STATEMENT OF QUALIFICATIONS | **PACKET A** June 14, 2023

WSDOT

I-5 East Fork Lewis River Bridge Archaeological Support

Jacobs Challenging today. Reinventing tomorrow.

1. Qualifications / Expertise of Firms on Team

Jacobs Engineering Group Inc. (Jacobs)

Patrick Elliott, Mike Farrell, and James Mayer initiating Data Recovery in Pierce County, WA

Jacobs represents our clients' interests first and foremost, ensuring they achieve the required compliance while recognizing schedule and budget. All members of our team have achieved the Secretary of Interior's Professional Qualification Standards (SOI Standards) for History, Archaeology, Architectural History, or Historic Architecture (36CFR61) in their respective disciplines. Our team is well-versed in federal, state, and local regulations governing cultural resources, and we help clients navigate the process and requirements of those regulations. To achieve compliance with these regulations, Jacobs offers a breadth of cultural resources services covering historic and prehistoric archaeology, architectural history, and Native American /First Nations consultation and ethnography.

Communication is key, and we convey recommendations and risks so that our clients make the best decisions to advance their projects while respecting cultural resources. In the U.S., federal regulations govern the treatment of historic properties that may be affected by projects undertaken by a federal agency, using federal funding or lands, or requiring federal permits. This legislation includes the National Historic Preservation Act of 1966 (NHPA), Archaeological Resources Protection Act of 1979 (ARPA), Native American Graves Protection and Repatriation Act of 1990 (NAGPRA), American Indian Religious Freedom Act of 1978 (AIRFA), National Environmental Policy Act (NEPA), and Section 4(f) of the National Transportation Act. Our team includes staff with advanced degrees in Archaeology, Anthropology, History, Geology, Geographic Information Systems (GIS), Geoarchaeology, and Historic Preservation, as well as licensed architects and members of the Register of Professional Archaeologists (RPA). Our staff has well-established relationships with key agencies built on our extensive experience and the excellence of our technical deliverables. Senior technical staff provide peer oversight and quality control for every project.

Jacobs has a demonstrated track record of Native American/First Nations Consultation and an appreciation for Tribal Ethnography. The cultural resources management field is changing rapidly - for example, involving greater levels of coordination with Native Americans and Native Hawaiian and Alaskan organizations in the U.S. Cultural resources undertakings require qualified professionals who have a comprehensive understanding of the resources, regulatory processes, participants, and changing political climate. Jacobs has helped agencies consult with First Nations and Native American groups regarding cultural resources issues, including but not limited to identification of traditional cultural properties (TCPs), Native American burials and burial sites, sacred sites, and religious practices. We also coordinate the employment of Native American and First Nation representatives to monitor earth-disturbing activities pursuant to federal, state, county, or city regulations, as appropriate. Consultation services include facilitating consultation with tribal groups, bibliographic and archival research, personal interviews, evaluation of TCPs for NRHP eligibility, treatment recommendations, and assistance with NAGPRA agreements.

Statistical Research Inc. (SRI)

For over four decades, SRI has specialized exclusively in providing heritage resource management services. Since the company's founding in 1983, SRI has evolved into one of the largest heritage management firms in the western United States with a recognized reputation for producing quality, scientifically based, work products that have successfully guided hundreds of clients through complex regulatory compliance processes. Clients include numerous federal and state land management agencies, Tribal organizations, private corporations, including state transportation agencies in Alaska, California, Arizona, New Mexico, and Washington. SRI demonstrates a long-standing interest in heritage management projects across the Pacific Northwest, having staffed offices in Vancouver, BC (starting in the 1990s) and currently maintaining an office in Washington (started in 2008). Core services include archaeology (precontact and historical), architectural history, archival research, cartography and geospatial technologies, and geophysics. As a subconsultant team member to Jacobs, SRI provides significant additional capacity to ensure the team successfully completes the scope of work and meets the project schedule.

Benefits of SRI

SRI has undertaken some of the largest, most complex data recovery efforts in the western U.S over the past three decades. For example, SRI completed a large-scale data recovery project encompassing several city blocks in downtown Tucson, AZ, utilizing a crew of 50 archaeologists, physical anthropologists, and geomorphologists. They completed a massive data recovery effort at eight precontact sites at the Playa Vista Site near Marina del Rey, CA, mobilizing a crew of more than 70 team members. Other recent examples of their data recovery efforts are highlighted in Section 1-D.

A. Expertise

Jacobs alone is primed with the knowledge, skills, and abilities to provide the cultural resources management expertise that WSDOT requires. However, by incorporating SRI into our team approach to the proposed data recovery, **we capitalize on the strengths of two companies to provide WSDOT a successful strategy, delivery, and documentation of the project.** Jacobs provides a strong corporate environment with teams of multi-disciplinary specialists to support every aspect of a complex project. Jacobs also contributes a strong knowledge of the resource and association with the proposed project. SRI, one of the largest cultural resources management firms in the U.S., is a registered DBE, has a Washington-based office with regionally dedicated staff, and brings an unparalleled history of large, successful, archaeological data recovery projects.

Our Team's Combined Expertise	Jacobs	SRI
Years' Experience	75	40
# of employees in WA (including Greater Portland Metro Area)	1,450	11
# of employees nationwide	32,135	115
Our Team's Experience	**Jacobs**	**SRI**
Washington State Department of Transportation (WSDOT) Experience	✓	✓
Coordination with Cowlitz Indian Tribe	✓	
Coordination with Confederated Tribes of Grand Ronde	✓	
Research Design	✓	✓
Data Recovery Fieldwork	✓	✓
Laboratory Processing and Cataloging	✓	✓
Analytic Studies	✓	✓
Prior Experience in Columbia River Region	✓	✓

Staffing and Office Locations

Jacobs is a full-service solutions provider with over 400 offices in over 40 countries. In the United States, we employ over 32,000 professionals who deliver some of the country's most complicated scientific, geographically challenging projects. **In the Pacific Northwest alone, our offices encompass services aligned with your project delivery goals** such as project management; cultural resources, archaeology, and geoarchaeology oversight and management; historic preservation policy and planning; project controls and scheduling; archaeological monitoring; Tribal and interested party consultation; data fieldwork and analysis; environmental services; GIS/mapping; digital delivery; quality; geospatial information; artifact analysis and sampling; and publication and editing. All of the Jacobs key team members work from offices in the Pacific Northwest.

Jacobs	
Office	**# of Staff**
Seattle, WA	87
Bellevue, WA	504
Yakima, WA	39
Spokane, WA	61
Portland, OR	708
Vancouver, WA	40
Tacoma, WA	11
SRI	
Office	**# of Staff**
Lacey, WA	12

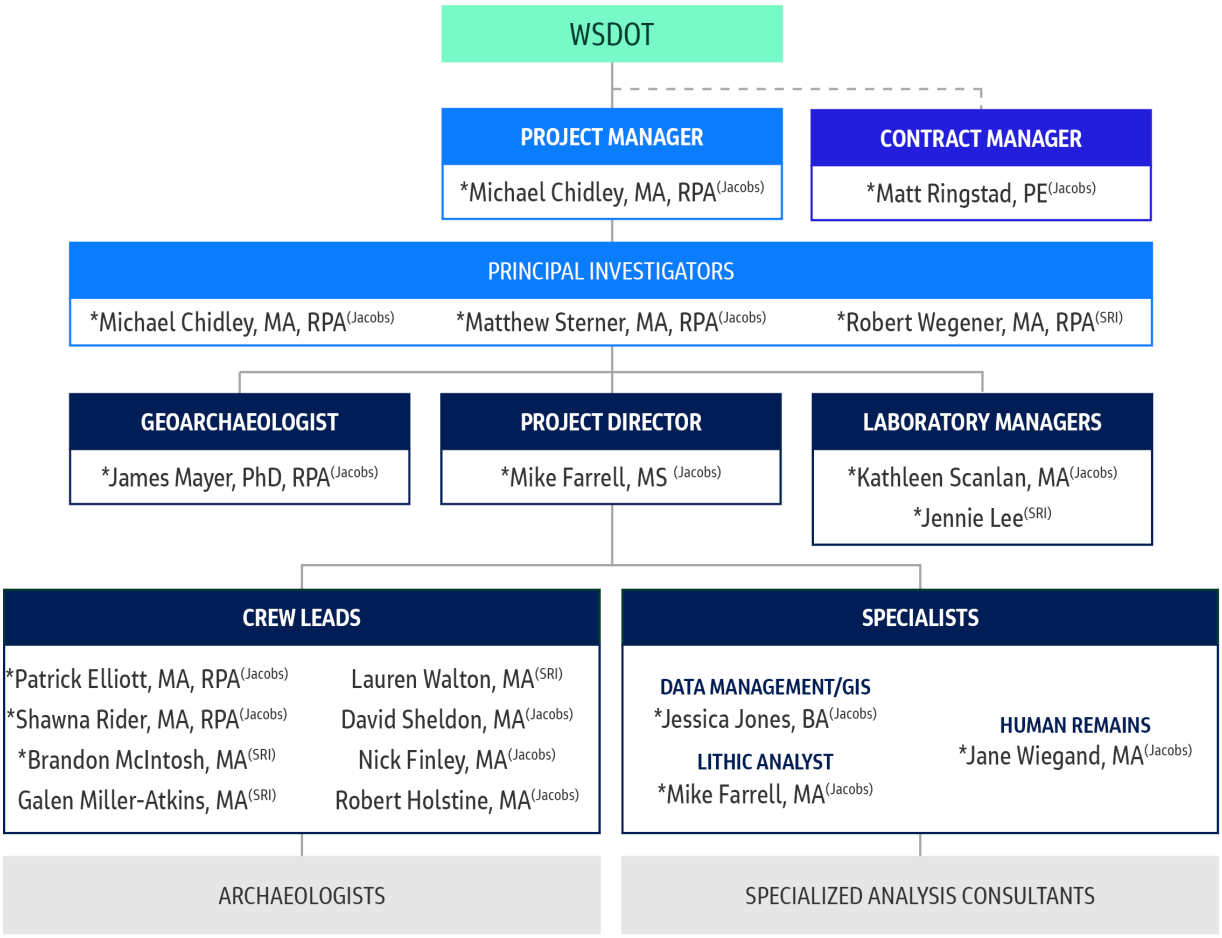
SRI's extensive experience includes identification, evaluation, and mitigation of precontact archaeological sites through their archaeology program. SRI currently has 122 staff located across their offices in Washington, Arizona, California, Colorado, and New Mexico. Their Washington-based staff is currently comprised of 11 archaeologists and historic preservation specialists, collectively **offering extensive experience completing precontact archaeological survey, site testing, data recovery, and monitoring projects.** Across all of SRI, relevant services include archaeological services (precontact/historic testing and data recovery, site identification, National Register of Historic Places (NHPA) evaluations, and mitigation/treatment); architectural history inventory and evaluation; archaeological monitoring; Tribal and interested party consultation; data analytics, cartography and geospatial technologies, geophysics (GPR, magnetometry, resistivity, etc.); paleontology; historic preservation policy and planning; ethnographic studies; artifact analysis and sampling; and publication and editing.

Benefits of Our Team Structure

Leveraging his years of experience comprising project management, on-site team management, and understanding of WSDOT processes, Project Manager Michael Chidley will serve as your primary point-of-contact, setting expectations and managing the team's overall task and scope delivery. He is supported by Principal Investigators from both Jacobs and SRI (Matthew Sterner and Robert Wegener), that bring long-standing experience with WSDOT as well as with Pacific Northwest archaeology and data recovery excavations. Geoarchaeologist James Mayer will bring his direct experience with 45CL26 as well as understanding of dynamic geomorphic environments in the Pacific Northwest. The Project Director Mike Farrell excels at successfully conducting excavations with a high degree of logistical complexity, organizing field crews, and an exceptional archaeological skillset and excavation experience. Our Data Management and GIS expert Jessica Jones will provide her experience and passion for high-quality data collection and management with her integrated archaeological background. Our Crew Leads and Laboratory Managers are primed to lead and manage the field crew of Archaeologists in a successful and highly proficient archaeological data recovery excavation.

Organizational Chart

The full structure of our team and our available resources are shown in the organizational chart below.



* - Bio presented in Section 3.

B. Jacobs-SRI Teaming Relationship

While Jacobs and SRI have not teamed together on any projects in the last three years, the companies share strong bonds in the industry. Jacobs' decision to team with SRI for this project was based on three main factors: personal relationships, professional relationships, and professional reputation. Personal relationships between the two companies exist primarily between Jacobs Principal Investigator Matthew Sterner and Senior executives at SRI. Matthew was employed by SRI for nearly 15 years between the 1980s and 2005, forging many strong relationships with colleagues who now hold senior positions at the company. Professional relationships exist along many of those same lines, with Matthew continuing to work cooperatively with colleagues from SRI on geophysical workshop programming, manuscripts, and professional publications. Finally, there are few to no firms currently working in the field of cultural resources management in the U.S. with a greater depth and breadth of experience in data recovery development, excavation, and reporting than SRI. **Jacobs is excited to build this partnership with SRI for this project based on our shared interests and our shared commitment to excellence.**

With Jacobs' regional experience, access to highly skilled archaeologists in the region, access to a deep pool of corporate resources and expertise, access to state-of-the-art technologies, and cultural resources management expertise; partnered with SRI's large, complex data recovery experience and deep pool of highly skilled professionals, **we represent the highest quality and provide the best team to WSDOT, helping you achieve your goals on this challenging project.**

C. Current Availability of Key Staff

The table below illustrates preliminary hours of monthly availability for the first two years of the contract. Our project Manager, Michael Chidley, who understands the capabilities and capacities of the firms on our team, will monitor workloads so the right resources are available when WSDOT needs them.

Team Member	2023		2024				2025	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Michael Chidley, MA, RPA | Project Manager	120	120	100	100	100	100	100	100
Matt Ringstad, PE | Contract Manager	20	20	20	20	20	20	20	20
Matthew Sterner, MA, RPA | Principal Investigator	120	120	100	100	100	100	100	100
Robert Wegener, MA, RPA | Principal Investigator	50	35	20	20	20	20	20	20
James Mayer, PhD, RPA | Geoarchaeologist	80	80	60	40	40	40	40	40
Mike Farrell, MS | Project Director / Lithic Analyst	160	160	160	160	160	160	160	160
Kathleen Scanlan, MA | Laboratory Manager	160	160	160	160	160	160	160	160
Jennie Lee | Laboratory Manager	166	120	120	120	120	120	120	120
Patrick Elliott, MA, RPA | Crew Lead	160	160	160	160	160	160	160	160
Shawna Rider, MA, RPA | Crew Lead	120	40	40	40	40	40	40	40
Brandon McIntosh, MA | Crew Lead	160	120	120	120	120	120	120	120
Galen Miller-Atkins, MA | Crew Lead	160	120	120	120	120	120	120	120
Lauren Walton, MA | Crew Lead	160	120	120	120	120	120	120	120
David Sheldon, MA | Crew Lead	120	120	40	40	40	40	40	40
Nick Finley, MA | Crew Lead	160	100	80	80	80	80	80	80
Robert Holstine, MA | Crew Lead	160	100	80	80	80	80	80	80
Jessica Jones, BA | Specialist – Data Management/GIS	120	120	120	80	80	80	80	80
Jane Wiegand, MA | Specialist - Human Remains	120	120	80	80	80	80	80	80

Note: Numbers represent hours per month in each quarter

D. Similar Relevant Project Experience

Jacobs' Project Experience

I-5 Northbound East Fork Lewis River Bridge Replacement Project – Cultural Resources Investigations | WSDOT, 2020-2022, Budget: $166,338. Firms: Jacobs | Personnel: Michael Chidley, James Mayer, Patrick Elliott

View under NB I-5 Bridge at the East Fork Lewis River

In 2020 and 2021, Jacobs was contracted by WSDOT to provide archaeological services for the potential replacement of the Northbound I-5 Bridge over the East Fork Lewis River, located in Clark County, Washington. The project was conducted in compliance with Section 106 of the NHPA. Over two years, Jacobs provided archaeological and geoarchaeological services to WSDOT in an effort to evaluate potential impacts to cultural resources in general and more specifically to delineate and evaluate impacts to archaeological sites known to exist in the immediate vicinity of the bridge.

Previous archaeological investigations determined that three precontact archaeological sites have been recorded in the immediate area of the northbound and southbound I-5 East Fork Lewis River Bridges. While one of the sites could not be relocated during the Jacobs survey, one of the remaining sites, 45CL26, was reidentified and has been confirmed to fall within the area of proposed new bridge construction. The site was first recorded as a seasonal fishing and hunting camp during a salvage excavation in 1968, during and following the construction of the existing I-5 Southbound bridge. At that time, the site was the focus of several brief, but intensive, efforts by the Washington Highway Department to identify and determine the extent of the site. Archaeological collections were recovered, and the site was recorded with the state.

In preparation for the new I-5 Northbound bridge construction, Jacobs conducted additional cultural survey work at and in the vicinity of 45CL26 in 2020 and 2021. The delineation efforts during the survey work extended the known site boundary considerably to the north-northeast using pedestrian survey, subsurface excavation (more than 160 shovel test pits), and a program of 26 archaeologically directed geoprobe investigation. Based on the extent and variability of the assemblage recovered during the 1968 excavations and Jacobs identification that additional intact cultural deposits still exist at the site, the resource was recommended as eligible for listing in the NRHP.

Benefit to WSDOT: Jacobs possesses a unique knowledge of 45CL26 and retains staff who completed the most recent work at the site. Our Project Manager, as well as several other key Jacobs staff, for this project brings an intimate association with the site, a comprehensive knowledge of the precontact history of the region, and a collaborative understanding of the agency and Tribal landscape that is both personal and unparalleled.

Data Recovery and Monitoring at the Old Mukilteo Townsite | Washington State Ferries (WSF), 2018-2021, Budget: $340,000. Firms: Jacobs | Personnel: Michael Chidley, Patrick Elliott, Jessica Jones

WSF, a division of the WSDOT, contracted Jacobs in 2018 to conduct data recovery excavation at the Old Mukilteo Townsite, a late nineteenth century town, and to perform archaeological monitoring above the buried Mukilteo Shoreline shell midden site for the Mukilteo Ferry Terminal Replacement Project, located in Snohomish County. This project represents a highly complex archaeological environment with multiple sites and historic properties sharing a confined, developed nearshore environment. Additionally, the location is considered highly sensitive because of its association with the location of the Treaty of Point Elliott signing in 1855, requiring considerable Tribal consultation throughout the project.

Archaeological materials were first encountered in this area in 2006, during utility line trenching for the Port of Everett's Satellite Rail/Barge Transfer Facility Project. The identification of archaeological materials, coupled with the sensitive nature of the landform and its historic significance, prompted the federal regulatory agency to recommended archaeological monitoring for construction efforts in the area. Originally, archaeological materials were limited to historical-period artifacts including deteriorated lumber, burned brick, and miscellaneous historical-period artifacts, but an underlying precontact midden site was identified only a short time later. Jacobs conducted an extensive data recovery effort in 2019, excavating more than 2,600 cubic feet of disturbed and undisturbed deposits. Jacobs continued to provide archaeological monitoring services to Washington State Ferries through the completion of Ferry Terminal construction.

Benefit to WSDOT: The Data Recovery and Monitoring at the Old Mukilteo Townsite Project shares similar circumstances to those that will be encountered at the East Fork Lewis River Project location. At both locations, avoidance of a known archaeological site is not possible, requiring the execution of a Memorandum of Agreement that stipulates (among other things) archaeological mitigation in the form of data recovery. Similarly, both project locations are/were covered by relatively thick non-archaeological deposits (3 to 6 feet), requiring the skills and expertise to efficiently remove this overburden to expose intact archaeological deposits. Jacobs clearly demonstrated these proficiencies at the Mukilteo site.

During the Mukilteo data recovery excavations, we were challenged in a high-visibility environment with controlling an exponential increase in seasonal snowmelt stormwater and its runoff, mixed with material from the ongoing data recovery. Jacobs was able to quickly recruit an in-house water engineer to develop a plan for mitigation/elimination of the material-tainted runoff.

West Seattle and Ballard Link Extensions – Phase 1 & 2 | Sound Transit (ST), 2017-2022, Budget: $508M (total), $94M (Jacobs). Firms: Jacobs, HNTB, Others | Personnel: Matthew Sterner, Michael Chidley, Patrick Elliott, Jessica Jones

In 2017, Jacobs was awarded a contract by ST to oversee all aspects of cultural resources compliance for the West Seattle and Ballard Links Extension Project, an ambitious development of nearly 12 miles of light rail infrastructure extending from downtown Seattle to both West Seattle and to Ballard. Traversing precontact waterfront, traditional homelands, and historical neighborhoods, this multi-year project will encounter every type of historic and archaeological resource during its decades long planning, development, and construction. While the formative years of the cultural resources investigations have focused predominantly on historic, built environment resources, development and implementation of the archaeological investigations has, to date, been limited to background research, corridor analysis, landform analysis, geotechnical support, and geoarchaeological investigations. Jacobs is currently involved in Phase 3, which is the FEIS development and is currently crafting a research design documents that will serve to guide the cultural resources and archaeological investigations through project completion. A project of this magnitude and duration has and will continue to challenge our understandings of how we appreciate the past and how we most effectively approach, design, and implement our archaeological skills to document it.

Benefit to WSDOT: By contracting with Jacobs for the cultural resources oversight of a project of this magnitude, it is clear that ST appreciates and values the skills and talents of the Jacobs cultural resources team. ST understands that with the depth of field and management experience in cultural resources management, Jacobs can deliver a comprehensive suite of services to address the myriad situations that might arise, from monitoring to data recovery.

SRI's Project Experience

Edwards Air Force Base (AFB) Solar Project, Kern County, CA | U.S Air Force, 2020-2022, Budget: $38M. Firms: SRI | Personnel: Brandon McIntosh, Jennie Lee

SRI's team working at Edwards Air Force Base

In August 2020, SRI was subcontracted by Dudek to conduct data recovery excavations and construction monitoring for the Edwards Air Force Base Solar Project, located near Rosemond, CA. The project was conducted in compliance with Section 106 of the NHPA. SRI was brought onto the project when project delays put the project up to 1 year behind schedule. Because of commitments by the project proponent to get the power station online by the end of 2022, all data recovery excavations needed to be completed by the spring of 2022. Once on board, SRI had to quickly gather information on the project and meet with Edwards AFB cultural staff and representatives from the consulting Native American tribes. SRI quickly put together a team and began participating in project meetings to help resolve issues regarding

the project's Historic Properties Treatment Plan (HPTP). Once the HPTP was approved, SRI prepared a series of work plans to start data recovery excavations at affected project sites.

In total, 318 archaeological sites were previously recorded within the 6,000-acre project area, with another 101 sites recorded during the project. SRI conducted data recovery excavations at 146 precontact sites and 2 historical-period sites within the project area. Following the requirements of the Historic Properties Treatment Plan prepared by the U.S. Air Force, SRI's data recovery efforts included the excavation and screening of extraordinary quantities of soil at each of the prehistoric sites. All told, nearly 15,234 linear meters of mechanical trenching, 471 m2 of shovel-test pits, and 3,213 m2 of test-pit excavations were completed, resulting in approximately 12,679 m3 of soil excavated at the 146 prehistoric sites. The total contract amount was approximately $38,000,000.

Benefit to WSDOT: The Edwards AFB Solar project is directly relevant to the current project in that it required a significant field effort that was both logistically and technically challenging. SRI also worked closely with our client and the project proponents to provide unfettered access to our operations for the representatives from the consulting Native American tribes. SRI also established a field laboratory and conducted all of the storage and analysis of the recovered materials on-site, per the requirements of the consulting tribes.

Navajo Gallup Water Supply Project (NGWSP), Reach 4c to 8 Testing, Data Recovery, and Monitoring, San Juan County, NM | U.S. Department of the Interior, Bureau of Reclamation (BOR), 2019-2023, Budget: $1.9M. Firms: SRI | Personnel: Jennie Lee

The Omnibus Public Land Management Act of 2009, Title 10, Part 3 (Public Law 111-11), signed on March 30, 2009, provided authorization for the NGWSP as a major component of the Navajo Nation San Juan River Basin Water Rights Settlement in New Mexico. As part of an Indefinite Delivery/Indefinite Quantity (IDIQ) contract with the BOR, SRI was awarded a task order to conduct archaeological testing at 13 archaeological sites. The NGWSP Cultural resource investigations were undertaken in 2019 and completed in 2023 along NGWSP Reaches 4c–8. The project was designed to comply with federal legislation protecting cultural resources, including the NHPA and Navajo Nation legislation, regulations, and guidelines such as the Navajo Nation Cultural Resources Protection Act (Tribal Council Resolution CMY-19-88); the Navajo Nation Heritage & Historic Preservation Division (NNH&HPD) Fieldwork, Report Standards, and Guidelines; and the Navajo Nation Policy for the Protection of Jischaa': Gravesites, Human Remains, and Funerary Items. Of the 13 sites tested, 3 required data recovery mitigation efforts.

SRI's data recovery efforts focused exclusively within Reclamation's right-of-way (Area of Potential Effect) and resulted in the identification and excavation of 53 features at the three sites. The features investigated consisted of hearths, house structures, activity surfaces, mortuary features, a communal structure, and a canal. The project was entirely within the exterior boundaries of the Navajo Nation and SRI effectively engaged and hired local community members to help conduct the project from beginning to end. Many of those hired remained on and are working on other SRI projects on the Navajo Nation and other locations. SRI was contracted to conduct the testing, data recovery, and construction monitoring and mitigation of all inadvertent discoveries encountered.

Benefit to WSDOT: The NGWSP Reach 4c to 8 project is relevant to the East Fork Lewis River Bridge project in that SRI was able to successfully engage local tribal community members and employ some in the project. Their participation enriched the project and much of their feedback, as well as feedback from the NGWSP Programmatic Agreement Working Group, informed the approach to the fieldwork and reporting. For example, SRI included a section in the report on the identification and documentation of indigenous uses of plants and animals in the San Juan Basin.

Archaeological Mitigation of Impacts to LA 78235 in the Alt SHIST Testing Area, White Sands Missile Range, Sierra County, NM | U.S. Department of Defense (DoD), White Sands Missile Range, 2020-2022, Budget: $167.000. Firms: SRI | Personnel: Robert Wegener

Conducted between 2020 and 2022, for the DoD, White Sands Missile Range, the objective of the project was to mitigate known and potential adverse effects at LA 78235 by recovering and documenting significant archaeological data in accordance with the NHPA; Title 54, Section 300101, of the U.S. Code (54 U.S.C. 300101); and other relevant laws, regulations, standards, and guidelines. The site is situated adjacent to the Alternate Seismic Hardrock In-Site Test (Alt SHIST) area, and ongoing ordnance-testing activities have the potential to adversely affect this historic property. The objective of this project was to conduct data recovery activities at LA 78235 to mitigate potential adverse effects associated with ordnance testing conducted in the Alt SHIST Test Bed area.

The data collection strategy consisted of systematic surface collections followed by excavation of 1m-by-1m test pits, including the identification and excavation of 5 thermal features. SRI's data recovery efforts resulted in approximately 450 square meters and 58 cubic meters of excavations. The data collected and analyzed from LA 78235 suggest that the site is a palimpsest of many different uses or occupations spanning the Late Paleoindian, Early Archaic, Middle Archaic, Late Archaic, and Formative periods. Data from the site provide glimpses into the foraging and hunting strategies of those who used and occupied the site through time, as well as aspects of mobility, that all contribute to reconstructing or understanding mobility strategies and larger-scale land-use patterns of the people who lived within the Tularosa Basin and its surrounding regions.

Benefit to WSDOT: The LA 78235 data recovery project is directly relevant to the current project in that it required SRI to obtain and integrate the results of previous excavations at the site into their own investigation, analyses, and resultant technical report.

2. Qualifications of Proposed Project Manager

Michael Chidley, MA, RPA | Project Manager

As Project Manager, Michael has the unique combination of cultural resources management, project management, and contract expertise to lead and facilitate this project. He will proficiently facilitate smooth contract and project setup and execution, manage the overall project task order, and provide direct team support to meet the performance objectives of the data recovery project. He will oversee project execution and monitor conformance with the scope, work plan, applicable laws and regulations, and conducting and directing quality reviews of all deliverables.

Michael has two primary roles at Jacobs: Manager of Projects (MOP) and Cultural Resources Discipline Lead for the Pacific Northwest Region. As an MOP, Michael is the "CFO" for a portfolio of contracts and project managers across the Pacific Northwest Region, overseeing contract negotiation and management, financial performance and tracking, and assisting client/project manager relationships. As Cultural Resources Discipline Lead, he is responsible for quality assurance for the regional cultural resources discipline and allocating appropriate staff and resources across all regional projects.

In addition, Michael has been a project manager for over 14 years while working for Jacobs, other private consultants, and WSDOT. He is comfortable managing large multi-year projects, including those with concurrent task orders with varying levels of complexity, such as those including many sub-projects requiring management of large numbers of staff and subcontractors and logistical complexity, as well as medium to small projects requiring efficient execution of projects with

qualified staff on tight budgets and schedules. He has been the project manager and lead archaeologist for large construction and cultural resource compliance projects in Washington, including the Elliott Bay Seawall Project and Waterfront Seattle Project, and multiple concurrent survey and evaluation projects for the U.S. Navy across the Puget Sound and Columbia Basin, and concurrent projects for the U.S. Army across Washington State. Through the course of these several multi-year efforts, Michael has consistently staffed these projects with qualified archaeologists, archaeological subject matter specialists, and archaeological monitors (often requiring short-notice responses and night work to meet client needs), responded to inadvertent discoveries, managed archaeological emergencies during project construction, identified significant archaeological resources, and coordinated deliverables on a daily, weekly, and project basis.

In addition to more frequent inventory and evaluative testing projects, Michael has managed, led, and participated in many data recovery projects across the nation, commonly in the combined role of Project Manager and Principal Investigator. He has staffed and managed large archaeological teams and multiple subcontractors in data recovery efforts, but is also comfortable in operating as a crew mentor or crew lead, even as an excavator himself. Relevant data recovery examples with regard to this project include: a precontact residential/home site in eastern Washington, precontact lithic scatter in Western Washington, precontact open air occupation at Fort Bliss, a late precontact semi-subterranean house on the Missouri River, and a late precontact village site on the Mississippi River.

A. Examples of Prior Experience

I-5 Northbound East Fork Lewis River Bridge Replacement Project – Cultural Resource Investigations | WSDOT | Project Manager/Principal Investigator | 2020-2023

View of 45CL26 site location, looking west.

Scope and responsibilities to this contract: This project is the cultural resources task order for the archaeological evaluation and data recovery plan development involving the 45CL26 archaeological site in advance of the I-5 bridge replacement over the East Fork Lewis River. The project to date has included delineation and evaluation of the site, which was subjected to salvage excavations in the late 1960s. Following that effort, Jacobs has developed the data recovery plan for anticipated mitigation of the site. Michael is responsible for contract and financial management, scope supplements and amendments as needed, project reporting and invoicing, quality assurance, client communication and coordination, and cultural resources staffing oversight.

Benefit to WSDOT: Michael has successfully managed this project since 2020, staying in close communication with WSDOT's Region Cultural Resources Specialist, maintaining schedule, managing budget, and responding to scope amendments as needed through the life of the project.

SR 99 Alaskan Way Viaduct Replacement Project, South Access Surface Street Connections – Archaeological Monitoring, Seattle, King County, WA | WSDOT | Project Manager | 2021-present

Scope and responsibilities to this contract: The SR 99 Alaskan Way Viaduct Replacement Project Section 106 Memorandum of Agreement (MOA) requires that project-related ground disturbing activities that will occur in archaeologically sensitive areas, as defined by the project's Archaeological Treatment Plan (ATP), be monitored by an archaeologist. Jacobs assesses the requirement of the ATP with proposed construction locations and actions, conducts the archaeological monitoring, and required reporting to support WSDOT's cultural resources obligations as defined in in the project's Section 106 MOA. Michael is the Project Manager for the WSDOT Task Order responsible for contract and financial management, scope supplements and amendments as needed, project reporting and invoicing, quality assurance, client communication and coordination, and cultural resources staffing oversight.

Benefit to WSDOT: Michael is a project manager who has experience managing scheduling, staff, budget, scope, quality, reporting and safety on WSDOT projects. Accountability, adaptability, and responsiveness are all qualities that Michael possesses which are critical in project delivery.

South-Central Region, Cultural Resources On-call Support, Kittitas, Yakima, and Benton Counties, WA | WSDOT | Project Manager/Principal Investigator | 2019-present

Scope and responsibilities to this contract: Jacobs provides on-call support for the Region for desktop analyses, built environment and archaeological surveys and assessments, permit acquisition, and other tasks as needed. To date, projects supported by the various on-call task orders have included bridge rehabilitation, bridge replacement, intersection improvements, noise wall impact assessment, fish passage improvements, and archaeological monitoring. Michael is responsible for scope of work development based upon the task needs, costing and price negotiation, staff assignment, technical oversight, and quality assurance.

Benefit to WSDOT: Michael provides combined project management and cultural resources lead technical support due to long-standing experience in the Region and agency, and a thorough understanding of the particular WSDOT processes and requirements for cultural resources compliance.

B. Familiarity with State/Federal Regulations and Procedures

Serving as Jacobs' Pacific Northwest Cultural Resources Discipline Lead on projects throughout the state of Washington, Oregon, Alaska, Idaho, Montana, and Hawaii, Michael is familiar with state and federal regulations and procedures that govern cultural resources management, treatment, and protection. These include the NHPA (U.S.C. §§470a-470w-6 et. seq.), NRHP (36 C.F.R. Part 60), Procedures for State, Tribal, and Local Government Historic Preservation Programs (36 C.F.R. Part 61), Determinations of Eligibility for Inclusion in the NRHP (36 C.F.R. Part 63), and Protection of Historic Properties (36 C.F.R. Part 800), Washington State Executive Order 21-02, Archaeological Sites and Resources (RCW 27.53), Archaeological Excavation and Removal Permit (WAC 25-48), Indian Graves and Records (RCW 27.44), Human Remains (RCW 68.50), Abandoned and Historic Cemeteries and Historic Graves (RCW 68.60).

Perhaps most notably, Michael served as the WSDOT Northwest Region Cultural Resources Specialist for almost 6 years. In that role, he functioned as Principal Investigator and Compliance expert responsible for project management and execution of cultural resources assessments for every Northwest Region and Ferries project from 2006 to 2012 and operated as the regulatory and technical expert for all NHPA Section 106 and Governor's Executive Order 05-05 compliance and best practices for WSDOT's project design, planning, permitting, and construction.

C. Ability to Manage Schedule, Scope, Budget, and Changes

I-5 Northbound East Fork Lewis River Bridge Replacement Project – Cultural Resource Investigations | WSDOT | Project Manager | 2020-2023

Project Schedule: Jacobs, under Michael's project leadership, has completed each of the original and supplemental tasks and deliverables on the promised field and deliverable schedules. As the project has evolved over time, Michael has consistently communicated with the WSDOT project team regarding how project needs have affected the schedule, integrated project changes with deliverable revisions, and communicated frequently with WSDOT to provide the needed deliverables on schedule and in keeping with project timing. These have included last-minute revisions to address changes derivative of on-going tribal coordination and agency needs. Jacobs has continued to provide quick-turnaround revisions to the data recovery plan based upon often-contradictory Tribal comments and additions.

Scope of Work/Scope Creep: Through the course of the task order, Michael has facilitated the original and 5 supplements to the task order, to address new scope elements, additional effort for tribal coordination and deliverable revisions, and time extensions to allow for extended agency and Tribal reviews and coordination. Michael is and adaptable manager and always remains client-focused, able to identify scope developments that remain 'in scope' while proactively communicating the client when changes lie outside scope parameters. For example, Jacobs has modified deliverables to reflect late Tribal comments, while adhering to the intent of the scope and efficiently managing budget to remain flexible during extended task order periods.

Budget Issues: While managing the cultural resource support, Michael uses a staffing plan matrix that projects anticipated staffing hours, labor costs, and direct costs throughout the task order term. This tool tracks the budget accurately from week to week to identify early on if a potential budget shortfall may develop. During this task order, as tribal coordination and comments required changes to previously drafted or final deliverables, Michael used the tool to estimate remaining labor costs available and provide notice to WSDOT on how the additional revisions would impact the budget so that the issue could be addressed well in advance through efficient task order supplements. The budgeting tool allows WSDOT to capitalize on drawing down remaining labor and efficiently adding to the total order.

Changes that arise throughout the life of the project: Michael uses a standard Change Management process to formally document and address project changes. For example, as this task order evolved from a site inventory-driven effort into additional development of a data recovery plan with intensive tribal coordination and communication, WSDOT requested additional scoping and effort to accommodate the new task directions. Michael responded to the need by coordinating with the Region's cultural resource specialist on defining new scope requests, facilitated task order supplements, and counted the changes. Due to increasing scope needs from WSDOT, the total budget for the task order increased through multiple supplements for scope and schedule changes from $89,373 to $166,338.

Benefit to WSDOT: Michael has partnered with the WSDOT Region Cultural Resources Specialist to support the project as the needs evolved from archaeological inventory to a well-received data recovery plan that has contributed to a clear path ahead to a signed Memorandum of Agreement.

Bonney Lake Estates Phases 4-7 Project, Pierce County, WA | Bonney Lake Estates, LLC | Project Manager | 2018-2020

Project Schedule: Both major infrastructure and residential construction projects often face schedule challenges related to specific permitting and work activities, environmental impacts, unplanned external influences and comment, or unforeseen conditions that arise through the course of the project. As the project encountered adjusted permitting requirements, and the identification of a potentially significant precontact archaeological site, the total scope of the project, and the associated schedule, Michael and his team worked with the project proponent to develop an adjusted schedule, with an incorporation of realistic expectations for data recovery effort, agency reviews, Tribal input within their own busy schedules, and a predictable timeline for permitting completion.

Scope of work/scope creep: Michael's strategy to minimize the impact of scope creep is to develop a work plan, review it regularly with staff and WSDOT and collaborate early on potential changes. When the project scope is accurately defined and integrated into an actionable work plan, it helps to keep staff working in accordance with the approved project parameters. Michael conducts regular meetings and work plan review with field and reporting staff to identify any issues or concerns with delivery. Through the course of this multi-phase residential project in Pierce County, WA, the archaeological inventory was developed into archaeological data recovery excavation of a precontact site. Due to Tribal interest in the project and site location, support was also augmented to include long-running assistance with Tribal consultation and input on data recovery and reporting.

Budget Issues: While managing all types of Jacobs contracts and task orders, Michael uses staff plans and monthly financial and operational management meetings with project controls, accounting, and the project-assigned Manager of Projects. These recurring monthly meetings require the project team as a whole to be accountable to financial forecasting, reporting, and invoicing. The project team discusses work in progress, budget forecasts, anticipated operational issues, to ensure project financials are on-track and accurate. The process provides a clear, up-to-date picture of how project expenditures coincide with expected costs so that emerging issues can be proactively addressed with the client as needed.

Changes that arise throughout the life of the project: This project was initiated as simple archaeological inventory for an additional development phase for a previous client. Due to the results of the inventory and Tribal comments provided under the permitting review process, increasing collaboration and communication with the affected Tribe was required. Michael and the Jacobs cultural resources team welcomed the addition of more than typical Tribal interest in the project. As a result of working with all the involved parties, the cultural resources compliance work was completed and incorporated Tribal knowledge into the work plan and deliverables.

Benefit to WSDOT: Michael is a project manager with experience delivering environmental and cultural resources projects, proactively managing scope, schedule, budget, and change management.

D. Licenses and Accreditations

- Project Manager 2, Project Management Professional Tier 2, Project Management Advancement Program (PMAP), 2019
- Manager of Projects (MOP), Project Management Executive, Project Management Advancement Program (PMAP), 2022
- Register of Professional Archaeologist, 2002-present, No. 12372
- Secretary of the Interior Qualified Professional Archaeologist, 36 CFR part 61

3. Key Team Members Qualifications

By partnering with the Jacobs team, WSDOT will leverage focused attention, accountability, and expertise around the positions required for this project. Below are the bios and qualifications of key team members we offer to you.

Matt Ringstad, PE | Contract Manager

Serving in a contract manager support role for this project, Matt will draw on 22 years of experience leading contracts for WSDOT. He is adept at working with multidisciplinary teams to meet project objectives, advises best practices, and oversees clear contract and pricing reviews. He currently oversees $80M+ in WSDOT contracts serviced by Jacobs, and he will provide as-needed contract management continuity to successfully leverage this team's diverse capabilities to optimize the responsiveness needed for this program.

Project Example: **General Tolling Consultant** | WSDOT | 2011-Present | Project Manager. Matt supported tolling leadership to develop work plans, and budgets to scope and respond to the evolution of the program. Projects included alternatives analyses, PS&E packages, and QA/QC. His team included diverse technical disciplines. Matt and his team worked seamlessly with WSDOT, accounting and finance, Attorney General's Office, WSDOT IT, more than 10 third-party interfaces, and an array of stakeholders to provide reviews of all deliverables to meet all WSDOT requirements.

Understanding of WSDOT/Public Agency Regulations and Procedures: Matt is a licensed Professional Engineer in the state of Washington who has worked on WSDOT projects for the last 22 years. He is an expert contract and agreement manager on task establishment, amendments, and exclusively managing and tracking through the WSDOT Consultant Service processes. He has personally executed the process for over 100 tasks and amendments servicing WSDOT.

Matthew Sterner, MA, RPA | Principal Investigator

Matthew has over 40 years of professional experience, is qualified as an archaeologist under the SOI Standards in archaeology, and is a long-standing member of the RPA. His career has spanned both the private and public sectors with cultural resources management experience throughout the United States and abroad. In the private sector, he has participated in every level of cultural resources management, has supervised every type of archaeological fieldwork, and has managed large teams and large projects, with more than two dozen data recovery projects to his credit. In the public sector, he served as the State Transportation Archaeologist for nearly 15 years at the Washington State Department of Archaeology and Historic Preservation (DAHP), where he provided professional expertise and regulatory compliance for projects across the state. He has also formed close, working relationships with state and federal transportation agency officials as well as Tribal groups throughout the state. **Matthew has directed more than two dozen data recovery projects throughout the United States, managing project teams from five archaeologists to more than fifty.**

Project Example: **West Seattle and Ballard Link Extensions** | ST | 2019-present | Lead Archaeologist. Matthew currently serves as the lead archaeologist on the West Seattle and Ballard Link Extension Project, the development and construction of nearly 12 miles of light rail in Seattle extending from downtown to West Seattle and to Ballard. In coordination with the cultural resources team and the client, he spearheads the development of strategies, research designs, workplans, archaeological field efforts, and mitigation strategies for this multi-year, multi-billion-dollar project.

Understanding of WSDOT/Public Agency Regulations and Procedures: During his time as the Washington State Transportation Archaeologist, Matthew interacted on a near daily basis with agency staff from state and federal transportation agencies, predominantly WSDOT, Federal highway Administration (FHWA), and the Federal Transit

Administration (FTA). As a recognized discipline and regulatory expert, he has conducted trainings across Washington in archaeology as well as state and federal regulatory environments. Matthew's relationships with state- and federal-agency staff are long-standing and collaborative.

Robert Wegener, MA, RPA | Principal Investigator

Robert has been with SRI since 1998 and has supervised many of SRI's largest survey and phased data recovery projects. He is an acknowledged archaeological expert on the Archaic period in the western U.S. He has a personal relationship with Washington, having received his MA in Anthropology from Washington State University in 1998. His more than 30 years of experience at SRI includes more than 250 projects throughout the Great Basin, the U.S. Southwest, and the Pacific Northwest. He has extensive experience with DOT projects, including those in Arizona and Washington. A trained vertebrate-faunal and lithic analyst, he has completed numerous studies involving hunter-gatherer land use and emergent complexity. Robert is a member of RPA (No. 10996) and meets the SOI Standards in Archaeology. Robert has extensive knowledge of federal, state, and tribal regulations, policies, and compliance procedures.

Project Example: **Alaskan Way Viaduct (AWV) Replacement Program, SR 99 North Portal Testing** | WSDOT | 2010-2012 | Project Director. Robert oversaw investigations of the AWV North Portal location in Seattle, exposing deeply buried native sediments at the Seattle Department of Transportation (SDOT) storage and maintenance yard. Excavation required development of an exploration plan, extensive archaeological testing, landform analysis, and evaluation of NRHP eligibility.

Understanding of WSDOT/Public Agency Regulations and Procedures: Over his 25 years at SRI, Robert has assisted various DOTs (Washington, Arizona, Ohio), as well as numerous state and federal agencies meet their regulatory compliance needs.

Michael Farrell, MS | Project Director / Lithic Analyst

Mike meets the SOI Standards and has nearly 20 years of experience in all phases of cultural resource project planning, task completion, and deliverables for a variety of state and federal clients. He has worked across the U.S. but has focused much of his energy and professional interest in the Pacific Northwest and Alaska. His wealth of field experience will benefit the data recovery team and the project as he serves in the capacity of Project Director for this project. He provides specialized knowledge in technological lithic analysis, the excavation of deeply buried archaeological resources in riverine and coastal alluvial/aeolian depositional environments, archaeological research in coastal and riverine environments within the Pacific Northwest, including the excavation and analysis of coastal settlements and shell middens, fishing practices, and technological/social change.

In his role as primary Lithic Analyst for the project, his approach uses a technological-based analysis to identify socio-technological variations in pre-contact lithic assemblages to assess site function, spatial patterning, and social change through household level analyses. Mike places an emphasis on the detection of gender and status variation from lithic debitage and tools from the house floors of semi-subterranean structures within riverine salmon-based settlements.

Project Example: **Data Recovery at DIL-088, Kvichak River, Bristol Bay Region, AK** | Private | 2010-Present | Principal Investigator. Mike developed and implemented the research design and field methods, spearheaded the excavation of an ~1500BP Norton tradition house, an ~800BP Norton tradition ceremonial house, and an ~550BP Thule/Koniag tradition multi-room house. As of 2023, data recovery excavation volumes from the site include upwards of 130 square meters of semi-subterranean housepit and feature excavation and the analysis of a lithic assemblage with upwards of 10,000 artifacts.

Understanding of WSDOT/Public Agency Regulations and Procedures: Mike has been involved in cultural resources management projects across the United States, including the Pacific Northwest, Great Plains, Mid-Atlantic, Northeast, Southeast, Southwest, and both coastal and interior Alaska. As such, he has extensive knowledge of both state and federal regulatory environments, having completed many projects for the WSDOT, FHWA, U.S. Army Corps of Engineers (USACE), the U.S. DoD, National Park Service, U.S. Forest Service (USFS), and the Bureau of Indian Affairs (BIA).

James Mayer, PhD, RPA | Geoarchaeologist

James specializes as a geoarchaeologist for cultural resource management centered in the Pacific Northwest, including substantial archaeological and geoarchaeological fieldwork throughout the Western US. This provides him with a unique skillset for tackling routine to complex archaeological problems. He provides strategic guidance and has worked directly with federal, state, and local government agencies as well as area Tribal organizations. His areas of interest include Paleoindian archaeology, soils and geomorphology, archaeological science, and environmental archaeology. James brings expertise in quaternary geology, paleoecology, geochronology, and archaeology of the West, as well as experience in site-specific data recovery investigations, regional landscape evolution and burial sensitivity models, and prospecting for deeply buried archaeologically relevant deposits.

Project Example: **Cultural Resources Analysis, Final Environmental Impact Statement to Consider a Highway Right-of-Way** | Utah Department of Transportation (UDOT) | 2019-2020 | Cultural Resources Specialist. UDOT applied to the Bureau of Land Management (BLM) for a right-of-way (ROW) grant to construct a multi-lane, divided highway (referred to as the Northern Corridor) across the Red Cliffs National Conservation Area (NCA). This project had a complex permitting landscape, with multiple federal triggers for Section 106 review. BLM utilized the NEPA process to analyze several proposed alternative transportation routes.

Understanding of WSDOT/Public Agency Regulations and Procedures: James has extensive project experience with transportation agencies (i.e., FHWA, ODOT, WSDOT, CALTRANS) throughout the western U.S., as well as numerous other state and federal agencies in Oregon and Washington.

Kathleen Scanlan, MA | Laboratory Manager

Kathleen has nearly 10 years of experience in terrestrial archaeological investigations and six years in Geographic Information Systems (GIS). As an Archaeologist, Lab Manager, and GIS Specialist, she has conducted cultural resource investigations for a wide range of local, state, and federal agencies, with a particular emphasis on the U.S. DoD and United States Department of Agriculture (USDA). Her experience includes technical report preparation; research design development; Phase I, II, and III archaeological investigations; technical report review; and regulatory support for local, state, and federal cultural resources compliance. As lab manager, she oversees the intake, processing, analysis, and curation preparation for precontact, contact, and post-contact period collections; she developed a curation database based on lithic technological and use-wear analyses and modifies existing Access and Excel databases to tailor toward particular precontact and post-contact analyses and curation specifications. Additionally, she has extensive experience serving as a GIS Specialist, providing project support for a wide array of archaeology, architectural history, natural resources, and compliance investigations, including data collection, geodatabase management, and graphics production. Her spatial analyses in combination with her laboratory and statistical analyses have contributed to inter- and intra-site interpretations and NRHP evaluations.

Project Example: **Agricultural Conservation Easement Program for Wetland Reserve Easements, Graves, Hickman, Hopkins, Logan, and Nelson Counties, Kentucky** | USDA-NRCS | 2022-2023 | Field Director. In 2022 and 2023, Kathleen served as field director and GIS specialist for Phase I survey of 476 acres in central and western Kentucky in support of Section 106 compliance on behalf USDA-NRCS. She is responsible for background research; survey and excavation; collection, processing, analysis, and curation of artifacts; GIS and GPS data collection and management; graphics production; geodatabase management; and completion of technical reports.

Understanding of WSDOT/Public Agency Regulations and Procedures: While working for Jacobs, Kathleen has been involved in cultural resources compliance projects, including transportation-focused work in the Pacific Northwest, Wyoming, Colorado, and Minnesota. She has experience with projects involving USACE Section 106 compliance, and public agency clients such as the U.S. DoD, U.S. Department of Agriculture, National Science Foundation, and the BIA.

Jennie Lee | Laboratory Manager

Jennie has 14 years of professional experience as a field archaeologist working for both the private and public sectors in several areas throughout the U.S., including the Southwest, Pacific Northwest, Great Basin, Intermountain, South Central, and Southeast regions. She has worked for nine years as a field supervisor and has been responsible for the direct supervision and completion of numerous Section 106 and Section 110 NHPA archaeological survey projects and one data recovery project for various public and private agencies in New Mexico, Arizona, and Washington. She has served as a field supervisor on approximately 25 projects for various public agencies including the Washington State Parks and Recreation Commission (WSP), the USFS, the BLM, the National Resources Conservation Service (NRCS), and the BOR.

Project Example: **Cultural Resource Survey for the Bowman Bay Pier Replacement Project** | WSP | 2022 | Project Director. Jennie directed a 0.5-acre area cultural resource survey for the Bowman Bay Pier Replacement Project in Deception Pass State Park. She performed and supervised fieldwork and assisted in preparing the technical report for the project. Survey of the project area included both pedestrian and opportunistic shovel test probe survey to identify cultural resources. One historical-period feature, a spillway, was identified during the survey, and is presumably associated with site 45SK00536, a Marine Biological Station.

Understanding of WSDOT/Public Agency Regulations and Procedures: Over her 14 years as a professional archaeologist, Jennie has worked on a variety of projects for Washington State Parks, Washington State Department of Social and Health Services (DSHS), as well as numerous state and federal agencies in the Pacific Northwest and in the southwestern U.S.

Patrick Elliott, MA, RPA | Crew Lead

Patrick is an SOI Standards qualified archaeologist with 13 years of continuous experience (4.5 years with Jacobs) in cultural resources management, Sections 106 and 110 of the NHPA, and WA State Environmental Policy Act evaluation and compliance, precontact and historic archaeological research, and built environment evaluation. He has been involved with both private and public projects throughout the United States, including extensive experience in the Pacific Northwest. His project experience includes archaeological survey, testing, and data recovery, as well as built environment inventories, NRHP evaluations and recommendations, Section 106 agreement documents, environmental impact statements, historic and geologic context development, and knowledge and appropriate application of federal and Washington State laws and regulations. He has delivered cultural resources projects for the Federal Highway Administration, Federal Transit Administration, BLM, WSDOT, and CALTRANS as well as numerous municipal and private clients.

Project Example: **Data Recovery and Monitoring at the Old Mukilteo Townsite** | Washington State Ferries| 2018-2021 | Project Director. Patrick directed data recovery efforts within an existing archaeological site prior to the construction of the Washington State Ferries Terminal at Mukilteo. Following the data recovery was extensive archaeological monitoring that required ongoing support needs and extensive communication with fellow archaeologists and the client's liaison. He authored the data recovery and monitoring report.

Understanding of WSDOT/Public Agency Regulations and Procedures: Patrick has hands-on project experience with numerous transportation agencies (ST, SDOT, WSDOT, and CALTRANS), and numerous other state and federal agencies.

Shawna Rider, MA, RPA | Crew Lead

Shawna brings 10 years of experience in archaeology and cultural resource management in the Pacific Northwest and Alaska. She brings a strong familiarity with Northwest Coast archaeology as well as international experience. She has been involved in a wide range of projects, including large-scale evaluation and data recovery excavation, construction monitoring, salvage archaeology, and field surveys. Much of her project experience revolves around the transportation sector, especially road projects, as well as numerous projects in the oil and gas sector. Her employment history combines agency work with academia and several years in the private sector. In addition, she brings beneficial knowledge of cultural resource and historic preservation laws, as well as a background of research, technical writing, and evaluation related to archaeology in the Pacific Northwest and Alaska.

Project Example: **Bridge Site, Amaknak Island, Alaska** | Alaska DOT | 2006-2007 | Archaeologist. The project consisted of a large-scale excavation of more than 40 prehistoric house pits, midden, and human remains. As archaeologist, Shawna was responsible for salvage excavation, data recovery, and mapping. The site was approximately 3,000 years old and recovered one of the oldest whale bone masks ever found, now housed in the Museum of the Aleutians.

Understanding of WSDOT/Public Agency Regulations and Procedures: Shawna has considerable project experience with the Alaska DOT, as well and numerous other state and federal agencies.

Brandon McIntosh, MA | Crew Lead

Brandon meets the SOI Standards in Archeology and History and has served as Principal Investigator/Project Director for numerous cultural resource projects across the state of Washington for more than 6 years. He has also conducted research across western North America. He specializes in human behavioral ecology, stable-isotope ecology, paleoenvironmental reconstruction, as well as ancient DNA, zooarchaeological, and lithic analyses. Brandon has over 15 years of experience in cultural resources management, with 10 years at SRI and has led numerous cultural resources projects for Washington Department of Fish and Wildlife and WSP.

Project Example: **Western State Hospital New Hospital Multiphase Archaeological and Historic Architecture Mitigation Project** | DSHS | 2022-present | Project Director. Brandon oversees all aspects of a multiphase archaeological and historic architecture mitigation project at Western State Hospital in Lakewood, Washington. He is also responsible for analysis and documentation of all archaeological material and leads all reporting efforts. He is analyzing data gathered for the current project in conjunction with data produced during previous projects at WSH to develop a synthetic research product for use by DSHS in its compliance efforts.

Understanding of WSDOT/Public Agency Regulations and Procedures: He has project experience with various transportation agencies (NMDOT, UDOT, and the Idaho Transportation Department [ITD]), and numerous other state and federal agencies. In Washington, he has worked closely with the DSHS, Washington Department of Fish and Wildlife, and WSP.

Jessica Jones, BA | Data Management/GIS Specialist

Jessica is a GIS specialist with an archaeological background of over 15 years continuous experience working on projects throughout the west coast. Her technical background includes over a decade of experience utilizing and setting up GIS equipment in the field, performing various data analysis, and creation of maps from pre-fieldwork to final deliverables. She also has five years of experience in managing large databases, assisting in QA/QC, and developing data collection strategies.

Project Example: **West Seattle and Ballard Link Extensions** | ST | 2019-present | GIS Specialist. Jessica was involved in the early development of the parcel-based APE and developed the in-field data collection system for recording historical parcel data. She managed historical data for this endeavor and is currently managing the field data collection platform for archaeological monitoring and for the arborist tree data. She has also produced numerous analyses, tables, and maps for various reports associated with this project.

Understanding of WSDOT/Public Agency Regulations and Procedures: Jessica worked with numerous transportation agencies (ST, WSDOT, ODOT, Arizona DOT, and ITD) as well as numerous other state and federal agencies. She regularly assists work facilitated in other Jacobs' offices throughout the western U.S. and the Southwest.

Jane Wiegand, MA | Human Remains Specialist

Jane has been involved in cultural resource management for over eight years and participating in archaeological excavations for over 12 years. Her areas of specialization range from human osteology to GIS and 3D modeling. She specializes in the recovery, analysis, and identification of human skeletal remains. She has worked with both forensic and archaeological human remains in both lab, field lab, and field recovery environments. Remains that she has worked with include highly fragmented remains from helicopter crashes, cremated remains, waterlogged remains, and fully intact archaeological burials. She actively assists Jacobs teams across the country in identifying human skeletal remains.

Project Example: **Oso Landslide/SR530 Incident Debris Removal** | Snohomish County Public Works| 2014 | Archaeologist/Physical Anthropologist. Jane participated in the archaeological monitoring effort to recover personal items and human remains associated with the neighborhood destroyed by the mudslide in March 2014. The archaeological team was responsible for the identification of precontact artifacts, the recovery of human remains and associated personal items, and the recordation of the pre-slide landform.

Understanding of WSDOT/Public Agency Regulations and Procedures: Jane has been engaged with archaeological projects and research on transportation and other public sector projects continuously since joining Jacobs in 2015. Not only is she familiar with WSDOT project standards, safety protocols, and transportation-oriented cultural resources projects, but she is equipped to respond to Washington State inadvertent discovery protocols for human remains, in the event such is needed during this project.

4. Firm's Project Management System

Project Management System. We know WSDOT has specific performance standards and expects consultants to provide superior project management, deliver quality work, and adhere to high standards. Jacobs is a project-centric organization that focuses on sustained client loyalty; our staff and our team partners have a proven track record of delivering to your standard for nearly three decades. **Project Manager Michael Chidley has diverse delivery experience from executing and managing WSDOT projects** over the past 16+ years. The team brings a strong understanding of the management systems needed to deliver this project. Jacobs has a disciplined project management system we use on all projects, as shown in **Figure 4-1**. This system establishes our standards, procedures, and protocols and focuses on driving predictability and certainty into project delivery to foster success of our project teams through consistent use of best practices. Our project managers complete formal training through Jacobs' project management advancement program, and are accredited to manage projects for Jacobs, which provides WSDOT with consistent, transparent, and quality project delivery.

Quality Assurance/Quality Control Processes. Paramount to executing an effective QA/QC process is work planning and the effective defining and sequencing of deliverables. In conjunction with project manager and the Jacobs Northwest Region Quality Manager, **our Data Management and GIS specialist Jessica Jones will develop a QA/QC plan that is tailored to the deliverables of this project.** The plan will define the schedule and scope for all quality checking and review activities, and the requirements for an objective, comprehensive check, and review of the deliverables. We also apply the QA/QC process to the work product of our subconsultants.

The fundamental tenets of our project specific QA/QC process are:

- Perform the work correctly the first time
- Check all deliverables with a qualified second set of eyes using a defined process. All field-collected spatial and tabular data will be checked by a qualified analyst who is not part of the field team at WSDOT's preferred interval
- Audit for compliance with defined criteria

1 Client Expectation Survey

- Sets project goals/objectives with WSDOT
- Defines how we are expected to perform
- Establishes communication protocol

2 Project Management Plan

- Documents all critical project management information in one location
- Quickly brings team up to speed

3 Quality Management Plan

- Defines review procedures for all deliverables to ensure end product meets the WSDOT's standards
- QA/QC process is clearly documented at every step and is audited

4 Project Controls

- Earned Value system to track project schedules, budgets, and staffing
- Monthly progress reports and invices
- Monthly update of estimate to complete (ETC)

5 Operational Project Reviews

- Monthly project review with PM accounting, and project controls staff
- Focus on problem identification, prevention, resolution

6 Continuous Improvement

- Deliver, measure, and demonstrate value to WSDOT by increasing your return on investment

7 Client Satisfaction Survey

- Periodic feedback mechanism
- Ensures we are performing in accordance with expectations

8 Audits

- Periodic project audits to ensure all identified project management tasks identification above are consistently done

***Figure 4-1**. Jacobs' Project Management Plan*

Additionally, Jacobs' standard practice is to conduct an initial Client Expectation Survey (CES) at the start of the project to establish client expectations on 12 measures of project execution, including scope, schedule, and budget adherence. Senior management not involved with the project then conduct a Client Satisfaction Survey (CSS) with the client annually, or sooner if conditions warrant, to confirm that the project team is performing to the client's expectations against the 12 measures. If the CSS identifies an issue, we develop a Performance Improvement Plan (PIP) in consultation with the client to address the issue. We then monitor performance by the project team against the PIP until we resolve the issue to the client's satisfaction.

Where We've Done It: Jessica is trained as an archaeologist and has additional skillsets and knowledge to focus on digital and physical data management and GIS-based spatial data and mapping. She oversees data gathering techniques and technologies, data controls and quality, and archival data management for Jacobs' cultural resources projects across the Northwest region and nation. For transportation-focused projects, she has conducted large database management and QA/QC for project such as the Downtown Redmond Link Extension and West Seattle and Ballard Link Extension projects in Puget Sound. On these projects, QC required daily and weekly checks for omissions and duplication errors in unique ID's and geospatial locations, checking for consistency in terminology, cross checking data across versions, surveyor, and CAD data.

Scope/Budget Tracking Process. For each task order, we develop internal project execution plans (PEP) aligned to the work plan that confirm the scope of work, budget, project team, schedule, roles and responsibilities, communication protocols, work breakdown structure (WBS), quality plan, risk management, change management, and safety protocols that will govern our work. The PEP provides the foundation for all measurement and monitoring of scope and budget and ties in with the project schedule by producing an earned value metric to track progress against the deliverables. The PEP is captured on a web-based platform called Polaris and is available to all internal team members. On a monthly basis, Michael will participate in internal operational project reviews (OPR) with senior management and our internal project controls to review status of all elements of the PEP.

Scope Monitoring. We will divide the project scope into a logical selection of sub-tasks with assigned WBS. Each WBS task includes a responsibility matrix, assumptions, activities, and deliverables. We will track each of these key components on a project baseline schedule and in periodic meetings with the WSDOT project manager. This enables us to break the project into manageable pieces, anticipate and mitigate scope creep, feed percentage complete into the MS Project schedule, and keep you fully informed on our progress. Our scope monitoring is designed for early identification and communication related to emerging risks, ongoing tracking of progress, open communication internally and with the client about changing conditions and needs, and maintaining a change log as necessary to document scope adjustments.

Budget Monitoring. Michael will use Jacobs' toolbox of web-based resources, such as Polaris and Jacobs Analytics, to manage the project finances. Project financial information is updated weekly, allowing Michael to clearly see charges expended on the project. On a monthly basis we review project expenditures, status physical percent complete, and forecast an estimate to complete (ETC) for each WBS of each task order, which allows us to monitor the health of the project. The project status, ETC, and Estimate at Completion (EAC) are reviewed during the monthly OPR executive prior to finalizing our internal workflow.

Where We've Done It: In addition to managing the current WSDOT I-5 East Fork Lewis River Bridge task order since 2020 according to the tracking process described above, Michael is successfully managing another active WSDOT task order (SR 99 Alaskan Way Viaduct Replacement Project, South Access Surface Street Connections – Archaeological Monitoring) since 2021, as well as seven other projects. Each of Michael's projects are delivering on scope and within budget.

Scheduling Program/Process. Jacobs uses both Microsoft Project and Primavera to support project scheduling needs; specific software is based upon client preference if specified. Schedules are built with the understanding that they will be used to communicate time and logic elements of the project with the consultant team and WSDOT. The schedule will define all work activities, durations, and constraints, including all external interfaces, at the task level. It will also provide "rollups" of work items so they can be understood and used by all project participants. As examples, Michael has used this process for projects such as BNSF's Wishram Centralized Traffic Control Project in Klickitat County, the multi-task order Cultural Resources Support on-call for Orcas Power and Light Cooperative in San Juan County, and the Blakely Harbor Park Site Remedial Investigation in Kitsap County, WA.

Interaction with Internal Team. Effective, targeted communication is critical for efficient, timely project delivery. We have structured our team for clear lines of communication and responsibility, providing key personnel in positions of responsibility with clear roles. As discussed above, the foundation of our project execution is the PEP. The PEP guides the project team and confirms that the team follows project procedures properly. In addition to the PEP, the tools and processes we use to promote clear communication with our internal project team include:

- An internal kickoff meeting held at the start of the project to confirm expectations, goals, and objectives, quality plans, communication protocols, staff roles and responsibilities, and performance measures.
- Coordination meetings held regularly to review project progress and provide opportunities to proactively identify and address any concerns.
- Prior to and following fieldwork, the team will be working in hybrid remote office settings. Electronic systems such as email, Microsoft Teams, ProjectWise, and SharePoint sites will be used to communicate with the project team, set up meetings, share ideas, disseminate information, facilitate reviews, and share electronic documents.
- In-person meetings will be held as needed at the Jacobs Bellevue, WA office, WSDOT offices, and/or on-site at 45CL26 as most appropriate for attendees and agenda.
- Coordination meetings will be held regularly between Michael and WSDOT's project manager to review project progress and budget and provide opportunities to proactively identify and address any concerns.
- Training will be held at the start of the field season and as needed as staff come on-line to confirm expectations, goals, and objectives, quality plans, standard operating procedures, communication protocols, staff roles and responsibilities, and performance measures.
- Field crew staff will perform field work with a focus on quality and safety.
- Data management and GIS support staff will manage all digital mapping, GIS data, set up of field forms, and conduct QA/QC of data.
- Training will be held at the start of the field season to confirm expectations, goals, and objectives, quality plans, standard operating procedures, communication protocols, staff roles and responsibilities, and performance measures.

Interaction with Client. We view WSDOT and Jacobs' relationship in managing and delivering projects as a partnership. We know that for us to be successful we need to be aligned. We have selected a project team that has effectively worked with WSDOT currently and in the past, key project staff throughout the project organization structure that currently work on WSDOT projects, and know how to effectively coordinate the team, schedule, and needs of the project. Michael will be the primary point of contact for the project and contractual discussions and consultant team management. He will work with WSDOT to establish the project's scope, schedule, and budget. Our team members will integrate and interact with WSDOT staff following communications protocols established in our PEP, including the means, methods, and frequency of our interactions with WSDOT's staff.

Interaction with Stakeholders. Cultural resource management projects, and particularly archaeological data recovery project, are not developed or conducted in isolation. This specific archaeological data recovery project will continue to operate within a cultural resources and engineering environment, populated by all those who have a particular stake or interest in the outcome. This environment and the expectations of stakeholders represent significant risk to project objectives. It is unlikely that the desires and needs of all stakeholders will coincide; rather, they will seek to influence the project to meet their own desired process, protocols, and outcome. Pressure from stakeholders often generates change and change increases the complexity of the management task, jeopardizing cost and project certainty. However, if the views of project stakeholders are not addressed and if stakeholders are not involved in the development of the project, then the project is unlikely to deliver optimum results for all involved. Best practice is to familiarize the team with project and coordination history and remain proactively engaged with the affected parties and stakeholder environment. We anticipate that the primary involved agencies for this project include the FHWA, DAHP, Washington State Parks. We also anticipate that representatives of the affected Tribes, Cowlitz Indian Tribe and Confederated Tribes of Grand Ronde, will be heavily involved in the excavation, analysis, and reporting phases, which will include an extremely valuable complexity of knowledge, concerns, and desires. We will work with the WSDOT team to understand the agency's goals and stances within the stakeholder environment and develop a plan (Stakeholder Management Plan) that defines management and communication strategies tailored to each stakeholder or stakeholder group. WSDOT will be the lead when communicating with Tribes; Jacobs will provide communication support as directed by WSDOT.

5. Project Delivery Approach

A. Approach to Developing a Work Plan

Jacobs brings the knowledge, skills, abilities, and project background to successfully initiate, execute, and complete the archaeological data recovery effort, as demonstrated by our successful performance and collaboration through the course of the preceding I-5 East Fork Lewis River Bridge Replacement cultural resources support task order. We have served as a proficient and responsive partner in cultural resources tasks and processes to date. We deeply understand the ambitious goals of the archaeological data recovery effort and the high expectations for consultant performance, delivery, and ability to work with the agencies and involved Tribes.

This archaeological data recovery effort will have a concerted focus on high-quality data recovery excavation coupled with a high degree of sensitivity on Tribal concerns and active involvement, effective data management, and analysis, while accomplishing an accelerated project startup and excavation schedule to meet a short summer weather window. Our work plan has been developed to meet those requirements and will be flexible enough to be revisited and refined throughout the project to address planned and unknown contingencies.

Work Plan Development. Developing a work plan for the I-5 East Fork Lewis River Bridge Archaeological Support project requires a thorough understanding of the intent and requirements of the Archaeological Data Recovery Plan, which Jacobs has demonstrated through our prior experience with planning phases of this project. Upon award and contract start, we will further develop a preliminary work plan that identifies/refines the project goals and objectives, timeline and milestones, budget, tasks to be performed within the project and required resources, deliverables, team responsibilities, and the significant risks and control measures associated with the specific work task(s), and a process to review the work plan and make updates as necessary. We will then create a PEP to schedule, prioritize, and coordinate the different key components of the archaeological excavation and analysis, considering interdependencies, potential conflicts, and available resources.

Work Plan Decision Making. A key component for success is identifying and engaging decision makers early in the development of the work plan. For this project's work plan, the decision makers will be involved not only during initial development but also in maintaining the work plan throughout the project. Our approach involves the following key decision-making roles in developing the work plan:

Principal Investigator/Project Manager: In this role, Michael will be responsible for overseeing the development and day-to-day management of the work plan. Michael will develop the work plan with valuable input from staff previously involved in the East Fork Lewis River Bridge data recovery plan development and the other key team members described here, as well as direction received from WSDOT in the RFQ and through an iterative review process, as needed.

Principal Investigators: The team's Principal Investigators will be responsible for approving the project work plan and providing guidance and oversight throughout the project. We envision the Principal Investigators collaborating directly with Michael in reviewing draft work plan materials and confirming that we have accounted for excavation goals. It will also be the role of the Principal Investigators to escalate or engage with Project Director where the work plan may require additional guidance or input.

Project Director: Based on the Archaeological Data Recovery Plan, and direction and guidance from Michael, it is the role of the Project Director to lead the daily decision-making process and provide input to the work plan on an as-needed basis.

WSDOT Stakeholders: Stakeholders such as WSDOT Cultural Resources Specialist(s) will provide input and feedback on the work plan as needed. We anticipate that the Cowlitz Tribes and Confederated Tribes of Grande Ronde may be consulted in the development of the work plan as well. We expect that Michael and Mike will collectively engage with these stakeholders when needed.

Elements of the Proposed Work Plan: The milestone schedule for our proposed work plan is shown in **Figure 5-1** and summarized below.

Contract Management. Upon award, Michael, assisted by Matt Ringstad (Jacobs Manager of Projects) will work with WSDOT to execute the contract, clarify scope elements, and facilitate an expedited cost negotiation; in parallel, a baseline staffing plan will be developed to outline required staff roles and responsibilities. The timeline shown in **Figure 5-1** provides a real-world look at the required speed to establish the contract quickly, facilitate immediate start-up elements, and successfully initiate and execute a large excavation this summer's dry season. The vision, goals, and required schedule developed by the team will drive development of the work plan and any necessary updates to critical path items and associated timelines.

Start-Up. Our team will update standards and guidance (i.e., PEP, Health and Safety Plan, QA/QC Plan, and review the Archaeological Data Recovery Plan) in preparation for training and field work. A kick-off meeting will be conducted to ensure project goals, schedule, communication and access protocols, consultant and agency cooperation protocols, deliverables schedules, and plan for progress reporting and check-ins are established. We anticipate that the kickoff meeting will be attended, at WSDOT discretion, by the involved agencies (i.e., WSDOT, FHWA, DAHP), involved Tribal representatives, and the consultant team leads. The team will work closely with WSDOT to identify necessary updates to Archaeological Data Recovery Plan content. The team will also work with WSDOT to develop and execute a logistical plan that details real-world protocols for on-site work, including security, access plans, coordination with Paradise Point State Park, and Tribal representative coordination and communication. Once these documents are updated and finalized, onboarding training will commence as staff come on-line with a strong focus on safety. **Jacobs and their project teams operate under a Culture of Caring, proactively promoting the health, safety and security of our people, project teams, and protection of the environment.** Concurrently, the team will work to procure equipment, housing, and vehicles necessary to complete the excavation. To support WSDOT's DBE goal, our team includes SRI as an active team member, and will be engaged in building the work plan and project execution. When schedule and activity details are known, the team will provide notice to FHWA, WSDOT, DAHP, Confederated Tribes of Grand Ronde, and Cowlitz Indian Tribe of the anticipated start date and initial planned data recovery excavation actions.

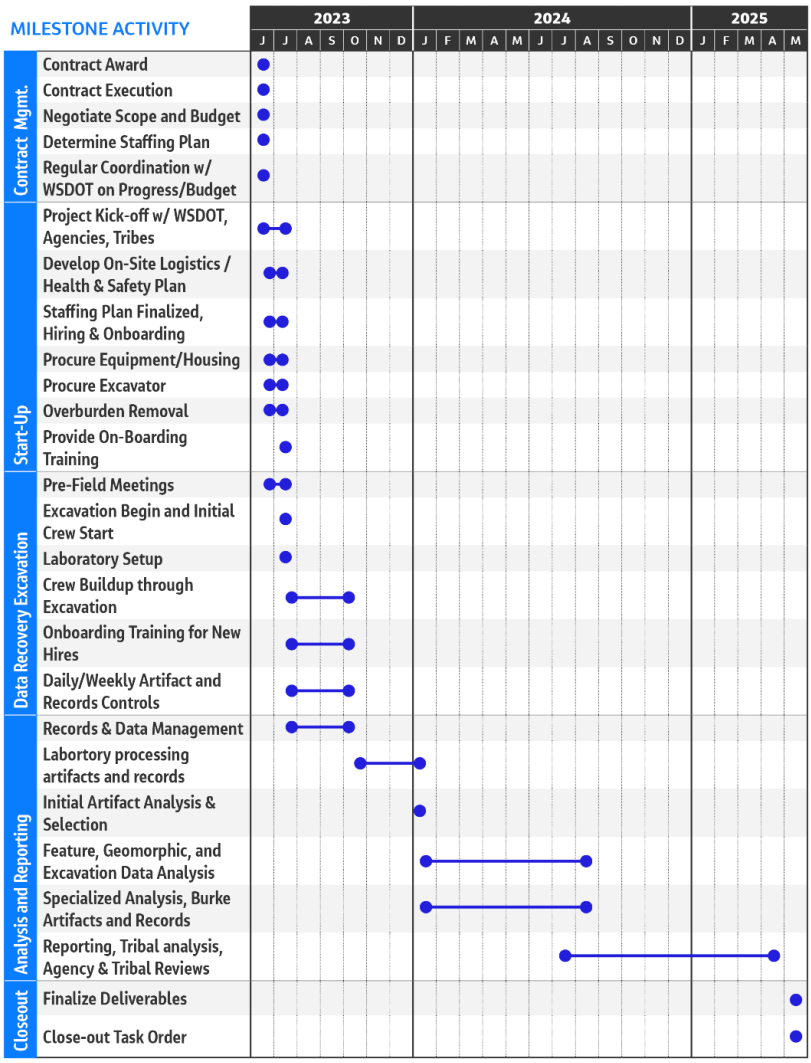


Figure 5-1: *Proposed work plan.*

Data Recovery Excavation. All archaeological operations completed under this agreement will be conducted under the direct supervision of a qualified individual(s) who meets, at a minimum, the SOI Standards (48 FR 44738-44739, September 29, 1983) for Archaeology.

Our team will initiate the data recovery effort with pre-field meetings with WSDOT-identified key stakeholders in the project, for example: WSDOT Southwest Region, DAHP, Washington State Parks, Cowlitz Indian Tribe, and Confederated Tribes of Grand Ronde. These meetings will clarify anticipated roles and communication protocols and expectations for the involved parties and establish the clear lines of communication that will be needed for smooth operations and notifications.

From the beginning, our team will emphasize a recognition of the Tribal traditional connection, knowledge, insight, and understanding of the site, and welcome the participation of the affected Tribes' cultural resource professionals, along with others in the Tribal communities. All work on-site will begin with daily reflection and recognition of the Tribal connections with the archaeological site, associated materials, and the landscape, as well as the importance of working in a mindful and respectful manner – regardless of schedule or other constraints.

Data recovery excavations are anticipated to begin with mechanical overburden removal from portion of the site, installing shoring as needed for crew safety and site stability. The initial overburden removal and excavation will likely focus on the area between the bridges to capitalize on open air excavations during dry weather, leaving bridge-covered areas for later in the season. A primary goal will be to reestablish connection with the 1968 salvage excavation units and datum(s) if present. Care will be taken to limit the extent of exposed soil to minimize site erosion and potential sediment mobilization.

The initial excavation is anticipated to be conducted by a core group of the lead Principal Investigator, Project Director, and several experienced excavators for an efficient and well-considered start to the data recovery effort, as well as finalized field data management procedures. Decisions required of the core team during the initial phase of the excavation include such tasks as: **site safety, security, and access protocol implementation, methods for overburden removal, storage and shoring, permanent datum setting, screening locations and backdirt storage/treatment, records management setup, adverse weather plans, and iterative protection of the open excavation area**.

The excavation team will, however, be quickly augmented with additional excavation crew leads and archaeologists in order to rapidly increase excavation speed**. On-boarding training on Tribal sensitivity, safety requirements, and excavation protocols will be provided to every staff engaged in the project**. Considering the need for approximately 30 archaeologists to accomplish the required rate of excavation, with efficient tasking and excavation logistics, daily operations are anticipated to be led by the Project Director, supported by several crew leads and assigned archaeologists. Methods for Data Recovery Fieldwork presented in the RFQ (and Archaeological Data Recovery Plan) will be followed. In conjunction with start-up and excavation start, a field laboratory facility, currently envisioned as a small construction-type trailer, will be established on-site for initial artifact, sample, and records management and security. Artifacts will be treated conservatively, and will not be field cleaned, except as deemed necessary and prudent, in very minimal ways to allow for clean storage, prevention of cross-contamination, and sample collection. Following preliminary care and packing in the field laboratory, archaeological materials and records will be transported off-site to Jacobs secure archaeological laboratory in Redmond, WA. Digital data will be reviewed weekly to ensure any corrupted data can be recovered or recreated in the field, written data will be reviewed similarly so records can be completed by the specific field staff.

Data recovery excavations are expected to occur over the course of up three months (July through September), although two seasons may be required due to actual timing and weather. Due to legacy experience on the site, Mr. David Munsell and Dr. Randall Schalk will be invited to visit the data recovery excavations to provide insights and context to the data recovery effort. Following completion of data recovery, the excavation will be backfilled and the surface restored. If multiple field seasons are required, unexcavated portions of the site would be stabilized prior to backfilling to protect the site integrity between excavation seasons.

This project will entail multi-month open excavation in close proximity to the East Fork Lewis River. Jacobs employs a full cadre of stormwater engineers and CESL specialists for immediate advice and planning support to ensure appropriate BMPs are planned and implemented.

Analysis and Reporting. Following excavation completion, the analysis and reporting phase of the project is undertaken. Initial tasks will focus on data management to prepare field records for analysis and ensuring secure redundancy of field data is maintained. No more than 90 days following data recovery field demobilization, the team will provide FHWA, WSDOT, DAHP, Confederated Tribes of Grand Ronde, and the Cowlitz Indian Tribe a brief Summary of Findings for the data recovery excavation, as per the RFQ. Initial artifact analysis (prior to treatment) will be completed so that artifacts can be selected, prepared, and distributed for specialized analysis; similarly, soil and other specialized samples will be selected as soon as possible for further analysis. In conjunction with specialized analysis, feature, geomorphic, and other excavation data will be compiled and analyzed in order to compile and describe excavation results, analysis of the results, and address previously identified or newly relevant research domains and questions. The analysis phase will include the invitation and participation of the Cowlitz Indian Tribe and Confederated Tribes of Grand Ronde to comment on and interpret the collected artifacts and field records, as well as an invitation for the same to Mr. David Munsell and Dr. Randall Schalk. Effort will also include analysis of the curated 1968 artifact collection (housed at the Burke Museum), and comparison/integration of those results with the current results.

Jacobs and SRI maintain laboratories for the storage, cleaning, and analysis of archaeological materials recovered from federally owned or administered projects that meet the requirements of 36 CFR 79, providing ample capability for artifact and sample processing, analysis, and curation preparation. The Jacobs team will conduct in-house processing (such as artifact selection, cleaning after special sample selection, and flotation) as well as utilize team specialists for lithic and faunal analysis. For example, the Jacobs Project Director Mike Farrell is well-versed in lithic functional, technological, and use wear analysis, as well as lithic analysis protocols established along the Columbia River for the Meier Site (as required by the RFQ). However, the Jacobs team recognizes the need to engage expertise whenever needed to provide the highest quality analysis and will proactively and collaboratively seek outside experts for unique and specialized analytical studies (e.g., botanical and microfaunal, radiometric dating, specialized lithic, optically stimulated luminescence, protein residue, pollen, and starch analyses, micromorphology, tephrochronology, and obsidian and pumice sourcing). All excavation data and materials will be prepared by the Jacobs team for curation in accordance with 36 CFR pt. 79 and the curation standards for the Burke Museum.

In conjunction with the analysis component, feature, geomorphic, and other excavation data will be compiled and analyzed in order to describe excavation results, analysis of the results, and address previously identified or newly relevant research domains and questions. Jacobs will write a Data Recovery technical report presenting the results of the archaeological data recovery, including synthesis of the 1968 excavation records and analysis. The report will include, at minimum, the following key elements: Introduction and Project Description, Environmental and Cultural Context, Previous Studies, Methods (field and laboratory), Results and Synthesis, Recommendations, References, and appropriate Appendices. An NRHP Nomination Form will also be completed. During this phase of the project, laboratory processing is expected to require approximately three months; analyses of artifacts and samples and associated Tribal coordination, research and analysis of the existing records and collection at the Burke Museum, and receipt of results reporting from specialist studies, are expected to require up to nine months; report preparation, analysis of results and associated Tribal coordination, and report review and completion are expected to require an additional nine months.

Closeout. The closeout process will include efforts to finalize all work products and close out the task order based on our previous experience delivering WSDOT task orders. The team will provide a compiled, archival-quality data set of all excavation data, and deliver the archival materials to WSDOT and the Burke Museum as required.

Addressing contingencies that may arise during the project: Contingency planning is part of Jacobs' philosophy when working on any project; the Jacobs team has extensive experience in preparing for contingencies in project implementation. While developing the current Archaeological Data Recovery Plan and this initial work plan, we have forecasted various issues that may be encountered, such as difficulty reestablishing 1968-era units and datum(s), adverse weather, potential delays from multiple specialist analyses, Tribal artifact and material analysis schedules, and need for an expedited contracting and startup. Each of the contingencies is addressed through operational preparation and planning through adequate schedule timelines, planning iterative site excavation and priority areas, a staff augmentation plan following a core team start, and proposing a team structured for rapid response, implementation, and expertise. We will continue to prepare for contingencies with each of the requirements under this work plan as and when the contingency appears; example contingency planning is provided in Section 5.D. below.

SRI using short-range LiDAR to record features.

B. Approach to Resolving Issues with the Project Team

Our team is structured to provide clear and consistent direction to project staff so that issues can be successfully resolved at the lowest appropriate level. We have established clear lines of communication for our team and WSDOT technical staff to resolve issues quickly and consistently throughout the project. We can address many issues in an expedited fashion by giving the project the correct attention and monitoring for risk management and mitigation. If needed, our senior leadership has a 20+ year history of working alongside WSDOT to manage and resolve complex issues.

Our project-level approach follows these fundamental steps:

1. Identify the issue: The first step is to clearly identify the issue or concern. In most cases, an issue or concern may be obvious. In other cases, it may be a more underlying issue, requiring some level of analysis or assessment to fully understand the problem.
2. Communicate the issue: Once we have identified the issue, the next step is to communicate with impacted parties or specific individuals (if of a more sensitive nature). This step allows the impacted parties to be aware of the impacts to the project or task at hand and to assure them it is being addressed.
3. Determine a resolution: Depending on the magnitude or severity of the issue, a resolution may be as simple as a focused conversation with the impacted parties and consensus on the proposed resolution. If the issue is more significant, we may need to develop a more defined approach to resolve the issue and identify timelines for completion.
4. Engage with stakeholders: If the issue involves stakeholders, it will be crucial to communicate with them about the situation and the steps we are taking to address it. Following the guidance under the Stakeholder Management Plan previously discussed, it will be important to keep stakeholders informed and to manage their expectations. If the issue directly involves a stakeholder, the internal project team may need to implement an action plan to make sure we address the issue and resolve stakeholder concerns satisfactorily.
5. Monitor progress: In the event the resolution or corrective action is of more significant impact, we will monitor the progress of the resolution and, if needed, we will make additional adjustments to the corrective action until we achieve successful resolution.

C. Assumptions for Work Breakdown Structure

The following are our assumptions for project delivery as they pertain to the identified WBS.

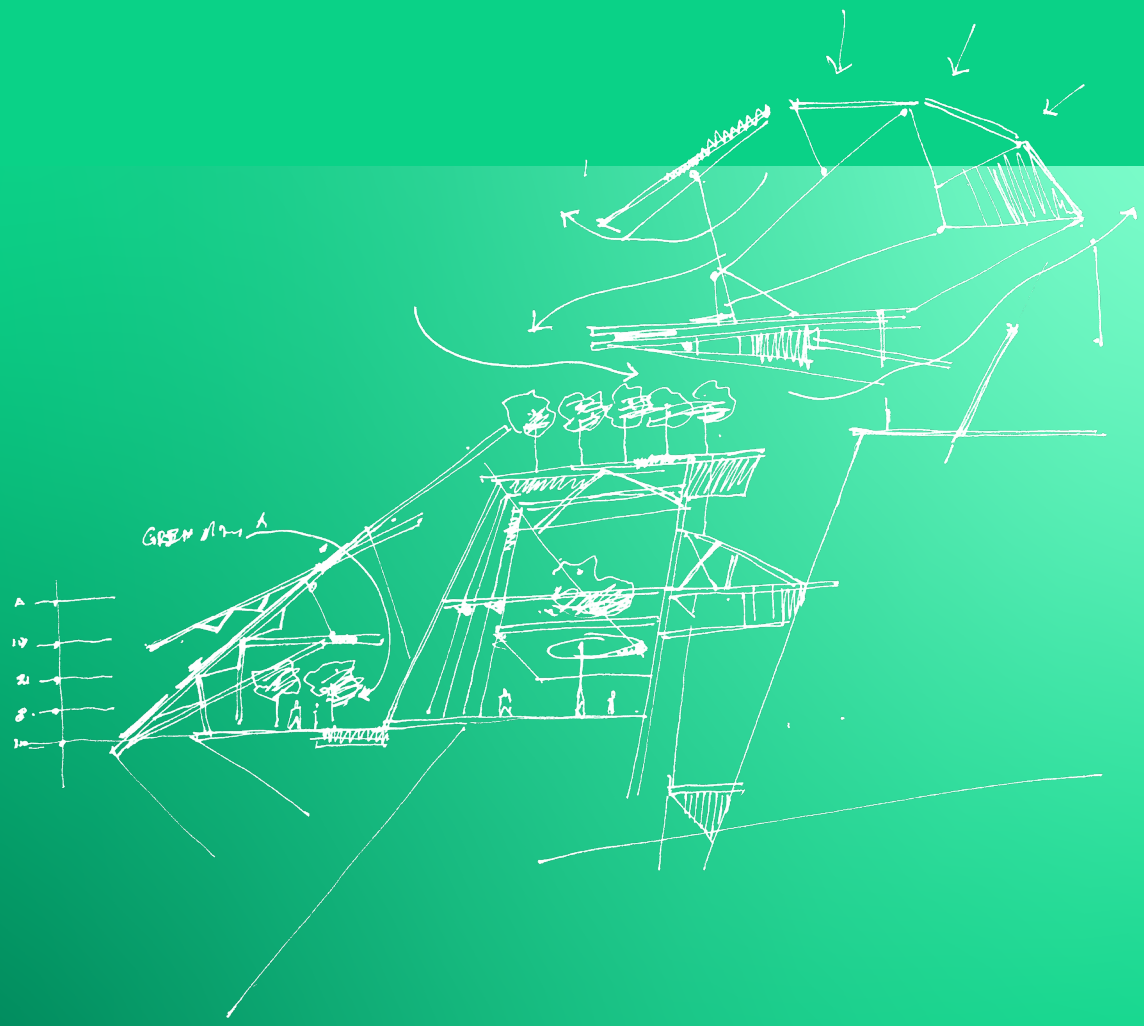
Assumptions	
Contract Management	• WSDOT will provide the Archaeological Data Recovery Plan for review during contract negotiations.
Start-up	• WSDOT will be the direct communication lead with agencies and Tribes. • WSDOT will provide an expedited Notice to Proceed to facilitate document development, equipment, vehicle, and housing procurement • Jacobs will provide a Health and Safety Plan, Work Plan, QA/QC Plan, and will coordinate any changes with WSDOT.
Data Recovery Excavation	• WSDOT will be the direct communication lead with agencies and Tribes, which may be delegated to Jacobs. • WSDOT will coordinate with Jacobs as early as possible on any WSDOT-provided equipment necessary for the project. • Jacobs will obtain an excavation contractor for overburden removal. • WSDOT will stabilize and restore the site area following data recovery excavation(s). • Jacobs will be responsible for obtaining necessary equipment (as agreed by both parties) by rental, loan from WSDOT, or purchase to complete this project.
Analysis and Reporting	• WSDOT will assist in the coordination and scheduling of any post-fieldwork collection visits, interviews, temporary changes in artifact custody, and analysis. • WSDOT will establish a curation agreement with the Burke Museum to curate the collection. • Jacobs will be responsible for contracting specialized analyses, transport materials for Tribal analysis, and obtain archival/curation materials.

D. Key Issues, Risks, and Critical Milestones for the Project

We have identified several examples of key issues and risks for the project, presented in the table below, and how we will bring resolution to these issues.

Key Issues	
Issue	Resolution
Required Contracting Speed	Our team is structured with companies already pre-approved by WSDOT for environmental task orders, with established audited rates and familiarity with contracting with WSDOT. We are very familiar with WSDOT requirement and are ready to expedite contracting in order to field the team.
Rapid start-up to meet the weather window	Jacobs' Project Manager will work closely with WSDOT to coordinate park access and work area exclusion, pre-field equipment and laboratory staging, and will communicate and coordinate regularly with the Project Director to facilitate equipment, excavation materials, and housing acquisition.
Site security	The archaeological site is located within a publicly accessible area of Paradise Point State Park, and security may be difficult to maintain during the overnight hours to prevent unauthorized access. Jacobs will work with WSDOT and the state park to implement security measures to prevent unauthorized access by the public or campground users.
Early onset of adverse weather	After establishing connection to the 1968 salvage, data recovery excavation work between the bridge decks will be prioritized to complete excavation in the open air early in the season. This will allow for late season work to be completed under bridge deck cover. This may allow excavations that extend into the rainy season. Throughout the excavation, canopies and tarping will be kept on-site to quickly react to summer storms in order to protect the site and backdirt and allow for continued excavation in poor weather. Jacobs will plan and employ appropriate BMPs to avoid stormwater erosion and runoff.
Archaeological staffing requirements	This project is anticipated to require a team of up to 30 active archaeologists working to excavate the site within the proposed 3-month timeline. We are proposing a broad bench of qualified staff and

Key Issues	
Issue	Resolution
	subject matter experts from across our team so that no resource is spread too thin; in this way, we can provide consistency and continuity across key areas of support for the excavation and project lifetime. We have already begun the process of identifying archaeologists across the region who are interested, both within existing employees and new hires. In addition, we are already leveraging our nationwide professional connections to quickly build a team of experienced archaeologists.
IT or equipment issues in the field	The field team will trouble shoot issues as they arise. The Project Director will elevate issues as needed to the digital data management/GIS Support person as needed, who will work to troubleshoot the issue and/or coordinate with Michael on resolution. If unable to resolve at the project level, Michael will communicate the issue and suggested solution(s) to WSDOT.
Unexpected conditions or identified issues with data recovery methods.	Excavation will adhere to the methods for Data Recovery fieldwork as presented in the RFQ (and Archaeological Data Recovery Plan). However, the excavation may encounter features or site content that are not appropriately excavated under the planned methods. For example, house features may be more appropriately excavated using larger units to provide larger exposures and wider active profiles. Jacobs' Lead Principal Investigator may propose revised methods to address changing conditions or actual results as approved by WSDOT.
Award/contracting not completed prior to mid-July	Award and contract processing may result in a later-than-ideal startup date and excavation start, resulting in a schedule carrying excavation into late fall/winter. The primary resolution is to focus on excavation of areas protected from surface weather conditions and allow for protected late season excavation (as described in 'Early onset of adverse weather' above). However, groundwater levels and/or inadequate late season light conditions under the bridges may not allow for continued excavation. Jacobs would work with WSDOT to establish a timeline for curtailing the excavation season, stabilizing the site, and excavation start during the following season.
Award/contracting not completed prior to late-July	Award and contract processing required startup actions, and logistics planning may preclude an excavation start that allows for a single season of excavation, due to an untenable number of required archaeologists to accomplish the season, or a rate of excavation that does not reasonably allow for high-quality, mindful data recovery excavations. Although this situation may be considered undesirable, it may allow for an initial curtailed excavation season that provides a smaller team to fully establish excavation management practices and excavation methods, allow for responsibly thoughtful excavation practices, and more manageable logistics and crew size. A second season would be approached with methods and protocols that might be more successful overall.
Critical Milestones	
Milestone	Reason Why Milestone is Critical
Contracting completed by early July	Allow adequate time to develop Health and Safety Plans, Work Plan, Data Management protocols, PEP, and QA/QC plans for successful and safe implementation of planned work, and sufficient time to engage a large number of archaeologists.
Start excavation by mid-July	Allow sufficient time for excavation during dry season and with adequate light, and appropriate excavation schedule that allows for a successful start to ensure methods and protocols are functional prior to full crew engagement.
Excavation complete	Successful completion of excavation allows for the analysis and reporting phases to begin with secure and complete data, artifacts, and materials.
Tribal analysis of materials complete	Tribal involvement with analysis of artifact, feature, and site information is required to provide a comprehensive account of the data recovery and site character.
Analysis of 1968 salvage materials complete	Similarly, incorporation of the 1968 salvage excavation artifact, feature, and site information is required to provide a comprehensive account of the data recovery and site character.



WSDOT
I-5 East Fork Lewis River Bridge Archaeological Support

Michael Chidley
Project Manager

1100 112th Ave NE, Suite 500
Bellevue, WA 98004
T: 425.453.5000

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