the Stafford Road (Pattulo Way to Rosemont Road) Improvements project APE in Clackamas County, Oregon.

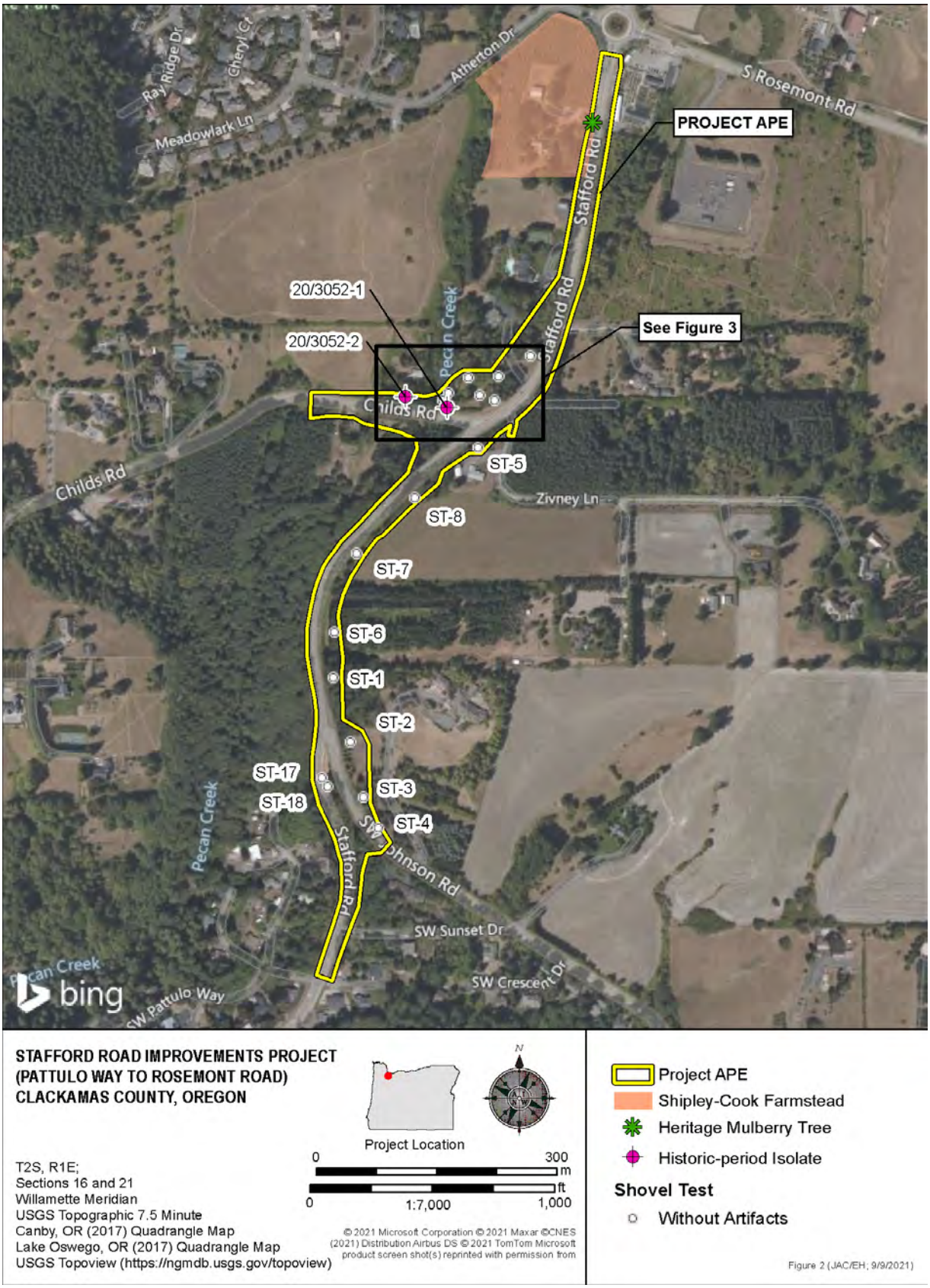


Figure 2. Aerial photo showing the location of historic-period isolates, heritage tree, and shovel test locations of the Stafford Road (Pattulo Way to Rosemont Road) Improvements project in Clackamas County, Oregon. Shovel tests near the intersection of SW Stafford Road and SW Childs Road are shown on Figure 3.

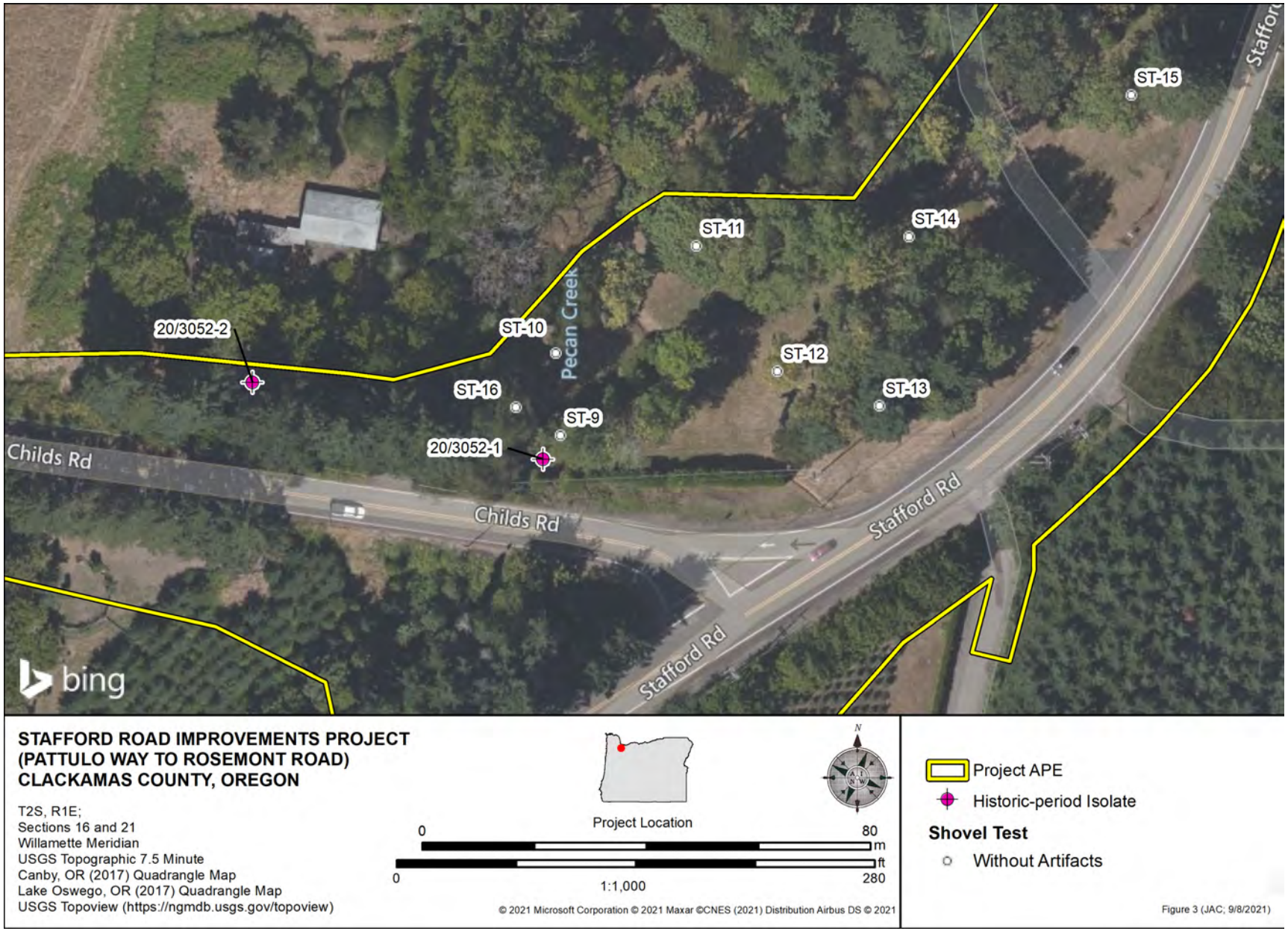


Figure 3. Aerial photo showing the historic-period isolates and shovel test locations near the intersection of SW Stafford Road and SW Childs Road at the Stafford Road (Pattulo Way to Rosemont Road) Improvements project in Clackamas County, Oregon.

Photo 1. Overview of a mulberry tree, which was planted in 1862 on the Shipley-Cook Farmstead and is listed on state and county heritage tree inventories. The view is towards the south. The driveway to the Shipley-Cook Farmstead is in the foreground.

Photo 2. Overview of the southern extent of the project APE near the intersection of SW Stafford Road and Pattulo Way. The view is towards the northeast.

Photo 3. Overview of the project APE at the intersection of SW Stafford Road and SW Johnson Road. The view is towards the south-southeast.

Photo 4. Overview of the northern extent of the project APE near the intersection of SW Stafford Road and S Rosemont Road. The view is towards the south.

Photo 5. Overview of shovel test ST-2, which was excavated to 61 cm (24 in) below the surface in the southern portion of the APE. The view is towards the north.

Photo 6. Overview of shovel test ST-7, which was excavated to 83 cm (33 in) below the surface in the central portion of the APE. The view is towards the north.

Photo 7. Overview of shovel test ST-10, which was excavated to 55 cm (22 in) below the surface near SW Stafford Roads intersection with SW Childs Road. The view is towards the east-northeast.

Photo 8. Overview of shovel test ST-18, which was excavated to 60 cm (24 in) below the surface near the southern end of the APE. The view is towards the north.

Photo 9. Shovel test ST-17, which was excavated to 60 cm (24 in) below the surface in the southern end of the APE.

Photo 10. Shovel test ST-9, which was excavated to 103 cm (41 in) below the surface near where the historic-period bottle (20/3052-1) was found. No artifacts were identified in the shovel test.

Photo 11. Slag recovered in the upper 10 cm (4 in) of shovel test ST-13 along with road gravel. The shovel test was excavated to 60 cm (24 in) below the surface. No archaeological resources were identified.

Photo 12. Isolate 20/3052-1, a historic-period Mountain Dew bottle manufactured ca 1965, which was identified on the ground surface near Pecan Creek within the APE.

Photo 13. Overview of isolate 20/3052-1, which was found at the location of the clipboard. Pecan Creek is immediately south of the isolate. The view is towards the southwest.

Photo 14. Overview of shovel test ST-9, which was excavated 5 m (16 ft) northeast of isolate 20/3052-1. No artifacts were identified. The view is towards the southeast.

Photo 15. Isolate 20/3052-2, a historic-period aqua glass insulator, which was still mounted to a Douglas-fir tree within the project APE. The view is towards the west.

Photo 16. Overview of isolate 20/3052-2, which was found in the tree. SW Stafford Road is on the left side of the frame. The view is towards the west.

APPENDIX

STATE OF OREGON ARCHAEOLOGICAL SITE RECORDS

State of Oregon Archaeological Site Record

Summary of Isolate Form#: 29110

Form Type/Identification

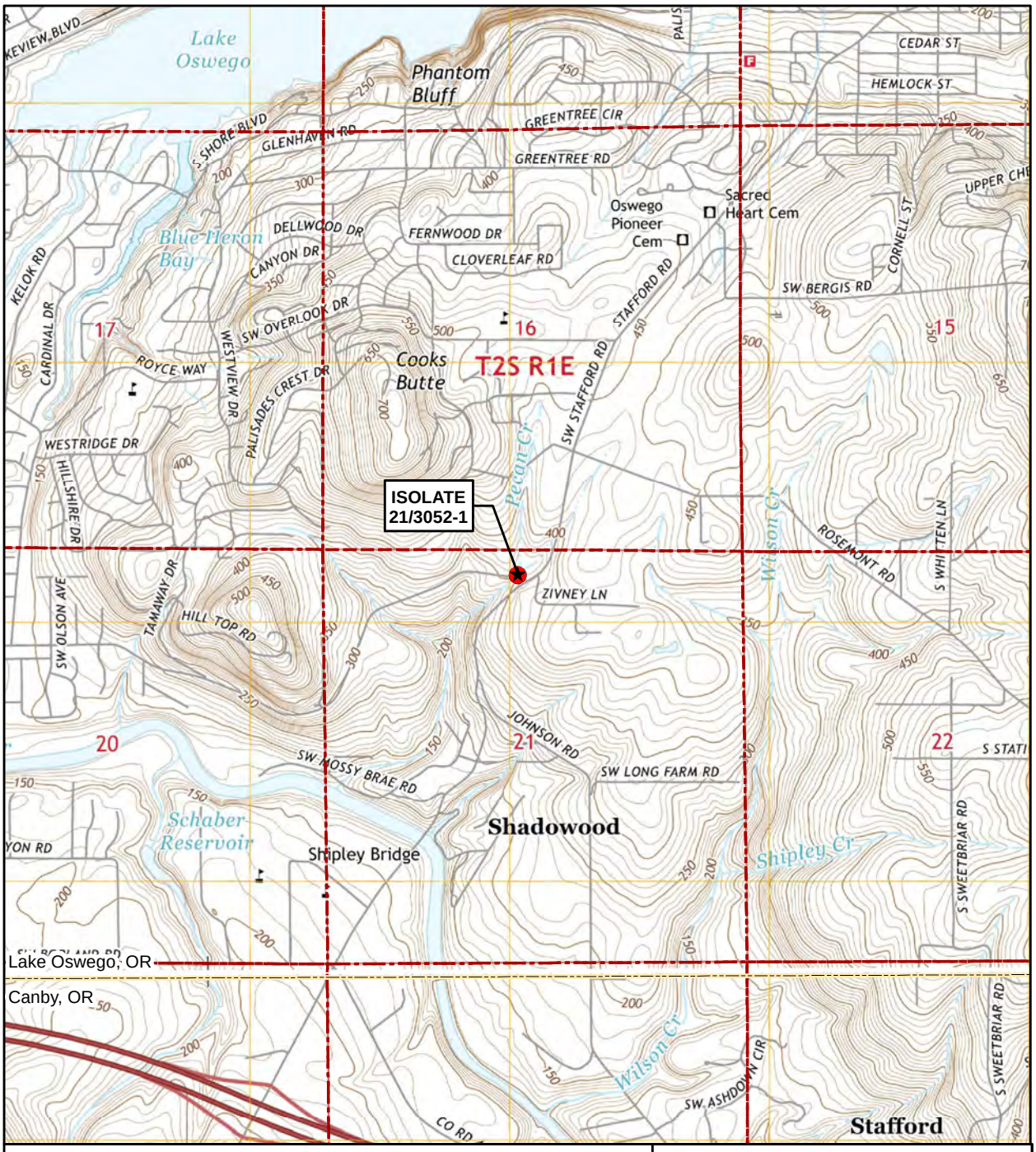
Field Id:	20/3052-1
Isolate Description:	Isolate 20/3052-1 is located approximately 50 meters (m) (164 feet [ft]) west of the intersection of SW Stafford Road and SW Childs Road. The isolate is a historic-period Mountain Dew bottle with an embossed manufacturer's mark on the base of the bottle, indicating the manufacture date of 1965 (Lockhart 2010; Lockhart and Hoenig 2018). The remnant applied color label reads, "It'll Tickle Your Innards/Less than 1/10 of 1% Benzoate/U.S. Certified Color Added." The isolate was identified within the APE during the pedestrian survey along Pecan Creek near the culvert that carries Pecan Creek under SW Childs Road. The area immediately south of Pecan Creek is built up approximately 2 m (6.6 ft) for the roadbed of SW Childs Road. Shovel test ST-9 was excavated approximately 5 m (16 ft) northeast of the isolate to determine if any subsurface archaeological deposits were present. No other historic-period or pre-contact artifacts were encountered. CITATIONS: Lockhart, Bill (2010) Bottles on the Border: The History and Bottles of the Soft Drink Industry in El Paso, Texas, 1881-2000. Electronic document, https://sha.org/bottle/pdffiles/EPChap7c.pdf, accessed August 26, 2021. Lockhart, Bill, and Russ Hoenig (2018) Owens-Illinois Glass Co. – Part 2, The Bewildering Array of Owens-Illinois Glass Co. Logos and Codes. Electronic document, https://sha.org/bottle/pdffiles/OwensIllinois2018Part2.pdf, accessed August 26, 2021.
Form Type:	Isolate
Recording Date:	09/14/2021

Location

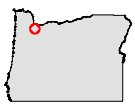
County	Clackamas
Cadastral Locations	Township: 2 S; Range: 1 E; Section: 21; ¼: NE; ¼: NE; ¼: NW; DLC: ; Meridian: Willamette
Map References	Lake Oswego, OR 7.5 minute 2017
Elevation	From 342 To 342 ft
UTM Coordinates	Type: Centerpoint; East: 122693013; North: 45388742; Method: GPS < 1m; Zone: 10; Datum: 27

Files Uploads

- 20 3052-1 Isolate Form Photos.pdf
- Iso_213052_1_Topo.pdf
- Iso_213052_1_Aerial.pdf



ISOLATE 21/3052-1
CLACKAMAS COUNTY, OREGON



Map Location

Archaeological Isolate
21/3052-1

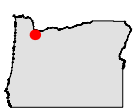
T2S, R1E;
Sections 16 and 21
NE/NE/NW
Willamette Meridian
USGS Topographic 7.5 Minute
Canby, OR (2017) Quadrangle Map
Lake Oswego, OR (2017) Quadrangle Map
USGS Topoview (https://ngmdb.usgs.gov/topoview)

0 1 km
0 1 mi
1:24,000

NAD 83 UTM Zone 10N
524032 E 5026181 N
Elevation: 110 m (361 ft)

Iso_213052_1_Topo (JAC; 9/8/2021)

ISOLATE 21/3052-1
CLACKAMAS COUNTY, OREGON



Map Location

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Sections 16 and 21
NE/NE/NW
Willamette Meridian
USGS Topographic 7.5 Minute
Canby, OR (2017) Quadrangle Map
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0 40 m
0 200 ft
1:1,000

NAD 83 UTM Zone 10N
524032 E 5026181 N
Elevation: 110 m (361 ft)

Archaeological Isolate
21/3052-1

Iso_213052_1_Aerial (JAC; 9/8/2021)

State of Oregon Archaeological Site Record
Isolate Form

Photos

Smithsonian Number:

Alt Site Numbers: **Site 20/3052-1**

Overview of the location of isolate 20/3052-1 along Pecan Creek near the intersection of SW Stafford Road and SW Childs Road. The view is towards the southwest.

Isolate 20/3052-1, a historic-period Mountain Dew bottle identified on the ground surface during the pedestrian survey of the project APE.

Isolate 20/3052-1, showing the embossed Owens Illinois manufacturer's mark on the base of the bottle, which indicates the bottle was manufactured in 1965.

Isolate 20/3052-1, showing the remnant applied color label, which reads "It'll Tickle Your Innards/Less than $^{1}/_{10}$ of 1% Benzoate/U.S. Certified Color Added."

State of Oregon Archaeological Site Record

Summary of Isolate Form#: 29112

Form Type/Identification

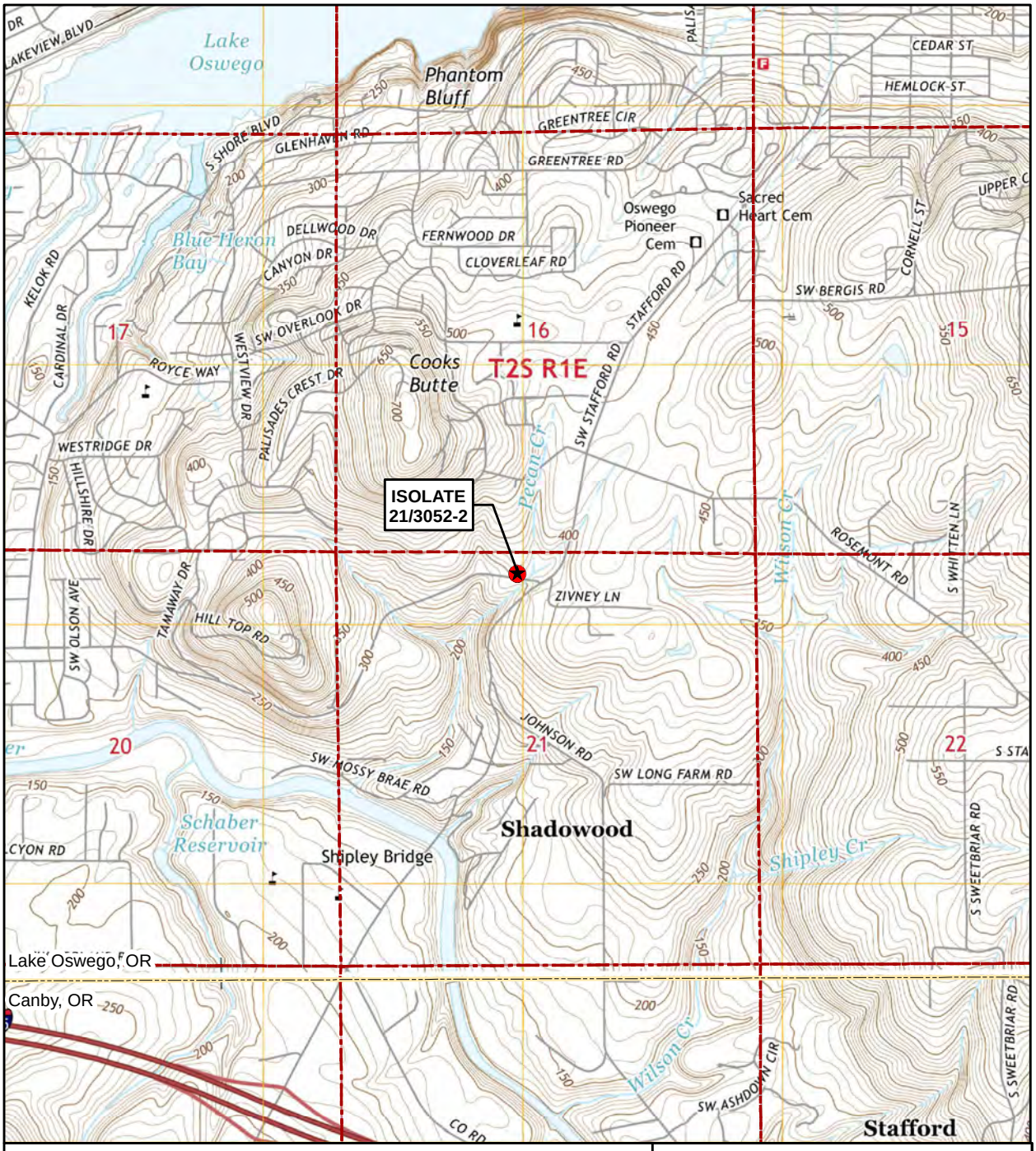
Field Id:	20/3052-2
Isolate Description:	Isolate 20/3052-2 is located approximately 95 meters (m) (312 feet [ft]) west of the intersection of SW Stafford Road and SW Childs Road. The isolate is a historic-period aqua glass insulator that was still mounted on a Douglas-fir tree within the APE. The isolate was identified within the APE during the pedestrian survey. The insulator is likely associated with a structure that was built on the parcel in 1930. The structure was no longer on the parcel at the time of the pedestrian survey. The Douglas-fir tree and insulator are at the top of a south-facing slope approximately 1.5 m (5 ft) above SW Childs Road. There are buried utilities immediately north of the project APE in the vicinity of the isolate.
Form Type:	Isolate
Recording Date:	09/13/2021

Location

County	Clackamas
Cadastral Locations	Township: 2 S; Range: 1 E; Section: 21; ¼: NE; ¼: NE; ¼: NW; DLC: ; Meridian: Willamette
Map References	Lake Oswego, OR 7.5 minute 2017
Elevation	From 400 To 400 ft
UTM Coordinates	Type: Centerpoint; East: 122693675; North: 45388867; Method: GPS < 1m; Zone: 10; Datum: 27

Files Uploads

- 20_3052-2_Isolate_Form_Photos.pdf
- Iso_213052_2_Topo.pdf
- Iso_213052_2_Aerial.pdf



ISOLATE 21/3052-2
CLACKAMAS COUNTY, OREGON

Map Location

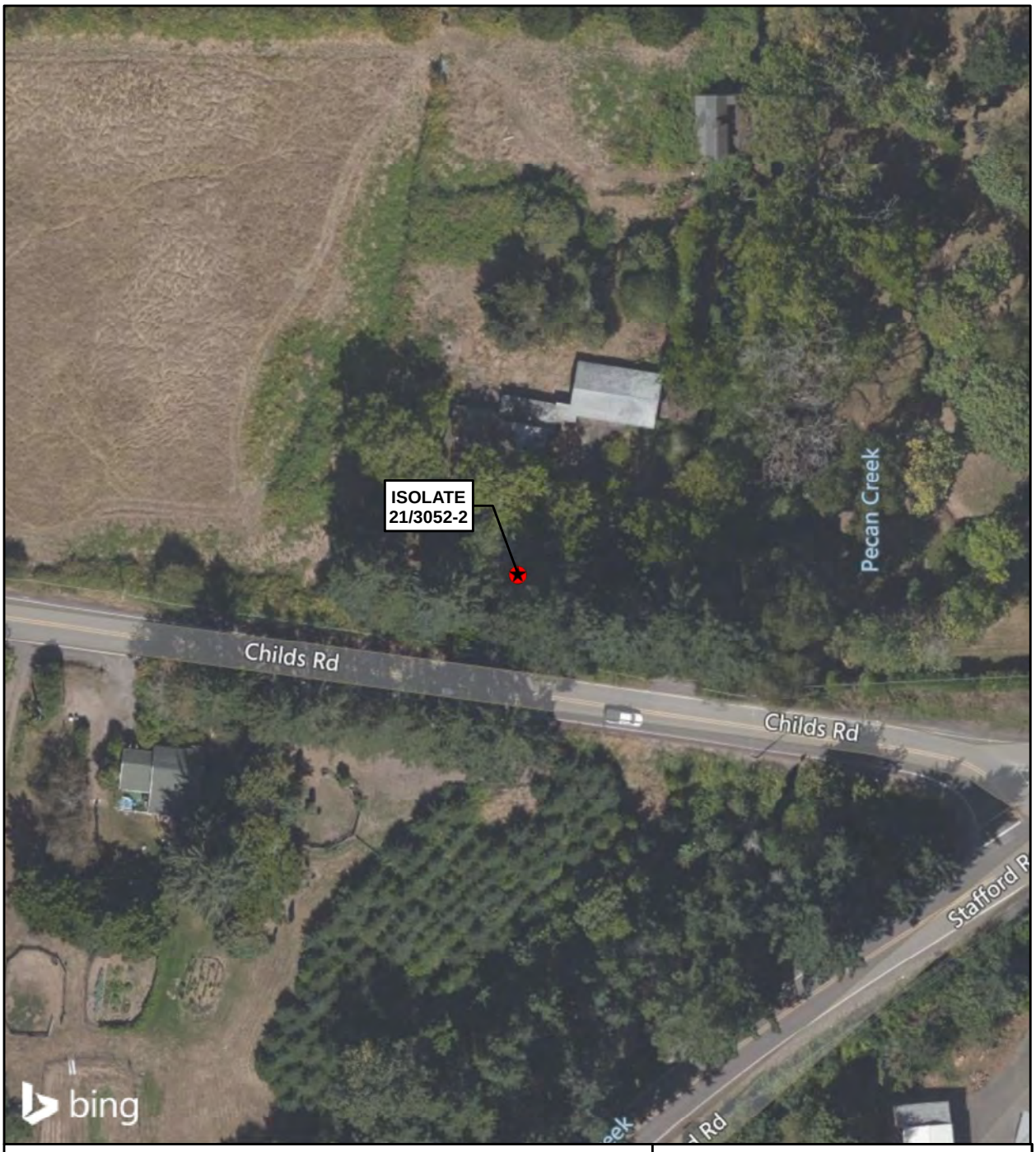
T2S, R1E;
Sections 16 and 21
NE/NE/NW
Willamette Meridian
USGS Topographic 7.5 Minute
Canby, OR (2017) Quadrangle Map
Lake Oswego, OR (2017) Quadrangle Map
USGS Topoview (https://ngmdb.usgs.gov/topoview)

0 1 km
0 1 mi
1:24,000

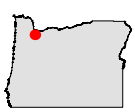
NAD 83 UTM Zone 10N
523980 E 5026195 N
Elevation: 110 m (361 ft)

Archaeological Isolate
21/3052-2

Iso_213052_2_Topo (JAC; 9/8/2021)



ISOLATE 21/3052-2
CLACKAMAS COUNTY, OREGON



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0 40
m
ft
0 200
1:1,000

NAD 83 UTM Zone 10N
523980 E 5026195 N
Elevation: 110 m (361 ft)

Archaeological Isolate
21/3052-2

Iso_213052_2_Aerial (JAC; 9/8/2021)

State of Oregon Archaeological Site Record
Isolate Form

Photos

Smithsonian Number:

Alt Site Numbers: **Site 20/3052-2**

Overview of the location of isolate 20/3052-2 west of the intersection of SW Stafford Road and SW Childs Road. The view is towards the southwest.

Isolate 20/3052-2, a historic-period aqua glass insulator, which was still mounted to a Douglas-fir tree within the APE.