WSDOT Eastern Region's Partner in Program Delivery

HDR Engineering, Inc.
Statement of Qualifications for
2022 Eastern Region General Engineering Consulting Services

Packet A
May 11, 2022
1A. Firms and Expertise

HDR has been providing services to WSDOT since 1974 and—through our regional offices—we have a strong, local familiarity and a solid, in-depth understanding of the requirements and constraints involved in WSDOT projects. In the coming years, WSDOT Eastern Region is advancing its programs at an aggressive rate that requires a flexible pool of resources to fully support WSDOT. HDR’s team is designed to efficiently and strategically provide the resources you need to stay ahead.

Over the years, HDR’s Spokane office has successfully provided WSDOT with numerous services as a subconsultant to Parametrix under the current Eastern Region General Engineering Consultant contract. Those services have included roadway design, traffic analysis, hydraulics, rail design, bridge engineering, and fish passage. We’ve also provided staff augmentation during both design and construction project phases. Our work has included traffic analysis for North Spokane Corridor and interchange improvements for I-90/Barker Road.

Outside of this contract, HDR has become adept at developing unique maintenance of traffic solutions for fish passages in areas where long, circuitous detours are not an option. For example, on Minter Creek, construction needed to be completed on an aggressive schedule, and in some cases occurring in some cases over a weekend.

HDR brings an in-depth understanding of WSDOT’s design process, the Eastern Region environment, and effective strategies for working with local stakeholders which requires strong coordination from both leadership and technical staff.

The Right Partner to Help You Deliver

WSDOT Eastern Region’s Projects

**SUMMARY OF KEY ADVANTAGES**

- Local, nimble, and flexible staff who can seamlessly integrate with WSDOT staff
- Experienced staff who bring a strong understanding of Eastern Region standards, processes and delivery expectations
- Cost-effective project management and a true project partner in staff training and knowledge sharing
- Proven ability to respond quickly and meet timelines on emergent needs

Our team brings:

- Direct, recent experience supporting WSDOT’s Eastern Region
- Local staff with a strong understanding of Eastern Region’s transportation system and stakeholders

Our team brings:

- Experienced local staff with the right expertise to meet your upcoming needs, reducing travel expenses
- Breadth of expertise to manage all task orders that may arise—from fish passage to traffic analysis, or roadway design to alternative project delivery documents

Our team brings:

- A locally based team that can easily collaborate face-to-face at a moment’s notice
- Extensive history of working together and with WSDOT Eastern Region
- Proven leadership with strong, trusting relationships with WSDOT

NO LEARNING CURVE

THE RIGHT RESOURCES

ABILITY TO COLLABORATE
Our goal is to provide WSDOT with the best available resources on every task order. We’ve selected the firms on our team to provide WSDOT with a cohesive group of individuals who form a highly effective and efficient team, most with experience delivering quality services to WSDOT. This team, already largely known to WSDOT, is founded around core staff who were integral to the successful delivery of the previous Eastern Region GEC services.

Our project manager/engineering resource manager and primary point of contact, Scott Marshall, and deputy project manager/deputy engineering resource manager, Jake Menard (DEA), bring the proven ability to assemble right-sized teams who are skilled at efficiently serving as an extension of staff. Scott and Jake are strong advocates for WSDOT’s values and vision and are ready to quickly strategize and mobilize the right teams to implement your objectives.

Our team provides the best available resources across all firms. As a locally based team, supported by company-wide specialty expertise, we will provide WSDOT with complete access to our key individuals and additional subject matter experts to meet your evolving project needs.

Figure 1.1 (below), we have summarized the expertise, years of experience, and numbers of employees in Spokane, Washington/Idaho, and nationwide of each of the firms on our team.

**Figure 1.1: Summary of Firms, Employees, and Expertise**

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<tr>
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<td>HDR</td>
<td>Spokane: 40</td>
<td>Traffic and Transportation Planning and Engineering; Bridges and Structures; Roundabouts; Interchange Design; RFP/Q Development; Environmental Planning and Permitting; Design-Build PS&amp;E; Design-Bid-Build PS&amp;E; CADD/BIM; Constructability; Construction Management and Inspection; Highway/Interstate Design; Funding; Project Management; Program Management; Project Controls; Public Outreach; Quality Assurance, Right-of-Way; Stormwater; Value Engineering.</td>
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<td>DAVID EVANS AND ASSOCIATES</td>
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<td>Project Management; Traffic/Transportation Planning Studies and Reports; Highway Design; Environmental Studies and Reports; Highway Safety; Hydraulics/Hydrology; Survey and Mapping; Landscape Architecture/Mitigation/Revegetation; Right-of-Way/Utilities; Structural Engineering; Construction Engineering; Electrical Engineering; Fish Passage/Stream Design; Alternative Project Delivery; Owner’s Engineer/Representative.</td>
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<td>PARAMETRIX</td>
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<td>Project Management; Transportation and Traffic Planning and Design; Design-Build Contract Documents, Construction Cost Estimating; Scheduling; Survey; Right-of-Way, QA/QC; Environmental Planning and Permitting; Stream Design; Utility Design; Hydraulics/Hydrology, Structural Design; Maintenance of Traffic.</td>
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<td>BUDINGER &amp; ASSOCIATES</td>
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<td>NICHOLLS KOVICH (SBE)</td>
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<td>OTT-SAKAI (DBE/MBE)</td>
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<td>OSBORN CONSULTING</td>
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<td>KELLER ASSOCIATES</td>
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<td>HMH ENGINEERING</td>
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<td>STRATA</td>
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<td>Geotechnical Engineering; Construction Materials Testing, and Special Inspection Expertise.</td>
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<td>T-O ENGINEERS</td>
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**Team Organization**

As a long-time WSDOT partner, we carefully assembled our team with local, skilled professionals with the project management experience and technical expertise to best serve WSDOT’s anticipated needs. We are proposing a robust team that is focused heavily on local staff, as illustrated in [Figure 1.2](on the next page), to provide our project manager, deputy project manager, and key staff the right expertise and level of resources to complete high-quality work on schedule.

Our team offers a full suite of engineering and consulting expertise that we anticipate may be needed to successfully deliver WSDOT Eastern Region’s upcoming projects. Scott will work closely with Jake to apply a flexible, efficient approach (described in Criterion 4, page 21) to build teams tailored to each task order, depending on the size and scope of each.

In addition, we have strategically selected our teaming partners and included local DBE/SBE firms to make sure you have the required expertise, experience, capacity, and flexibility to meet the scope and schedule demands of this GEC—resulting in efficient collaboration and easy communication.

As a locally-based team, supported by national specialty expertise, we will provide WSDOT with complete access to our key individuals and additional subject matter experts. With office locations throughout the state of Washington, the HDR team is in close proximity to Eastern Region offices, which positions us to respond quickly. Scott will work hand-in-hand with Jake to communicate directly with WSDOT in review of the deliverables each delivery team produces for consistency and quality, and together they will monitor schedule and budget for all projects.
We offer WSDOT the depth of resources and technical expertise to meet your current and future goals.

Figure 1.2: Organizational Chart

<table>
<thead>
<tr>
<th>Principal in Charge</th>
<th>WSDOT Engineering Resource Manager</th>
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<tbody>
<tr>
<td>Paul Ferrier, PE</td>
<td>Scott Marshall, PE</td>
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<td>Brad Shea, PE</td>
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<tr>
<th>Project Manager/Deputy Engineering Resource Manager</th>
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<tr>
<td>Jake Menard, PE, SE 1</td>
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<th>Key Team Member</th>
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<tbody>
<tr>
<td>Trevor Perrydore</td>
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<td>Mary Scalise</td>
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<td>Michael Slegers, PE</td>
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<td>David Suhr</td>
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<td>Ed Gray</td>
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<tr>
<td>Susan Kovich, PE</td>
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<td>Tim Johnson, PE</td>
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<td>1-David Evans and Associates</td>
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<td>2-CivTech (DBE)</td>
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<td>3-Paradigm}(SBE)</td>
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<td>4-GeoEngineers</td>
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<td>5-Budinger &amp; Associates</td>
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<td>6-Nicholls Kovich</td>
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<td>7-Ott-Sakai (DBE/WBE)</td>
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<td>8-Osborn Consulting (DBE/MBE)</td>
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<td>9-Keller Associates</td>
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<td>10-Horrocks</td>
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<td>11-Hill International</td>
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<td>12-HMH Engineering</td>
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<td>13-Strata</td>
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<td>14-T-0 Engineers</td>
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<tr>
<td>Packet A: Firms’ Qualifications and Expertise</td>
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10–Horrocks
9–Keller Associates
7–Ott-Sakai (DBE/WBE)
6–Nicholls Kovich (SBE)
5–Budinger & Associates
4–GeoEngineers
3–Paradigm (SBE)
2–CivTech (DBE)
1–David Evans and Associates
2–CivTech (DBE)
3–Paradigm (SBE)
4–GeoEngineers
5–Budinger & Associates
6–Nicholls Kovich (SBE)
7–Ott-Sakai (DBE/WBE)
8–Osborn Consulting (DBE/MBE)
9–Keller Associates
10–Horrocks
11–Hill International
12–HMH Engineering
13–Strata
14–T-0 Engineers

150 Staff in the Spokane/Coeur d’Alene Area to provide WSDOT with quick response times and cost effective solutions.
1B. Firms’ Relevant Projects

Shown below and on the following page in Figure 1.3 are three recent examples of HDR projects that represent successful partnerships with our clients—reaching performance goals and delivering within the required schedule. Additionally, starting on page 7 in Figure 1.4, we describe more examples of our teaming partners’ recent, relevant experience that we will leverage to deliver your goals.

Figure 1.3: HDR’s Recent Experience Successfully Delivering Similar Projects

VALUE DELIVERED

» Met WSDOT Eastern Region’s project needs as they evolved by assigning the right staff with the right expertise

» Provided flexible and efficient key staff with hands-on experience developing innovative solutions for local transportation issues

» Furnished highly qualified staff with strong understanding of WSDOT standards and guidelines

» Implemented use of BlueBeam reviews for design projects to streamline reviews and reduce conflicting comments

EASTERN REGION GENERAL ENGINEERING CONSULTANT

WSDOT | 2017–PRESENT

For the past five years, HDR has provided a range of engineering and consultant services to WSDOT under this GEC as a subconsultant to Parametrix. HDR has provided staff augmentation and full-service engineering teams, including preliminary engineering, structural engineering, and construction management.

To date, HDR has delivered approximately 50 individual or amended task orders under this contract. HDR had three design staff co-located in three different PEO offices performing design-bid-build contract PS&E and design documentation. Our design staff created alignments, profiles, and modeled roadways; designed stormwater treatment, flow control facilities, traffic control plans, transportation management plans; performed quantity take-offs; and prepared special provisions along with the design documentation package for individual projects. HDR’s two construction management staff worked in the field and the office, documenting daily construction activities, tracking quantities, and assuring the contractor conformed with contract documents for roadway and rail projects.

Described below are select tasks that demonstrate the range of services:

North Spokane Corridor
HDR prepared the PS&E package for this 9.5-mile pavement rehabilitation in eight months, submitting PS&E ready package in February 2022. The project included evaluating the existing concrete pavement rutting inventory data and establishing concrete grinding depths to remove a majority of the ruts. Additionally, the existing asphalt shoulders needed to be reconstructed and repaved.

FIRMS (TOTAL FEE)

HDR ($3.5M)
Parametrix ($8.9M)

KEY STAFF IN COMMON

Scott Marshall (HDR)
Dustin Posten (HDR)
Matt Folwell (HDR)
Ty Bardwell (HDR)
Sean Messner (CivTech)

I-90/SR 902 Medical Lake Interchange
HDR developed a Type A Hydraulic Report for the interchange on Spokane’s West Plains. Our team designed conveyance and treatment facilities from the overpass structure to the roadway storm drain system, and assisted WSDOT with the drainage plans.

US 395 North Spokane Corridor Value Engineering
HDR led a CEVP® workshop for this $900M project that will provide a four-to eight-lane, fully controlled access highway between the I-90 terminus and US 395 at Wandermere’s northern terminus. The workshop focused on five miles of new construction at the south end of the project area, which includes 3.5 miles of I-90 and centers on the NSC/I-90 interchange connection.

US 195 PCCP Rehabilitation
HDR is updating the IJR, with Sean Messner (CivTech) providing guidance to WSDOT and coordinating the multi-jurisdictional agency team through the update process.

05
Figure 1.3: HDR’s Recent Experience Successfully Delivering Similar Projects (continued)

**I-90/BARKER ROAD INTERCHANGE IMPROVEMENTS**

WSDOT/CITY OF SPOKANE VALLEY | 2018−2020

HDR designed improvements to the Barker Road/I-90 north and south terminals—a project that recently earned a 2022 ACEC Silver Award.

Coordinating with WSDOT and the City of Spokane Valley, we shifted intersection control from traffic signals to single-lane roundabouts for an integrated facility that improved intersection level of service, enhanced multimodal access, and accommodated freight traffic. We also developed a full closure construction staging plan that minimized the overall impacts to travelers.

WSDOT needed to obligate funds for 2020 bidding and had a fixed preliminary engineering budget. Prior to WSDOT pausing the bid letting, HDR redesigned the south roundabout to accommodate the existing Broadway Avenue alignment and intersection. We de-scoped project elements to stay on budget, delivered PS&E for advertisement on time, navigated all WSDOT approvals, and used WSDOT’s ProjectWise server to expedite reviews.

**VALUE DELIVERED**

» Developed geometric design within right-of-way and maintained ramp access during construction

» Optimized roundabout design; modified curb heights at truck aprons during 90% design to accommodate specialized low-clearance trucks for future truck and freight mobility at interchange and in corridor.


**OLYMPIC REGION DESIGN CONSULTANT ENGINEERING SERVICES, 24 FISH PASSAGES**

WSDOT | 2019−Present

HDR, Parametrix, DEA, Ott-Sakai, and others have partnered to deliver multiple fish passage barrier removal projects. HDR is currently working on four bundles—a mix of 30% design-level for design-build and 100% PS&E for design-bid-build procurement. This work includes alternatives analysis and design of the preferred alternatives at seven crossings, right-of-way acquisition documents, and environmental documentation. In addition, HDR is providing roadway design and MOT alternatives for the conceptual design plans, and the procurement documents for the RFQ, RFP, and ITP for the design-build project and the contract documents for the design-bid-build crossings. Parametrix is providing overall program management and performing stream channel design, roadway and structure design, MOT, survey, environmental documentation, and procurement documents for one of the design-build projects. DEA led the overall stream design for the program to provide consistency across all 24 crossings that have been subdivided into four separate bundles—two delivered as design-build packages and two design-bid-build full PS&E packages. Our successful working experience will result in design efficiencies for the Eastern Region GEC.

**VALUE DELIVERED**

» Made significant suggested revisions to WSDOT RFQ templates for Design-Build project delivery

» Successful collaboration with teaming partners, including DEA and Parametrix

» Set new direction in incorporating the effects of flooding backwater into fish passage design

» Optimized project costs through knowledgeable value engineering and risk assessment
Figure 1.4: Subconsultants’ Additional Experience

I-5/CHAMBER WAY INTERCHANGE IMPROVEMENTS
WSDOT | 2016–PRESENT

The goal of this project is to reduce congestion and improve safety on I-5 between the Chamber Way and SR-6 interchanges in Chehalis. Jake Menard led the initial phase to complete the emergency repair and replacement. In a subsequent phase, DEA was responsible for evaluating strategies to address the safety concerns, including adding auxiliary lanes on I-5 between SR 6 and Mellen Street; improving the Chamber Way ramp terminals with roundabouts; replacing the West Street overcrossing and improving the intersection at Louisiana with a roundabout; replacing the West Street overcrossing and improving the intersection at Louisiana with a roundabout; installing ramp meters at the on-ramps between 13th Street and Harrison Avenue; improving the intersection spacing on SR 6 at the ramp terminal; and Louisiana intersection with roundabout intersections.

After WSDOT completed the preliminary design in-house and advertised for design-build, DEA second phase is now underway serving as owner’s engineer for the project. The project is currently under construction, anticipated to be complete 2024-2025.

VALUE DELIVERED
» Direct experience assisting WSDOT across multiple phases of project development
» Development of RFQ/RFP for design-build procurement, and serving as the Owner’s Engineer during delivery
» Rapid assistance on a damaged structure by providing emergency support and construction of a temporary structure

DEA has served as a major subconsultant on the South Central Region GEC to provide a broad range of engineering services that have included roadway design, traffic engineering and maintenance of traffic planning, geotechnical investigation, public involvement, utility coordination and relocation, landscape architecture, hydraulics/hydrology, environmental compliance and permitting, interchange justification reports, and survey, as well as CADD, construction support, and inspection. DEA’s work consists of preliminary and final design and full PS&E packages for multiple South Central Region projects, including the Red Mountain Interchange and the Richland Integrated PEL Scoping Report for SR 240 with ongoing support to WSDOT’s Utilities Office.

DEA also supported WSDOT in developing design-build procurement documents for several projects, including the US 12 Wildcat Creek Bridge Replacement (shown above), I-82 South Union Gap Interchange, and US 12 Nine Mile Hill to Frenchtown Vicinity design-build projects.

VALUE DELIVERED
» Proven ability to provide effective staff augmentation and project delivery as a member of a GEC team for WSDOT
» Comprehensive services provided across different project types that will be similar to Eastern Region’s program

FIRM (TOTAL FEE) KEY STAFF IN COMMON
DEA ($4.5M) Jake Menard (DEA)

FIRM (TOTAL FEE) KEY STAFF IN COMMON
DEA ($10M) Gray Rand (DEA)
### Figure 1.4: Subconsultants’ Additional Experience (continued)

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<tr>
<td><strong>OTT-SAKAI</strong></td>
<td><strong>WSDOT</strong></td>
</tr>
<tr>
<td><strong>OSBORN CONSULTING</strong></td>
<td><strong>Pend Oreille County</strong></td>
</tr>
<tr>
<td><strong>KELLER ASSOCIATES</strong></td>
<td><strong>Oregon DOT</strong></td>
</tr>
</tbody>
</table>
SUBCONSULTANTS' ADDITIONAL EXPERIENCE

<table>
<thead>
<tr>
<th>FIRM</th>
<th>PROJECT</th>
</tr>
</thead>
</table>
| HORROCKS             | ITD | US 95, Lapwai Creek Bridges/Culdesac Canyon, Phase 2 | 2016–2020 | $2M. Provided design/environmental support for 2.4 miles of widening and retaining walls, and nine creek crossings over Lapwai Creek.  
ITD | I-90, Washington State Line to Sherman Avenue, I-90/US 95 Interchange | 2021–Present | $1.3M. Providing safety and capacity along the I-90 corridor from the state line to Sherman Avenue, specifically on the US-95 interchange. |
| HILL INTERNATIONAL   | WSDOT | Alaskan Way Viaduct and Seawall Replacement | 2009–2022 | $7M. Provided program management support, project controls, scheduling, and claims management.  
Spokane Transit Authority | Central City Line | 2019–2022 | $7.2M. Provided project management, construction management, project controls, scheduling, cost estimating, and inspection services. |
| HILL INTERNATIONAL   | LHTAC/City of Wallace | 6th Street Bridge Replacement | 2019 | $500K. Designed a new bridge according to ITD/FHWA and FEMA standards. Performed hydrologic/hydraulic analysis using HEC-RAS to determine water levels and scour.  
City of Rathdrum | SH-53, North Latah Street to Milepost 9 | 2020–Present | $25K. Provided hydraulic analysis of Rathdrum Creek culvert under SH-53 and worked with ITD and the City to develop detailed HEC-RAS model. |
| STRATA               | Pend Oreille County | Indian Creek Fish Passage | 2019–2020 | $340K. Performed construction management/inspection/testing services per WSDOT standards; evaluated bridge foundation, embankment, and retaining wall feasibility.  
Avista | Cabinet Gorge Dam Spillway/Fish Passage Facility | 2019–2022 | $94K. Provided single, tri-axial geophone vibration monitoring support services during rock excavation for the dam spillway. Performed inspection and construction materials testing during construction of a new fish passage facility at the dam. |
| T-O ENGINEERS        | City of Spokane/Airway Heights | West Plains Connection Plan | 2020–Present | $290K. Coordinated six consultants to develop West Plains Connection, including geotechnical analysis, transportation demand and performance analysis, SEPA/NEPA permitting, cultural resources investigation, construction cost estimates, and public engagement services.  
ITD | SH-53 - Hauser Lake Rd to Bruss Road | 2018–Present | $200K. Implemented safety improvements, including adding a 14-foot center median, right turn lanes, and illumination at four intersections, assessing and adding guardrail to appropriate sections, and reconstructing the roadway to eliminate the seasonal load limits. |

1C. Subconsultants' Experience Working With HDR

HDR has developed strong working relationships with nearly all of our teaming partners, as demonstrated by our recent experience working together shown in Figure 1.5 (below). Scott will make sure we complete work efficiently and meet your expectations each and every time. In support of your inclusion goals, we teamed with local, highly qualified SBE/DBE/MWBE firms who have long histories of successfully working with HDR staff, as well as developed a new partnership with Nicholls Kovich to bring the right expertise to WSDOT.

Figure 1.5: Subconsultants' Experience Working With HDR

<table>
<thead>
<tr>
<th>FIRM</th>
<th>EXAMPLE PROJECT EXPERIENCE WORKING WITH HDR (WITHIN THE LAST 3 YEARS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAVID EVANS AND ASSOCIATES</td>
<td>WSDOT</td>
</tr>
<tr>
<td>CIVTECH</td>
<td>Arizona DOT</td>
</tr>
<tr>
<td>BUDINGER &amp; ASSOCIATES</td>
<td>Lincoln County</td>
</tr>
<tr>
<td>GEOENGINEERS</td>
<td>City of Spokane</td>
</tr>
</tbody>
</table>
### FIRM EXAMPLE PROJECT EXPERIENCE WORKING WITH HDR (WITHIN THE LAST 3 YEARS)

<table>
<thead>
<tr>
<th>FIRM</th>
<th>EXAMPLE PROJECT EXPERIENCE WORKING WITH HDR (WITHIN THE LAST 3 YEARS)</th>
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</thead>
<tbody>
<tr>
<td>O T T - S A K A I</td>
<td>WSDOT</td>
</tr>
<tr>
<td>H O R R O C K S</td>
<td>ITD</td>
</tr>
<tr>
<td>S T R A T A</td>
<td>ITD</td>
</tr>
<tr>
<td>T O  E N G I N E E R S</td>
<td>ITD</td>
</tr>
</tbody>
</table>

#### 1D. Availability of Key Staff and Resources

The capacity to accomplish complex work in a strict timeframe requires strong and experienced leaders backed by skilled staff. Our team members were carefully selected for their expertise and availability to work on this contract for its duration. All of the key staff on HDR’s team have extensive experience working with WSDOT and know how deliver projects on time and within budget. Our approach is to fully support WSDOT with project teams that provide deliverables efficiently and cost-effectively. Figure 1.6 (below) lists key staff and their availability.

**Figure 1.6: Key Team Members’ Availability**

<table>
<thead>
<tr>
<th>KEY STAFF*</th>
<th>FIRM</th>
<th>ROLE</th>
<th>2022 Q2</th>
<th>2023 Q3</th>
<th>2024 Q4</th>
<th>2025 Q1</th>
<th>2026 Q2</th>
<th>2027 Q3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scott Marshall</td>
<td>HDR</td>
<td>Project Manager/Engineering Resource Manager, DB RFP/RFQ Development</td>
<td>80</td>
<td>120</td>
<td>120</td>
<td>160</td>
<td>160</td>
<td>160</td>
</tr>
<tr>
<td>Jake Menard</td>
<td>DEA</td>
<td>Deputy Project Manager/Deputy Engineering Resource Manager, Structures, DB RFP/RFQ Development</td>
<td>80</td>
<td>120</td>
<td>120</td>
<td>140</td>
<td>160</td>
<td>160</td>
</tr>
<tr>
<td>Dustin Posten</td>
<td>HDR</td>
<td>Roadway/Highway, Hydraulics</td>
<td>80</td>
<td>80</td>
<td>100</td>
<td>120</td>
<td>160</td>
<td>160</td>
</tr>
<tr>
<td>Matt Folwell</td>
<td>HDR</td>
<td>Roadway/Highway, Rail Design, Utility Coordination</td>
<td>80</td>
<td>80</td>
<td>100</td>
<td>120</td>
<td>160</td>
<td>160</td>
</tr>
<tr>
<td>Ken Geibel</td>
<td>DEA</td>
<td>Roadway/Highway</td>
<td>80</td>
<td>80</td>
<td>100</td>
<td>120</td>
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<td>160</td>
</tr>
<tr>
<td>Sean Messner</td>
<td>CivTech</td>
<td>Traffic/Studies</td>
<td>80</td>
<td>80</td>
<td>100</td>
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<td>160</td>
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<tr>
<td>Duffy Haggerty</td>
<td>DEA</td>
<td>Survey/Right-of-Way Plans</td>
<td>100</td>
<td>100</td>
<td>100</td>
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<tr>
<td>Gray Rand</td>
<td>DEA</td>
<td>Environmental</td>
<td>80</td>
<td>80</td>
<td>120</td>
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<td>140</td>
<td>160</td>
</tr>
<tr>
<td>Dennis Sandstrom</td>
<td>HDR</td>
<td>Public Outreach, Open Houses, Graphics</td>
<td>120</td>
<td>120</td>
<td>160</td>
<td>160</td>
<td>160</td>
<td>160</td>
</tr>
<tr>
<td>Ty Bardwell</td>
<td>HDR</td>
<td>Construction Administration/Inspection</td>
<td>80</td>
<td>80</td>
<td>160</td>
<td>160</td>
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<td>160</td>
</tr>
<tr>
<td>Dave Suhr</td>
<td>DEA</td>
<td>Construction Administration/Inspection</td>
<td>80</td>
<td>100</td>
<td>120</td>
<td>140</td>
<td>140</td>
<td>160</td>
</tr>
</tbody>
</table>

* The availability of other select team members and resources will be discussed at contracting with most team members averaging a minimum of 80 hours per month for 2022, and 120 hours per month for 2023-2027.
QUALIFICATIONS OF
Project Manager and Deputy Project Manager

SCOTT MARSHALL, PE

- Delivered highways and bridge infrastructure projects totaling more than $50M for WSDOT in the last 10 years
- History of successfully delivering projects and task orders by collaborating with Eastern Region staff to deliver projects on behalf of WSDOT and local municipalities improving the local community
- Skilled at managing high-performing and efficient teams that deliver practical, innovative, and cost-effective services

2A. Project Experience

Scott Marshall will serve as HDR's primary point of contact as Project Manager/Engineering Resource Manager, and Design-Build RFP/RFQ Development Lead. He has worked extensively with WSDOT’s Eastern Region staff to successfully deliver projects on behalf of WSDOT and local municipalities. He’s managed some of the region’s most complex projects, including the recently completed I-90/Barker Road South Interchange. Scott also brings hands-on experience developing conceptual drawings, RFQ and RFP documents for WSDOT’s design-build projects from his recent work on WSDOT’s fish passage barrier removal program.

Projects described below demonstrate Scott’s extensive qualifications to lead our GEC team:

WSDOT, Eastern Region General Engineering Consultant Services, WA | 2018–Present
Project Manager. Scott coordinates with WSDOT to develop projects under the GEC and evaluate staff workload and co-location to deliver projects for the Eastern Region. These projects have included work on NSC IJR, I-90/Barker Road South Interchange, US 195 PCCP Rehabilitation, and Trent Bridge Building Evaluation, along with rail construction management support task orders. On the US-195 task order, by delivering the PS&E on time and under budget, approximately $57K was saved of the $287K task order.

WSDOT, I-90/Barker Road Interchange, Spokane Valley, WA | 2017–2020
Project Manager. HDR modified the intersection control at the I-90 ramps from traffic signals to single-lane roundabouts. Scott managed the design, WSDOT and utility coordination; facilitated a public open house, and delivered the project on schedule, within budget. Under Scott’s leadership, our team used existing project data and coordinated concurrent review and approval of both north and south interchange projects resulting in reduced review time and instances of conflicting comments. We developed the north roundabout intersection plan for approval efficiently and pragmatically with feedback from Eastern Region and HQ staff allowing it to catch up with the south roundabout design and bid in a combined package.

City of Spokane Valley, Barker Road/BNSF Grade Separation, Spokane Valley, WA | 2017–2021
Transportation Design Manager. Scott led the design to grade separate this intersection plagued by train and vehicle collisions. Scott worked closely with the City and WSDOT to develop six new alternatives for a safe grade-separated crossing, including a multi-lane roundabout. The revised design saved more than $18M from the previous preferred alternative (interchange). Our team completed the PS&E package, including WSDOT-compliant alignment profiles, typical sections, paving, site preparation, drainage, and utility plans.
2B. Management Schedule, Scope, Budget, and Changes (Project Manager)

Shown in Figure 2.1 (below) and Figure 2.2 (on page 14) are project examples for Scott and Jake (respectively) that demonstrate the methods used to successfully address changes and issues that have arisen on projects they have managed over the last several years. When issues arise, Scott and Jake's depth of experience allows them to collaborate effectively with WSDOT staff to proactively address issues and protect project's scope, schedule, and budget.

Figure 2.1: Project Manager’s Demonstrated Ability to Address Problems

WSDOT | Eastern Region GEC
Schedule: For the US 195 PCCP Rehabilitation task order, the original schedule did not align with WSDOT staff availability and review timelines. Scott worked with the Area Consultant Liaison to adjust the project’s original delivery schedule to align with review staff availability. This advanced coordination in early September and October allowed for efficient reviews and maintained other schedules.
Budget: Scott and the Area Consultant Liaison discussed US 195’s budget expenditures during weekly check-ins for multiple task orders. The burn rate and available budget was confirmed, including forecasting the estimate at completion and earned value. By utilizing previous project plans and aerial imagery, plan preparation resulted in surplus funds to be returned to WSDOT. On some tasks, budget was reallocated from design to PS&E to balance actual effort in design versus plan preparation.

WSDOT | I-90/Barker Road South Interchange
Scope/Schedule: The originally planned Broadway realignment was canceled due to right-of-way acquisition negotiations falling through. Scott developed phased scopes to allow work to continue as information was developed and understood. The project pivoted when he removed scope items identified as unnecessary, including revision of roadway design when right-of-way acquisition was removed—keeping the project on-schedule.
Change: Redesign of the roundabout and geometrics required scope deletions to keep the project within budget. Scott efficiently tracked scope changes and worked with WSDOT to reallocate funds from other tasks and under budget tasks. Construction phasing and sequencing plans were also modified, and the project was delivered on time as originally scoped. Scott’s integration with WSDOT staff allowed the project to advance as traffic operations and phasing further fine-tuned the design.

City of Spokane Valley | Barker Road/BNSF Grade Separation
Schedule: The project design and right-of-way obligation needed to stay on-schedule to meet TIGER grant funding requirements. Scott worked with the City to develop a schedule to track critical deadlines for WSDOT intersection plan approvals, BNSF overpass reviews and approvals, and right-of-way plan reviews and funding, keeping the project compliant and eligible for the TIGER grant.
Budget: Scott managed the transportation design budget and part of the construction management budget. His close coordination with the City and prime consultant allowed for a budget transfer between consultants that eliminated multiple contract amendments. HDR and DEA worked closely to balance budgets to keep the project progressing during construction utilizing the best available staff and regardless of firm affiliation.

2C. Professional Licenses/Accreditations

- Registered Professional Engineer, 2005, No. 41397
- Fish Passage and Stream Restoration Design Training, 2021, No. FTP20-19158201
- Highway Runoff Manual Training, 2019, No. 190018

Positions Held Since License/Accreditation

- Transportation Engineer; Transportation Project Manager
JAKE MENARD, PE, SE

- Former WSDOT employee with more than 20 years of experience delivering projects to WSDOT and AASHTO standards
- Extensive alternative delivery experience on numerous design-build projects and served as Owner’s Representative on two design-build projects
- Multidisciplinary project manager with structural background and proven success in delivering innovative design solutions and value engineering concepts

2A. Project Experience

Jake Menard will serve as our team’s Deputy Project Manager/Deputy Engineering Resource Manager, Structures, and Design-Build RFP/RFQ Development Lead. He offers more than 20 years of experience, specializing in multidisciplinary transportation projects within WSDOT right-of-way. As a former WSDOT employee and consultant delivering projects for WSDOT, Jake has extensive knowledge of WSDOT standards and processes. He has successfully delivered design-build projects since 2007 and has recent experience developing design-build procurement documents for WSDOT and ITD.

A sample of Jake's project experience is summarized below:

WSDOT, SR 520 Eastside Transit and HOV Design-Build, Bellevue, WA | 2010–2016

Structures Discipline Lead. This $365M, 2.75-mile roadway improvement design-build project reduced transit and HOV travel times and enhanced reliability, mobility, access, and safety for transit and HOVs in rapidly growing areas along the SR 520 corridor. Jake managed a group of structural engineers responsible for designing and providing construction engineering support on three lid structures over SR 520, two bridges, four pedestrian bridges, three pedestrian tunnels, eight fish passage structures, custom retaining walls (soldier pile, soldier pile tieback, tangent shaft tieback), soil nail and custom cast-in-place walls, and sign structures.

WSDOT, I-5/Chamber Way Emergency Bridge Replacement, Centralia, WA | 2016

Bridge Task Lead. Through WSDOT's Southwest Region GEC contract, DEA provided design-build procurement process, including project management, roadway, traffic, drainage, structures, maintenance of traffic, illumination, environmental documentation, conceptual plan development, PS&E, and development of the RFQ and RFP. As the bridge task lead, Jake led the development of the structural conceptual plans, technical requirements for the RFP, and overall cost-estimate for the project.

ITD, I-90/SH-41 Interchange Improvements, Post Falls, ID | 2018–Present

Project Manager. Jake is managing this $85M project that includes eight subconsultants while achieving an 8% DBE goal. This interchange reconstruction project includes realignment and widening of portions of I-90/SH-41, ramp modifications and road improvements to increase traffic capacity and operations while improving safety. Improvements on SH-41 extend from Seltice Way to 12th Avenue. Jake facilitated a study that led to the innovative offset SPUI design. He also led a construction staging workshop with key stakeholders that established goals and restrictions for maintaining traffic during construction. The high traffic volumes and site constrictions required a seven-stage approach developed by Jake to successfully achieve these goals.
2B. Management of Schedule, Scope, Budget, and Changes (Deputy Project Manager)

Figure 2.2: Deputy Project Manager’s Demonstrated Ability to Address Problems

**WSDOT | Eastside Transit and HOV Design-Build**

**Scope:** The contractor looked for opportunities to optimize the design throughout the project. Jake worked closely with the builder to identify when concepts and modifications to the design resulted in out-of-scope work. The design management team used project change forms to document potential changes as well as schedule and budget impacts. This allowed the DB team to quickly assess if the change would benefit the overall project.

**Budget:** Several design changes were approved by the contractor throughout the design phase. Jake developed budgets and tracked modifications assigning separate codes to track out-of-scope work items and manage these tasks to the agreed upon budgets.

**WSDOT | I-5 M Street to Portland Avenue HOV/Value Engineering Change Proposal**

**Schedule:** Jake developed a detailed design schedule, including owner and contractor reviews. The fast-tracked schedule was met and received design approval in five months.

**Change:** Perched ground water was encountered at a rate that exceeded what was anticipated. Jake worked closely with the drilling subcontractor, WSDOT region staff, and WSDOT HQ Geotechnical to develop a technical solution to address the higher amount of water on the wall design with minimal impact to scope, schedule, and budget.

**ITD | I-90, SR-41 Interchange Improvements**

**Schedule:** When the project scope and definition was greatly expanded, Jake took quick action to reset the schedule and maintain critical path items that required modifications, such as permitting due to the change in the area of potential effect. With Jake’s leadership, this resulted minimal impact to the schedule.

**Scope:** With extremely complex maintenance of traffic, the initial plan was to develop the design without an intermediate design submittal (60% submittal)—typical for ITD projects. As the design progressed, additional complexities in the traffic control and interchange geometrics noted during final design development prompted Jake to suggest adding a 60% submittal. This resulted in more time for ITD and design team to implement ITD’s desired features. This scope change was acceptable by ITD as it was mutually understood that the project complexity warranted additional review.

2C. Professional Licenses/Accreditations

- Registered Professional Engineer, 2006; Structural Engineer, 2013, No. 42801

Positions Held Since License/Accreditation

- Bridge Engineer; Senior Bridge Engineer; Project Manager; Senior Associate/Senior Bridge Engineer

2D. Policy for Replacing Project Manager or Deputy Project Manager

The success of this GEC is a top priority of HDR’s Spokane office—WSDOT can be assured that our local leadership is dedicated to supporting this contract through its full term. We take seriously the commitment that our Project Manager and Deputy Project Manager are making and do not expect any staffing changes to this contract. However, we also recognize that successfully executing a multi-year program necessitates built-in change processes and succession strategies to plan ahead in the event of an unforeseen change.

Should the need for replacing either our Project Manager or Deputy Project Manager arise, we would propose up to three resumes of equally qualified staff for WSDOT’s review and approval. In identifying replacements, we would look first to local Spokane staff or staff already engaged on the program who would bring valuable knowledge. Many of our key staff and discipline leads are strong project managers who could immediately assume the duties of Project Manager or Deputy Project Manager should the unexpected need arise.
KEY TEAM MEMBERS' Qualifications

Expertise of Key Technical Staff Members

HDR offers a highly capable team with the capacity and right expertise to provide any service requested by WSDOT Eastern Region.

Each of our key staff members have a proven track record of successfully delivering projects similar to those that may arise from this contract, as shown in the staff’s example projects. They also bring exceptional knowledge of WSDOT and public agency regulations and procedures resulting in on-time and within budget project delivery. Because they all are respected industry leaders available to ramp up and down as needed, they are prepared to serve in any role identified to support delivery of WSDOT’s projects. The qualifications of our key team members are described below and on the following pages in Figure 3.1.

Figure 3.1: Key Team Members’ Relevant Experience

Dustin Posten, PE

ROADWAY/HIGHWAY, HYDRAULICS

Under the WSDOT Eastern Region GEC, Dustin oversaw all the stormwater and roadway design from 30% design through project completion for the I-90/Barker Road South Interchange. He also managed all the same project aspects for the Barker/I-90 North Interchange for the City of Spokane Valley. He coordinated extensively with WSDOT and the City of Spokane Valley on both roundabouts, and used his strong understanding of WSDOT and local agency standards to create a design to meet the goals and requirements of both jurisdictions and stakeholders.

PROJECT EXAMPLES

WSDOT/City of Spokane, I-90/Barker Road Interchange | 2020 | Deputy Project Manager.
Designed and managed all roadway and drainage elements for both the south and north ramp terminals, including designing both roundabouts from Intersection Plan for Approval (IPA) level to final PS&E. Worked collaboratively with WSDOT and City of Spokane Valley to facilitate smooth review cycles and coordination.

WSDOT, Fish Passage Barriers Removal On-Call | 2020–Present | Roadway Design Lead.
Led the 30% design-build US-101 realignment over Contractors Creek at MP 277.90 to accommodate offline construction of a single span bridge while maintaining traffic on the existing roadway bench.

City of Pasco, Argent Road Improvements | 2021–Present | Project Manager.
Managing this corridor improvement that includes roadway widening, a new traffic signal, and a new sidewalk and shared-use path to improve congestion and enhance multimodal connectivity and safety. The project also includes stormwater management and the installation of a new irrigation water main, as well as coordination with WSDOT Local Programs for improvements within and adjacent to WSDOT’s right-of-way on US 395 and I-182.
**Figure 3.1: Key Staff Relevant Experience (continued)**

### Matt Folwell, PE

**ROADWAY/HIGHWAY, RAIL DESIGN, UTILITY COORDINATION**

Matt brings an incredible breadth and depth of engineering experience that includes roadway design, stormwater analysis and utility coordination; culvert and fish passage design; and railroad track rehabilitation. He has extensive knowledge of WSDOT’s Standard Specifications, Highway Runoff Manual, Hydraulics Manual, Design Manual, and LAG Manual.

#### PROJECT EXAMPLES

- **WSDOT, Eastern Region GEC, I-90/Barker Road South Interchange | 2017 | Utility Coordinator.** Under WSDOT’s Eastern Region GEC, coordinated with Avista, Inland Power, Consolidated Irrigation District No. 19, CenturyLink, Comcast, Zayo, Phillips 66, and Spokane County to determine conflicts resulting from new construction and provided resolutions. Conducted meetings with stakeholders to identify accommodations or options for relocation when necessary.

- **WSDOT, On-Call Rail Services | 2007–Present | Project Engineer/Engineer of Record.** Provided field inspection, track rehabilitation design, and construction cost estimates to rehabilitate priority track and drainage features for five WSDOT railroad branches.

- **WSDOT, US 195/Colfax to Spangle Hydraulic Design | 2017 | Design Lead.** Provided stormwater conveyance design and modeling oversight for the widening of US 195 for additional passing lanes and turn lanes. Responsibilities included reviewing the threshold discharge area analysis developed by WSDOT for concurrence along with WSDOT’s roadway design and CADD files; delineating existing and proposed drainage basins; designing stormwater BMPs in conformance with WSDOT’s Highway Runoff Manual and Hydraulics Manual; and determining project right-of-way needs.

### Ken Geibel, PE

**ROADWAY/HIGHWAY**

Ken has successfully worked with public agencies in Eastern Washington completing a variety of projects in all aspects planning and design process—from initial planning stage through construction management. He brings expertise in roadway and highway design; bicycle, pedestrian, and trail projects; sewer and water management and distribution systems; and stormwater management systems, including flood modeling. Ken is also experienced with water tanks, utilities, hydraulics/hydrology, cost estimating, construction administration and support, and PS&E development.

#### PROJECT EXAMPLES

- **City of Spokane, US 2, Deer Heights Roundabout | 2018–2020 | Project Manager.** Managed this new multi-lane roundabout that was designed to accommodate traffic generated by the rapidly expanding commercial and residential areas of cities of Spokane and Airway Heights.

- **BNSF Railway, North Spokane Corridor/US 395 Mainline Expansion/Realignment | 2017-2021 | Stormwater Task Lead.** Designed stormwater facilities to accommodate runoff within the new BNSF right-of-way consisting of a combination of conveyance ditches, infiltration trenches and large infiltration/detention ponds. Adhered to BNSF’s desire to eliminate the need for underground injection facilities and minimizing the long-term maintenance.

- **Spokane Tribe, Spokane Tribe Economic Project (STEP) Main Entry Roundabout | 2016–2021 | Project Manager.** Managed a new dual-lane roundabout on US 2 that serves as main access point to the STEP 280-acre development in accordance with WSDOT standards. Responsible for project management, design documentation, and PS&E for bidding.
Sean Messner, PE

TRAFFIC/STUDIES

Sean offers more than 18 years of experience in traffic engineering design, analysis, operations, signing/marking, signals, illumination, MOT, and ITS. He has worked closely with Eastern Region for the last eight years and is well-versed in long- and short-term transportation planning for local agencies. Sean has led the efforts of complex traffic analysis projects, including VISUM modeling, post processing efforts, Synchro/Sidra/HCS analyses, and VISSIM analyses. He is well versed with leading and developing transportation management plans.

PROJECT EXAMPLES

**WSDOT, North Spokane Corridor (NSC) Traffic Analysis** | 2019–Present | Senior Traffic Engineer. Providing guidance and coordinating the multi-jurisdictional agency team, including the cities of Spokane and Spokane Valley, Spokane County, STA, SRTC, and FHWA. Overseeing transportation modeling, including VISUM, Synchro, HCS, and VISSIM analyses to document project effectiveness. Project manager for post-processing and balancing 2025 and 2040 traffic volumes, and VISSIM analysis update.

**WSDOT, Fish Passage Task AB** | 2020–2022 | Senior Traffic Engineer. Led development and refinement of the MOT operations analysis at sites G and M along US 101. Coordinated with WSDOT OR Traffic Design Office to analyze traffic operations of construction phasing, including future traffic forecasting, capacity analyses using Highway Capacity software that led to identification of a construction phasing option potentially saving about $2M per site.

**WSDOT, US 195 PCCP Rehabilitation** | 2021–2022 | Senior Traffic Engineer. Led development of the Transportation Management Plan and oversight and review of the TCPs, including the development of a queuing model and temporary traffic signal set-up for the work zone.

Duffy Haggarty, PLS

SURVEY/RIGHT-OF-WAY PLANS

Duffy has 17 years of experience providing land surveying services throughout the Western United States. Duffy is proficient in preparing topographical maps and cadastral surveys, as well as mobile mapping, terrestrial scanning, and sonar and airborne LiDAR data fusion. As a survey manager, he is experienced in leading large survey efforts and crews, developing right-of-way acquisition packages, and coordinating with design teams.

PROJECT EXAMPLES

**ITD, SH-75, Ketchum to North Fork** | 2019 | Survey Manager. Provided scope development, resource tracking, staff oversight, and assured quality deliverables to support multiple design projects led by ITD. Provided survey control, topographic surveying, monument preservation, boundary, and right-of-way surveying services.

**ITD, US 95, SH-53 Interchange, Garwood Road/UPRR Bridge/Frontage Roads** | 2019 | Survey Manager. Worked with ITD and DEA's design team to develop an accurate survey scope, allocate resources, track/monitor budgets, and support the design team to manage scope changes and staff oversight to deliver ahead of schedule and under budget. Provided survey control, topographic surveying, monument preservation, boundary, and right-of-way surveying services for this new interchange project with two phases occurring simultaneously.

**City of Kennewick, US 395/Ridgeline Drive Grade Separation, Kennewick, WA** | 2016–2018 | Survey Manager. This interchange expansion project on US 395 at Ridgeline Drive near I-82 will accommodate new growth on the south side of the City of Kennewick. Providing a WSDOT control network, aerial panels, boundary survey and right-of-way resolution on this new interchange/grade separation project.
### Ty Bardwell, PE

**CONSTRUCTION ADMINISTRATION/INSPECTION**

Ty spent the first 10 years of his career working at WSDOT, where he gained valuable experience in maintenance, design, construction, contract administration, and materials sampling and testing. He helped manage the multi-year, I-5/SR 16 and I-5/48th to M Street, a phased construction project that reconstructed/realigned the interchange through the use of new bridges, retaining walls, and a tunnel. Ty also managed contract administration, including inspection, testing, and materials/payments/records documentation for SR 167/SR 161 Couplet.

**PROJECT EXAMPLES**

**WSDOT, Eastern Region GEC, I-90/Barker Road South Interchange** | 2020 | Construction Manager. Coordinated construction services with WSDOT to successfully modify the intersection control on the south interchange with I-90.

**WSDOT, I-5/SR 16 Westbound Nally Valley Interchange** | 2009–2011 | Office Engineer/Assistant (Interim) Project Engineer. Responsible for change orders, documentation, payments, cost/schedule tracking and reporting, and outreach for this interchange improvement project.


### David Suhr

**CONSTRUCTION ADMINISTRATION/INSPECTION**

David brings unique perspective from his experience completing projects from the contractor, owner, and consultant’s point of view. With more than 40 years of construction management experience, including 15 years for Kiewit and seven years at ITD, he brings exception knowledge to federal-aid projects. David has expertise in contract administration, inspection, sampling, and testing requirements necessary for federal participation, as well as a thorough understanding of project management from the contractor’s perspective.

**PROJECT EXAMPLES**

**LHTAC/Boundary County, ID, Deep Creek Bridge No. 4** | 2018 | Project Manager. Project replaced the existing bridge over Deep Creek with a single-span Tri-Beam deck built on driven pile abutments. Assured local emergency, service providers, and the public were informed of project schedule when the bridge was out of service and alternate routes would need to be used. This project was completed within 71 working days.

**ITD, US 95, Alderson Lane to Kootenai RV/RR Bridge** | 2020 | Project Manager. Led construction engineering and inspection team for this full urban reconstruction project in Bonners Ferry building, two thru-lanes, two-way left-turn lane, with bicycle lanes and sidewalks on each side. Full reconstruction operations included full-depth base and pavement replacement, storm drainage, sidewalk and ADA ramps, approach work, guardrail, illumination, and traffic signal work.

**ITD, US 95, Sand Creek Byway Staff Augmentation** | 2009–2017 | Project Manager. Led the construction engineering, inspection, and survey teams for staff augmentation contract to oversee the environmental compliance on the Sand Creek Byway project, which involved considerable bridge and structures work. DEA assisted ITD with meeting specific permitting requirements during construction of the project, including archaeological data resource and recovery, contaminated soil identification, and removal and disposal.
Gray Rand

ENVIRONMENTAL

Gray has 28 years of experience in wetlands, wildlife, and stream studies and specializes in Environmental Impact Statements (EISs), Environmental Assessments (EAs), Biological Assessments (BAs), and Documented Categorical Exclusions (DCEs), and is familiar NEPA/SEPA requirements. Gray has prepared more than 30 BAs and ESAs to WSDOT standards, including the BA for US-12 Four-Lane Improvements, Phase 6 in Walla Walla County. His has additional expertise in wildlife biology and wetland ecology with significant training in fish biology and application of GIS for natural resource analysis.

PROJECT EXAMPLES

WSDOT, Olympic Region Fish Passage Support, 24 Crossings | 2019–Present | Environmental Lead. Leading the permitting and environmental compliance tasks related to 24 new fish passage structures.

WSDOT, South Central Region General Engineering Consultant Services | 2019–2022 | Senior Scientist. Serving in a staff augmentation role; leading the permitting and compliance tasks for the delivery of preliminary hydraulic design for the retrofit of two highway bridges.

WSDOT, SR 202 Evans Creek and Patterson Creek and Tributaries Fish Passage Reconstruction | 2018–2019 | Lead Biologist. Led a number of technical reports for this WSDOT design-build project that included the reconstruction four fish passage crossings on SR 202 east in Redmond. Work included completing a Wetland and Stream Verification Report, Aquatic Resources Assessment Report, Wetland and Stream Impact and Mitigation Report, and NEPA/ESA Verification Update.

Dennis Sandstrom

PUBLIC OUTREACH/OPEN HOUSES SUPPORT/GRAPHICS

Dennis has more than 14 years of experience managing communications and public outreach on projects of all scales—from statewide transportation and roadway improvement projects to neighborhood master plan development. He also brings experience in strategic communications, NEPA/SEPA public engagement, event coordination, and group facilitation.

PROJECT EXAMPLES

WSDOT, HQ Fish Passage and Hydraulics Staff Augmentation | 2021–Present | Lead Facilitator. Facilitates WSDOT and WDFW monthly advisory group to resolve project-specific technical issues related to WSDOT’s fish passage barrier removal program. Develops agenda, coordinates between members, and provides summaries for each meeting.

WSDOT, SR 167 Master Plan | 2021 | Lead Facilitator. Developed work-back plans and meeting summaries; compiled materials and talking points; facilitated executive meetings; participated in bi-weekly team check-ins; shared updates from executive team; and provided engagement strategy support, as needed.

WSDOT, I-90 and Front Street Interchange Justification Report | 2017–2019 | Project Manager. Provided outreach and communication support to in the development of the IJR. Oversaw development of the communication plan, as well as in-person stakeholder interviews with local jurisdictions, community groups, and businesses. Managed communications records, developed fact sheets, and updated the website using WSDOT’s web client.
Outreach Lead’s Experience on WSDOT Projects

Our public outreach lead, Dennis Sandstrom, brings proven experience supporting WSDOT in communicating with the public and stakeholders on similar projects. He has a strong understanding of the interconnectivity of WSDOT’s programs that helps him support equity in community engagement to reflect the community and regional needs and issues. He knows that communicating the purpose and value of projects and building consensus helps to define the public perception of success or failure. On the HQ Fish Passage and Hydraulics Staff Augmentation contract, Dennis has been responsible for facilitating the Water Crossing Design Council (Council), a formal collaboration between WSDOT and the Washington State Department of Fish and Wildlife on technical issues related to the Fish Passage Program. Dennis led the group through a process to develop a new charter for the Council, including membership structure, commitments and expectations, and practice for decision documentation. He also developed a process to bring forward unresolved design concerns to the Council for their review and decision. On a monthly basis, Dennis develops the agenda, coordinates presentations and conversations, and facilitates the Council meetings that cover technical issues, such as meander bars, step pool references, and research or modeling needs.

Environmental Justice and Equity in Outreach, Decision-making, and Outcomes

It’s important to make sure all stakeholders are engaged in the beginning of the planning process so that their diverse interests can inform the project’s development. This means seeking out traditionally underrepresented voices, such as low-income and minority communities. Dennis understands that for equity and environmental justice efforts to be effective, they should start from the beginning—long before decisions are made. On the I-90/Front Street Interchange Justification Report project Dennis worked with WSDOT to identify and engage local community-based organizations and interested stakeholders to add their perspectives to the conversation about potential alternatives. Engaging the community early in order to get their input and begin developing relationships led to improved trust in the process. In addition to Dennis, Scott, Jake, and other staff on the team, like Ken Geibel, have experience facilitating open houses and public meetings in the Spokane Area. For example, Ken led coordination efforts for a roundabout on US 2 with the Spokane Tribe Casino in Airway Heights, which is identified as a historically under-served community.

HDR’s public outreach lead, Dennis Sandstrom, has provided outreach services on several large WSDOT projects, including:

• HQ Fish Passage & Hydraulics Staff Augmentation: Water Crossing Design Council
• METC, SR 167 Master Plan
• I-90/Front Street Interchange Justification Report
• I-5 Columbia River Crossing Program
**A. Project Delivery**

**Work Plan Elements**

As a locally-based team, we are highly invested in the outcomes of this program and are best positioned to implement the philosophies and approaches you have developed at a programmatic level.

We understand that the success of this GEC depends on the selected consultant’s proven ability to flexibly adapt to your changing needs and integrate and work cooperatively with WSDOT staff. Our approach to delivering task orders begins with integration with Eastern Region project development and construction leadership staff. We can best serve WSDOT by using open, honest, and integrated communication to meet task needs in design and construction phases. This will begin with regular meetings—scaled to WSDOT’s needs (weekly, bi-weekly, monthly; virtual or in-person)—to review and evaluate staffing and project needs in both construction and in the PEO offices.

Shown below in **Figure 4.1**, is our work plan, providing the overarching road map for how our team will deliver task orders under this contract. Immediately following contract execution we will work with WSDOT leadership to establish standard programmatic framework that will streamline scope and fee development and task order initiation for the project lifecycle. This time spent in initial program setup will support long-term cost-effective services and reduce overall project management needs by developing task order templates and pre-negotiated profit percentages, overhead rates, and potentially minimum staff augmentation timeframes.

**Figure 4.1:** HDR’s WorkPlan to Deliver Quality Results on Schedule and Budget

**TASK ORDER INITIATION**

- Task Order Identified
- PM and DPM Meet with WSDOT to Confirm Scope and Goals
- Develop Scope Using Template
- Team Assignments
- Enter Workload into WorkPlan Forecasting Tool
- Confirm Budget and Burn Rate
- Confirm Back-up Staff

**DESIGN TASK ORDERS**

- Develop Schedule
- Populate Risk Register
- Develop Task-Specific QA/QC Plan
- Develop Communication Plan
- Perform Scoped Work

**CONSTRUCTION OR DESIGN STAFF AUGMENTATION TASK ORDERS**

- Perform Augmentation Work Assignments
- PM/DPM Perform Regular Check-ins with WSDOT Leadership on Needs and Performance

**TRANSITION & CLOSURE**

- Task Order Closeout
- Review Lessons Learned

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**SUMMARY OF KEY ADVANTAGES**

- A scaled approach that effectively manages risk, schedule, budget, scope, quality, and change
- An integrated management process that allows project managers to access the right resources based on each project’s unique needs
**TASK ORDER INITIATION**
Immediately following task identification, our project manager, Scott Marshall, will work with WSDOT, Deputy Project Manager, Jake Menard, and other appropriate discipline leads to identify the task needs and assign each task to the task order delivery team that is most well-suited to perform the work successfully and on schedule. This may include leveraging teams from one firm or have a blended team from multiple firms. Our approach is to provide the best available resources to WSDOT Eastern Region, regardless of firm affiliation.

Once a task or project is assigned to the appropriate delivery team, that team lead will work with Scott and WSDOT’s project manager to confirm that we have a clear understanding of the project milestones, goals, and key success factors. As the contract manager, Scott will continue to provide oversight so that the project progresses on schedule, within budget, and meets WSDOT’s objectives and to have consistent communication with Eastern Region Representatives and the Area Consultant Liaison.

**Task Order Delivery**
Moving from task order initiation phase into delivery of the scoped work, the task orders will take two different tracks—design or staff augmentation.

**DESIGN TASK ORDERS**
For design task orders, we will prepare a clear and detailed scope of work. This document will often be written around the WSDOT Master Deliverable List, so that it is integrated with scheduling and the Project Management and Reporting System (PMRS), as applicable. These tools can be further integrated with workload planning tools to forecast staff assignments.

Building on our experience we will develop easily navigable and clearly delineated project folders and task pathways for data sharing and deliverables.

**Developing the Schedule**
Scott and Jake will also work with our task leads to refine the schedule and prepare to track delivery. HDR uses a combination of company-developed tools and procedures to monitor our schedule and within budget. These tools, such as HDR’s secure web-based project tracking program, WorkPlan, have been successful on hundreds of task assignments on the SR 520 and I-405 GEC programs to monitor and control cost.

Scott and Jake understand how important it is to meet or exceed schedule expectations. If desired, when finalizing each task order’s scope, the task order can be added to a master overall GEC schedule. This schedule will be tied to the work breakdown structure to integrate cost, schedule, and responsibility into each work element.

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**Proven Experience Supporting Pavement Preservation**
Over the years we partnered with numerous clients on similar contracts to this one and strategize on the delivery of major programs. For example, HDR and is a key partner to Central Federal Lands Highway Division (CFLHD) in delivering pavement preservation projects through the Federal Lands Access Program (FLAP).

FLAP is a program that provides funds for improved access to federal lands with low matching funds by the sponsoring county or agency. FLAP projects begin with state counties nominating projects for funding by submitting a project request with preliminary project scopes and construction estimates. HDR works with CFLHD to verify that project scopes meet design standards and cost estimates. HDR applies innovative, practical, and lowest cost principles to conserve as much funding as possible to the physical infrastructure construction. To do this, we use templates for project scoping, design development, and post-design services task orders. HDR is ready to tailor and use these templates on WSDOT task orders to help streamline scoping and contract execution, and allocate more funding to constructed infrastructure.
Populating the Risk Register
Scott and Jake will work with the Area Consultant Liaison to identify risks and capture them in a living risk register. This document will help us understand both internal and external risks, who will own each risk, which can be transferred, and our ability to mitigate each risk.

Developing a Task-Specific QA/QC Plan
To be successful, our work must be completed on schedule, within budget, within scope, and without errors. The task order lead will work with HDR’s quality manager, Brad Shea, to develop QA/QC plans and quality checkers for design deliverables on a discipline-by-discipline basis. We will also identify cross-discipline QA/QC guidelines and procedures. Each subconsultant will have their own QA/QC procedures and will provide their plan for Brad to review and approve. Additionally, HDR will perform quality verification of all subconsultant work so that WSDOT can be assured that the quality process was followed and documented.

Developing the Communication Plan
Communication is the key to successful project completion, but protocols need to be followed to keep key staff knowledgeable of the program. Scott and Jake will be the main points of contact with WSDOT management and the Area Consultant Liaison. Project, task order, and staffing needs will be funneled through Scott and Jake to limit the number of potential communication lines to WSDOT. On a task order level, we will develop specific protocols for discipline staff to discuss project development with WSDOT subject matter experts as needed. This process will keep the program management and administration effort lean and efficient.

Regular project coordination meetings will be held with each task or project delivery team lead and team members to discuss project issues and opportunities, identify potential impacts, and develop potential corrective actions and adjustments to keep the project on schedule and eliminate costly and time-consuming re-design.

Our team is designed to provide WSDOT with a broad pool of experienced, local resources.
This deep bench will allow us to select the right staff to support WSDOT’s staff augmentation needs based on skill set, availability, and proximity to the local Spokane region.

STAFF AUGMENTATION TASK ORDERS
For construction or design staff augmentation task orders we will work with Robert Blegen and others in the PEO offices to develop teams that can staff entire construction projects or be integrated with WSDOT staff. Our team is designed to provide WSDOT with a broad pool of experienced resources. This deep bench will allow us to select the right staff based on skill set, availability, and proximity to the local Spokane region.

Scott and Jake will maintaining continuous oversight and input throughout project development, meeting weekly with WSDOT to discuss task order status. Specific topics to be covered include client satisfaction, staffing, technical issues, schedule, and budget.

Our team’s focus and proactive approach will keep the project delivery on time and within budget.

PREPARING FOR TRANSITION AND CLOSURE
Rough transitions after completing projects or single deliverables can lead to confusion, rework, and delays. We are dedicated to providing a smooth transition of data and information. Each deliverable will be setup for quick continued progress, whether that is by other disciplines or teams at WSDOT, or transitioning into advertisement. For example, we will prepare
our engineer’s estimates and bid item lists in a manner that is formatted for easy entry into WSDOT’s EBASE system. We will also use Cost Price Analysis using WSDOT’s historical unit prices, recent bid tabulations, and prepare cost-based unit pricing and post this information to ProjectWise for use during the bidding process. This is helpful in case the resulting bids are higher than anticipated and award justification is necessary.

Our local Spokane staff regularly work in ProjectWise with both WSDOT and ITD and will organize working files or final deliverable files to be easily accessible and logically filed.

To close the task order, Scott and Jake will work with WSDOT to confirm that the deliverables have been received and that the task order is complete. No-cost time extensions to the task orders may be needed during the term of the contract, but should be purely administrative. It is also vital that we track task orders based on funding type so the proper funds are used by phase. For example, we will make sure that preliminary engineering funds are used only for design and not during construction, and that post-design services use construction funding.

**REVIEWING LESSONS LEARNED**

We recommend holding a lessons learned meeting to apply knowledge to other ongoing task orders in project development or in construction to formally passing on performance feedback and potential improvements. Discussing the project after construction at project acceptance is also a good time to review as-built drawings and change order documentation to assess how the PS&E documents performed during construction. This gives the team an opportunity to improve our design processes and deliverables in an effort to reduce changes and optimize funding for constructed infrastructure.

**Incorporating Practical Design/Least-Cost Solutions**

**Providing practical design and least-cost solutions in every aspect in our work plan will save and preserve funds to be put on the ground for Washington State taxpayers.**

In particular, identifying constraints and design solutions early will set the project teams up for expedited success. HDR, DEA and our partner firms bring strong institutional knowledge of WSDOT’s design manual and regularly incorporate the protocols and procedures outlined in Chapter 1100 in the Design Manual for Practical Design.

We will work with WSDOT staff to prepare the basis of design (BOD), basis of estimate (BOE), design parameters sheets, and alternative comparison tables as needed to record decisions and analyses performed that show conformance with the WSDOT’s practical design approach. HDR recently implemented streamlined versions of this process on the US 195 PCCP Rehabilitation project and the full documentation package for the Barker Road/BNSF Grade Separation for the City of Spokane Valley through the Local Programs office.

**We will also look to optimize both our team and design to provide high value and quality work at a reasonable cost.** This includes development protocols and how to apply practical designs and least cost solutions to verify that documents and deliverables provided to WSDOT are high caliber and, if applicable, will provide future design teams with a feasible path forward.

The team can also assist with identifying the appropriate delivery method, including design-bid-build, design-bid, and progressive design-build, if so desired by Eastern Region. The team is familiar with these types of delivery methods and using WSDOT’s Project Delivery Method Selection Guidance (PDMSG) and Project
Delivery Method (PDM) tools to complete the Probable PDM during the Scoping Phase. Early decisions around PDM can have significant benefits on cost savings by facilitating:

- Effective design decisions that impact final costs
- Selection of project office staff and design effort/resource loading, scheduling, and budgeting
- Incorporation of PDM risk allocation into the cost estimate
- Accurate scoping estimates that allow the team to estimate using factors appropriate to the PDM

HDR has been part of the Probable PDM and Final PDM evaluation on the SR 520 GEC, I-405 GEC, and Olympic Region 24 Fish Passage programs.

Leveraging the Benefits of GEC Contracting

We are passionate about helping our clients maximize the benefits of GEC contracting. Having managed numerous similar contracts, our team’s leaders understand the improved flexibility, resource availability, and collaboration that our clients often find valuable in GECs. Building on their experience, they bring the right knowledge and background to support WSDOT in optimizing those benefits.

One of the primary benefits of GEC contracting that we’ve seen over the years is that it allows agencies increased flexibility in how they choose to roll out their programs. For example, critical projects can be programmed over multiple years to optimize the best available staff; or alternatively, staffing resources can be ramped up quickly to accelerate schedules to

A Case Study of Practical Design

The best practical design ideas arise from interdisciplinary collaboration. Using fish passage task orders as an example, we have highlighted below a few ways that our teams work together to develop balanced and cost-effective solutions.

Design Optimization

Our hydraulic staff are skilled in providing an accurate initial estimate of the minimum hydraulic opening and structure free zone that will be supported by resource co-managers. This is a critical step allows other disciplines, such as structures, to evaluate potential risks and opportunities. For example, where possible, pre-cast solutions are desirable to achieve short-term roadway closures and minimal risks to the traveling public and the natural environment. Whenever possible, they look to identify opportunities for establishing minimal hydraulic openings of under 20 feet, significantly reducing the seismic requirements for buried structures.

Constructability Considerations

From our experience working with contractors as part of the design-build procurement phase, we know that constructability is critical and that if slight stream realignment is feasible, it can save projects millions of dollars in construction and benefit stream morphology.

Minimizing Impacts to the Traveling Public

Another key area for least cost solutions is developing innovative MOT strategies to help the contractor to reconstruct crossings quickly and minimize impacts to the traveling public. These may include short duration full roadway closures, short duration bypasses, or long duration bypasses. HDR recently implemented a full closure strategy on five fish passage culvert replacements on SR 108 in Mason County. After public outreach to nearby residences, businesses, schools, and first responders, the project obtained overwhelming support for a short 7- to 14-day closure over a long-duration, 145-day, alternating, one-lane-bypass strategy.
meet a funding or grant obligation. In developing this team, we’ve pooled local resources from several firms and supplemented them with additional specialty resources from around the region to provide access to all the needs that may arise under this contract.

As opposed to pre-qualification lists, which are typically more narrowly focused on specific disciplines, GECs also allow WSDOT access to a wide variety of technical resources under one contracting mechanism. And, finally using this GEC efficiently and effectively has the potential to save WSDOT significant time and effort in contracting, eliminating RFAI processes and the need to set up new contracting and communication protocols. This also reduces the number of contacts for the Area Consultant Liaison and reduces overall project management time and reallocates more funding directly to built infrastructure.

Staff Co-Location

We’ve designed this team to offer unparalleled local resources who are accessible and able to take full advantage of the collaboration efficiencies that come with being within a short drive of WSDOT’s offices.

We also see numerous potential scenarios for co-located staff under this GEC contract. For construction staff augmentation, field staff will be co-located on-site with the contractor in blended teams with WSDOT construction staff or a project could be fully staffed by a GEC team. Office construction engineers could be virtually co-located as needed locally in Spokane, or elsewhere in Washington. This scenario would allow office staff personnel to support multiple construction projects concurrently to provide maximum efficiency.

Similarly on the design side, staff can be co-located at the local Spokane WSDOT office. This scenario is best-suited for a long-term assignment to be beneficial to WSDOT and the co-located staff member for schedule consistency and work planning.

REVERSE CO-LOCATING

In addition to the options described below, we can provide the opportunity for WSDOT staff to reverse co-locate within consultant offices. For example, if one or two WSDOT E3 engineers are collaborating with consultant staff on a task order, the WSDOT engineers can work from one of our consultant offices if needed to optimize efficiency.

HDR and DEA each commit to providing two cubicles in our respective offices for WSDOT to co-locate with design staff on an as-needed basis.

Providing the most flexibility, is the idea of virtual co-location. This would give WSDOT full access to specialized staff for either long or short-term assignments. This is different than a deliverable-specific task order because under this scenario a consultant staff member would work weekly with a WSDOT subject matter expert on a deliverable. This could be full-time, part-time, or could be a crashed schedule with multiple staff working overtime to meet an accelerated schedule.

For example, if WSDOT needs access to a hydraulic engineer for 80 hours of work, they could work full-time over two weeks or perhaps within a mixed work schedule over a six-week timeframe. Alternatively, if WSDOT wants to review transitioning from InRoads SS2 to the latest version of OpenRoads and the potential of digital delivery. We have multiple experts in this that can be accessed by WSDOT for staff augmentation without the added cost of full co-location.

Innovative Ideas

We see GEC delivery as an ideal opportunity to collaborate on industry practices. We’ve put a lot of thought into areas for innovation under this contract and some of the promising ideas we’ve developed are described in the following paragraphs.

Pavement Preservation Delivery

We suggest WSDOT consider ways to innovate in the delivery of pavement preservation projects by leveraging available digital imagery
and elevation data by using OpenRoads ConceptStation. This could be a great option on projects involving minor roadway shoulder widening and low risk profiles, where the time and cost spent of surveying would be cost-prohibitive. **By using available data sets and leveraging some site visits, the team could prepare biddable and constructible PS&E packages in short timeframes.**

**Advancing Early Headquarters Reviews**

We also propose identifying and engaging with headquarter reviewers to advance approvals in the early phases of design. Scott has found this to be successful on multiple roundabout projects by engaging Brian Walsh from headquarters on the roundabout geometrics with region staff in design plans and traffic operations. This limits the number of iterations on the design and gains approval of the intersection plan, BOD, and design parameters early and limits rework in the later stages of design.

**Delivering Innovative Ideas**

We are always looking for ways to improve how we do our work to save costs and streamline delivery. Our team is excited to share with WSDOT many other ideas that we have been gathering and, more importantly, building into how we have designed this team. These include:

- Leveraging a team of locally based firms to provide a deep bench of staff who are based in Eastern Washington, easily accessible, and who are invested in the successful outcomes of WSDOT Eastern Region work.
- Using digital tools to develop, review, and collaborate on plan sets.
- Using virtual co-location to achieve the collaborative benefits of co-location without the space or cost impacts.
- Engaging local construction inspectors to reduce per diem costs.
- Streamlining contracting by establishing pre-set profit rate standards for categories of work such as survey, construction engineering services, pavement preservation.

**Streamlining Scoping and Contracting**

At the beginning of the contract we can establish profit rates using the calculation form to define early rates for tasks, deliverables, projects, and staff augmentation, to streamline contracting. Depending on WSDOT’s preferences, there may be an opportunity to also develop scope templates for construction staff or common design tasks, like paver projects. With templates in place for these tasks (adopted from existing FHWA documents), all that would need to be done are minor updates to some activities and assumptions to get the task up and running. We can also use pre-developed fee spreadsheet templates that would expedite scoping and contracting times.

**Leveraging BlueBeam® and ProjectWise**

HDR already introduce WSDOT to BlueBeam® review sessions and the efficiency this tool brings to documents in receiving comments, eliminating conflicting comments, and tracking comment resolution. There are additional features that we can present to staff to take full advantage of the investment WSDOT has made in the program. Similarly, there are opportunities to fully embrace ProjectWise for file and document management to further enhance collaboration.

**Managing and Mitigating Project-Specific Risks Within the Work Plan**

Our team is familiar with the project-specific risks anticipated under this GEC and we are prepared with mitigation strategies.

Upon task order initiation we will perform a qualitative risk assessment and develop a risk register that will serve as a living document to be continuously updated through the life of the project. This will help the design team identify which risks should be avoided, transferred, mitigated, or accepted, and confirm which party is responsible for bearing the risk.

Some of the top risks that we are anticipating and proactively mitigating for the successful delivery of this contract are featured in Figure 4.1, on the following page.
**Figure 4.1: Key Delivery Risks and Mitigation/Management Techniques**

<table>
<thead>
<tr>
<th>RISK</th>
<th>MITIGATION AND MANAGEMENT STRATEGIES</th>
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<tbody>
<tr>
<td><strong>Navigating Staffing Changes.</strong> On multi-year contracts, staffing changes are inevitable both on the client and consultant side. This impacts project development and poses a risk to WSDOT's overall program success.</td>
<td>Scott Marshall will use proactive communication and workload planning to help mitigate the risk of disruption to project progress due to staffing changes. We will update staffing/workload forecasts on a monthly basis and provide quarterly updates to WSDOT on major upcoming projects, potential staff changes, to mitigate risk to project schedules.</td>
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<td><strong>Receiving Timely Review Feedback.</strong> WSDOT staff members are typically busy juggling multiple projects and availability to perform consultant design reviews is limited. However, input on project design and fatal flaw identification or project design approach cannot be put on hold or wait until the 90% design review or region review.</td>
<td>Reemphasizing the importance of review at the 30% and 60% design phases will benefit all projects in the Region. We suggest that projects not be advanced until the appropriate subject matter experts have reviewed and commented on the plans. Additionally, we recommend that items that require intersection or channelization plan approvals are not held for approval prior to Eastern Region review; but are completed at 30% design so that the geometrics are approved prior to embarking on the vertical and 3-dimensional design.</td>
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<tr>
<td><strong>Limited CM Staff Resources in Industry.</strong> Given the current construction market, we understand that finding experienced, available construction management resources in Eastern Washington has been a challenge.</td>
<td>We've specifically partnered with firms that can supplement our local construction management resources to provide WSDOT with a deep pool of staff. Because these staff are local, they will also allow WSDOT to save on per diem costs. Advanced planning and use of local and regional may eliminate the need for per diem altogether. HDR is currently in the process of implementing this same plan in placing Dustin Lenz with WSDOT.</td>
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<tr>
<td><strong>Project Planning.</strong> Staying three steps ahead of major complex projects is challenging in the context of a larger program, but is important for planning project staffing and delivery.</td>
<td>Having led multiple similar GEC contracts, HDR is well-positioned to help WSDOT plan projects 2, 3 and 4 years out to confirm funding availability and maximize the obligation of funds for Eastern Region. For example, CFLHD uses similar IDIQ contracts to maximize their use of federal funding for 14 states. Scott Marshall regularly assists with project planning delivery for FLAP projects.</td>
</tr>
<tr>
<td><strong>Accurate Cost Estimates.</strong> Recent cost escalation has made accurately anticipating bid results more challenging than in past years.</td>
<td>We will compare our estimates with recent bidding results and perform cost-based unit price analysis for high price and estimate-sensitive items. We will also provide justifiable/supporting documentation for awarding bids that are over the engineer’s estimate. Scott is currently leading similar processes on CFLHD and ITD projects. We will secure a lump sum breakdown of individual items along with cost-based unit pricing. Traffic control is a common item that can be refined by contacting vendors and getting current and local rates which will yield better bid results; recent bidding on projects within 5-10% of engineer’s estimate.</td>
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<tr>
<td><strong>Maintenance of Traffic (MOT).</strong> Maintenance of traffic can lead to damaged public perception and significant cost and schedule impacts if not thoughtfully planned.</td>
<td>Well thought-out MOT options and plans at the start of the project while developing 30% design to optimize shoofly designs and impacts that are captured into the environmental impact footprint. For example, Olympic Region 24 Fish Passages optimized shoofly alignments for three fish passage crossings; took advantage of existing cross-overs; weekend work for another and identified two crossings that could have short-term complete closures (7-14 days) versus single alternating traffic for several months.</td>
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<td><strong>Integrating into the City of Spokane’s Local Roadway Network.</strong> Clear communication with the City regarding MOT and traffic operations during and after construction is critical.</td>
<td>Our team will leverage Sean Messner’s agency experience and work on the NSC’s traffic model and post processing to continue to build trust and effective collaboration between the agencies.</td>
</tr>
<tr>
<td><strong>BNSF Coordination.</strong> Following BNSF requirements, protocols, and review timeframes will be key to project advancement.</td>
<td>HDR brings longstanding existing relationships and knowledge of BNSF’s preferred procedures to the table to help plan realistic schedules for WSDOT projects.</td>
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<tr>
<td><strong>Utilities Coordination.</strong> Early communication and understanding each utility’s rights and relocation needs is critical.</td>
<td>HDR has coordinated with local utility companies on WSDOT and local agency projects and will continue to leverage existing relationships to streamline the utility relocation process.</td>
</tr>
<tr>
<td><strong>Right-of-Way Acquisition.</strong> Right-of-way acquisition is typically a critical path item and can pose a significant risk to the schedule.</td>
<td>HDR has local acquisition and relocation staff ready to continue assisting WSDOT in conformance with the Uniform Act. HDR has helped WSDOT with numerous acquisitions locally and across the state, and can ramp up and down based on the need to meet obligation and acquisition schedules.</td>
</tr>
<tr>
<td><strong>Public Perception.</strong> Public outreach will be important for managing public perception around each project.</td>
<td>Our team includes Dennis Sandstrom, a dedicated, experienced public involvement expert. Additionally, Scott and Jake have been involved with open houses for local major highway, bridge, and intersection projects with impacts to businesses and residences, and residents’ travel patterns.</td>
</tr>
</tbody>
</table>
B. Resolving Conflicts

Effective communication is one of the most critical factors for a successful project. It is important for avoiding issues before they become a conflict, and for addressing them efficiently and effectively. Should conflicts arise during the delivery of this contract, our approach is transparent and a solutions-oriented approach that allows you to make informed decisions.

Within the Project Team

At the beginning of each assignment, Scott and Jake will prepare a supplement to the project guide and distribute it to all team members to verify expectations, key milestones, and accountability is clear. They will also hold a kickoff meeting to familiarize assigned staff with the project guide, project-specific QA/QC plan, field safety plan, scope, schedule, and budget expectations. If conflicts arise within the team, Scott will oversee efficient resolution so as to not impact schedule or budget.

With WSDOT

Our team member’s experience on WSDOT contracts, and some as former WSDOT employees, means that they are very aware of WSDOT’s processes and culture. While this background will help our team eliminate conflicts before they arise, we also know that on major multi-year contracts like this one, involving a wide variety of client and consultant staff, conflicts can arise. Our philosophy for resolving conflicts regarding technical issues is to deal with them as technical issues, and not let them become personal.

Scott and Jake will meet weekly with the WSDOT Area Consultant Liaison to discuss budget, schedule, timelines, and satisfaction. Any issues identified will be managed by Scott and Jake and discussed with task leads or staff, as applicable. Scott and Jake will track conversations regarding conflicts and if conflicts are not resolved after two meetings, will facilitate a conflict resolution meeting between the consultant team and key WSDOT staff to identify the best path forward.

One tool that we frequently use to proactively prevent issues that may arise due to conflicting personalities, is Partnering Meetings. In our experience, these meetings help establish a collaborative relationship between agency and consultant staff, while also allowing WSDOT the valuable opportunity to meet and screen staff that they will be working with closely.

Scott will make every effort to avoid conflicts, but should they arise, they will be resolved quickly and using a formal process. Additionally, our principal-in-charge, Paul Ferrier, is a former WSDOT employee with more than two decades of experience managing operations. If need be, Paul will be available to meet with WSDOT Eastern Region Representative and/or the Area Consultant Liaison on swift corrective actions.

With Stakeholders

Scott, Jake, and our outreach lead, Dennis Sandstrom, are skilled at interacting with project stakeholders and the general public on projects that are highly political and public, often involving many differing perspectives. When working with external agency staff or the public and resolving conflicts, we see ourselves as true representatives of WSDOT’s interests. We are prepared to lead, facilitate, or participate in property owner meetings, open houses, or formal hearings; as well as provide support for stakeholder engagement plans, meeting logistics and graphic materials, and crisis communications.

Managing Public Perception

On the I-90/Barker Interchange improvement project, WSDOT held a well-attended public open house at Riverbend Elementary School that was also attended by Scott Marshall and Dustin Posten. Some residents on the north side of I-90 and east of Barker Road expressed concern about losing direct access to I-90. However, after listening to the presentation, and talking with Scott and Dustin, as well as WSDOT staff, most attendees agreed that addressing the long delays at intersections with the proposed roundabouts was worth a small inconvenience.
To minimize and resolve conflicts with stakeholders, we find that meeting with them early is key to reach effective solutions that integrate WSDOT and stakeholder objectives. We do this through:

- Building a common understanding of the project purpose and need with the general public and gathering input
- Meeting with stakeholders and property owners to introduce the project and schedule and to listen to their concerns
- Targeting local community and equity-based organizations to understand their concerns

C. WSDOT Coordination

Responsibility for Deliverables

Above all, we are partners in providing a quality deliverable for construction. Responsibility of the task order will vary depending on the scope. We welcome the opportunity to be integrated with Eastern Region as much as you are comfortable. If preferred, we can be trained in EBASE and provide access to the final locations to place files for bidding—we are happy to provide support from inception to advertisement. This would free up existing WSDOT staff from having to become familiar with a consultant led project at the very end where there may be a learning curve to know all the project details within the last month or few weeks. We are already familiar and take responsibility in stamping and signing the PS&E plans and support design documentation package (DDP) documents, as applicable. For specialized reports like pavement, geotechnical, or hydraulic reports, we are ready to take full responsibility for sealing technical reports in support of design. We can also coordinate through the Eastern Region or coordinate directly with WSDOT HQ staff for approvals, as applicable.

Integrating Work Completed by WSDOT

Our staff are skilled at seamlessly integrating our work with WSDOT through our experience under the current GEC with projects like the one highlighted below.

To facilitate this continued collaboration, we will work with Eastern Region staff and leadership to collaboratively develop project delivery schedules and review timelines to verify that we meet review dates and ad dates. We are familiar with the Ad Calculator Spreadsheet and commit to working with regional staff and leadership to meet or submit early deliverables for review to make sure that funds can be obligated.

We remain dedicated to fully supporting WSDOT Eastern Region and look forward to continued collaboration with agency staff through this contract.

Experience Collaborating

On the US 195 PCCP Rehabilitation project, HDR worked seamlessly with WSDOT to prepare the PS&E package for a 9.5-mile pavement rehabilitation in eight months.

WSDOT prepared the environmental compliance and pavement reports. HDR prepared a hydraulic memo and included documentation regarding the centerline rumble strip design decisions. HDR also prepared the specifications and run-list and developed a bid item and quantity estimate that WSDOT entered into EBASE. At the end of the project and during project check-in for advertisement, WSDOT seamlessly took final control and responsibility for the estimate and specifications since all the WSDOT systems need to be performed within the WSDOT controlled servers.

All of this work was done with a remote workforce during the COVID-19 pandemic. We facilitated review meeting and project reviews via Bluebeam® which allowed us to eliminate potentially conflicting review comments and provided confirmation that review comments were resolved and back-checked.