

STATEMENT OF QUALIFICATIONS FOR  
**WASHINGTON STATE 2024 TSMO PROGRAM PLAN**

NOVEMBER 21, 2023

**PACKET**



PREPARED FOR



PREPARED BY



## A. Proposed Team

Kimley-Horn has assembled a highly-qualified, widely-recognized, and well-established team that will work together seamlessly with the Washington State Department of Transportation (WSDOT) to produce a successful 2024 Transportation Systems Management and Operations (TSMO) Program Plan. Our team was specifically curated to meet the diverse needs of this TSMO on-call—we are well suited to managing multiple concurrent projects, coordinating across disciplines and projects, and bring a depth of expertise to address the full range of WSDOT’s TSMO needs. Led by Kimley-Horn, our team comprises individuals and firms that have extensive histories of working together and all of whom contribute to the local and national TSMO landscape. Our combined team brings unique expertise necessary to complete the full scope of services. Each firm’s role, types of expertise offered, and length of time providing expertise are highlighted below, as well as firms that are Disadvantaged Business Enterprise (DBE)-certified. Our organization chart, included as **Figure 1** on page 2, illustrates our team. Key personnel for our team includes staff that have been identified as discipline leads or task managers, in addition to our Project Manager, Principal-in-Charge, and Quality Assurance/Quality Control (QA/QC) Manager.

### Kimley-Horn (Prime)

**Firm Role:** Program management, TSMO policy and training, transportation operations, intelligent transportation systems (ITS), traffic safety, preliminary engineering

**Types of Expertise:** Transportation planning, traffic operations, safety analysis, complete streets, ITS design, special event and incident management, parking, transit, smart and emerging technologies

**Length of Time Providing Expertise:** 56 years

**Employees in WA:** 104 including Portland

**Employees Nationally:** 7,362

### WSP

**Firm Role:** Program management, TSMO policy and training, transportation operations, ITS, travel demand management (TDM), smart and emerging technologies

**Types of Expertise:** ITS; planning, partnering, and policy development; transportation operations; TDM; smart and emerging technologies

**Length of Time Providing Expertise:** 43 years

**Employees in WA:** 763

**Employees Nationally:** 14,719

### Toole Design

**Firm Role:** Active transportation, complete streets

**Types of Expertise:** Planning, landscape architecture, engineering for active transportation

**Length of Time Providing Expertise:** 20 years

**Employees in WA:** 25 including Portland

**Employees Nationally:** 250

### PRR

**Firm Role:** TSMO policy and training, TDM, smart and emerging technologies

**Types of Expertise:** Strategic communications, facilitation, research, web support/development, public research

**Length of Time Providing Expertise:** 42 years

**Employees in WA:** 84 including Portland

**Employees Nationally:** 104

### Pertee

**Firm Role:** ITS

**Types of Expertise:** Transportation, construction management, planning, energy, broadband, environmental, emergency preparedness, site/utilities

**Length of Time Providing Expertise:** 35 years

**Employees in WA:** 90

**Employees Nationally:** 94

### Larson Consulting Associates (LCA) [DBE]

**Firm Role:** TSMO policy and training, smart and emerging technologies

**Types of Expertise:** Workshop facilitation, option evaluation, stakeholder engagement, policy and planning, program creation and project management, marketing and communications, workforce development and training, tribal and legislative relations, process improvement, performance measurement and case studies/reports

**Length of Time Providing Expertise:** 6 years as LCA, more than 20 years as individual experience

**Employees in WA:** 6

**Employees Nationally:** 7

### Citizen Engineers

**Firm Role:** TSMO policy and training, transportation operations

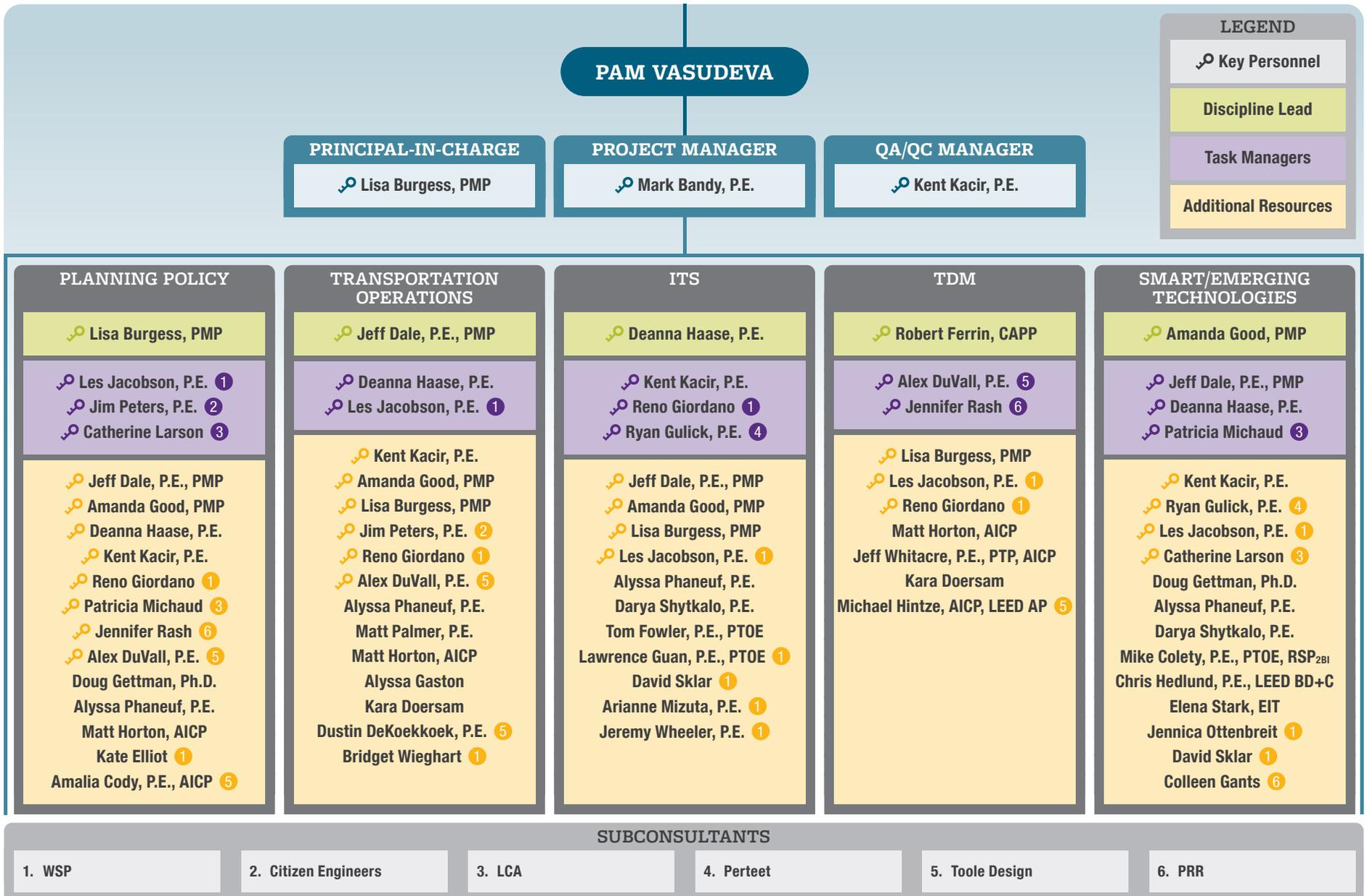
**Types of Expertise:** Management consulting; TSMO planning; strategic planning; ITS design; systems engineering; multimodal planning; complete streets analysis, planning, and conceptual design; safety analysis and planning; leadership development and coaching

**Length of Time Providing Expertise:** Less than one year as Citizen Engineers, 30 years as individual experience

**Employees in WA:** 2

**Employees Nationally:** 2

Figure 1: Organizational Chart



## B. Offices within Washington

**Table 1** below identifies the offices our team has within Washington State and the Greater Portland Metropolitan Area, along with the total number of employees and expertise available at each location.

*Table 1: Washington Office Locations*

Firm	Location (Number of Employees)	Expertise Available at Location
	Seattle (64), Bellevue (5), Everett (11), Portland (24)	TSMO, ITS design and planning, transit planning and design, traffic planning and design, traffic operations, transit-oriented design, planning/policy, planning, aviation, civil engineering, development, environmental, landscape architecture, roadway, surface water, wastewater, technical writing, graphic design
	Seattle (273), Redmond (137), Federal Way (122), Vancouver (46), Portland (185)	ITS; planning, partnering, and policy development; transportation planning; TDM; smart and emerging technologies; transportation planning; engineering; tolling analysis and design; strategic advisory; design visualization; stakeholder/public involvement; community engagement; structural, civil, geotechnical, and hydraulic engineering; utility engineering; electrical engineering; environmental planning and engineering; project management; project controls
	Seattle (81), Portland (3)	Strategic communications, facilitation, graphic design, video, web management/development, public research
	Seattle (16), Portland (9)	Planning, engineering for active transportation, landscape architecture
	Portland (1), Spokane (1)	TSMO planning; strategic planning; ITS design; systems engineering; multimodal planning; complete streets analysis, planning, and design; safety analysis and planning; management consulting; development and coaching
	Tacoma (6)	Workshop facilitation, option evaluation, stakeholder engagement, policy and planning, program creation and project management, process improvement, performance measurement and case studies, marketing and communications, workforce development and training, and legislative relations
	Seattle (32), Everett (45), Olympia (1), Ellensburg (2), Wenatchee (7), Snoqualmie (3)	Transportation, planning, energy, broadband, environmental, emergency preparedness, site/utilities, construction management



## C. Similar Projects with Subconsultants

Kimley-Horn has a strong history of partnering with many of our subconsultants for the 2024 Washington State TSMO Program Plan. We have highlighted below a sample of similar projects we have worked on together within the last three years.



We have partnered with WSP on a variety of project types for various clients throughout the country, including TSMO, ITS, and technology planning projects. Kimley-Horn is currently partnering with WSP on the **Arizona Department of Transportation (ADOT) ITS Master Plan (2021-2023)**, on which WSP is outlining TSMO strategies. Additionally, WSP is performing ramp meter evaluations and decision support system (DSS) concept development on the **ADOT SR 101L Mobility Project (2019-Ongoing)**. Kimley-Horn has also teamed with WSP on the **Federal Highway Administration (FHWA) Active Transportation Demand Management Cohort (2020-2023)**, for which WSP is providing TSMO best practices, conducting a needs assessment, and providing facilitation services.



Kimley-Horn has partnered with PRR on important projects in Washington State and California. Our partnership with PRR in the past three years includes the **WSDOT Aviation Economic Impact Analysis (2018-2021)**. Prior to joining Kimley-Horn, Project Manager Mark Bandy worked with PRR on the **Washington State Ferries Fauntleroy Terminal Replacement (2022-2023)**. PRR provided public outreach and engagement services on both projects.



Kimley-Horn and Toole Design have a long history of partnering on transportation projects throughout the country. Most recently, Toole Design provided active transportation services on the **Seattle Transportation Plan (2022-Ongoing)** and the **Steamboat Springs Multimodal Transportation Plan (2019-2022)**.



Because Citizen Engineers is a very new firm, this will be our first opportunity to work with them, which we are excited about as it aligns with our value of supporting industry growth and we value Citizen Engineers staff's history of supporting WSDOT's TSMO program.



Prior to joining Kimley-Horn, Project Manager Mark Bandy partnered with LCA on contracts supporting WSDOT's Toll Division. We specifically sought out LCA for this on-call as means to build a Kimley-Horn and LCA partnership.



This is our first opportunity to work with Perteet. We are excited to team with them on this project, for which they will bring their intimate knowledge of WSDOT's ITS processes.

## D. Availability of Key Staff and Resources

At Kimley-Horn, we understand that technical expertise alone is not enough—our team members must also have the time to devote to your project for their expertise to be of value to you. **Table 2** below shows the availability of our key staff identified as hours available per month.

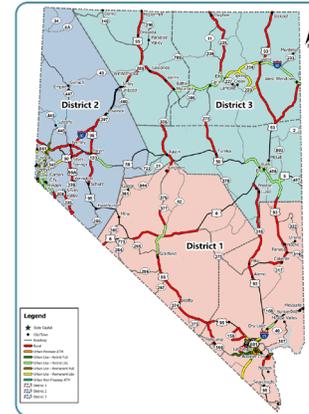
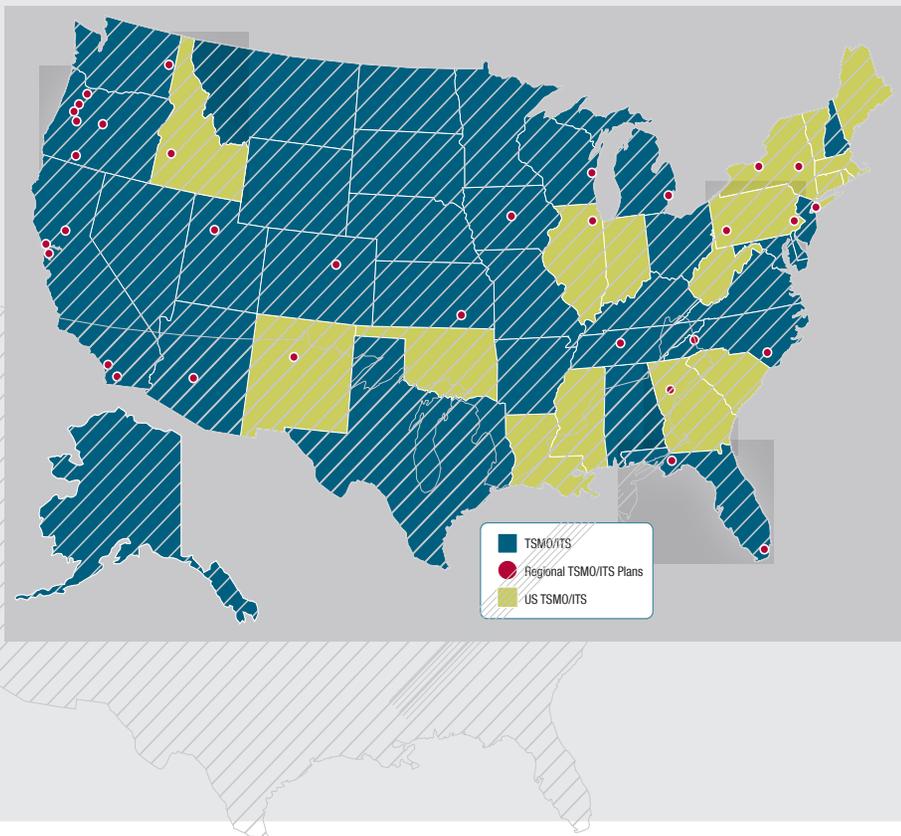
*Table 2: Key Personnel Availability*

Key Staff	Hours Available Per Month
Mark Bandy, P.E.	125
Lisa Burgess, PMP	75
Kent Kacir, P.E.	25
Deanna Haase, P.E.	125
Amanda Good, PMP	40
Jeff Dale, P.E., PMP	40
Robert Ferrin, CAPP	40
Les Jacobson, P.E. (WSP)	80
Reno Giordano (WSP)	40-80
Jennifer Rash (PRR)	20
Alex DuVall, P.E. (Toole Design)	50
Jim Peters, P.E. (Citizen Engineers)	110
Catherine Larson (LCA)	80
Patricia Michaud (LCA)	80
Ryan Gulick, P.E. (Perteet)	40

## E. Similar Projects

A skilled consultant understands that each project is unique and deserves a tailored approach to address client needs. Our project team has substantial experience in the specialty fields of TSMO, ITS design, ITS planning, systems engineering, policy and legal statute development, stakeholder and public engagement, data and performance analysis, and funding and resource coordination to support implementation. **We have provided on pages 5-6 a brief sample of our team's most relevant tasks that have been completed within the last three years through ongoing on-call contracts.** **Figure 2** below illustrates our project team's experience on TSMO and ITS projects across the country.

Figure 2: Team Experience on TSMO/ITS Projects Nationwide



## Nevada DOT (NDOT) Traffic Operations On-Call

**Fee: \$2.3M / Contract Value: \$10M**

Kimley-Horn is currently providing NDOT with traffic design and engineering services on a task-by-task basis for traffic control, traffic signal, roadway lighting, striping, signing, ITS design and planning, traffic operations programs and projects, traffic analysis, and traffic modeling projects. Additional services our team has provided include public safety communications systems, radio frequency engineering services, frequency coordination, information technology engineering services to include networking and security, structural engineering and analysis services, infrastructure auditing and location services, traveler information systems, traffic incident management (TIM), hazmat cleanup, and freeway service patrol.

NDOT utilizes this broad on-call to implement numerous TSMO priorities, especially their important and highly impactful statewide projects. They regularly select Kimley-Horn to help with conceptualizing, deploying, and evaluating unique pilot demonstration projects that are being considered and tested for potential statewide expansion. NDOT is a main partner in supporting and advancing TSMO alongside local jurisdictions, as well as the regional metropolitan planning organizations (MPOs), which are called Regional Transportation Commissions in Nevada. **Kimley-Horn has worked with the State of Nevada for decades and has most recently completed ITS planning, technology implementation, roadway design, and other highly innovative projects for the state under this current on-call.**

## North Carolina DOT (NCDOT) TSMO Program Plan

*Fee: \$8.5M | Contract Value: \$30M*

This project has included development of the TSMO Program Plan, which defined the current state of the program and the path for NCDOT to mainstream the program and secure consistent funding. In addition, the plan outlined a five-year plan to double the budget of the overall program. **Kimley-Horn supported the development of the first ever TSMO Annual Report for NCDOT as part of this contract.**

As the TIM Program Manager, Kimley-Horn has worked closely with the State Traffic Systems Operations Section for the last three years to support statewide initiatives, provide guidance for NCDOT staff in the regions, identify and coordinate training for the state's safety service patrol, and coordinate with partner agencies through multiple regional TIM Coordinators.



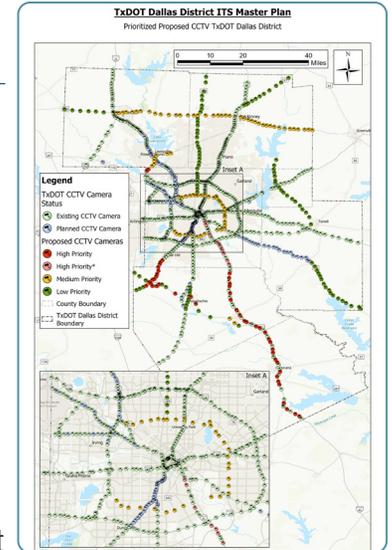
## Texas DOT (TxDOT) Statewide TSMO Program On-Call

*Fee: \$4.5M | Contract Value: \$9M*

Kimley-Horn was selected for the TxDOT TSMO Program On-Call to support nine TxDOT Districts in the northern part of the state, including Dallas, Fort Worth, and Waco. **Under the on-call, Kimley-Horn developed TSMO Program Plans for all nine districts throughout the state.** TxDOT developed a statewide TSMO Program Plan, and wanted to allow Districts some flexibility in selecting the TSMO priorities and partnerships that would be most impactful to their local environments.

For each TxDOT District, Kimley-Horn secured support for TSMO planning efforts from District leadership and organized outreach workshops to educate both internal TxDOT staff and external local agency partners. Kimley-Horn guided each District through the technical aspects of the TSMO planning process. Each plan includes a cost-benefit analysis of the District's planned TSMO strategies, a survey of existing operating capabilities, and recommendations for new device and program deployments. We also worked with District and partnering agencies to identify areas for investment in capabilities related to challenges such as TIM, traffic signal management, and road weather management.

**As part of the TSMO Program On-Call, Kimley-Horn also developed ITS master plans for five Districts (Dallas, Abilene, Atlanta, Tyler, Wichita Falls).** Our team has been selected for a second phase of the TxDOT TSMO Program On-Call and is currently developing an ITS Master Plan for the Waco District under this contract.





**Mark Bandy, P.E.**  
*Project Manager/  
 Consultant Resource  
 Manager*

**Professional Credentials**

- Master of Science, Civil Engineering, University of Washington (1993)
- Bachelor of Science, Civil Engineering, University of Utah (1990)
- Professional Engineer in WA #33159 (1996)

Mark has a multi-decade history of working at the state and local levels, including multi-agency partnerships between WSDOT, Sound Transit, and other agencies, to identify and deliver multimodal transportation solutions for the region.

Mark has more than 33 years of experience in transportation in Puget Sound and other parts of Washington, including more than 28 years of public-sector experience at both the Washington State and City of Seattle departments of transportation. While he has a broad range of

transportation engineering experience, transportation systems management and ITS operations are where his career began and these ideas and applications have been a central theme and passion ever since. During his career, Mark has touched every phase of this work—planning, training, design, deployment, operations, and maintenance. Earlier in his career, he was a traffic management center (TMC) operator and supervisor as well as an ITS designer and design group leader. Later in his career, Mark moved into leadership positions where his responsibilities included policy, program, and budgetary responsibilities in ITS and other traffic engineering functions.

While with WSDOT, he led the initial planning and concept of operations (ConOps) for active traffic management (ATM) applications, which were deployed on Interstate 90 and Highway 520 as part of the USDOT Urban Partnership Program. At the Seattle DOT, Mark served as director of the division that included the City’s Transportation Operations Center, signal operations engineers, ITS, and signal maintenance staff. Under his leadership, Seattle DOT deployed the city’s first adaptive signal control system as well as piloted new detection equipment for pedestrians and bicycles.

*A. Examples of Mark’s Prior Experience as Project Manager on WSDOT or Similar Projects*

**WSDOT, South Central Region, General Engineering Consultant (GEC) – Project Manager.** Mark served as the project manager for the traffic engineering and planning scope of services. The work involved providing on-call services to the region traffic office and planning office. **CLIENT:** WSDOT **DATES:** April 2022 – May 2023 **PROJECT MANAGER RESPONSIBILITIES:** Mark worked with WSDOT to develop scopes of work, budgets, and staff assignments to support corridor planning studies, preliminary traffic analyses, traffic safety evaluations, and concept evaluation.

**City of Everett, Rucker Freight Corridor Phase 2 – Project Manager.** Mark was the project manager for the City of Everett’s study of concepts to improve freight movement along the 41st Street and Rucker Avenue corridor. Beyond serving freight, the corridor serves a Swift Bus Rapid Transit (BRT) line and is adjacent to residential neighborhoods and the downtown business district, requiring solutions to maintain or enhance non-motorized connections. **CLIENT:** City of Everett **DATES:** September 2022 – May 2023 **PROJECT MANAGER RESPONSIBILITIES:** Mark served as the primary point of contact with the City of Everett and was responsible for leading the consultant team in providing quality deliverables, adhering to schedule and budget, and submitting accurate invoices with progress reports.

**Sound Transit, BRT GEC – Project Manager.** Mark supported Sound Transit’s \$1 billion BRT implementation along the state route 522/523 and I-405 corridors. His work on the project supported delivery of program commitments that are acceptable to agencies along the corridors. **CLIENT:** Sound Transit **DATES:** October 2022 – May 2023 **PROJECT MANAGER RESPONSIBILITIES:** Mark was responsible for developing and managing the task order for the consultant team to provide staff resources to Sound Transit and interface with WSDOT’s I-405 Program. Task order activities included delivering BRT-related content for design-build Requests for Proposals (RFPs), support during WSDOT design-build procurements, developing responses to Requests for Information (RFIs), and construction management support to ensure BRT elements met Sound Transit requirements. Similar to an on-call contract, the level of support and types of disciplines needed vary over time, requiring proactive and ongoing communication with both Sound Transit and WSDOT. Mark led the development and monitoring of the scope, schedule, and budget, and oversaw all invoicing and communications with the client.

### *B. Familiarity with Relevant State and Federal Regulations/Procedures and WSDOT's Strategic Vision*

Mark is extremely familiar with state and federal procedures that apply to WSDOT's programs and the implementation of its strategic vision. This familiarity was developed through Mark's 25 years as a WSDOT employee in the Northwest Region serving in a variety of roles and supporting a wide range of projects, as well as his experience in agency-to-agency partnerships while at Seattle DOT and supporting WSDOT projects as a consultant.

Mark understands WSDOT's safe system approach, having managed the Traffic Safety Management and Performance Measurement groups that analyze traffic and collision data for Northwest Region system monitoring and reporting, investment program planning, countermeasure identification, and project development. **Two notable examples of his implementation of the safe system approach include the implementation of zigzag edgelines in advance of semi-rural crosswalks and the in-service evaluation of urban arterial street trees in partnership with several municipalities along SR 99.**

**Mark is also familiar with policy goals of complete streets and reconnecting communities, having supported planning and preliminary engineering on the Alaskan Way Viaduct Replacement Program, SR 520 Bridge Replacement Program, and I-405 Program.** In each instance, Mark helped the programs implement multimodal connections in partnership with local jurisdictions and transit providers. In the case of facilitating transit, he helped develop policy and design guidance for bus-on-shoulder operations, which has subsequently served as a guide for use on other corridors. Mark will use his familiarity to identify opportunities to engage, set direction for, and align outcomes with initial goals to implement TSMO activities most effectively.

### *C. Project Manager's Ability to Strategically Advance Goals of WSDOT's TSMO Program and Ability to Provide Innovative Strategies*

Mark has supported the development of ITS architecture and ConOps for applications such as ATM and for operations such as dynamic freeway shoulder use. He developed the first shoulder-use ramp meter concept for WSDOT and the corresponding design guidance, which has now become a common strategy within WSDOT's freeway management program. The shoulder use approach is an example of applying the TSMO philosophy to maximize operational efficiency with existing infrastructure and lower capital costs.

 In his tenure as **WSDOT's Urban Corridors Traffic Engineer**, Mark managed the study that identified and evaluated the potential applicability and impact of ATM concepts on Washington freeways in the Puget Sound. This study, which included support from Les Jacobson, a key member of this proposed team, was instrumental in leading WSDOT to implement the strategies on I-5, I-90, and SR 520. The funding to implement the strategies on I-90 and SR 520 came from a USDOT Urban Partnership program grant that Mark helped secure for WSDOT. See Smarter Highways link on the WSDOT web page: <https://www.wsdot.wa.gov/travel/operations-services/active-traffic-management/home>.

Mark also managed the Northwest Region's Construction Traffic Coordination Office. As a core function of TSMO, Mark helped devise, implement, and evaluate various traffic management and traveler information strategies that prioritize safety while optimizing traffic operations during significant WSDOT construction activities on major roadways in the region, as well as significant local jurisdiction projects, with consideration of major special events. **Mark knows the strength of WSDOT's TSMO Program and how to advance existing goals, but also knows the value of rethinking at appropriate times to maximize new opportunities, such as federal funding or technology innovations.**

### *D. Examples of Mark's Ability to Manage All Aspects of a Project*

Mark has consistently demonstrated an ability to successfully manage projects, tasks, and overall programs. He is an effective communicator and time and staff resource manager, and he utilizes the appropriate tools for work planning and communications to achieve results, even if those expectations change during the course of work.

 On the **West Seattle and Ballard Link Extension**, there was a need for additional traffic analysis in a short time frame to support decision-making on the preferred alternative. This required quickly developing a scope and level of effort for the work, expanding the analysis area, gathering new traffic data, performing the analysis, and developing presentation materials. Performing the work required input and coordination amongst multiple consultant teams from disciplines such as engineering, planning, and environmental, along with their counterparts at Sound Transit. Communicating the work product included direct interface briefings with the Sound Transit project team and partner agencies (City of Seattle, King County, Port of Seattle, and WSDOT). **As Task Lead, Mark prioritized communicating the reasoning, expectations, and impacts of the necessary change to team members and decision makers and ensured the added work was completed in the needed time while keeping concurrent work activities moving forward.**

 On the **Sound Transit Stride BRT GEC**, Mark established a Scope of Work (SOW) to provide staff support across a variety of potential disciplines, which was anticipated to vary each year. The client desired to maintain budget flexibility within the overall program. **Mark developed a SOW designed to cover the multi-year period with an expected staff level while enabling year by year staff and budget level authorization.** This approach streamlined the contract agreement and maintained the budget flexibility desired by the client. Additionally, early in the execution of the task order, a key subconsultant staff person was no longer able to support the project, so Mark worked with the client and subconsultant to identify a replacement and supported the onboarding and transition of work.



**Lisa Burgess, PMP**  
*Principal-in-Charge/Planning  
 Policy Discipline Lead*

Lisa is a Vice President and Senior Project Manager with Kimley-Horn and works throughout the U.S. on multijurisdictional transportation operations and planning projects, including specific emphasis on regional system planning, TSMO program planning and implementation, and freeway/arterial operations. She has over 29 years of experience focusing on system operations, including operational processes and policies, business processes, and alignment of

operations with other functional areas (including incident management, traveler information, safety, and freeway/arterial operations). She also leads many of the firm’s efforts with national organizations such as the FHWA, American Association of State Highway and Transportation Officials (AASHTO), and the National Cooperative Highway Research Program (NCHRP).

**Lisa is at the forefront of national TSMO efforts. Nationally, she conducts TSMO training for transportation agency senior management sharing state-of-the-practice TSMO concepts and programs. She facilitated a multi-agency TSMO workshop in Spokane in 2019, which included staff from WSDOT and the Idaho Transportation Department (ITD), county and municipal transportation agencies, and regional planning agencies in Eastern Washington.** Lisa also developed and facilitated virtual TSMO training modules in partnership with WSDOT and the University of Maryland Operations Academy. She is frequently called upon by our agency clients to support organizational and business assessments of their programs. Lisa’s experience includes developing regional and statewide TSMO and ITS strategic plans, ConOps, and support for TSMO implementation. For these projects, she typically coordinates with several stakeholder agencies to determine needs and goals, build consensus on program vision and objectives, and develop planning strategies that can translate into sound operational practices.

**Professional Credentials**

- Bachelor of Arts, English, Arizona State University
- Project Management Professional #1513021

**Understanding of WSDOT/Public Agency Regulations/Procedures**

Lisa has partnered with WSDOT staff on two key TSMO assignments, including a multi-agency TSMO Forum in Spokane (led by the Spokane Regional TMC) and developing/facilitating TSMO training modules tailored to WSDOT staff. These interactions give Lisa an understanding of the importance and breadth of TSMO at WSDOT, including strong links between operations and demand management and WSDOT’s focus on staff training and building technical capabilities. Lisa works with state DOTs throughout the country as they plan, implement, operate, and enhance TSMO initiatives. She understands the challenges many agencies are facing with workforce development and training on new technologies and operating strategies, modifying long-standing business and planning processes to help better meet TSMO’s unique needs, cross-department communications and collaboration for TSMO, and partnerships for TSMO delivery among key partnering agencies.

**Relevant Project Experience**

**ADOT, Loop 101 Mobility Project – Project Manager.** Lisa is the Project Manager supporting planning and implementing an Integrated Corridor Management (ICM) system for Loop 101. ADOT is the lead in partnership with Maricopa County, regional transit, seven municipalities, and one tribal nation. ADOT and partners secured a federal grant to implement a DSS to support ICM during incident conditions on Loop 101. **DATES:** June 2019 – Present. **RESPONSIBILITIES:** Lisa was responsible for overall program management, project management, stakeholder coordination, federal reporting, systems engineering, bid advertising support, and development of the performance management strategy.

**TxDOT, District TSMO Plans – Senior Advisor.** Kimley-Horn led TSMO Program Plans and related operations plans for nine TxDOT Districts. Our team organized outreach workshops that included TxDOT and other agency partners, Capability Maturity Model (CMM) assessments, and identified priority TSMO investments (short-term and longer-term). **DATES:** June 2019 – Present. **RESPONSIBILITIES:** Lisa facilitated virtual CMM assessments, developed TSMO recommendations, coordinated with District leadership on recommended strategies, and performed quality control review of final deliverables.

**FHWA, Active Transportation and Demand Management Cohort – Task Lead.** Kimley-Horn facilitated two concurrent multi-agency cohort groups (freeway and arterial) focused on best practices, deployment and operating experiences, and integrating new technologies into active transportation and demand management operations. WSDOT representatives included the Traffic Operations Division and Southwest Region. **DATES:** October 2020 – March 2023. **RESPONSIBILITIES:** Lisa led monthly cohort coordination meetings, organized and facilitated an in-person cohort meeting, identified areas for further support/guidance, and prepared briefs capturing best practices.



## **Kent Kacir, P.E.**

### *QA/QC Manager/ITS Task Manager*

Kent brings more than 38 years of experience in traffic operations, traffic design, and ITS. Kent understands all facets of transportation planning and engineering and works exclusively for public clients in solving complex problems. He understands city government from program perspective in all phases, including planning, funding, staffing, implementation, and maintenance. He has supported and led several projects for TxDOT in the development of their TSMO program plans and ITS master plans. Kent is currently leading the evaluation of a statewide traffic operations center for TxDOT. He has served on the Transportation Research Board Committees on Traffic Control Devices and Traffic Signal Systems.

### *Understanding of WSDOT/Public Agency Regulations/Procedures*

Kent is the Deputy Project Manager on the Texas Manual on Uniform Traffic Control Devices (MUTCD) Update (currently pending release of the National MUTCD) under contract to TxDOT

Traffic Safety Division Policy and Standards Section. The initial work authorization has already identified the proposed new structure (fonts, notation of differences, etc.), stakeholder engagement, website materials and update process, and project management duties. This significant document guides many aspects of the design and operations statewide. Texas has always produced their own version manual. The updated Texas MUTCD will lead to the update of numerous training, design, and construction manuals. Under a previous contract with the same division, Kent led the update to three key training manuals on work zone traffic control. Kent worked with the Signals Technical Committee of the National Committee on Uniform Traffic Control Devices as part of his effort to get the Flashing Yellow Arrow operation into the 2009 Manual. Since 2012, Kent has led the update to more than 45 technical standard drawings and 18 technical specifications to be used statewide under contract to TxDOT Traffic Safety Division Traffic Management Section. Mostly recently, Kent served as the project manager for the TxDOT Vulnerable Road User (VRU) update to the Strategic Highway Safety Plan (SHSP).

### *Professional Credentials*

- Master of Science, Transportation Engineering, Texas A&M University
- Bachelor of Science, Engineering Technology, Texas A&M University
- Bachelor of Science, Civil Engineering, Texas A&M University
- Professional Engineer in WA (#31682), FL, OK, OR, LA, and TX

### *Relevant Project Experience*

**TxDOT, Statewide TSMO Program – QA/QC Manager and Technical Engineer.** In 2018, TxDOT released a major program to develop TSMO program plans for all 25 districts. Kimley-Horn developed the TSMO Program Plans for the northern nine TxDOT Districts. The largest program developed was for the Dallas-Fort Worth Districts. The team utilized the FHWA process utilizing the CMM to identify strengths and weaknesses in business processes, systems and technology, performance measures, culture, organization and workforce, and collaboration. The capability maturity framework was used to focus on investment in capabilities related to challenges such as TIM, traffic signal management, and road weather management. The TSMO program plans focus on short-term project and process recommendations and include a cost-benefit analysis to demonstrate potential return on investment. The Kimley-Horn team was selected again in 2023 to support the districts implement the TSMP projects. **DATES:** October 2018 – Ongoing. **RESPONSIBILITIES:** Kent served as the QA/QC manager on each of the program plans developed and served as a technical engineer developing unique projects focused on connected vehicle (CV)/autonomous vehicle (AV) readiness plans, ITS device communications, systems planning, and other ITS projects.

### **TxDOT, Next Generation Traffic Management Center – Project Manager.**

The TxDOT Strategic Planning Division contracted Kimley-Horn to study and plan for a statewide traffic operations center. The project will study all facets to the development of a Next Generation TMC. **DATES:** October 2023 – Ongoing. **RESPONSIBILITIES:** Kent served as the Project Manager overseeing all aspects of the project.

### **City of Austin, Mobility Management Center (MMC) – Project Manager.**

Kimley-Horn has provided critical staffing at the Austin MMC since 2016. On any typical weekday, Kimley-Horn provides a TMC manager, engineer, senior operator, and three operators onsite. The MMC is manned by Kimley-Horn staff during holidays and special events, providing advanced planning, operation, and post analysis, which ranges from 10,000 to 200,000 attendees. The MMC onsite manager provides coordination for regional activities with TxDOT, University of Texas, Regional Mobility Authority, and the Capital Area Metropolitan Planning Organization. **DATES:** April 2016 – Ongoing. **RESPONSIBILITIES:** Kent oversees over a dozen staff that provides operation and management of over 1,000 traffic signals, 650 CCTV cameras, 157 roadway sensors, 300 school zones, and 13 DMS in the City of Austin. Kent served as Project Manager for the first two contracts and is currently serving as Principal-in-Charge on the third contract.



**Deanna Haase, P.E.**  
*ITS Discipline Lead/  
Transportation Operations,  
Smart/Emerging Technologies  
Task Manager*

Deanna is a project manager with Kimley-Horn and has led or managed components of various ITS, transportation operations, and performance management projects around the country for the past 19 years. Her focus is on agency infrastructure strategic deployment, operational process evaluation and development, data management and information sharing, regional multijurisdictional coordination, and freeway/arterial integration. She has

**Professional Credentials**

- Bachelor of Science, Civil Engineering, California State Polytechnic University
- Professional Engineer in AZ, CA, NV, UT, and VA

extensive freeway management system (FMS) and arterial management system design and planning experience with local, county, and state agencies all along the western United States.

When working with agencies, Deanna focuses on making sure the broader picture of TSMO and how infrastructure is ultimately operated and maintained stays front and center during any project. She is a practicing engineer for a variety of innovative ITS technology projects and has been developing successful and implementable ITS and TSMO strategies for state, regional, and local agencies her entire career. **Deanna excels at working side by side with program managers from all facets of TSMO programs to engage stakeholders to define goals and expectations that result in development to create actionable and implementable strategies.**

**Understanding of WSDOT and/or Public Agency Regulations/Procedures**

Deanna has served as staff augmentation for a number of cities and state agencies on behalf of their ITS and TSMO programs and understands the internal challenges that can come along with implementation, operations, and maintenance. Factors like data management, interdepartmental coordination, and staff resources and training can make what seems to be a sound strategy not actually realistic to implement or manage. While Deanna has not specifically worked for WSDOT, she knows the types of questions and operational challenges to learn WSDOT's processes fast and help to avoid challenges other agencies have experienced with implementation.

**Relevant Project Experience**

**NDOT, Nevada Statewide ITS and ATM Master Plan – Project Manager.** NDOT recognized the need to leverage resources and capabilities through application of a wide range of ITS and ATM strategies to improve safety, reliability, and mobility on the Nevada surface transportation system. The NDOT ITS and ATM Master Plan was initiated to conduct a thorough evaluation to assess current systems in rural and urban areas, determine future needs, and outline future ITS and ATM strategies to advance NDOT's capabilities. This Master Plan is being developed in alignment with the NDOT TSMO Program, TSMO implementation plans, the One Nevada Plan, and ITS Strategic Deployment Plan elements. **DATES:** December 2021 – Ongoing.

**RESPONSIBILITIES:** As Project Manager, Deanna is overseeing all stakeholder coordination, concept development, technology innovation evaluation, aligning outcomes with NDOT's TSMO Strategic Plan, and managing all ITS efforts.

**ADOT ITS Master Plan – Project Manager.** Kimley-Horn is currently forming the ITS Master Plan that will demonstrate the impact of ITS strategies to help ADOT and provide direct, tangible benefits to Arizona's traveling public who relies on the statewide transportation system every day. This master plan marks an important shift toward more proactive, real-time system management and information sharing among agencies in the region, which will result in a safer, more efficient regional transportation system. The ITS Master Plan is addressing what must be integrated into the system, strategies that must be implemented to support ADOT's future ITS goals, and the necessary framework to support CV technologies. The project involves gathering information from ADOT TSMO staff, ADOT Districts, and other ADOT groups on the capabilities of their existing infrastructure and overall project goals and vision for ITS in the state. **DATES:** August 2021 – September 2023. **RESPONSIBILITIES:** As Project Manager, Deanna oversaw all stakeholder coordination, data collection and analysis, and System Layer Plan development.

**City of Phoenix, Traffic Engineering and ITS Support Services – Project Manager.** Since 2014, the City of Phoenix has relied on the Kimley-Horn team to provide staffing reorganization, policy/regulation adjustments, budget planning, programming and application development, standards development, asset management, inventorying, performance evaluation and reporting, software evaluation and development, and staffing request justification. Kimley-Horn supported the City with a wealth of expertise to create the most robust and sustainable operations and maintenance environment for the communications network. We have guided City management to realign staff and maximize their passions and skill sets to support the ITS network, and performed data analysis that justified requests for additional staff, which they received four-fold. Our actions on behalf of City and taxpayer interests have been invaluable in efficiently utilizing resources and rearranging procedures to complete tasks that had not been done prior. **DATES:** April 2017 – Ongoing. **RESPONSIBILITIES:** As Project Manager, Deanna is overseeing all stakeholder coordination, concept development, and technology innovation evaluation; aligning outcomes with Phoenix's TSMO Program; and managing all ITS efforts on this project.



## Jeff Dale, P.E., PMP

### *Transportation Operations Discipline Lead*

Jeff brings 27 years of experience as a leading expert for ITS and TSMO planning, design, and operations. He provides a breadth of geographic experience from his work with public agencies nationwide and in the Republic of South Africa.

Jeff's technical skillset includes development of regional ITS architectures and deployment plans, TSMO plans, and reviewing legal code related to the testing and operations of CV/AV. He also provides strong facilitation skills, knowledge of business processes in support of CMM, and strategic planning that helps agencies prepare for emerging technologies.

### *Understanding of WSDOT/Public Agency Regulations/Procedures*

Jeff's expertise includes development of a variety of deliverables including strategic planning tools, recommendations for organizational structure and staffing plans, policies and guidelines to foster improved operations, technological solutions to address specific operational needs, high-level and detailed design documents, and operational strategies to deliver anticipated results.

### *Relevant Project Experience*

**NCDOT, TSMO Program Update – Project Manager.** This plan outlined a five-year plan to secure consistent funding and double the budget of the overall program. As the TIM Program Manager, Kimley-Horn works closely with the State Traffic Systems Operations Section to guide the state's TIM Program. This includes statewide initiatives, guidance for NCDOT staff in the regions, training for the state's safety service patrol, and coordination with partner agencies through multiple regional TIM Coordinators. **DATES:** January 2021 – Ongoing.

**Michigan DOT (MDOT), TSMO Program Support – Project Engineer.** Kimley-Horn assisted to establish an integrated TSMO program and Implementation and Strategic Plan. This included writing a series of five TSMO business cases for key stakeholder groups; researching cost-benefit information on Michigan TSMO investments; planning internal DOT workshops to build consensus on key recommendations; and documenting a TSMO Implementation and Strategic Plan. **DATES:** October 2015 – January 2023.

**Maricopa Association of Governments (MAG), Regional Systems Management and Operations (SMO) Plan – Project Engineer.** Kimley-Horn developed a strategic plan to guide technology investments and advanced system operations in the Phoenix metropolitan area. This SMO plan identified four funding investment areas: ICM, regional operations, priority corridors, and local priorities. The funding plan has translated into MAG's Transportation Improvement Plan programming process, with the first three years of TSMO funding already programmed. **DATES:** May 2018 – August 2022



## Robert Ferrin, CAPP

### *TDM Discipline Lead*

Robert has 18 years of experience in smart city solutions, urban and economic development, transportation planning, and asset management. Prior to joining Kimley-Horn, he led the City of Columbus Parking Services team, where he

spearheaded a modernization program including the introduction of a mobile pay and reservation platform, virtual permitting, curbside management, and a new parking meter system. In Colorado, Robert held parking and mobility leadership roles in Aurora and Denver. In Charlotte, he led research efforts at the Downtown Business Improvement District, working on a wide range of transportation and economic development initiatives. Robert currently sits on the International Parking and Mobility Institute Board, where he has been a thought leader in the smart city, research and innovation, and electrification spaces.

### *Understanding of WSDOT/Public Agency Regulations/Procedures*

Robert has past experience with the City of Columbus, City of Aurora, and City and County of Denver, where he held leadership positions in each city's respective Public Works/Service Departments. During his time in each city, Robert wrote City code and developed rules, regulations, policies, and procedures to deliver parking, transportation, and mobility constituent services. He understands the cross-agency collaboration and coordination that is needed to achieve success on complex projects.

### *Relevant Project Experience*

**Seattle DOT, Seattle Transportation Plan – Project Planner.** Kimley-Horn is providing transportation planning, project management, network planning, funding strategy, social justice, equity, environmental documentation, and community engagement and communications services to create a new transportation strategy for Seattle. **DATES:** January 2022 – Ongoing.

**City of Columbus, Strategic Parking Plan 2.0 – Project Manager.** Kimley-Horn is developing a plan that will provide City of Columbus staff and stakeholders with the policies, tools, and decision-making framework to respond quickly as parking and TDM challenges arise and support investments in transit, mobility, in the downtown and identified growth corridors. The plan includes off-street analysis, best practice research, a demand management toolbox update, financial modeling, and recommendations on organizational and staffing structure. **DATES:** July 2023 – Ongoing.

**City of Minneapolis, Electric Vehicle (EV) Readiness Plan – Project Manager.** This plan will provide guidance on conditions to support current and future city, regional, and state EV charging demand. Implementation guidance will be provided, including how to design curbside EV charging hubs and how to maintain, operate, and manage an expanded curbside EV charging network. **DATES:** November 2023 – Ongoing.



## Amanda Good, PMP

### *Smart/Emerging Technologies Discipline Lead*

Amanda has 20 years of experience in the transportation industry, focusing on state and regional ITS planning, specifically regional ITS architectures, TSMO plan development, CV/AV, and ITS operations. Amanda has worked across the U.S. including

Michigan, North Carolina, California, Arizona, and Florida. She is involved in several new and upcoming technologies focusing on safety and mobility; stakeholder involvement; incorporating local agencies, municipalities, and state feedback into their planning/project process; and serving as the Business Process lead for NCDOT's TIM contract and ATMS software efforts.

### *Understanding of WSDOT/Public Agency Regulations/Procedures*

Amanda has served on several CV/AV projects, including NCDOT Automated Vehicle Roadmap and Program Support projects, Michigan DOT Southeast Michigan CV project, and Dubai Self-Driving Transport project. Her responsibilities spanned all the phases of a pilot demonstration of AV, researching and testing different technologies that support more proactive response to incidents, and strategic planning for states on how to prepare for additional and new technologies.

### *Relevant Project Experience*

**NCDOT, C/AV Program Support – Project Manager.** Kimley-Horn is facilitating the establishment of the Fully Autonomous Vehicle Committee and the oversight structure to deliver activities identified by committee members. Multiple working groups will be developed with cross-agency representation. Our team also will coordinate a large CV/AV symposium that includes senior leadership and decision makers, focusing on how North Carolina can attract business and research opportunities for the state. **DATES:** 2016 – Ongoing.

**NCDOT, Integrated Mobility Division (IMD) Grant Concept Development – Project Manager.** Kimley-Horn is supporting the development of various use cases or ideas in preparation for upcoming grant opportunities. Our team has identified several grants that could be applicable to IMD—from planning, to design, to implementation. We identified concept options and performed a qualitative and risk assessment of each. Those concepts have been pared down to the top three with the development of ConOps documentation to support further development of each. **DATES:** March 2022 – Ongoing.

**Memphis Area Transit Authority, Memphis Innovation Corridor – Project Engineer.** Kimley-Horn is assisting with the development and implementation of a BRT system. Our team is providing planning and design services to complete National Environmental Policy Act (NEPA) documentation, preliminary engineering, final design, right-of-way acquisition, bid phase/purchasing, and construction engineering inspection for implementation of the project. **DATES:** April 2019 – Ongoing.



## Les Jacobson, P.E. (WA #22161) (WSP)

### *Planning Policy, Transportation Operations Task Manager*

Les provides strong leadership in resolving transportation challenges by applying solutions in TSMO; ITS planning, architecture, and deployment; traveler information systems;

traffic management systems including ATM, ramp metering, and TMC operations; managed lanes; tolling; and ITS standards.

### *Understanding of WSDOT/Public Agency Regulations/Procedures*

As a WSDOT employee, Les spent 22 years leading technology implementation for many of the innovative transportation programs initiated in the Seattle area. Since then, Les has worked on several projects that included recommending policies and procedures or interpreting procedures. These included the ATM feasibility study, the General Tolling Consultant (GTC) project, and the I-5 Express Lane Pre-Design Study. Les has also provided policy recommendations and developed procedures for agencies across the country, including ramp metering procedures for Florida DOT District 6, high-occupancy vehicle (HOV) and ramp metering design and operations policies and procedures for NDOT, and TSMO strategic and business procedures for states such as Oregon, South Dakota, Minnesota, Kentucky, and Nebraska.

### *Relevant Project Experience*

**WSDOT, Statewide GTC – Subconsultant Project Director.** Les provided policy support and technical support in assuring appropriate resources. He located toll point sites for high-occupancy toll (HOT) lane projects and developed operating approaches, ConOps and ConOps guidance documents, and comprehensive testing guidance, and provided contingency planning. **DATES:** July 2010 – February 2022.

**AASHTO, Transportation Operations Manual (NCHRP 03-126) – Principal Investigator and Project Manager.** Les developed the first edition of the Transportation Operations Manual, which covers TSMO from several perspectives: strategic context, program planning, and relationship to agency project development and programming, as well as specific tactics implemented in the field to improve transportation operations. **DATES:** August 2019 – October 2022.

**Iowa DOT, Des Moines ICM – Subconsultant Project Manager.** WSP assisted in developing ICM strategies and selected capacity improvements to cost-effectively and proactively manage traffic in the Des Moines metropolitan area. WSP performed a needs assessment and worked with stakeholders to develop a vision, goals, and set of performance measures. Les led the development of ConOps documents and requirements for various ICM strategies. WSP also developed conceptual design for ICM strategies. **DATES:** August 2018 – June 2022.



## Reno Giordano (WSP)

*ITS Task Manager*

Reno is an applied researcher and consultant in TSMO and the application of advanced technologies to transportation systems. His 20 years of experience includes transportation engineering, policy, and project and program implementation consulting across the entire project life cycle. Through contributions to a suite of foundational TSMO research and implementation projects, Reno has significantly helped advance agency business processes and institutional arrangements that allow transportation agencies to more effectively conduct TSMO activities. His work includes strategic and implementation planning, guidance development, workshops, peer exchanges, and training development.

### *Understanding of WSDOT/Public Agency Regulations/Procedures*

Through his TSMO planning experience, Reno has identified and articulated policies and procedures to support TSMO business practices and strategies. Over the past eight years, he has led or contributed to seven plans or plan updates requiring consideration of elements such as TSMO planning and programming, funding, ITS procurement, partner agency collaboration, and workforce issues—and how these elements can be incorporated into existing DOT organizational and institutional structures. He helped originate the CMM self-assessment process, supported 35+ CMM workshops around the country, and recently authored portions of the AASHTO Transportation Operations Manual.

### *Relevant Project Experience*

#### **AASHTO, Transportation Operations Manual (NCHRP 03-126) – Task Lead.**

The manual serves as the most comprehensive examination of effective TSMO practices at the national level from planning to tactics to emerging trends. Reno co-authored 11 chapters on strategic and programmatic TSMO topics including TSMO program planning and all dimensions of TSMO capability maturity. **DATES:** August 2019 – October 2022.

#### **FHWA, Office of Operations Technical Support Services – Task Administrator.**

WSP is providing the full extent of services for TSMO, ITS, emerging operational technologies, and freight. Reno is responsible for the quality and timely delivery of all tasks across a large team of task managers and subcontractors. He also serves as project manager on select tasks related to advancing TSMO practices; for example, developing web-based training courses on TSMO 101, the CMM, and the application of cost-benefit analysis to TSMO. **DATES:** March 2022 – Ongoing.

**Minnesota DOT, TSMO Program Planning Support – Task Lead.** Reno is authoring an update to the strategic plan based on a series of discussions and a workshop among staff across various disciplines. The plan comprises strategic, implementation, and business plans, and further advances and aligns practices with department goals and cost-effectiveness. **DATES:** January 2018 – June 2019.



## Ryan Gulick, P.E. (WA #44085) (Pertee)

*ITS Task Manager*

Ryan has 25 years of progressive experience in the planning, design, and implementation of ITS projects both locally and nationally. His experience has included the planning and design of highway and arterial roadway ITS, communications systems, tolling infrastructure, transit technology, and TMCs. His experience has kept him at the forefront of emerging technologies and state-of-the-art transportation solutions.

### *Understanding of WSDOT/Public Agency Regulations/Procedures*

Ryan has been the lead technology designer on several of WSDOT's innovative design projects. He led the ITS design for their first HOT lanes project along the SR 167 corridor, as well as the state's first dynamic hard shoulder running that installed lane control signs over the shoulder on a segment of I-405 for peak-hour use. Ryan has also led and completed several projects that included technology assessments, defining requirements, and recommending the best products to meet a client's needs.

Ryan has completed many WSDOT ITS projects and is very familiar with the ITS Design Requirements for the Northwest and Olympic Regions, as well as General Special Provisions, standard drawings, and specifications.

### *Relevant Project Experience*

**WSDOT, I-90, SR 18 Interchange to Deep Creek Improvements and Widening – ITS Design Lead/Engineer of Record.** Ryan is leading the ITS design, including CCTV, ramp meters, communication hub, data stations, VMS, and fiber optic system, and shop drawing review. **DATES:** January 2022 – Ongoing.

**I-405, NE 6<sup>th</sup> Street to I-5, NB Hard Shoulder Running and Express Toll Lanes Improvements Design-Build – Traffic Task Force Lead, ITS Design Lead/Engineer of Record.** Ryan led the ITS and tolling design of new CCTV cameras, VMS signs on the shoulder, fiber optic system, and modifications to existing toll rate signs. **DATES:** September 2016 – April 2017.

**WSDOT, SR 520 Eastside Transit and HOV Design-Build – ITS Design Lead/Engineer of Record.** Ryan was responsible for the design of the permanent intelligent transportation system, which included new loop detection sites, eight CCTV cameras, seven ATM sign installations, five ramp meters, one new highway advisory radio sign, and fiber communication system. **DATES:** February 2011 – August 2015.



## Jim Peters (Citizen Engineers)

### *Planning Policy Task Manager*

Jim is an accomplished senior ITS/TSMO planner and engineer with nearly 30 years of experience managing projects, providing leadership, and successfully implementing multimodal transportation systems. With experience in TSMO planning, systems engineering, and transportation system design, Jim

has consistently demonstrated his expertise in various areas, including ATM systems, signal systems, variable speed systems, ramp metering systems, arterial performance monitoring systems, integrated corridors, and broadband strategy.

### *Understanding of WSDOT/Public Agency Regulations/Procedures*

Jim has provided management consulting, strategic planning, and leadership development for the WSDOT Transportation Operations Program since 2020. This included working with Region Traffic Engineers and the Headquarters Transportation Operations Division. Jim collaborated with all WSDOT Divisions during development of the WSDOT Statewide TSMO Program Plan including one-on-one interviews with each division to understand their needs and priorities. He has developed systems engineering documents meeting WSDOT and federal systems engineering guidelines and regional ITS architectures meeting the National ITS Architecture.

### *Relevant Project Experience*

**WSDOT, Statewide TSMO Program Plan – Project Manager.** Jim managed this statewide project that aimed to institutionalize TSMO into core business processes, systems and technology, performance measurement, organization and workforce development, culture, and collaboration. The final plan provides a phased action plan and establishes the ongoing Council and Committees to mainstream TSMO within WSDOT. **DATES:** February 2020 – June 2022.

**WSDOT, TSMO Reference Website – Project Leader.** As a TSMO and ITS subject matter expert, Jim managed the technical team and authored technical content for the TSMO website, a technical reference and implementation guide for internal staff and agency partners for use in TSMO planning and project development. The project website won an award for TSMO workforce development from the National Operations Center of Excellence (NOCOe) in 2019. **DATES:** November 2018 – June 2019.

**WSDOT, Transportation Operations Program Strategic Plan – Project Leader.** Jim designed, developed, and facilitated a multi-day leadership workshop, developed operations program goals, identified workforce development needs, helped the Operations Program prioritize strategies and actions, and contributed to the proposed allocation of resources. A key aspect of Jim’s role was listening to all the stakeholders, understanding needs, asking good questions, and ultimately helping align the group to a common purpose while clearly defining responsibilities, and understanding expectations. **DATES:** May 2023 – Ongoing.



## Catherine Larson (LCA)

### *Planning Policy Task Manager*

Catherine brings unique insight and awareness of an agency’s needs. Having started her career as an intern for WSDOT, she has continued the path of building and growing transportation programs, sharing her experience in transportation planning, transit, TDM, congestion pricing, and tolling. Catherine

is a dedicated, enthusiastic Lean Six Sigma Blackbelt. She is committed to excellence, determined to achieve exceptional results, and excited to support WSDOT and the TSMO Program.

### *Understanding of WSDOT /Public Agency Regulations/Procedures*

Catherine brings experience working side by side with WSDOT. She helped the Toll Division procure and implement its back office in 2008, and in 2017, assisted the agency in procuring and launching its replacement. Catherine also supported the development of the Tacoma Narrows Bridge Cashless Study and a revamp of WSDOT’s billing and violation processing programs. Catherine has returned to WSDOT in various capacities including rate setting, customer operations support, and project facilitation.

### *Relevant Project Experience*

**WSDOT, Workshop Facilitation – Facilitator.** Catherine has facilitated a variety of workshops to improve communication, resolve conflict, and increase efficiencies. She supports stakeholder input for the Toll Lane System Investment Grade Traffic and Revenue Studies to establish infrastructure phasing scenarios, policy assumptions, gross-to-net revenue forecasts, and toll rate setting for all WSDOT toll facilities. She is also facilitating workshops with WSDOT staff to establish and document roles, responsibilities, principles, and processes for how toll dollars are allocated, spent, and monitored. **DATES:** October 2018 – Ongoing.

**Washington State Transportation Commission (WSTC), Low Income Study – Stakeholder and Research Lead.** Catherine served as stakeholder lead for research to determine WSDOT’s ability to support a low-income toll discount program. She conducted stakeholder workshops with staff from key agencies who may be responsible for implementing, or could support, a potential toll discount program. The workshops were designed to identify and document agencies’ organizational, financial and system capacities for implementing or supporting a low-income toll program. **DATES:** April 2020 – August 2021.

**WSDOT, Toll Division Review – Evaluation Lead.** Catherine led and drafted the legislatively mandated report of the WSDOT toll operations and maintenance program. She met with Toll Division departments to identify and eliminate inefficiencies and redundancies, standardize processes, incorporate lessons learned, and analyze opportunities to conduct toll operations more effectively. She delivered the report on time and within budget while helping WSDOT foster a culture of continuous improvement. **DATES:** May 2013 – November 2013.



### Patricia Michaud (LCA)

#### *Smart/Emerging Technologies Task Manager*

Patricia worked in communications for WSDOT Northwest Region and the Toll Division for nine years before becoming the Good To Go! Customer Service Operations Manager. In addition to her work in construction and traffic management outreach, she led public relations, marketing, and outreach efforts for the Toll Division's ATM in 2011 and I-405 Express Toll Lanes dynamic price tolling in 2015. While with WSDOT, Patricia worked on new technology projects and understands that clear communication is imperative when fostering a cultural shift to introduce a new program or concept.

#### *Understanding of WSDOT/Public Agency Regulations/Procedures*

During her tenure at WSDOT, Patricia designed processes for tribal toll policy, reorganized the WSDOT Toll Operations Customer Service Center to remove unnecessary positions and create new roles to improve staff development while reducing costs. She also served as a subject matter expert representing WSDOT in legal matters and legislative requests. Patricia has also assisted with the launch of a first-of-its kind safety enforcement program with the Colorado Transportation Investment Office, developing customer communications and their adjudication process.

#### *Relevant Project Experience*

#### **WSDOT, I-405 Express Toll Lanes Facility Launch – Communications Manager.**

WSDOT introduced trip-based, dynamic tolling to the state with opening of the I-405 Express Lanes. This introduced a new concept and a new market of drivers who would need to set up Good To Go! accounts. Patricia planned, proposed, and secured \$5 million in funding for the educational marketing campaign. **DATES:** August 2014 – September 2015

#### **WSDOT, Toll Customer Service Operations – Customer Service Operations Manager.**

Patricia served as a subject matter expert for WSDOT executives, state legislative bodies, court appearances, WSTC, and other public-facing entities. She advised and provided strategy on legislative, governmental, tribal relations, and business and technology direction. As an example, Patricia worked with the WSDOT Attorney General's Office and Yakima Tribe to address and identify the process for tribal members' toll exemptions. **DATES:** August 2015 – November 2022

**WSDOT, SR 520 Toll Launch – Communications Manager.** Patricia led media outreach for the \$7 million outreach campaign for the SR 520 bridge toll launch. Her work led to more than 1,900 media stories generated in the year leading up to and following the launch. Patricia also helped develop the SR 520 go live emergency operations center, which included one week of twice-daily media availabilities. **DATES:** January 2010 – December 2010



### Alex DuVall, P.E. (WA #21018718) (Toole Design)

#### *TDM Task Manager*

Alex is a project engineer with over six years of experience who focuses on sustainable safety. She has experience with Vision Zero Plans, local road safety plans, road safety audits, and the safe system approach. Alex has worked on complete streets program implementation, roadway safety countermeasure recommendations, active transportation conceptual design, speed limit setting guidelines, and speed reduction studies. Alex's passion for safety is founded on community improvements and increasing opportunities and access for underrepresented communities.

#### *Understanding of WSDOT/Public Agency Regulations/Procedures*

Alex has years of experience working with WSDOT in various capacities, and is familiar with WSDOT's vision for a multimodal future grounded in the safe system approach.

#### *Relevant Project Experience*

#### **WSDOT, Sandy Williams Connecting Communities Program – Project Manager.**

This program aims to restore continuous active transportation routes, mitigating negative impacts to health, safety, and access. Alex met with all MPOs and regional transportation planning organizations (RTPOs) in the state to identify a preliminary list of projects that could meet the legislative requirements for Year 1 of the program. She worked with WSDOT to refine recommendation list based on intensity of need, project readiness, geographic diversity, and funding, and leveraged opportunities. Alex's team completed geographic information system (GIS) data analysis, a community benefits approach tipsheet, program implementation guidelines, engineering standard details, virtual and in-person trainings, communication infographics, a StoryMap, and website content. **DATES:** September 2022 – June 2023

#### **City of Tacoma, Vision Zero Action Plan and Speed Reduction Study – Project Engineer.**

Alex analyzed speed data collected from several districts to prioritize improvements. She also developed Tacoma's Vision Zero countermeasure toolkit based on top crash types and conducted the speed study that was a primary input to Tacoma's Local Road Safety Program. Additionally, Alex developed two conceptual designs to improve multimodal safety and access on Portland Avenue. **DATES:** July 2021 – June 2023

#### **Oklahoma DOT, Active Transportation Plan VRU Assessment – Project Engineer.**

The VRU Assessment is a new SHSP requirement and meets FHWA's guidance to use a data-driven process to identify high-risk areas across the state for VRUs. Alex led the development of strategies to reduce safety risks to VRUs in identified high-risk areas. **DATES:** June 2022 – December 2023



**Jennifer Rash (PRR)**

*TDM Task Manager*

Jennifer has 17 years of experience as an embedded communicator for WSDOT, where she sharpened her expertise of the WSDOT brand, communications standards and processes, and wrote and published content on the blog, website, and social media. Jennifer has worked on a variety of projects across divisions and regions, planning and implementing in-person and virtual community engagement, media and messaging, and stakeholder committee planning and facilitation. Jennifer's technical understanding and creativity allows her to effectively communicate these complex topics to various communities and environments. She combines research, storytelling, digital media, and community engagement to deliver messages in meaningful places and ways.

***Understanding of WSDOT/Public Agency Regulations/Procedures***

Jennifer has a deep understanding of WSDOT's values, style, and communications practices, which has led to PRR's extensive experience partnering with the agency on a variety of long-term projects, often serving as an embedded member of program teams. Jennifer has led communications for the development and implementation of the TSMO Program Plan for over three years, working directly with Pam Vasudeva, the South Central Region GEC for several years, the Puget Sound Gateway program for nearly eight years, and the I-405/SR 167 Corridor Program for decades. In working on the TSMO Program Plan implementation, Jennifer has become more familiar with WSDOT regional structures, use case for mandates and executive orders, and other operational aspects of the agency and strategic communications.

***Relevant Project Experience***

**WSDOT, TSMO Program Plan – Communications Lead.** Jennifer is providing strategic counsel for WSDOT's organizational development effort to integrate TSMO across the state of Washington. She created and refined a Program Plan brand and messaging platform approved by the TSMO Council. She currently oversees updates to the TSMO workforce website and consults on plan implementation communications. **DATES:** July 2020 – Ongoing

**WSDOT, SR 503 Vancouver to Battle Ground Corridor Plan – Communications Strategic Counsel.** In collaboration with WSDOT Southwest Region, Jennifer oversaw engagement with area stakeholders and communities that prioritizes TSMO improvements. Tactics included outreach to community-based organizations that represent and/or serve historically marginalized communities in the area and gathering broad public input on SR 503 issues and potential improvements through an online open house and virtual public forum. **DATES:** June 2022 – June 2023

**WSDOT, Toll Division GTC – Consultant Communications Lead.** Jennifer was co-located to offer direct counsel to the WSDOT communications team and Toll Division leadership. She supported communications for existing toll facilities (e.g., SR 520 Bridge, SR 167 HOT Lanes, and Tacoma Narrow Bridge), as well as the launch of the I-405 Express Toll Lanes. **DATES:** February 2013 – June 2017

**QA/QC Processes**

Our approach to a given task order is to become an extension of WSDOT staff to establish a seamless workflow to provide the highest quality product. Our proposed **Consultant Resource Manager/Project Manager Mark Bandy has more than 25 years of WSDOT experience**, including WSDOT-specific quality management training. Further, he is backed by a project team of industry experts that are seasoned in DOT quality assurance processes and who will work side by side with WSDOT project managers to successfully accomplish your project goals and objectives.

We will develop a QA/QC plan specific to each task to ensure our high-quality deliverables are comprehensive and accurate. Our typical QA/QC process is shown in **Figure 3** below.

*Figure 3: QA/QC Process*



Kimley-Horn will take the following steps to promoting effective and uninterrupted task management for each assignment coming from this program:

- **Assemble project/task team** to meet the specific requirements of the assignment. Kimley-Horn's 'one cost center' mentality creates the opportunity to use any staff and resources within the entire firm to meet unique technical and task requirements. Our project team is further rounded out with the expertise and skill sets of our excellent teaming partners to serve any and all needs of your program.
- **Establish a scope, schedule, and budget** in close coordination with the WSDOT Project Management team. Kimley-Horn establishes a work plan at the beginning of each project that includes milestone schedules that break tasks down into their individual parts based on prescribed time frames.
- **Conduct a kick-off meeting** with the WSDOT project team and internally with the Kimley-Horn project team. This begins each task with a clear direction and sets expectations of the project representatives.
- **Provide internal Kimley-Horn work planning** every week and at one-month, three-month, and six-month outlooks to evaluate and ensure the availability of staff to serve the task needs and schedule.
- **Utilize Kimley-Horn's reliable QA/QC process** for all activities that Kimley-Horn completes, which requires a third-party reviewer to review deliverables and provide comments that verify project scope is being achieved and quality deliverables are being provided to WSDOT. Quality is a keystone principle of Kimley-Horn, rooted in the value we place on providing exceptional client service. Each person on our team is responsible for taking continuous steps to improve the services we provide. QA/QC Manager Kent Kacir, P.E. will coordinate with each task's project manager to develop a QA/QC plan built into the project work plan to ensure we provide-high quality deliverables on time and within budget.
- **Check in regularly with the WSDOT project team** to review scope progress and status, determine next steps, and identify any upcoming risks and mitigation strategies to support the task's movement. During these regular check-in conversations, Kimley-Horn strives to identify effective strategies in supporting task activity success prior to initiation.
- **Conduct a thorough deliverable review and commenting process** that allows everyone to be heard and resolves conflicts in comments that may change the direction of the task.
- **Focus on communication as part of quality.** We will not only make sure that what we produce for you is technically correct and has incorporated the appropriate resources and analysis to determine the outcome, but also that our outcomes and deliverables are communicated clearly. We routinely involve technical writers, desktop publishers, data visualization specialists, and other professionals on our staff to ensure that task outcomes are easy to interpret and understand.
- **Hand off at the end of a task** and provide training and next steps review for WSDOT to comfortably and confidently assume responsibility of implementation and sustainability of the task that was completed.



## Tracking System to Monitor Project Budget and Scope

Kimley-Horn uses the Cost Point Engineering Accounting system to track labor hours and expenses for each project. Along with our Management Information System and companion project-tracking tools, **Project Manager Mark Bandy and each of the individual task leads will have seamless access to all ongoing project performance information.** Twice monthly, a Project Effort Report is generated showing actual effort expended and project expenses by task. This internal control allows our team to regularly monitor and manage the progress of each project or task, including as it relates to the budget. This allows our staff to effectively communicate with you on matters related to project status and progress; firm and staff use and commitments; and progress on scope, schedule, and budget in a timely fashion.

In addition to our software tools, the Kimley-Horn project management approach to managing scope and budget prioritizes consistent communication with WSDOT from start to finish. Key activities include:

- Development of a work breakdown structure (WBS) to match the SOW as approved by WSDOT. The WBS structure allows for high-level tracking of the first level of the WBS as well as continuous status tracking through completion of the work items. These ongoing monitoring activities not only help manage project scope and budget, but also expedite invoice preparation and ensure accuracy.
- Monthly progress reports that highlight all task-related activities and identify any potential issues and proposed actions to resolve them before they affect the schedule and budget.
- Regular progress meetings both internally and with WSDOT to review scope, schedule, and budget status, and the expected cost to complete each task. If tasks begin to lag, we can quickly identify the causes and take corrective action to keep the task within budget and on schedule. It is during these reviews that potential budget issues can be addressed early and action can be taken quickly.

## Scheduling Program, Software, and Project Examples

Our best schedule control resource—our staff—has several tools to help them control schedule. **Kimley-Horn project managers have access to the project management program Microsoft Project to develop and monitor schedules and also communicate status with our clients.**

Each of our proposed discipline leads and task managers have long tenures in the industry and have led and navigated many projects that range in size, duration, and complexity and have a consistent track record of managing schedules to deliver successful projects. A major contributor to this successful project management history is the priority that our team members put on developing project schedules tailored to the needs of each individual project or task and the needs of the client.

For example, large design projects may warrant a very detailed project schedule that is built and managed through a platform like Microsoft Project, or another similar program of WSDOT's preference. However, for a task that might be smaller or less complex, it may be determined that a detailed and involved schedule is not as critical or may be too complicated, and in partnership with WSDOT, we may choose to develop a schedule with a more basic tool like Microsoft Excel. As such, our task managers, in consultation and coordination with WSDOT, will develop comprehensive and mutually-agreeable project schedules for each project coming off of the on-call.

Kimley-Horn also utilizes such tools as Microsoft Outlook Calendar, Google Meet, WebEx, Doodle, whenisgood.net polling, and Survey Monkey to coordinate and manage scheduling activities during a project or task. **Table 3** lists three projects where Project Manager Mark Bandy utilized the Microsoft Project software or equivalent tool to manage the project schedule.

*Table 3: Project Examples Using Microsoft Project Software*

Project Name	Schedule
Sound Transit Stride BRT GEC	Developed task order schedule as part of overall GEC schedule*
Sound Transit Everett Link Extension	Developed schedule input for subtasks within overall project schedule*
City of Everett Rucker Freight Corridor Phase 2	Developed schedule for study

*\*Schedule in Primavera software*

## Process for Interacting with the Internal Project Team

Successful project completion begins with open, effective communication. We know it is imperative to provide tools and processes to enable seamless communication, coordination, and collaboration among team members to ensure the project is successfully completed on time and within budget. The Kimley-Horn team understands how to communicate effectively to establish priorities and identify solutions. As part of our culture, our project and discipline teams meet weekly to review and coordinate project workload and resolve any anticipated challenges or conflicting schedules. **For this project, Project Manager Mark Bandy will be the primary point of contact for our team and will provide regular oversight for this coordination.** He will meet regularly with the internal Kimley-Horn team and the extended external project team to coordinate project tasks, resolve issues, develop proactive strategies, and keep the project moving forward. Regular team meetings will include discussions related to:

- Schedule updates, progress, and upcoming deliverables
- QA/QC procedures
- Action item development and monitoring
- Technical issues/events

The project team may utilize a web-based information sharing site such as SharePoint that allows team members, agency staff, and subconsultants to access a common set of electronic documents. We also utilize Microsoft Teams for team calls to allow for everyone to be present and use the share screens feature to discuss project details. This promotes better version control of documentation and collaboration on products.

Across offices and firms, we are effective users of Sharefile, Microsoft OneDrive, Google Docs, and other collaborative resource sharing methods. Kimley-Horn also has dedicated Office Production Coordinators that are focused on ensuring resources are properly aligned across offices to meet task requirements.

## Ability to Interact with WSDOT and Stakeholders

### *Communicating with WSDOT*

Our ability to effectively communicate with WSDOT comes from our experience working with WSDOT and a variety of clients throughout the country. Project Manager Mark Bandy has been serving WSDOT and other TSMO clients for 25 years. The Kimley-Horn team, under Mark's direction, will operate as an extension of WSDOT staff and will use a format and level of communication with WSDOT staff that is desired and most appropriate for this contract.



Beyond Mark's experience with WSDOT, most of our team's key personnel also have direct experience working with WSDOT and your stakeholders. Our team collectively has worked with you in every WSDOT region and headquarters as well as with stakeholders such as the legislature's Joint Transportation Committee, the WSTC, the Traffic Safety Commission, and Washington State Transit Association. We have also supported your engagement with communities across the state as part of initiatives and studies such as TSMO workforce development, the Sandy Williams Connecting Communities Program, and a study of low-income toll discounts. **Through our team's past work with WSDOT and your approach to right-sizing efforts to the task at hand, we understand that the nature of this type of program contract will necessitate a range of communication approaches and types of engagement with you and your stakeholders—a range that will also be influenced by the number and nature of task assignments that are active at any point in time.**

For each task assignment, upon Notice to Proceed, Mark and the assigned task manager will meet with WSDOT staff and other key officials at a kick-off meeting, during which we will finalize a SOW/work plan for the assignment, identify a process for WSDOT and other stakeholder review, discuss agency and staff coordination guidelines, and determine procedures for sharing information.

Following the task kick-off meeting, coordination between the task lead and WSDOT's project manager will occur on a bi-weekly basis for project administrative purposes (task order status, project management communication, etc.). Our plan is to generally hold virtual check-in meetings, but we will also plan for occasional in-person meetings at key milestones. Throughout the duration of the contract, we will use these coordination calls to present preliminary findings, coordinate ongoing tasks, and obtain feedback on deliverables as they are submitted. Routine coordination will be facilitated through video calls, conference calls, e-mails, Kimley-Horn or WSDOT SharePoint, or other desired file sharing platform. **Recognizing some task orders may entail regular in-person meetings and/or field visits across WSDOT regions, our team is ready to meet that need.**



**WSDOT Statewide GTC.** WSP served as a subconsultant providing general tolling support services on the statewide WSDOT toll program. The team provided policy support and support in assuring appropriate resources were provided to the client. They also located toll point sites for HOT lane projects, developed operating approaches, developed ConOps, led the development of a ConOps guidance document and comprehensive testing guidance. WSP also provides contingency planning and project budget and schedule oversight. **WSP staff complemented WSDOT personnel and served as an integrated team to plan, implement, and operate the tolling program.** The project assisted with toll program management and project development, provided an integrated consultant team, and senior experts co-located with WSDOT staff helped to build tolling skills.

### *Communicating with Stakeholders*

The Kimley-Horn team understands how to communicate and work with stakeholders, providing them opportunities to identify their priorities and work towards enabling understanding and creating buy-in for the TSMO initiatives being pursued, especially those that may have impacts to WSDOT departments or other agencies outside of TSMO Program staff. Our team of industry experts have significant experience with all of the types of activities and projects that might be undertaken by this TSMO Program. We will use this experience to make sure the proper stakeholders are engaged. For example, we have learned that it is imperative to engage with agency information technology staff early in the process for any discussions related to new software and technology for ITS. **By engaging with the right staff early, we can understand and adapt to any specific processes that might be required by an agency so that procurement or deployment schedules are not held up later in the process.**

Similarly, our team's experiences enable us to understand communications techniques that will be most appropriate for each type of stakeholder and the level of buy-in that is necessary for each task. For example, when engaging with elected officials or high-level decision makers, we know that the most impactful presentations are those that are just a few, hard-hitting slides with minimal text and effective graphics.

The Kimley-Horn team is well equipped and experienced to provide stakeholder communication and engagement in a variety of virtual and in-person formats. We have access to and experience with using multiple virtual platforms, including programs like Microsoft Teams, Go To Meeting, Zoom, or others to support collaboration based on what is desired by stakeholders and will achieve the highest participation. We also know that impactful engagement may sometimes require in-person engagement, especially for tasks where large-scale collaboration and consensus is important. **We will work with WSDOT staff to identify the most appropriate stakeholder communication plan based on the goals and priorities of each task assignment and the return on investment for each stakeholder interaction.**



Kimley-Horn is currently forming the **ADOT ITS Master Plan** that will demonstrate the impact of ITS strategies to help ADOT and provide direct, tangible benefits to Arizona's traveling public that rely on the statewide transportation system every day. This master plan marks an important shift for ADOT toward more proactive, real-time system management and information sharing among agencies in the region, which will result in a safer, more efficient regional transportation system. The ITS Master Plan is addressing what must be integrated into the system, strategies that must be implemented to support ADOT's future ITS goals, and the necessary framework to support CV technologies. **The project involves gathering information from ADOT TSMO staff, ADOT Districts, and other ADOT groups on the capabilities of their existing infrastructure and overall project goals and vision for ITS in the state.**



Toole Design delivered the **WSDOT Sandy Williams Connecting Communities Program**, which aims to restore continuous active transportation routes where legacy state transportation facilities have prevented them, thus mitigating negative impacts to health, safety, and access. After meeting with all MPOs and RTPOs in the state, Toole Design identified a preliminary list of projects that could meet the legislative requirements for Year 1 of the program. The team worked with WSDOT to refine the Year 1 project recommendation list based on intensity of need, project readiness, geographic diversity, funding, and leverage opportunities. Toole Design completed GIS data analysis, a community benefits approach tipsheet, program implementation guidelines, engineering standard details, virtual and in-person trainings, communication infographics, a StoryMap, and website content.

## A. Work Plan

Kimley-Horn’s method of approach to developing work plans is informed by our understanding of WSDOT from a regional level up through headquarters and is complemented by our national experience launching and implementing full-scale TSMO programs. We know that WSDOT is well advanced in embracing TSMO as an agency and has done the work to establish a vision and programmatic goals for a TSMO-first approach to meeting the state’s mobility and safety aspirations.

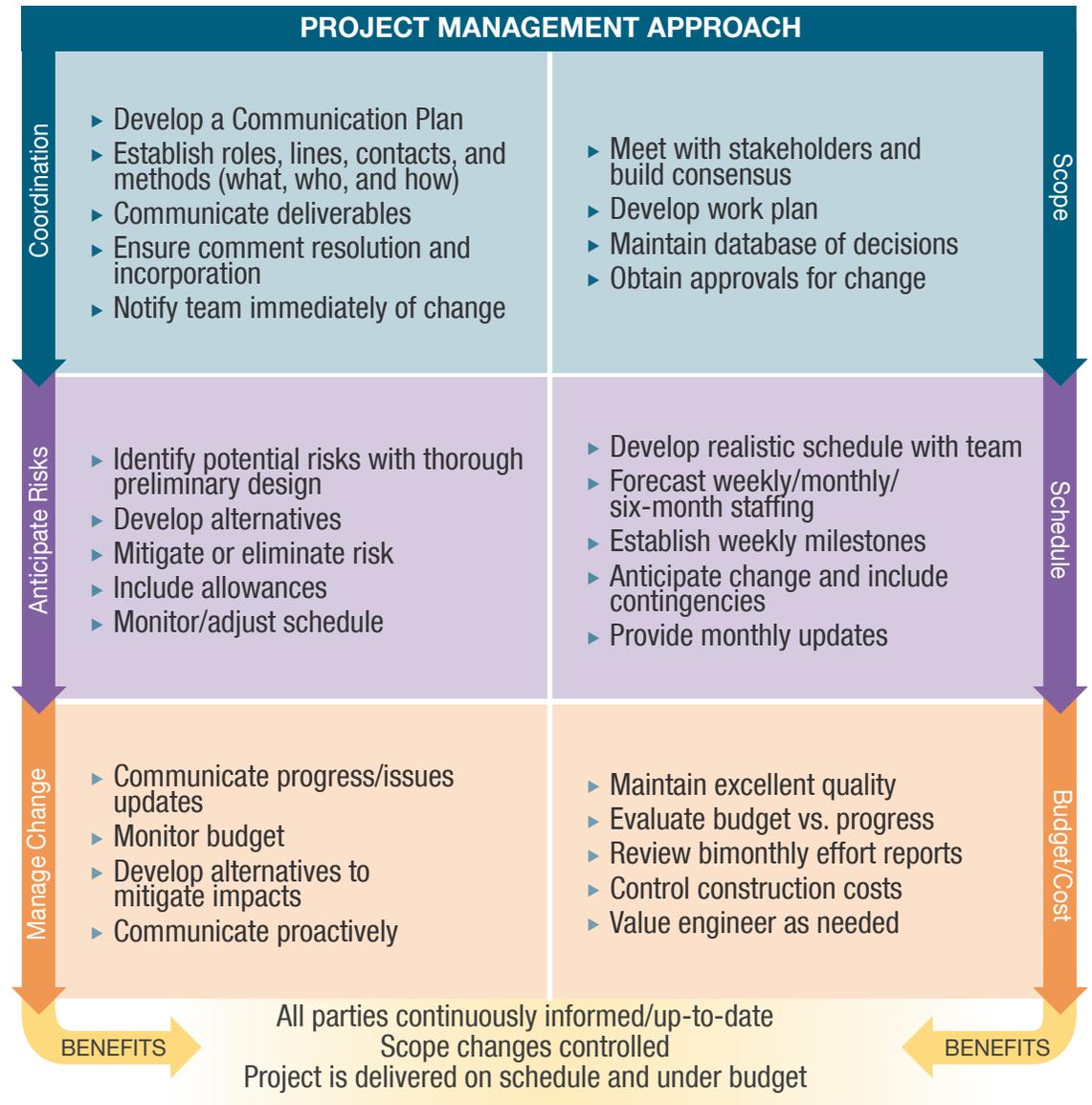
We know that this upcoming on-call is geared towards providing the tactics and resources to achieve the TSMO vision and goals, bringing a consistent baseline across regions and modes. Our approach to developing a work plan recognizes this context and WSDOT’s maturity in the TSMO realm. **Figure 4** on the right shows our project management approach.

### Developing a Work Plan

Before each task assignment starts, we will identify the appropriate task manager, who will conduct a task scoping meeting with all consultant team members to brainstorm the project issues and ensure that their experience and skill set matches the project scope requirements. Our team has access to work planning tools for schedule development and management, staff resource identification and coordination, and quality control, which will also contribute to the work plan development.

The plan will include a schedule of activities, key milestones, and review periods. Our team also will conduct a project initiation meeting with WSDOT and other appropriate team members to coordinate the work plan. Project coordination meetings will be scheduled depending on the project duration to make sure the project remains on track in terms of scope and schedule, and to provide opportunities to adjust the work plan to address changes that might arise.

Figure 4: Project Management Approach



## Decision-Makers for Work Plan Development

The key to a successful work plan is to have full buy-in from those who will manage and produce the work for each task, and our team is uniquely equipped and organized to provide a comprehensive suite of skill sets and expertise to make sure all work plans for each task are thoughtfully and comprehensively crafted and appropriately staffed.

Our Consultant Resource Manager, in partnership with the relevant discipline lead, will be the decision-maker at the resource level to ensure sufficient resources and skills are available and assigned to task orders. Once initiated, the assigned task managers will be the key decision-makers when crafting individual work plans, working in tandem with WSDOT project management staff and our respective discipline lead. One benefit our team brings to this program is a deep bench of staff with individual and complementary skills that provide the breadth of expertise as well as the redundancy and capacity to support WSDOT's next phase in TSMO. **This includes having ample capacity to work on multiple concurrent task orders through the TSMO program.** Among our bench of discipline leads and task managers, we have staff who, while being well versed in TSMO, bring important value to WSDOT.

- **Mark Bandy**, our proposed Consultant Resource Manager and Project Manager, is well versed in WSDOT implementation of policies and actions
- **Lisa Burgess**, our Principal-in-Charge and Planning Policy Discipline Lead, is very knowledgeable in national trends as well as staff development and training
- **Deanna Haase** is a seasoned design delivery expert in ITS and transportation management and systems engineer for a number of innovative implementations
- **Les Jacobson** continues to be on the forefront of national policy setting in TSMO and transportation management and has a deep pool of peer agency connections
- **Catherine Larson** is a skilled facilitator and process improvement champion who brings a connectedness to TSMO and tolling/pricing applications at WSDOT
- **Jim Peters** provides continuity and forward compatibility with WSDOT's TSMO framework and growth
- **Jennifer Rash** brings continuity of supporting organizational development and integration as well as being fully versed in WSDOT style guides
- **Alex DuVall** partnered with WSDOT to support the Sandy Williams Connecting Communities Program, including helping engage with MPOs and RTPOs to identify potential early projects

## Elements of the Proposed Work Plan

Based on discussions with WSDOT on its TSMO vision, elements of work under this on-call may be grouped into several categories:

-  **State-Level Initiatives**  
*(e.g., next generation asset management platform)*
-  **Region Level-Setting**  
*(e.g., approach to complete streets and workforce training and capacity building)*
-  **Emerging Technology Investigation and Application** *(e.g., freight logistics, micro-mobility, micro-transit, and curb space management)*
-  **Project-Level Planning and Engineering Services**  
*(e.g., spot ITS, transit treatment, cloud-based collaboration, and active transportation)*
-  **Funding and Program Support**  
*(e.g., identifying funding sources and partnership opportunities)*

Our team will work collaboratively with WSDOT to first develop a programmatic work plan for the overarching TSMO program that will provide a structure for potential tasks and set the foundation for specific work plans that will be developed for individual task assignments. Subsequently, we will work with WSDOT to develop and track implementation of each work plan.

The work plan devised for each task assignment will include standard project management elements such as a kickoff meeting, regular coordination/status meetings, schedule, roles and responsibilities, and monthly invoicing. Every work plan will include a set of technical tasks and deliverables and an outline of appropriate engagement activities. This may include stakeholder engagement, executive-level engagement, or WSDOT-specific engagement. Engagement activities will be organized around key milestones to gather input to inform a deliverable or support deliverable review and feedback processes. Activities may also include tabletop exercises for testing procedures and training to address situations. We will also incorporate our rigorous QA/QC process in each work plan, ensuring quality checks are part of review processes and built into the work plan schedule.

The following are some of the unique work plan considerations for each type of project category that we anticipate being part of the TSMO program.

### State-Level Initiatives

- Interdepartmental engagement around specific goals and objectives for each department and translating TSMO processes and impacts into those departments' terms and processes
- Assembling and evaluating relevant TSMO program best practices from other states as they may apply to Washington
- Understanding and engaging with federal initiatives and guidance for TSMO activities and applications
- Focusing on an approach to implementation of TSMO strategies that involves all levels of leadership at WSDOT
- Developing TSMO strategic plans, business plans, or tactical planning activities
- Identifying or planning ways to implement TSMO that align with WSDOT's commitment to sustainability and equity
- Balancing funding and resources at a state level based on how initiatives ultimately will be implemented on the state, regional, or local level

### Region Level-Setting

- Interagency engagement with regional partners such as MPOs/RTPOs, other state agencies, and potentially local agencies, and understanding of roles and responsibilities for TSMO activities
- More individual and direct coordination with local agencies (compared to the state-level), particularly with relation to shared operations, shared maintenance, shared infrastructure, and unique agency requirements (such as details and specifications for design)
- Agreements or roles and responsibilities defined for regional initiatives that may be undertaken by non-WSDOT agencies or that will require partnership to complete
- Peer region identification and current practices research
- Regional-level capability

### Emerging Technology Investigation and Application

- FHWA-compliant systems engineering processes and subsequent documentation (ConOps, systems requirements, systems engineering plan)
- Industry state of practice research and RFIs
- Developing and implementing processes including project or program management to support funding, deployment, and evaluation of pilot projects
- Comparing and contrasting technology offerings to support TSMO goals to determine what is worth piloting and what is worth expanding
- Supporting procurement processes (procurement package development, proposer evaluation, contract negotiation and oversight)

### Project-Level Planning and Engineering Services

- Plans, specifications, and estimate (PS&E) packages including the unique requirements as related to funding source, procurement processes, or individual owning agency details and specifications
- Project assessment or design concept reports to support final design or construction procurement (clearances, agency agreements, procurement requirements for federal funding)
- Special/non-recurring event operational strategies (public involvement planning/execution), signal timing plan development, inter-agency partnering meetings)

### Funding and Program Support

- Support for grant identification, navigating and understanding grant eligibility and application criteria, and grant writing
- Development of formal memorandums of understanding (MOUs), intergovernmental agreements (IGAs), or informal agreements with other agencies or private-sector partners to support and strengthen grant applications
- Staff augmentation for operations or maintenance support
- Staff/workforce development, training, and capacity building
- TSMO capabilities assessment and action plan development
- Program management administrative or day-to-day support
- Operating and maintenance budget build-out/evaluation

## Performing Multiple Projects Concurrently

**Kimley-Horn has a proven record of performing on time and within budget on multiple, simultaneous transportation projects.** To coordinate and expedite elements on these projects, our task manager, determined after task assignment depending on scope, will develop a baseline schedule broken into manageable tasks. When we have multiple projects to be completed concurrently, Mark will coordinate with discipline leads to verify projects are on schedule and have the proper resources allocated.

The task managers will also host regular team check-in meetings focused on interdisciplinary coordination, ensuring review comments are appropriately addressed and incorporated, proactively work planning upcoming task activities to allocate resources and align quality processes, and assess risks for delays. In addition, we incorporate project progress meetings with our clients to communicate progress to date and confirm action items and next steps. By proactively managing our team resources, we can continuously monitor project costs, cost control effectiveness, and timeliness to ensure we are meeting schedules and staying within budget. Each task manager will monitor critical path activities and identify and measure schedule impacts. If there are any schedule concerns, the task manager will work with discipline leads and the team to resolve delays and get schedules back on track.

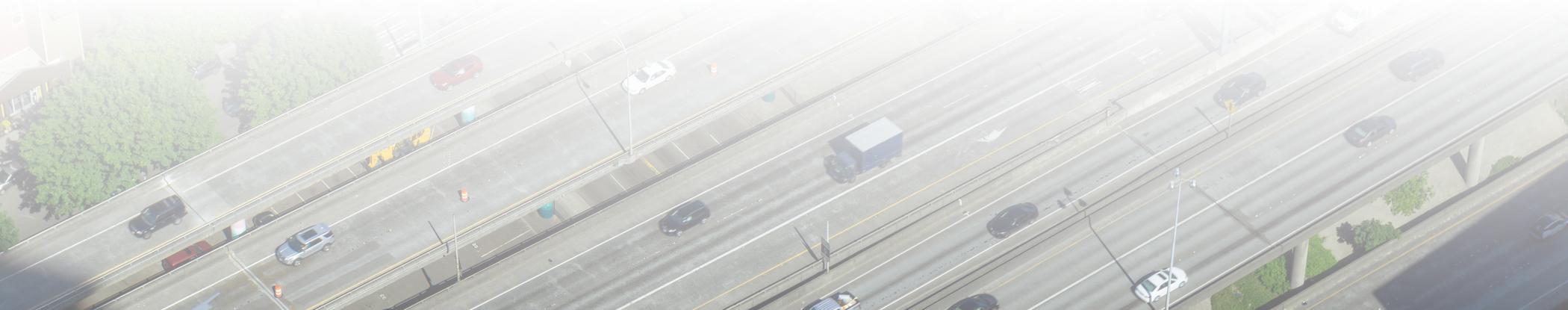
To ensure we have the right level of staff to provide services on multiple task orders, we will assess our project milestones and staff loading on a weekly, monthly, and six-month basis, drilling down to the project team level across all tasks. A database is used to track all project commitments/milestones and staff commitments firmwide. We use this process to identify overloads and shortfalls many months in advance and develop strategies to overcome them. **By having a clear picture of staff workload at all times, Kimley-Horn will be optimally positioned to meet the WSDOT's needs on multiple projects concurrently.**

## Plan for Contingencies

We find that a successful approach to project work planning is to first define a work plan or scope of services, and then “work the plan.” From our lessons learned, we know that to achieve success you must also “plan the work”—address project issues/changes as they arise and create room for contingencies. The Kimley-Horn team offers WSDOT a partnership structured specifically to help plan the work by assembling an adaptive, flexible team with sufficient capacity to adjust as needed. We have previously discussed Kimley-Horn's processes and tools to support our project and task managers in managing schedule, staff resources, and budget on projects, much of which starts and ends with frequent and transparent communication internally within our team and with our clients, especially when there are scope, schedule, or budget challenges. This reduces the likelihood that unexpected challenges or changes might occur.

Another mechanism to plan for and address contingencies that Mark and/or other team members have experience with is related to the structure of task orders coming out of this program. Some examples that we have found success with include:

- **Phased Work** allows our team and the client to evaluate remaining tasks at the end and set a definitive course for any additional work products, possibly including a final report and outreach effort.
- **Task Order Structure** is a type of task order contract a mechanism to proactively build in contingency. For example, task orders could be set up as staff augmentation with WSDOT master service agreement (MSA) labor rates in situations where the task scope and effort is difficult to quantify. For task orders with traditional scope and fee, including a small management reserve can streamline task administration for unforeseen issues.



## B. Approach to Resolving Issues

Project Manager Mark Bandy will maintain an issue resolution tracker as part of his routine check-ins with the client project manager as well as with his internal consultant team, enabling proactive project engagement and an ability to quickly evaluate options and solutions. **Our team works to identify issues early on and develop solutions that are responsive, efficient, and minimize impacts to schedule and budget.** The nature of issue identification and resolution is tailored to the type of services that might be called upon within this on-call—being able to vary from policy development to staff development curriculum, to interagency agreements, to preliminary engineering.

Project resolution starts with our team—including several members who have already built relationships with WSDOT from prior projects. **The Kimley-Horn team has clearly defined roles and an established, effective communication plan with regular reporting to identify issues as early as possible.** These same principles are extended to WSDOT, furthering our efforts to resolve issues early on.

We recommend holding coordination meetings between WSDOT and the Kimley-Horn team monthly—potentially more often during key periods of the project—to review project status, upcoming deliverables, discuss current work efforts, and focus on any current issues. Recognizing that the nature of this on-call will often likely be in partnership with WSDOT region staff and local agency partners, our recommended approach is to include check-ins with staff representing those entities in addition to the lead WSDOT contract manager. **Reoccurring coordination meetings open an avenue to ensure all issues are discussed and resolution plans are developed as they arise.**

## C. Assumptions for Work Breakdown Structure (WBS)

We will approach the overall project and tasks within it in the same manner, following the general project management phases shown in **Table 4** below. We have listed the high-level WSDOT responsibilities for each phase. As appropriate, a detailed WBS will be developed for each task order in the planning phase and will identify any associated WSDOT responsibilities.

*Table 4: Work Breakdown*

Project Management Phase	Purpose	WSDOT Responsibility
Initiation	Scope the work and assemble team	Request task order, provide desired outcome and timeline
Planning	Define objectives and develop schedule (including WBS)	Review and confirm objectives and schedule
Execution	Perform the work	Participate as-needed, including timely decisions
Monitoring	Progress reports and quality checks	Provide feedback on progress and quality of deliverables
Closing	Closeout task order and satisfaction survey	Participate in satisfaction survey



## D. Key Issues and Critical Milestones

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In general, we anticipate that key issues and milestones will be identified specific to each task assignment and the level of detail will be tailored to the nature of work within that task. For example, a task to deliver staff development training sessions will have a different set of potential issues and milestones than a task to deliver a corridor complete street concept. **Our team will consistently approach each task assignment development and management to identify the upfront key issues and milestones and monitor them throughout the duration of the task order.** Our process will factor in unique considerations of partner agencies and stakeholders involved in specific projects. These could include presentations to boards or councils, updates to partner agency executive leadership, or programming and funding timelines for local and regional agencies.

At the program level, one area our team will actively monitor (in partnership with WSDOT) is the biennial budgeting cycle. We understand that funding sources for task assignments under this on-call, such as the Q program, is often tied to the start and end of a biennium, and we are prepared to scope and deliver the work accordingly. Our team also understands that task opportunities may arise from unanticipated funds becoming available, and we will work strategically with WSDOT's project manager to prepare flexible-sized task outlines for rapid agreement and delivery within each of the TSMO areas (as outlined in our organizational chart).

Based on our team's collective and extensive experience with delivering TSMO projects similar to those anticipated from WSDOT's TSMO program, we see the following issues potentially arising at a program level:

**Often, one of the biggest hinderances to a successful TSMO program is proper budget and staff to provide the necessary maintenance and operations for capital investments made to advance TSMO.** Many of our proposed work plan elements, including those such as staff augmentation or evaluation of staffing/organizational structure/budgets, directly address this potential issue.

**The breadth of the TSMO umbrella often creates challenges for accountability and ownership, usually because the responsibility for TSMO-related activities often extends outside the division that is directly responsible for TSMO.** For example, effective TIM is often a TSMO strategy desired by DOTs to improve transportation operations and safety on a roadway; however, the implementation of TIM is dependent on widespread commitment among, not just the DOT, but a range of other partners, including local law enforcement, local traffic management towing companies, and other first responders. WSDOT is part of a long-standing partnership enabled by the Joint

Operations Policy Statement with State Patrol and Washington Fire Chiefs Association. This is also likely to be the case for TDM strategies, where, for example, the DOT has a more limited role with land use policies and parking, and will look to local municipalities to implement strategies.

**The rapid pace of technology evolution creates challenges for TSMO implementation.** It is not uncommon that, by the time a capital project is implemented, technology turnover occurs between project scoping and deployment. Another example is the ongoing discussions related to regulations on the future use of different CV/AV technologies. It is challenging for public agencies to invest in current technologies when regulations and guidance is set to change but the details remain unclear. Procurement processes may also require additional coordination for non-traditional contract types, such as service agreements, Software-as-a-Service, technology maintenance, or staff augmentation.

Similarly, we have identified the following critical milestones at the program level:

**A critical milestone for each task assignment will be achieving stakeholder buy-in for a TSMO strategy.** The success of many TSMO strategies is the collaboration and joint commitment to projects, policies, or processes, so reaching a point in each assignment where stakeholders provide agreement, and in some cases, commitment to implementation, will be critical.

**WSDOT may seek federal grant funding through a variety of different programs to help accelerate deployment and implementation of various TSMO strategies.** Because WSDOT's TSMO program covers a wide range of disciplines and groups, numerous federal funding programs and grant opportunities are relevant, such as infrastructure, technology, safety, multimodal, planning/land use, among others. Our team has prepared numerous successful federal grant applications. We understand the tight timelines these grants require and the need to have matching funds identified and approved, partner agency commitments in place, and strong concepts ready to go. Kimley-Horn's team will be proactive in helping WSDOT prepare a roadmap and schedule of potential funding opportunities for the TSMO program so that WSDOT is ready to capitalize on these federal grant programs.

**For capital projects, a critical milestone in project implementation is getting environmental clearance.** Our team has the understanding and experience to support TSMO projects through both NEPA and State Environmental Policy Act (SEPA) processes and knows how to plan appropriate schedules and milestones to ensure the processes are as efficient and smooth as possible.

## E. Policy and Commitment to Client Communication

Communication between our team and WSDOT is critical to thoroughly understanding your vision and implementing TSMO solutions that our team is known for. Our previous experience has taught us adherence to demanding schedules and the importance of communication.

Effective communication begins with listening to the your ideas about, concerns regarding, and goals for each project. Making certain that our team and your staff are on the same page throughout the course of every project will help avoid or mitigate potential problems or issues that might arise. To do this, we will:

- ✓ **Keep you informed through progress meetings and progress reports.**
- ✓ **Provide you with regular conference calls to keep you abreast of critical issues as they arise and ensure your continued input throughout the process.**
- ✓ **Encourage ongoing electronic communications among all members of the project team. This will allow team members convenient and fast access to information and serve as a tool to keep everyone up to speed with the progress of the project and upcoming meetings and activities.**



*Lisa Burgess facilitating a workshop at the Regional Operations Forum in Spokane*

