

Washington State 2024 TSMO PROGRAM PLAN



PLANNING,
PARTNERING,
AND POLICY
DEVELOPMENT



TRANSPORTATION
OPERATIONS



INTELLIGENT
TRANSPORTATION
SYSTEMS (ITS)



TRANSPORTATION
DEMAND
MANAGEMENT



SMART AND
EMERGING
TECHNOLOGIES

stv  INTEGRITY
PARTNERSHIP
OPTIMISM

in association with

A. Information on Proposed STV Team

With over a century of proven client-focused success, **STV Incorporated (STV)** provides transportation systems management and operations (TSMO) expertise to departments of transportation, transit agencies, and local cities and communities nationwide. STV has performed more than 20 TSMO-based contracts, which allows us to incorporate lessons learned, best practices, and national perspectives while delivering cost-effective, schedule-driven, quality solutions that focus on safety and mobility as assets to improve operations, engage stakeholders, and provide reliable multimodal access to local communities.

We offer WSDOT a group of talented individuals you already know and trust and who are ready to continue what you have started. With significant WSDOT career and relational experience, we have taken the time to get to know you and to understand your needs. Our management team is structured so someone will always be available to you. We have assigned multiple firms to all five pillars of TSMO.



STV + 13 partners, including:
3 SBE, DBE, and/or WBE firms

18,500+ national staff

Our team provides experience with all five pillars of TSMO offered from local offices



► People You Know & Trust.

The STV team includes individuals with TSMO expertise who have a long history of successfully working with WSDOT and each other. Pictured left-right: Renee Hurtado (DKS), Dennis Mitchell (DKS), Ted Bailey (STV), Jim Peters (Citizen Engineers), Karl Typolt (Transpo Group), and Patrick Son (Gannett Fleming).

The STV team brings extensive experience with all five pillars of TSMO.
Look for these icons demonstrating our experience throughout our Statement of Qualifications.



Planning, Partnering, & Policy Development



Transportation Operations




Intelligent Transportation Systems



Transportation Demand Management



Smart & Emerging Technologies

 Firm Years of Expertise Employees in WA / Greater Portland & Nationwide	Five Pillars of TSMO					Supported Work Activities																					
	Planning, Partnering, & Policy Development	Transportation Operations	Intelligent Transportation Systems	Transportation Demand Management	Smart & Emerging Technologies	Strategy Development	Program Plan Creation & Management	Advancing TSMO Program Plan	Scoping	Researching	Collaborating with other Professionals	Multimodal Transportation System Integration, Integrity, & Reliability	Freight Management & Operations	Communications & Outreach	Workforce Development & Training	Staff Augmentation	Support in Legislative Requests	Tribal Relations	Land Use & Transportation Studies	Transportation Engineering	Transportation Safety	Handicap Accessibility to Transportation System	Performance Management & Case Studies	Grant Writing	Document Preparation	Smart Work Zones/Automated Speed Enforcement	Roadway Digital Infrastructure
STV Incorporated 111 years 33 / 2,533	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Citizen Engineers 1 year (CEO has 30 years) / 2 / 2	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
DKS Associates 44 years 90 / 150	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Fehr & Peers 38 years 38 / 363	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Gannett Fleming 108 years 10 / 2,873	■	▶	■	■	■	■	■	▶	■	▶	■	■	■	■	■	■	■	▶	▶	▶	▶	■	■	▶	▶	■	■
Transpo Group 48 years 59 / 79	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Arup 101 years 77 / 1,591	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Confluence Environmental 16 years 27 / 27	▶	▶				▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
CPCS Transcom 10 years 0 / 23	■	■			■	■	■		■	■	■	■	■	■		■		■		■		■	■	■	■	■	■
ICF International 54 years 134 / 9,000	▶	■	▶	■	■	▶	▶	▶	▶	▶	▶	▶	▶	■	■	■	■	■	■	■	■	■	■	▶	▶	■	■
PRR 42 years 81 / 104	▶												▶		▶	▶	■										
RK&K 100 years 0 / 1,581	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Smart City Traffic 7 years 1 / 1	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶							▶	▶	▶	▶	▶	▶	▶
Toole Design Group 20 years 15 / 250	▶			▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶

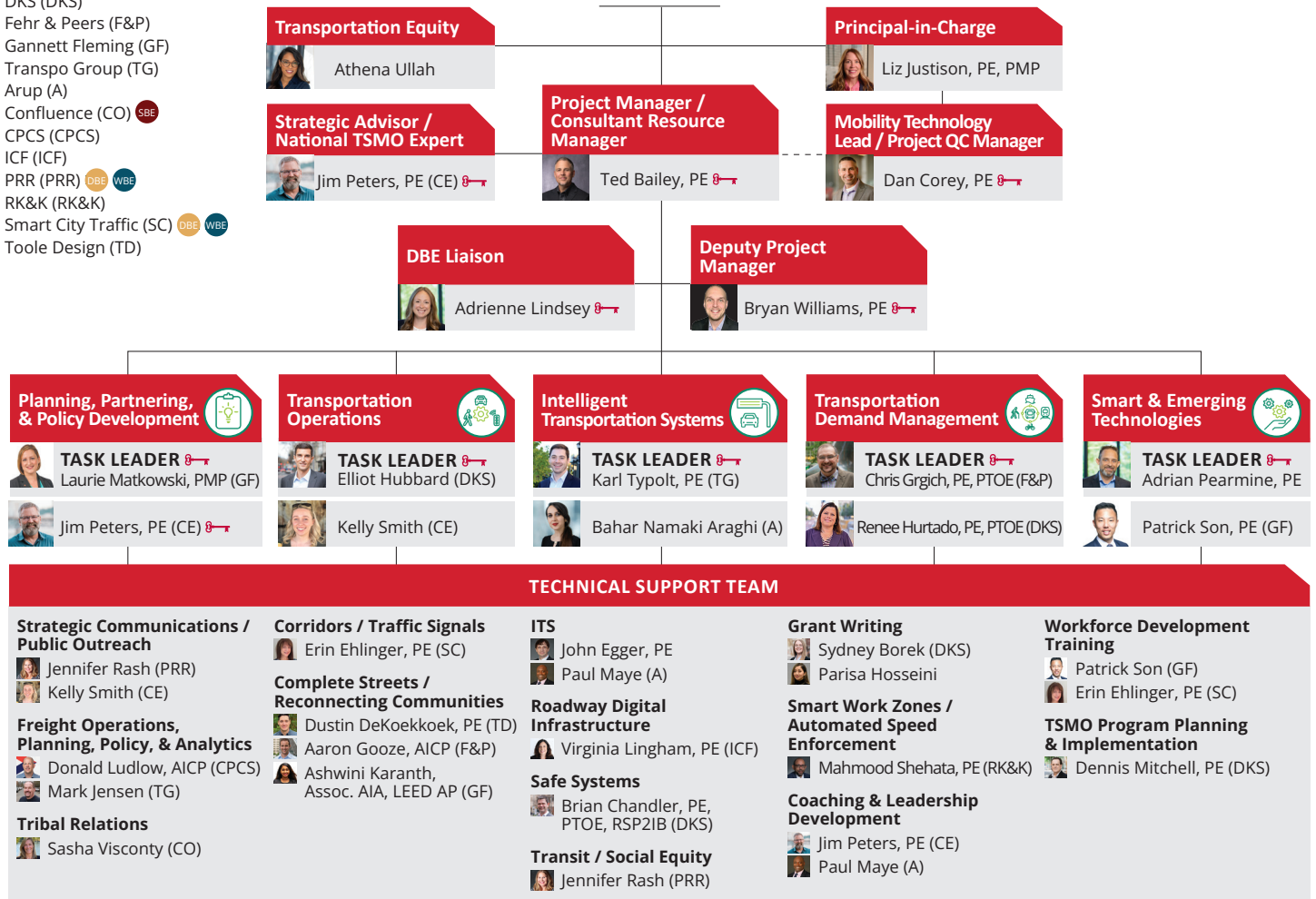
▶ = Expertise offered nationwide, including from Pacific Northwest (PNW) offices | ■ = Expertise offered outside PNW offices



Prime's Project Manager. Ted Bailey, PE, will lead the STV team as the Project Manager and Consultant Resource Manager (CRM). Ted knows WSDOT and can start leading efforts immediately, helping WSDOT roll forward any current TSMO Task Orders. Previously serving as WSDOT's Cooperative Automated Transportation (CAT) Program Manager until June 2023, his distinguished 24-year career at WSDOT included providing readiness for connected and automated vehicles and ensuring TSMO was institutionalized across the agency. Ted also oversaw planning through maintenance and operations of WSDOT's \$1 billion electrical system inventory. Leading these collaborative efforts, he offers in-depth agency knowledge and the ability to lead multidisciplinary teams to successfully deliver multimodal solutions for WSDOT. **Ted has been approved to lead this effort, without conflict, as per WSDOT Consultant Services Office (CSO).**

Organizational Chart. The STV team brings continuity and unparalleled experience to WSDOT. Our team includes key individuals who have past and current TSMO Task Order work and bring the knowledge needed to help WSDOT with this next evolution of TSMO objectives. The organization chart below introduces our entire team, which includes multiple subconsultants. This was done by design to ensure we cover all potential areas and project types that WSDOT may consider through this contract.

- Key:**
- 👤 Key Personnel
 - 👤 Citizen Engineers (CE)
 - 👤 DKS (DKS)
 - 👤 Fehr & Peers (F&P)
 - 👤 Gannett Fleming (GF)
 - 👤 Transpo Group (TG)
 - 👤 Arup (A)
 - 👤 Confluence (CO) ● SBE
 - 👤 CPCS (CPCS)
 - 👤 ICF (ICF)
 - 👤 PRR (PRR) ● DBE ● WBE
 - 👤 RK&K (RK&K)
 - 👤 Smart City Traffic (SC) ● DBE ● WBE
 - 👤 Toole Design (TD)



We speak WSDOT's language and bring you a committed team. The STV team is made up of individuals you know and trust. Many of our key team members have spent the last 20 years working with WSDOT to plan, develop, and implement TSMO across the state from leadership workshops to complete streets design and implementation. We speak WSDOT's TSMO language, we understand the challenges, and we are personally invested in advancing TSMO in Washington.



B. Team Members' Offices

As summarized in the table to the right, our team brings abundant resources to address any tasks from this contract.

- ▶ **16 offices in Washington, including the Greater Portland Metropolitan area**
- ▶ **567 local professionals**
- ▶ **18,500+ staff nationwide**

C. Shared Experience

The STV team's firms and individuals bring to WSDOT a rich history of collaboration and familiarity with each other's strengths. Both the firms and the individuals have a track record of working together for our clients' success. Ted Bailey worked with the founders of Citizen Engineers on WSDOT's TSMO and Complete Streets programs. DKS led the 2019 WSDOT TSMO Program Plan Contract, working with Gannett Fleming, PRR, and RK&K, as well as team members currently with STV, Citizen Engineers, and Transpo Group.

- ▶ **Arup** was a subconsultant to **STV** for the San Francisco Bay Area Rapid Transit General Engineering Services Contract and provided improvements to optimize traffic at the Lafayette Station in Lafayette, CA. (2014–2022)
- ▶ **Citizen Engineers** and **Toole Design** are both part of **STV's** (prime) team for the City of Hillsboro Transportation Planning and Engineering On-Call Contract in Hillsboro, OR. Citizen Engineers is providing traffic engineering and signal design, and Toole Design is responsible for bicycle and pedestrian facilities and transportation planning. (2023–Present)
- ▶ **DKS** is leading the Texas DOT TSMO Program Planning, Design, and Implementation On-Call Contract in eight districts. As a subconsultant, **STV** is working with DKS to develop ITS standard plans and specifications for the Austin District. (2023–Present)
- ▶ **Fehr & Peers** was recently awarded a Transportation Research Board Study to Address Travel Needs of Women on Public Transportation. **STV** will work with Fehr & Peers on this research to develop resources for public transportation agencies, planning organizations, and partnering organizations nationwide. (2023–Present)
- ▶ **Gannett Fleming** has worked with **STV** on more than 20 projects nationwide, including the Pennsylvania DOT Coatesville-Downingtown Bypass Reconstruction in Chester County, PA. As a major subconsultant, STV is providing alternative analysis, preliminary engineering, final design, and construction phase services. (2002–Present)
- ▶ **RK&K** is providing geotechnical services as part of **STV's** team for the Arlington County Ballston-Marymount University Station West End Access Improvements Design-Build in Arlington, VA. To address passenger access and egress at this multimodal transit hub, STV is updating 35% design documents for a new west entrance. (2019–Present)
- ▶ **Transpo Group** led the Whatcom Transportation Authority Fleet Electrification Study in Bellingham, WA. **STV** assisted Transpo Group in analyzing the feasibility of transitioning the entire fleet to zero-emission technologies; determining capital needs for vehicles, infrastructure, and operating cost; and providing a fleet transition plan. (2022–2023)

Firm & Staffing	Office Location	Expertise Available*
STV # employees: 19	11245 SE 6th Street, Lincoln Plaza, Suite B-220, Bellevue, WA 98004	
# employees: 14	One Centerpointe Drive, Suite 560, Lake Oswego, OR 97035	
Citizen Engineers # employees: 2	2735 SE 58th Avenue, Portland, OR 97206	
DKS Associates # employees: 26	719 Second Avenue, Suite 1250, Seattle, WA 98104	
# employees: 64	1050 SW 6th Avenue, Suite 600, Portland, OR 97204	
Fehr & Peers # employees: 24	601 Union Street, Suite 3525, Seattle, WA 98101	
# employees: 6	950 Pacific Avenue, Suite 1220, Tacoma, WA 98402	
# employees: 8	921 SW Washington Street, Suite 700, Portland, OR 97205	
Gannett Fleming # employees: 10	1000 Second Avenue, Suite 1400, Seattle, WA 98104	
Transpo Group # employees: 59	12131 113th Avenue NE, Suite 203, Kirkland, WA 98034	
Arup # employees: 77	1191 2nd Avenue, Suite 400, Seattle, WA 98101	
Confluence Environmental # employees: 27	146 N. Canal Street, Suite 111, Seattle, WA 98103	
ICF # employees: 134	1200 6th Avenue, Suite 1800, Seattle, WA, USA 98101	
PRR # employees: 81	1501 Fourth Avenue, Suite 550, Seattle, WA 98101	
Smart City Traffic # employees: 1	24036 SE 47th Street, Sammamish, WA 98029	
Toole Design # employees: 15	720 3rd Avenue, Suite 2020, Seattle, WA 98104	

*Expertise from PNW offices shown; see table on page 1 for nationwide experience; CPCS and RK&K do not have offices in the PNW

D. Availability of Key Staff and Resources

STV understands that continuity of staffing is critical to facilitating projects and moving them forward. We offer WSDOT our personal commitment that all key staff members identified on our organization chart are available to meet all of WSDOT's needs during this contract. The table below shows the anticipated hours per month that our key personnel are available for this contract.

Key Personnel	2024												2025											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Ted Bailey	120	120	120	140	140	140	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
Bryan Williams	100	100	100	100	100	100	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Jim Peters	110	110	110	110	110	110	110	110	110	110	110	110	130	130	130	130	130	130	130	130	130	130	130	130
Dan Corey	100	100	100	100	100	100	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Laurie Matkowski	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Elliot Hubbard	48	48	48	48	48	48	48	48	48	48	48	48	64	64	64	64	64	64	64	64	64	64	64	64
Karl Typolt	80	80	80	80	80	80	80	80	80	80	80	80	100	100	100	100	100	100	100	100	100	100	100	100
Chris Grgich	40	40	40	48	48	48	96	96	96	96	96	96	120	120	120	120	120	120	120	120	120	120	120	120
Adrian Pearmine	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120

E. Similar Project Experience in Past Three Years

The STV team has decades of experience successfully working with departments of transportation and transit agencies across the nation to integrate planning and design with operations and maintenance, improve transportation networks, and optimize existing infrastructure. The following relevant projects were completed by the STV team within the past three years.

WSDOT TSMO Program Plan On-Call Contract | WA



DKS has provided on-call staff augmentation for TSMO implementation at WSDOT since 2020, previously working with proposed **Project Manager Ted Bailey** while he was with the agency. The team also included **Gannett Fleming, PRR, and RK&K**, as well as **individuals now with STV, Citizen Engineers, and Transpo Group**. The team completed 22 task orders spanning a variety of services, including planning, funding, designing, procuring, and implementing intelligent transportation systems while simultaneously helping WSDOT organize and influence agency cultures to become great at actively managing and operating the transportation system. Notable tasks completed to date include the **TSMO Plan, I-90 TSMO Corridor Operations Study, TSMO Program Plan Website Update, Southwest Region Guidebook for Integrating TSMO into Corridor Planning, Land Use Capability Maturity Framework, Grant Development Support, Northwest Region/Olympic Region TSMO Implementation Plans, and TSMO Capability Maturity Model Workshops.**

Gannett Fleming developed the North-West and Olympic Regions TSMO plans that consisted of developing vision, goals, and objectives; understanding existing strategies; and identifying strategies that could benefit both regions and each region individually. PRR has facilitated dialogue across WSDOT's many regions and divisions through stakeholder interviews, working groups, council meetings, and briefings to executive teams. RK&K developed and launched WSDOT's first-ever Speed Safety Camera System Program to provide automated speed enforcement in work zones throughout the state. *Duration: 2020-Present | Amount Received: \$2,219,007 (DKS), \$281,000 (Gannett Fleming), \$220,000 (PRR), \$170,000 (RK&K)*

Texas DOT TSMO Program Planning, Design, & Implementation On-Call Contract | TX



To better address Texas's busy roadways and the potential increase of crashes and congestion, the Texas DOT has developed individual district TSMO plans. **STV** is part of the **DKS** team to support ITS planning studies and implementation, including the **preparation of TSMO program plans, concept of operations for TSMO mobility strategies, and ITS and traffic engineering design services** such as connected vehicle deployment. The program will support all of Texas DOT's districts across the state. DKS and STV are currently working with the Austin District to develop district ITS standard plans and specifications and to add **ITS design guidelines** and checklists to the Austin District Designers Guide. *Duration: 2023-Present | Amount Received: \$200,000 (STV), \$2,000,000 (DKS)*



District of Columbia DOT MLK Avenue, SE Revitalization | Washington, D.C.



STV worked to improve the transportation network, travel options, and aesthetics/amenities of this four-lane, undivided street, which was the first project of the DOT's Vision Zero initiative. STV's unique engineering solutions focused on creating a sense of community and placemaking; **protected vulnerable users** with additional signage and improved bicycle and pedestrian amenities; prevented dangerous driving with channelization, medians, and **traffic control devices (safety zones)**; and used **meaningful public engagement to communicate improvement plans** in a transparent and responsive way. Work included intersection improvements, new traffic signal design and the upgrading of existing streetlights and traffic signals, sidewalk and curb enhancements, improvements to signing and pavement marking, streetscape and landscape enhancements, roadway resurfacing, **ADA improvements**, new medians, and improvements to catch basins. *Duration: 2016–2021 | Amount Received: \$900,000*

City of Philadelphia Olney Avenue Corridor Analysis | Philadelphia, PA



STV evaluated one of the busiest transit corridors in Philadelphia through a work order completed under an active **Complete Streets On-Call Contract**. STV developed alternative concepts for a multimodal Olney Avenue, addressing bus, bike, pedestrians, and micro-mobility to provide connections throughout the corridor to the Olney Transportation Center. The firm screened roadway configurations to improve travel reliability, access, and improvements for all modes of travel; defined the purpose, need, and screening criteria; established operating plans; developed a traffic model to assess impacts to travel time; and used analysis tools to help advance a preferred roadway concept. The project included an extensive public and stakeholder outreach program to gather input throughout the process. *Duration: 2022–Present | Amount Received: \$300,000*

WSDOT Transportation Operations Program Strategic Plan | WA



Citizen Engineers is providing strategic planning, management consulting, and leadership development for this program, which is led by the Statewide Traffic Engineer and includes Headquarters and all region traffic engineers. The firm designed 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. Citizen Engineers listened to all stakeholders to understand their needs and ultimately helped the group align towards a common purpose while clearly defining responsibilities and understanding expectations. *Duration: 2023 | Amount Received: \$50,000*

AMATS TSMO Strategic Implementation Plan | Anchorage, AK



DKS developed the TSMO Strategic Implementation Plan for the Anchorage Metropolitan Area Transportation Solutions (AMATS). A vital part of the project included **developing project evaluation criteria, performance measures, and a methodology to evaluate and prioritize projects**. The evaluation criteria included multimodal transportation, safety, transportation equity, access to transportation operations, sustainability, and resiliency. For the **transportation equity analysis**, DKS used the mySidewalk platform to connect the criteria to hosted data; created visuals displaying results of the equity analysis; and provided information to stakeholders to make project priority decisions. *Duration: 2022–2023 | Amount Received: \$426,076*

WSDOT Complete Streets Performance Metrics | Snohomish County, WA



Fehr & Peers developed Complete Streets Performance Metrics for the SR 99 corridor improvements from 148th Street SW to Evergreen Way. Cut sheets for 12 **qualitative and quantitative performance metrics that focus on the pedestrian and bicycle experience** were developed. Each metric included a brief description, the context of its application, how the metric is measured, and an example on how it has been applied in other corridors. *Duration: 2023 | Amount Received: \$55,235*



WSDOT VMT Targets | WA

FEHR & PEERS



Fehr & Peers led a technical analysis to identify the best ways to measure and forecast Vehicle Miles of Travel (VMT) for Washington agencies to **assess VMT impacts and identify VMT mitigation strategies for land use and transportation decisions**. This work is foundational to the establishment of VMT targets across Washington and leverages extensive research from around the country, as well as project experience on VMT quantification and analysis from California, Oregon, and Colorado. *Duration: 2022-2023 | Amount Received: \$75,000*

Oregon Metro/Oregon DOT TSMO Strategy | Portland, OR

FEHR & PEERS



Fehr & Peers collaborated with Oregon Metro and Oregon DOT to update the **2021 TSMO Strategy for the greater Portland area**. The plan included performance metrics for pedestrian and bicycle connectivity and safety, tracked regionally to monitor progress. One crucial aspect of Fehr & Peers' work was the **development of a TSMO Equity Decision Tree**, aligning the strategy with equity principles based on Metro's Strategic Plan for Racial Equity, Diversity, and Inclusion. *Duration: 2020-2021 | Amount Received: \$145,900*

Florida DOT Transportation Systems Management Program Consultant Services | FL

GANNETT FLEMING



Gannett Fleming is supporting the Florida DOT District 4's TSMO Program. Tasks have included developing a **dynamic pricing density table** for I-95 express lanes phase 3; providing **smart work zone support** for the SW 10th Street project and operations support for ramp meter signal deployments; participating in the I-95 integrated corridor management study; tracking TSMO prioritization; reviewing plans; and preparing technical reports for movable bridge integration into TSMO. Gannett Fleming also led the **development of a district wide TSMO performance management program** that brought together traffic incident management, freeway management, traffic management center operations, and work zone management that resulted in a Performance Management Roadmap. *Duration: 2021-Present | Amount Received: \$1,100,000*

WSDOT I-5 JBLM Corridor Improvements | Lakewood, WA

transpogroup



Transpo Group provided transportation planning and traffic engineering for improvements to this 10-mile stretch of I-5, which traverses Joint Base Lewis McCord (JBLM). The firm led a feasibility study funded by the U.S. Department of Defense to identify options to improve mobility on the corridor. The State Legislature subsequently funded the Congestion Relief Study, which included an **assessment of more than 180 alternatives** ranging from access to the interstate, local road connections, new connections, transit enhancements, and a wide array of **TDM and least cost planning strategies**. Transpo Group then provided design services for the I-5 JBLM Vicinity Congestion Relief Program for ITS, roadway illumination, work zone traffic control, and freeway signing. The scope also included the complete replacement of the ITS system along the corridor. *Duration: 2008-2023 | Amount Received: \$1,760,797*

WSDOT I-5 Skagit Transportation Study | Mount Vernon, WA

transpogroup



Transpo Group assisted WSDOT Northwest Region Mount Baker Area in completing the Phase 1 effort of this study, which **gathered multimodal transportation and socioeconomic data**, incorporated environmental factors, conducted an equitable community engagement process, and analyzed current and future transportation conditions to determine how I-5 can better meet regional mobility and safety needs. A **community engagement plan and equity assessment** were prepared based on the HEAL requirements to guide the project development process. Transpo Group also completed the I-5 Skagit ITS and Technology Options Development Plan. *Duration: 2023 | Amount Received: \$220,000*

New York State DOT Lower Hudson Transit Link Project | Lower Hudson, NY

ARUP



Arup has provided project management, civil engineering, highway engineering, IT and communications consulting, traffic engineering, transaction advice, and transport planning for this project, which includes a groundbreaking integrated corridor management system and a new bus rapid transit system. The firm also led the **successful application for a \$10 million TIGER grant** to fund construction, bus stations, intersection improvements, signal upgrades, and advanced technology integration with the corridor’s existing ITS system. *Duration: 2014–Present | Amount Received: \$2,500,000*

Northeast Corridor Commission Strategic Plan | Boston, MA to Washington, D.C.

ARUP



Arup created a strategic development plan, also known as CONNECT NEC 2035. The Northeast Corridor main line runs 457 miles through eight states, has four different right-of-way owners, and is used by passenger and intercity rail, as well as freight. **CONNECT NEC 2035 will provide a roadmap for implementing the initial 15-year phase of the future vision.** The plan sequences projects with a focus on achieving a state-of-good-repair throughout the corridor. *Duration: 2021–2023 | Amount Received: \$1,200,000*

WSDOT SR 520 Floating Bridge Replacement and HOV Program| WA



Confluence led permit acquisition, regulatory compliance, and environmental project delivery for all major projects involved in this program in King and Grays Harbor counties and **provided tribal strategy consultation services.** The firm was responsible for strategic planning for mitigation, Endangered Species Act consultation, NEPA and SEPA, and completed required natural resource fieldwork and documentation. Confluence’s work resulted in successful completion of the environmental process for 14 individually permitted projects within the program. *Duration: 2007–Present | Amount Received: \$8,200,000*

WSDOT Washington State Freight Plan Update | WA



CPCS led a **five-year update to the State Freight System Plan**, which included trends identification, economic context research, needs assessment, performance measurement, data visualization, storymapping, and an investment plan that prioritized projects for National Highway Freight Program funds. **CPCS conducted a comprehensive statewide truck parking update and developed a multi-state grant application for a Truck Parking Information Management System on I-5.** **ICF** was part of the CPCS team and led communications and stakeholder engagement. *Duration: 2021–2023 | Amount Received: \$1,540,000 (ICF), \$209,950 (CPCS)*

Minnesota DOT North/West Passage Freight Task Force Support | Multiple States



CPCS is facilitating the implementation of **freight operations-related projects to the North/West Passage Freight Task Force**, a group of seven state DOTs that coordinate operations on the I-90/I-94 corridor, including **Washington State.** One recent task involved **numerous Washington stakeholders**, including state planning, operations, and enforcement personnel, as well as participation by the Washington Trucking Associations and Federal Motor Carrier Safety Administration. The assessment aimed to minimize the number of stops that truckers and state agencies encounter. *Duration: 2016–Present | Amount Received: \$323,000*

FHWA Roadway ADS Integration ConOps | Nationwide



ICF led the development of the first iteration of a **stakeholder-driven national Roadway Automated Driving Systems (ADS) Integration Concept of Operations (ConOps)**, which was created as a resource for transportation agencies. The document defines likely ADS use cases and how they can **safely, equitably, and efficiently** be integrated with the overall transportation system. Engagement activities included industry interviews, public stakeholder workshops, topical charrettes, informational engagements, focus groups, and beta site outreach. *Duration: 2019-2023 | Amount Received: \$1,250,000*

WSDOT Northwest Region Connecting Washington Planning Projects | WA



PRR led engagement for a variety of **Connecting Washington projects out of the Northwest Region**, with several staff co-located at the Northwest Region office. Funding requirements for the **Connecting Washington transportation package** involved reevaluating project scopes for all users through a practical solutions process that included robust community engagement. PRR worked with WSDOT and consultant teams to bring stakeholders and the community into the process to identify needs and priorities that ultimately inform updated project alternatives. *Duration: 2015-2023 | Amount Received: \$1,000,000*

Tennessee DOT Engineering On-Call Contract | TN



RK&K is providing on-call ITS, architecture, planning, design, system management, and operations services on a statewide basis. Tasks involve **integrated corridor management, active traffic management, active arterial management, connected and autonomous vehicle technology**, ITS expansions, ITS upgrade, and ITS relocation. RK&K is performing field survey and inspection of multiple existing sites located across four Tennessee DOT regions. The firm is developing conceptual plans and cost estimates to **deploy future ITS technology expansion** across the state. *Duration: 2020-Present | Amount Received: \$4,000,000*

City of Seattle DOT ITS Program Manager | Seattle, WA



Smart City Traffic managed this on-call contract to **deliver the NexGen ITS Program**. Tasks included conceptual ITS design; concepts of operations and requirements to support procurements; **establishing data management via cloud services; negotiating data sharing contracts with private sector entities**; developing ITS and traffic signal design guidance to incorporate into the City's Streets Illustrated (ROW) Manual; and multimodal ITS policy development. *Duration: 2017-2021 | Amount Received: \$325,000*

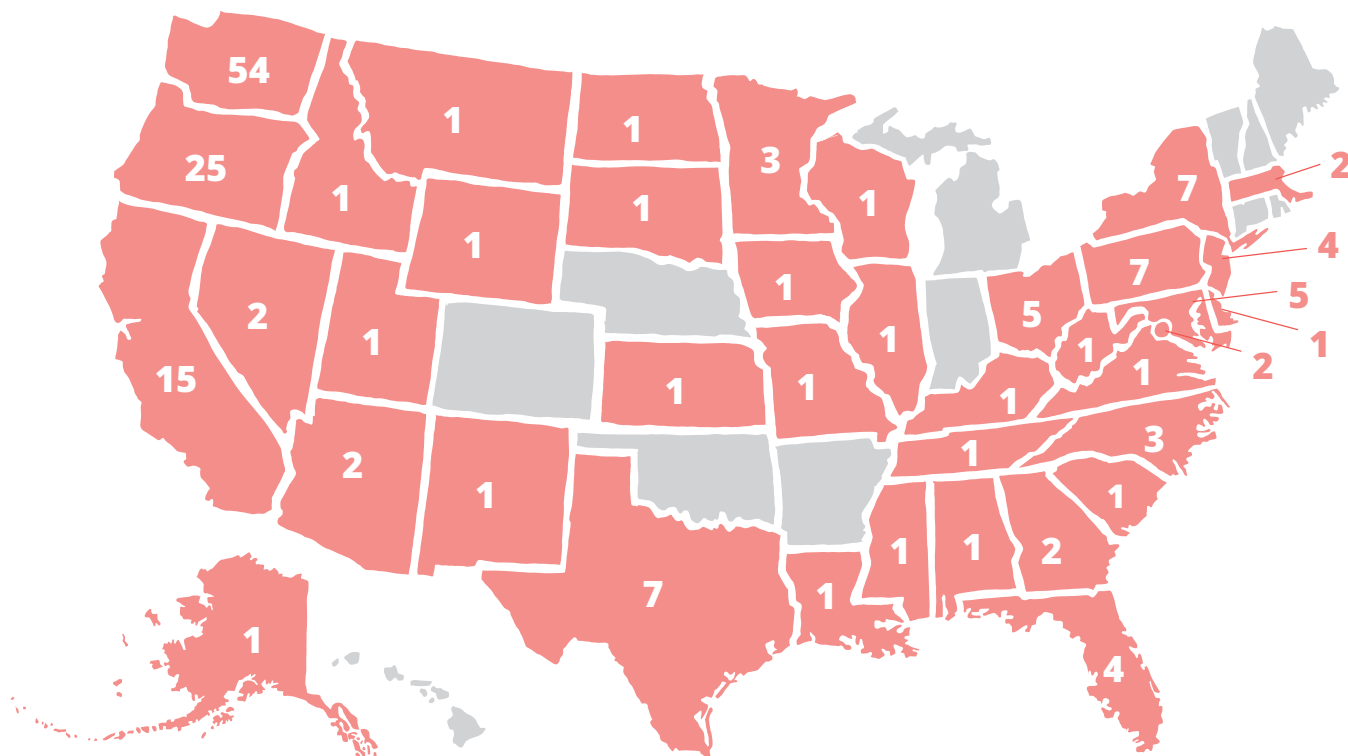
WSDOT Connecting Communities Pilot Program | WA



Toole Design worked with WSDOT to **determine the allocation of \$50 million of funding over five years to plan, design, and construct projects to restore continuous active transportation routes**. The firm identified \$20 million of active transportation projects to recommend for Year One within a 10-week timeframe. Toole Design led the data analysis, stakeholder outreach, and Year One project recommendations. *Duration: 2022-2023 | Amount Received: \$136,000*

Team Expertise Nationwide

Our team has proven nationwide TSMO experience, including over 170 similar contracts, a sample of which is listed below. Our project delivery covers all five pillars of TSMO, and we offer WSDOT best practices and lessons learned from across the country.



1. City of Issaquah ITS Plan, WA
2. City of Sammamish ITS/Fiber and Transportation Operations Center PS&E, WA
3. Washington State Freight Plan Update, WA
4. I-90/Front Street Dynamic Travel Assignment Modeling, WA
5. Seattle Shoreline Electric Vehicle Charging Study, WA
6. WSDOT Regional Capability Maturity Model Workshops, WA
7. Portland Metro TSMO Plan, OR
8. Oregon DOT I-5 Corridor TSMO Operations Study, OR
9. Oregon DOT Statewide Broadband Strategy and Implementation Plan, OR
10. Oregon DOT Connected Vehicle Ecosystem for ITS and RUC, OR
11. CA PATH Truck Platooning Project, CA
12. Caltrans District 9 ITS Plan, Southern CA
13. Caltrans District-Level Active Transportation Plans, Statewide, CA
14. Caltrans Safety On-Call, Statewide, CA
15. City of Fairfield Adaptive Traffic Signal System Plan, CA
16. Nevada DOT US 50 Corridor Management/ITS Plan, Lake Tahoe, NV
17. Alaska Statewide TSMO Plan, AK
18. COMPASS Treasure Valley TSMO Plan, Boise, ID
19. Wisconsin DOT Bicycle, Pedestrian, and Rail Safety Action Plan, Statewide, WI
20. Minnesota DOT North/West Passage Freight Task Force Support, MN
21. East-West Gateway, St. Louis Emerging Transportation Technology Strategic Plan, MO
22. Illinois DOT Statewide ATMS Study, IL
23. Ohio DOT Statewide Traffic Incident Management (TIM) Program Support, OH
24. Ohio DOT Statewide TSMO Plan, OH
25. Tennessee DOT TSMO Support On-Call, TN
26. Texas DOT Austin District TSMO Program Implementation Support, TX
27. Texas DOT TSMO Program Plans, ITS Master Plans, and Implementation Support for the Houston, Beaumont, Bryan, Lufkin, and Yoakum Districts, TX
28. Atlanta Regional Commission Atlanta Regional Transportation Systems Management and Operations (TSMO) Strategic Plan, GA
29. Georgia DOT Safe Routes to School, Statewide, GA
30. Pennsylvania DOT / PA Turnpike Automated Work Zone Speed Enforcement Program, Statewide, PA
31. Massachusetts DOT Road Safety Audits, Statewide, MA
32. Maryland DOT (ITS/Traffic TSMO Contract), MD
33. Maryland DOT Safe Routes to School, Statewide, MD
34. New York State DOT TSMO Program Plan, ITS Device Asset Management Tool, NY
35. New Jersey DOT NEVI Plan, NJ
36. North Carolina DOT Safe Routes to School, Statewide, NC
37. North Carolina DOT Hurricane Evacuation Plan, NC
38. Delaware DOT ITS / Traffic Operations, Statewide, DE
39. Florida DOT District 4 TSMO On-Call (Orlando), FL
40. Florida DOT Truck Parking, FL
41. Virginia DOT Route 288 Hard Shoulder Running, Richmond, VA
42. District DOT Safe Routes to School Safety Analysis and Design, Washington, DC
43. Freight Related Services - AL, CA, FL, GA, ID, KS, KY, LA, MD, MT, NC, ND, NY, OH, OR, PA, SC, SD, TN, TX, UT, VA
44. FHWA Applying TSMO to Rural Areas, Nationwide
45. FHWA Mainstreaming TSMO, Nationwide
46. FHWA Office of Operations TSMO Training Review, Nationwide
47. FHWA Opportunities for Linking Planning and Operations, Nationwide

2

CRITERIA

Qualifications of Proposed Project Manager

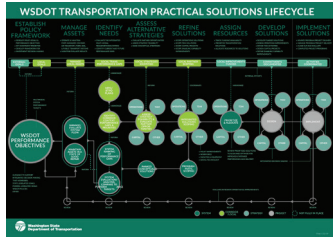


Ted Bailey, PE, is a transportation engineer, strategic manager, and technical professional with more than 24 years of experience spanning the full life cycle of project delivery, from developing policy through TSMO program development and planning, design, construction, operations, maintenance, and management. Throughout his work, Ted has been a national advocate for WSDOT and TSMO. Prior to joining STV, he was part of WSDOT's Transportation Operations Program leadership team with 260 employees and a biennial budget of \$100 million. His primary responsibility was to institutionalize TSMO across the agency with a focus on transportation technologies. For the last seven years, Ted has assisted public and private transportation technology organizations in preparing for cooperative automated transportation, covering legislative policy through implementation.

Criteria 2.E. Professional Engineer: Washington (2003/#39820/exp. 7/7/2024)

A. PM Experience on Similar Projects

BUSINESS PROCESS MAPPING: DEPLOYING PRACTICAL SOLUTIONS USING LEAN TECHNIQUES AND KNOWLEDGE MANAGEMENT | CLIENT: WSDOT



Ted helped WSDOT initiate a new approach to managing the State's multimodal transportation system. **He was responsible for ensuring TSMO and the roles and responsibilities of the Transportation Operations Division were represented throughout the WSDOT Transportation Practical Solutions Life Cycle.** This was a data-driven, multidisciplinary approach for managing and decision-making that focuses on performance objectives, locale context, system users, and effective low-cost solutions to ensure that operations and transportation demand management (TDM) strategies are considered before a capital project is advanced.

Historically, work was conducted independently by modes and types of solutions. The Practical Solutions approach expands on this to formally consider the community and environmental context, multimodal options, and lower-cost solutions. To expand this practice, WSDOT received an FHWA AID grant award for the *Deploying Practical Solutions with Lean Techniques and Knowledge Management* project. The goals were to employ lean methodology to streamline processes and knowledge management to institutionalize new practices. This project took a broad view of the practice to assess the clarity and effectiveness of handoffs between functional stages. **Role:** Transportation Operations Program Manager. **Dates:** 2014–2016.

CORRIDOR SKETCH INITIATIVE (CSI): IMPLEMENTING TSMO | CLIENT: WSDOT

The CSI was a new way for WSDOT to work with partners to capture and document information about transportation corridors to inform investment decisions. Statewide implementation of the CSI is consistent with WSDOT's strategic plan and the legislature's Transportation Systems Policy Goals. Statewide planning offices engaged with local partners about the corridors identified with congestion using WSDOT's newly developed highway system screening tool. One of those new tools was a website (**www.tsmowa.org**) which was developed to provide both a strategic and tactical tool for aligning TSMO strategies and concepts with needs and issues. **Ted was responsible for leading and influencing the implementation of TSMO through the CSI and the development of the website tool.** He represented the Transportation Operations Division and TSMO strategies through the participation in multimodal, multidisciplinary, and multi-agency teams to review and agree on congestion performance gaps, consider root causes, and assess alternative strategies to traditional construction. **Role:** Program Manager. **Dates:** 2015–2018.

COOPERATIVE AUTOMATED TRANSPORTATION (CAT) PROGRAM | CLIENT: WSDOT

In support of a vision where automated, connected, electrified, and shared mobility contributes toward a safe and efficient transportation system, the CAT Program was initiated to address organizational preparedness for connected and automated vehicles. Over seven years, the project grew to one of the five pillars of TSMO, *smart and emerging technologies*. **The program was built upon the premise that WSDOT could organically build capability and capacity without the need for significant dedicated funding.** Ted was responsible for developing and progressing WSDOT's role and strategic vision for cooperative automated transportation technologies, including readiness for connected and automated vehicles, and influential leadership and coaching. Ted served as the lead influencer to enable the creation, strategic development, and management of the state's autonomous vehicle work group. He held **leadership roles on advisory boards, national committees, working groups, suppliers, state and federal agencies, and organizations and worked with other state DOT connected and automated vehicle policy leads.** He worked nationally to advocate for, and enable, automated vehicle testing and deployment policy, transportation infrastructure policy, and investments, including championing business development through the Infrastructure Investment and Jobs Act (IIJA). **Role:** Program Manager. **Dates:** 2016–2023.

B. Familiarity with Relevant State and Federal Regulations

With 24 years at WSDOT, Ted’s knowledge of regulations, WSDOT’s vision, and priorities is crucial for our team’s alignment in the upcoming TSMO contract.

Starting as a Signal/Illumination/ITS Engineer, Ted took on increasing levels of leadership responsibility, partnering with multiple divisions within the headquarter to lead and influence the institutionalization of TSMO from 2010–2023 in alignment with the six transportation legislative policy goals. He has developed and supported state and federal policy relative to transportation funding through the IJA along with state level decision packages and funding packages from the nickel and TPA through the most recent MOVE Ahead Washington—a \$16 billion, 16-year funding package.

For example, in order to advance the CAT Program, **Ted worked alongside the Washington State Traffic Safety Commission and WSDOT safety experts to identify and propose technology strategies in support of Target Zero Implementation plans utilizing the Safe Systems Approach.** Ted was also involved with WSDOT Complete Streets efforts being led by the Active Transportation Division, including national policy advocacy and funding support and advocacy for the IJA.

Ted was the lead influencer to establish the Washington State autonomous vehicle work group while maintaining ongoing relationships and leadership roles in advisory boards; state, regional, and national organizations; committees; and work groups to advance transportation technology strategies through IJA formula and discretionary funding programs.

For at least the past 15 years, Ted was responsible for engaging and tracking State regulations during each legislative cycle, reviewing various bills and agency request legislation packages relative to identifying needs, issues, risks, funding needs, and overall impact to WSDOT and the Transportation Operations Division. This experience involved **preparing written testimony for the House and Senate Transportation Committees.** In addition, during his role as WSDOT Major Electrical Systems Engineering Manager, he was responsible for reviewing and developing Washington State Modifications to the Manual on Uniform Traffic Control Devices (MUTCD) as a result of being in conflict with State regulations.

As the Chair of the ITS America Smart Infrastructure Standing Advisory Committee and a member of other AASHTO Coalitions, Ted **successfully advocated for increased funding eligibility and flexibility for technologies, including federal funding eligibility for cybersecurity vulnerability assessments that would benefit TSMO implementation.** His committee leadership led to an increase of federal funding commitments for a variety of federal discretionary grant funding programs.

“ I have invested more than half my life to the advancement and advocacy of the WSDOT TSMO Program. I am profoundly committed to ensuring the organization’s success as a project manager. Drawing from 24 years of rich experience with a passion for people, I plan to contribute meaningfully not only to the success of WSDOT but also the well-being of the people and communities served. ”



- Ted Bailey



C. Innovative Strategies to Advance TSMO Program

Ted has designed and implemented new products and business opportunities focused on transportation technology, from roadside devices to integrated transportation management systems through agency and legislative policy. Prior to joining STV, he spent 24 years at WSDOT where his responsibilities included developing and progressing cooperative automated transportation technologies, including readiness for connected and automated vehicles, and ensuring TSMO was institutionalized across the agency. He also oversaw planning through maintenance and operations of WSDOT's \$1 billion electrical system inventory. **Ted offers in-depth agency knowledge and the ability to lead multidisciplinary teams to successfully deliver innovative solutions for WSDOT.**

"Ted embodies a convergence of professionalism and passion with which I have been privileged to collaborate with as a public sector colleague and now highly value as an industry partner."

John Corbin, FHWA Transportation Automation Program Manager

As a member of the Transportation Operations Division leadership team from 2016–2023, Ted was intimately involved in leading and influencing the development of WSDOT's TSMO Program Plan from the establishment of the TSMO Council through leadership summits with 1:1 coordination and group facilitation with WSDOT leaders and technical professionals agency-wide. Through the CAT Program, Ted successfully championed a recommendation for the Washington state legislature to invest in automated vehicle pilot programs while maintaining a self-certification process to enable innovation in alignment with public safety and other state and federal policy goals.

Starting as early as 2010, Ted worked alongside the Transportation Division Director strategizing how to simultaneously support the development of an AASHTO Transportation Operational Manual while identifying strategic and tactical ways to institutionalize TSMO throughout the agency. **Ted hired and managed the first dedicated State TSMO Engineer while representing the Transportation Operations Division through many agency initiatives**, such as Business Process Mapping - Developing Practical Solutions Using Lean Techniques and Knowledge Management; former Governor Gregoire's Lean Management; the Corridor Sketch Initiative; and Agency Strategic Plan Goal Setting Under Secretary Lynn Peterson, along with supporting agency-wide Asset Management Planning.

Ted's responsibilities provided unique insights into the business processes, culture, and leadership decision making structure throughout headquarters and the regions. In order for TSMO to be institutionalized, leadership by influence was essential. It was also fundamental to understand the history of TSMO and how it has evolved over time within WSDOT, beginning with the creation of the "Q" Program beginning in the early 1990s with former Traffic Operations Division leadership, Jim Shanafelt and Dave Peach. **Ted took the time to understand the history, the politics, and the internal working relationship dynamics between headquarters divisions and the regions.**

If you want to go fast go alone, if you want to go far go together, is a core leadership philosophy Ted lives by. By taking the time to build relationship with the people of WSDOT, he was instrumental in working alongside the Transportation Division Directors for many years providing counsel and advice that has benefited both the TSMO program and the people working hard to provide support. Looking forward into the future, the core strategy to advance TSMO remains the same. **Ted understands that collaboration, relationship, transparency, diversity, and equity in the decision making processes is essential.** The secret to the success of the WSDOT TSMO Program is providing a seat at the table for all voices, alongside an empathic caring patience to meet people where they are with the right amount of support, and appreciation for WSDOT that can only be learned through experience.

D. Project Manager Ability to Manage Projects

PROJECT 1: WSDOT COOPERATIVE AUTOMATED TRANSPORTATION (CAT) PROGRAM

Project schedule. Ted used flexible scheduling techniques, including shared calendars and drives, to manage multiple projects and coordinate with internal and external partners. Projects included policies, white papers, decision packages, presentations, and more.

Scope of work/scope creep. The scope of work for this program was in constant flux based on direction from WSDOT executives, the Governor's office, legislature, and other external partners with competing needs and priorities. The scope was managed through relationships, political negotiations, and continual prioritization based on the existing resources and staff considerations of more than 13 divisions and offices throughout WSDOT.

Staff resources. The program required continual assessment, coaching, and negotiation with more than 13 divisions and offices who assigned different levels of staffing support throughout the life of the program. Ted continually monitored resourcing needs.

Facilitating large, diverse groups. The program foundation, deliverables, and existence was based upon a multidisciplinary, multi-functional, distributed team of internal and external partners, regionally and nationally. This group established, built, and sustained a successful program before, during, and after the COVID pandemic.

Budget issues. The program was developed through dozens of creative funding mechanisms that required other partners (internal and external) to utilize

their resources to advance a mutually agreeable strategy. Ted secured additional funding support from senior WSDOT leaders, elected officials, and agency directors by communicating the value of the program using white papers, decision packages, and budget requests.

Changes that arise throughout the life of the project. The very nature of establishing a new program within a large organization with priorities and resources that are identified and advanced in constant communication, collaboration, and negotiation with internal and external stakeholders being led by influence rather than authority requires strong change management, flexibility, and adaptability.

PROJECT 2: WSDOT STATEWIDE LED ROADWAY LIGHTING CONVERSION AND REMOVAL PROJECT

Project schedule. Ted established deliverable expectations, clearly defined roles and responsibilities, and implemented outcome-based performance contract requirements in collaboration with the WSDOT design/construction office and energy savings performance contractor.

Scope of work/scope creep. The project converted 2,162 lights to LED, removed 505 existing lights and poles, and reduced annual energy usage by 2.6 million kWh, saving \$217,554 in utility costs. This project was an outcome-based performance contract with a 5% contingency. Scope creep was managed through an interactive map tracking contractor progress of explicit deliverables, which Ted managed in coordination with WSDOT project personnel.

Staff resources. Ted managed staffing resources within multiple regions: Olympic and Northwest Region Traffic and Maintenance Technicians, Headquarters

subject matter experts, energy savings performance contractor, and a Northwest Region Project Engineering office. Ted established and monitored funding allocations and expenditures in alignment with the performance-contracting requirements, including establishing multiple interagency agreements to facilitate contract funding, grant awards, and utility rebates.

Facilitating large, diverse groups. This project involved multiple headquarters divisions and regions, the Governor's office, Office of the State Treasurer, other state departments, multiple utilities, contractors, and engineers, as well as various WSDOT leaders, most of whom Ted collaborated with and led through influence rather than authority.

Budget issues. The project successfully utilized a new performance contracting method and energy savings to install new, energy-efficient LED luminaires on

state highways by selling bonds through the state treasurer. The energy savings from the lighting conversion exceeded the annual bond payment used to finance the project. The project was delivered successfully within the performance contract and 5% contingency.

Changes that arise throughout the life of the project. Project changes were managed through weekly coordination meetings with the Project Engineering office and Performance Contractor, alongside internal WSDOT subject matter experts. Some changes Ted navigated included bond financing rates, scope changes due to field review of existing assets, utility rebate changes, and specific work zone traffic control planning. By addressing issues early with clear and transparent communication, the project was completed successfully within the established performance contracting requirements.

Key Team Members Qualifications



Deputy Project Manager: Bryan Williams, PE, has more than 20 years of experience in civil planning, design, and construction, along with a proven track record in leading multimillion-dollar improvement programs, from planning to execution. He is skilled in project management, final design, effective communication, and relationship development. He brings an adaptive style to lead successful teams; build collaborative environments with project partners; and provide the best value outcomes considering scope, schedule, budget, and risk. Bryan has overseen multidiscipline consultant teams with nearly 50 subconsultants on task order based contracts, delivering a streamlined process and effectively resourcing projects.

RELEVANT PROJECTS



Sound Transit On-Call Task Order Consultant Services - Delivery Manager. Bryan was responsible for overseeing a multidiscipline consultant team, as well as delivering and managing task orders in the most efficient manner to meet overall program expansion objectives while maintaining operations on the existing infrastructure. Task order work included project development, design and engineering services, permitting, right-of-way engineering, design services during construction, project management and administration, construction management, and technical support and training. (2023)

WSDOT I-405/Renton to Bellevue Widening and Express Toll Lanes - Manager. Bryan led the final design and design services during construction for this multimodal transportation and safety improvements project. He was responsible for completing design submittals and major design changes, including the interchanges at Street in Renton and 112th Avenue Southeast and Coal Creek Parkway in Bellevue, as well as new direct access ramp and inline transit station at NE 44th Street in Renton to help support bus rapid transit operations in partnership with Sound Transit. Bryan's efforts facilitated the completion of the final design and stabilizing the design services during construction by focusing on coordination with WSDOT and construction operations leadership and personnel. (2022–2023)

WSDOT I-405/NE 132nd Street Interchange - Project Manager. Bryan directed the design of the new half diamond interchange at Northeast 132nd Street to and from I-405 in Kirkland, including new fish passage culverts. Significant improvements to local roadways consisted of 15 walls and the replacement of two signalized intersections with roundabouts. Bryan was responsible for minimizing impacts to the traveling public, environment, multimodal transportation systems, communities, and businesses through effective maintenance of traffic, staging, and close collaboration with key stakeholders. (2021–2023)

Understanding of Public Agency Regulations/Procedures: Bryan has successfully worked with WSDOT for more than 15 years and has an in-depth understanding of the agency's regulations and procedures. His past experience with WSDOT includes providing program management support on the commuter rail program where he was responsible for project development, grant applications, FRA submittals, and coordination with Class 1 railroads engineering and operations.



Strategic Advisor / National TSMO Expert: Jim Peters, PE, has nearly 30 years of experience managing projects, providing leadership, and successfully implementing multimodal transportation systems. With local and national experience in TSMO planning, systems engineering, and transportation system design, he has consistently demonstrated his expertise. For the past three years, he has worked closely with the WSDOT Transportation Operations Division on the strategic direction of TSMO and the Transportation Operations Program. On a national level, Jim has developed multiple guidebooks and desk references that support enhanced traffic signal operations.

RELEVANT PROJECTS



WSDOT Transportation Operations Program Strategic Plan - Project Leader. Jim is providing strategic planning, management consulting and leadership development in support of this program. He has designed and facilitated a multi-day leadership workshop, developed operations program goals, identified workforce development needs, helped prioritize strategies and actions, contributed to the proposed allocation of resources, and collaborated with stakeholders. (2023–Present)

WSDOT Statewide TSMO Program Plan - Program Manager. Jim managed this contract to institutionalize TSMO across WSDOT. He developed the statewide TSMO Program Plan; implemented early actions, including the creation of a TSMO video; developed multiple Regional Capability Maturity Models; and wrote a TSMO narrative for the Highway System Plan. (2022)

COMPASS/ITD I-84 Corridor Operations Study - Project Leader. Jim led the evaluation of management and operations strategies for improving multimodal mobility, safety, and resilience from Caldwell to east of Boise, ID. He analyzed the corridor operating and safety conditions; led the stakeholder engagement; developed management and operations strategies, including high occupancy vehicle lanes and bus on shoulder; and developed a phased implementation plan. (2021–2022)

Understanding of Public Agency Regulations/Procedures: Jim has worked extensively with WSDOT region traffic engineers, as well as the Headquarters Transportation Operations Division, on the Transportation Operations Program. He collaborated with all WSDOT divisions during development of the Statewide TSMO Program Plan, including one-on-one interviews to better understand needs and priorities. His experience also includes developing systems engineering documents meeting WSDOT and federal guidelines and creating applications for state and federal grants.



Mobility Technology Lead / Project QC Manager: Dan Corey, PE, is a nationally recognized subject matter expert on ITS and smart/emerging technologies with more than 25 years of experience pioneering technology solutions. He has unique expertise in overseeing new technology implementation life cycles from grant writing, strategic planning, and quality management through operations and maintenance. His experience includes system engineering, concept of operations documents, traffic management centers, tolling operations, design and deployment of field devices, connected and automated vehicle planning and design, overall systems testing, and management planning for incidents and emergencies.

RELEVANT PROJECTS



MDOT SHA CHART/OTMO TSMO System 1/Tier 1 Design – Project Manager. Dan managed ITS and automated/connected vehicle engineering for the implementation of TSMO on I-70 from I-695 to west of US 29 and on US 29 from north of I-70 to MD 100. Elements of the project, which has proceeded to 30% design, include fiber optic cable network design, traffic monitoring and detection, active traffic management, and automated incident detection. (2019–2022)

PTC ITS Open-End Contract - Project Manager. Dan managed eight task orders for the Pennsylvania Turnpike Commission (PTC), including the creation of a TSMO program, the design of 38 DMS, CCTV cameras, ITS construction inspection, connected vehicle agency road map, the design of an advanced tunnel warning system, and traffic count stations for non-tolled interchanges. Work also included the design of five DSRC traffic count stations for non-tolled interchanges. (2015–2022)

TxDOT TSMO General Engineering Contract - Project Manager. Dan provided technical support at the statewide level, as well as for five of the 25 districts throughout Texas, for this Texas Department of Transportation (TxDOT) contract. Work included leadership engagement, capability maturity model workshops, TSMO strategies for implementation, reviewing specifications, benefit-cost analyses, ITS master plans and system architecture, operational performance measures, presentations, and TSMO Program Plans. (2018–2022)

Understanding of Public Agency Regulations/Procedures: Dan has worked with more than 25 departments of transportation and other transportation agencies across the U.S., which has provided him with a national perspective on public agency regulations and procedures. As the Co-Chairperson of ITS Americas Smart Mobility Committee, he has designed technology solutions for state agencies and private entities, conducted TSMO and ITS project QA/QC reviews, assisted in developing RFQs and RFPs, and provided technical oversight through traditional and design-build-finance-operate-maintain projects.



Planning, Partnering, and Policy Development Task Leader: Laurie Matkowski, PMP, is a nationally recognized subject matter expert on connected and automated vehicles (CAV) and strategic planning to integrate future transportation technologies. She has more than 20 years of experience in the areas of CAV, TSMO, traffic and transportation engineering, multimodal connections, electric vehicle implications, mobility-as-a-service, ITS, road usage charging (RUC), and traffic incident management. She is highly skilled in strategic business planning, facilitating, and consensus-building on diverse projects.

RELEVANT PROJECTS



NJDOT ITS Resource Center Program Support - Project Manager. Laurie is overseeing ITS and TSMO research, development, and planning activities to support the New Jersey Department of Transportation (NJDOT). Tasks for this multi-year general contract include extensive CAV and TSMO strategic planning; roadway automation research and evaluation; policy research; and coordination efforts with various NJDOT departments, academic institutions, and other consultants. Work has included the development of a CAV strategic plan; providing annual reviews of best practices related to TSMO, performance measures, CAV, and TIM; development of an advanced mobility pilot concept; and an automated transportation readiness assessment for a corridor. (2021–Present)

FHWA Roadway ADS Integration ConOps for Transportation Agencies - Project Manager. Managing the team to develop the first iteration national Roadway Automated Driving System (ADS) ConOps describing the integration of ADS-equipped vehicles or AVs into the roadway environment. The ConOps is serving as a basis for identifying future actions that roadway infrastructure owner-operators will need to take to ready their organizations, physical assets, and policy for the integration of AVs. (2019–Present)

ODOT Connected Vehicle Ecosystem - Project Manager. Managing the development of a ConOps for a connected vehicle ecosystem (CVE) that will support RUC and ITS safety and mobility applications. The intersection of RUC and ITS is anticipated to enable the next generation of funding for transportation infrastructure. The CVE is a multi-year, multi-phased approach developed by a consortium of partners. (2023–Present)

Understanding of Public Agency Regulations/Procedures: Laurie works with a wide variety of agencies from federal to local, both public and private, including the Federal Highway Administration, American Association of State Highway and Transportation Officials, Transportation Research Board, state departments of transportation, turnpike authorities, bridge commissions, planning agencies, county and local governments, law enforcement and security, and first responders.



Transportation Operations Task Leader: Elliot Hubbard has more than 15 years of experience as a project manager in the public and private sectors for transportation planning and engineering projects for local, state, and national clients. He has significant WSDOT and national TSMO expertise, with TSMO program management and strategic planning for emerging technologies. Elliot brings significant stakeholder engagement and facilitation experience and is adept at helping clients think through their core needs and connect these needs to a clear vision and concrete actions. He has served as the overall DKS lead for the WSDOT TSMO Program Plan (Phase 2) activities for the past two years.

RELEVANT PROJECTS



WSDOT Statewide TSMO Program Plan (Phase 2) - Project Manager. Elliot managed this multi-year statewide program to institutionalize TSMO into core business processes, systems and technology, performance measurement, organization, workforce development, culture, and collaboration. He led the team, directed the change management process, coordinated stakeholders, and developed the executive management business case and program plan presentation materials. (2022–2023)

WSDOT TSMO Data Analytics Platform Needs Assessment Project - Project Manager. Elliot managed this TSMO program plan task order to investigate current planning and operations data needs of users across WSDOT, identify programmatic and technical opportunities, assess current industry offerings, and develop a business case for further WSDOT investment. He led the interviews of over a dozen agency leaders across regions, departments, and functional areas and consolidated the feedback into key opportunities. (2023)

WSDOT SMART Grant Application, Holistic Transportation Data Platform - Project Manager. Elliot led this WSDOT TSMO task to support the development of a federal SMART grant application for the planning and prototyping of a statewide shared data integration and analytics platform. He managed the visioning effort for the concept, facilitated workshops with key agency resources, and led the production of the narrative content for the application, which was successfully submitted. (2023)

Understanding of Public Agency Regulations/Procedures: Elliot has worked with WSDOT to help advance TSMO as an organizing principle and framework to align policies, programs, procedures, and tools throughout the agency. In the context of various state mandates and agency priorities, including Complete Streets, HEAL Act, and Resilience as a key strategic pillar, he has helped establish the business case for continued and ongoing institutional TSMO investment.



Intelligent Transportation Systems Task Leader: Karl Typolt, PE, has nearly 15 years of ITS and TSMO experience, beginning his career at the WSDOT Dayton Traffic Management Center and then as a consultant supporting grant applications, leading strategic program plans, developing systems engineering documentation per FHWA requirements, and designing ITS design-bid-build and design-build projects following WSDOT standards. His strategic program plan experience has included city, regional, and state ITS and TSMO plans. Karl brings first-hand knowledge working with WSDOT operations, capital programs, local programs, and the six WSDOT regions.

RELEVANT PROJECTS



WSDOT TSMO Program - Project Manager. Karl managed multiple tasks in support of WSDOT’s TSMO Program. He approached task assignments with a user outcome-oriented approach driven by clear objectives, key milestones, and involvement of agency decision makers. Key tasks Karl led included the TSMO website refresh, Northwest and Olympic Region TSMO Plan, grant support, industry scans, and mobility tours. (2021–2023)

WSDOT Eastern Region VMS and Website Update - Project Manager. Karl worked alongside Spokane Regional Transportation Management Center (SRTMC) operations and IT staff to transition the SRTMC video management system (VMS) from a hardware-based liability to a virtual-based solution. The effort included coordination with SRTMC partners. Karl helped lead the existing condition documentation, gap analysis, industry scan, stakeholder outreach, and procurement approach. (2020–2022)

WSDOT King County ITS Improvements - Project Manager. Karl managed this federally funded project that installed aerial and underground fiber optic communications along Sahalee Way NE and SR 202. The PS&E bid package included fiber routing plans, fiber splice and termination details, and traffic control plans for aerial installation. The project provides communications to six city and WSDOT signal controller cabinets to support CCTV monitoring and adaptive signal control. (2019–2021)

Understanding of Public Agency Regulations/Procedures: Under the current WSDOT TSMO contract, Karl helped to integrate TSMO initiatives within existing agency project documentation and procedures. He also has experience with WSDOT local agency guidelines for federally funded projects, WSDOT standard ITS details and specifications, WSDOT interlocal agreements for coordinated signal operations and maintenance, FHWA systems engineering, and national and regional ITS architecture compliance.



Transportation Demand Management Task Leader: Chris Grgich, PE, PTOE, has more than 15 years of experience specializing in traffic engineering, Complete Streets design, ITS, and TDM. His recent design work has focused on creating complete transportation networks and better managing transportation demand by reallocating right-of-way to provide for transit, pedestrian, and bicycle connections, as well as evaluating the need and suitability of corridors for implementing safe systems for all. Chris is adept at building consensus among conflicting priorities while focusing on improving transportation equity and the safety for the most vulnerable users. He holds numerous leadership and volunteer roles.

RELEVANT PROJECTS



WSDOT SR 99: 148th Street SW to Evergreen Way Complete Streets - Project Manager. Chris worked with WSDOT staff and the team to develop Complete Streets performance metrics for the SR 99 corridor improvements. The project developed cut sheets for 12 qualitative and quantitative performance metrics that focus on the pedestrian and bicycle experience. Each metric included a brief description, the context of its application, how the metric is measured, and an example on how they have been applied in other corridors. (2023)

Oregon Metro TSMO Strategy - Project Manager. Chris collaborated with Oregon Metro and ODOT to update the 2021 TSMO Strategy for the greater Portland area. The plan included performance metrics for pedestrian and bicycle connectivity and safety, tracked regionally to monitor progress. One crucial aspect of the work was the development of a TSMO Equity Decision Tree, aligning the strategy with equity principles based on Metro's 2016 Strategic Plan for Racial Equity, Diversity, and Inclusion. (2020-2021)

City of Vancouver 34th Streets Complete Streets Corridor Improvements - Project Manager. Chris assisted the City of Vancouver with evaluating rechannelization of SE 34th Street to improve safety, mobility, and accessibility as part of upcoming resurfacing. He worked with City staff and the public at-large to provide a safe, accessible, and more complete corridor. He is currently leading the final bid-ready design documents for the preferred alternative, with construction expected to begin in spring 2024. (2021)

Understanding of Public Agency Regulations/Procedures: Chris has extensive experience working with WSDOT on projects related to TSMO. He demonstrated his strong understanding of needs-based analysis on the I-90/Front Street project by helping the team and stakeholder group define the needs for interchange improvements to isolate the benefits and impacts of the proposed alternatives from other regional transportation challenges. He helped NW Region staff understand the induced demand forecasts of a dynamic traffic assignment model for the interchange. Chris also works with local agencies and communities to help them incorporate TSMO and WSDOT design guidelines into their projects.



Smart and Emerging Technologies Task Leader: Adrian Pearmine, PE, has more than 25 years of experience in smart emerging transportation technologies, with specialties in TSMO and ITS architecture and plans. He delivers dynamic solutions to address the profound impact that changing mobility technology has on clients and communities. He was previously involved with early statewide ITS architecture planning and regional ITS architecture plans for WSDOT. He also managed WSDOT's statewide communications and wireless communications plans and worked with the WSDOT SW Region and the SW Regional Transportation Council, managing the Vancouver Area Smart Trek team.

RELEVANT PROJECTS



Vancouver Area Smart Trek TSMO Program - Project Manager. For more than 22 years, Adrian managed the Vancouver Area Smart Trek (VAST) program, supporting the SWRTC (lead agency), WSDOT SW Region, City of Vancouver, Clark County, C-TRAN, and other regional stakeholders. He led the development of the region's first TSMO Plan and two subsequent updates to the regional TSMO Plan. He also facilitated monthly TSMO management meetings, as well as the VAST Communications Infrastructure Committee. (2000-2023)

ODOT Statewide ITS Connected Vehicles Architecture and Concept Plan Update - Technical Lead. Adrian worked with ODOT to provide recommendations in preparation for connected and automated vehicles in the state. The team compiled guidance from state and national sources, identified priority connected vehicle applications for local communities, and outlined steps ODOT should take to support connected and automated vehicles deployment. A customized connected vehicle architecture was developed. (2015-2016)

TriMet TSP Study and Implementation - Project Manager. Adrian managed the development of a concept of operations and technology recommendations for the next generation, cloud and cellular based, regional transit signal priority (TSP) system for TriMet. He led both the planning phase and the implementation stage of the next generation TSP architecture. He oversaw the consulting team that developed the RFP, continued through the vendor selection phase, and resulted in the testing stage of this industry leading initiative. (2016-2023)

Understanding of Public Agency Regulations/Procedures: Adrian has worked with WSDOT for virtually his entire career, starting with statewide and regional ITS architecture plan development, communications planning projects, and local/regional TSMO implementation and management. He has worked in a similar capacity more recently with the Oregon Department of Transportation with a focus on connected vehicles. He has also worked with local, municipal, transit, state DOT, and federal (USDOT) agencies in the planning, design, implementation, and operations of ITS and TSMO projects.



DBE Liaison: Adrienne Lindsey has worked in the architecture and engineering industry for more than 15 years in a variety of client-focused roles. She has a background in Public Administration and Policy that helps her understand how public clients operate and execute projects. She brings that to the consulting side to help project teams better serve their clients and create diverse project teams. Adrienne is well-versed in diverse and small business programs and has experience building and managing small business programs for consultants. She serves as a liaison with the small and diverse business community, building project teams and participating in conversations about how prime consultants can better support diversity and small businesses.

RELEVANT PROJECTS



GeoEngineers Corporate Inclusive Contracting - Contracting Program Lead. Adrienne developed a diverse and small firm inclusion program to promote the company’s involvement and support of certified firms. She developed internal education materials, established and tracked performance metrics, and expanded the company’s participation in mentoring and supporting certified firms. She was responsible for building relationships with small and diverse firms to build teams and actively participated in events such as ACEC and WSDOT-sponsored Washington APEX Accelerator (formerly Washington PTAC), as well as ODOT and SAME meet-the-primers events. (2015–2022)

ODOT Full-Service A&E Price Agreement - Contracting and Procurement Lead. Adrienne was responsible for vetting and building a full-service team that maximized inclusion of small and diverse businesses. Of the 12 subconsultants on the team, 10 were small or diverse businesses looking to grow their experience and work portfolio with ODOT. (2022)

TriMet Blue Line Substation Project Team - Business Development Manager. Adrienne was responsible for vetting and building a consultant team to support STV’s proposal for a TriMet substation project. Utilizing previous connections and the state’s DMWBE database, Adrienne organized meet-and-greets with the STV project team and the small/diverse subconsultants. Six of the eight subconsultants selected to be on the team were diverse or small businesses for key roles, such as architecture, survey, and traffic planning. (2022)

Understanding of Public Agency Regulations/Procedures: Adrienne is very familiar with the WSDOT DBE Program and the requirements for utilizing small and diverse businesses to meet USDOT-funding conditions. She developed the Inclusive Contracting Program for a consulting firm that was modeled on the DBE Program requirements of WSDOT, ODOT, and the Port of Portland. She co-conducted interviews with WSDOT and the Port of Portland to fully understand the consulting community’s responsibility in engaging small and diverse businesses on projects. This includes conducting Good Faith Efforts to find small/diverse business partners, finding meaningful project roles for the businesses, and mentoring businesses throughout the life of a project.

ADDITIONAL TEAM MEMBERS KNOWN TO WSDOT



Transportation Operations: Kelly Smith is a former project manager in WSDOT’s Southwest Region. She successfully led a planning-level corridor plan on State Route 503 that incorporated transportation system operations and management principles, as well as meaningful input from the public and other local partners, to develop and implement TSMO strategies.



Intelligent Transportation Systems: Bahar Namaki Araghi, PhD, is an ITS expert experienced with traffic management systems deployment and operation, cooperative ITS platform development and operation, and multi-modal transport data platforms. She helped WSDOT evaluate the reliability and accuracy of travel time estimation using bluetooth technology during her PhD studies at the University of Washington STAR Lab.



Transportation Demand Management: Renee Hurtado, PE, PTOE, has a deep understanding of WSDOT policies, practices, and organizational structure. She has actively been working on several tasks under the current TSMO contract, including leading the Capability Maturity Model (CMM) Workshops, Southwest Region TSMO Projects, and Mobility Tours, along with TSMO Implementation Plans in the Northwest and Olympic Regions.



Smart and Emerging Technologies: Patrick Son, PE, has successfully delivered multiple WSDOT TSMO Program Implementation actions, such as smart work zones; workforce development; diversity, equity, and inclusion; and organizational structure. He also supported WSDOT during his previous role as Managing Director of the National Operations Center of Excellence, focused on advancing the state of practice for TSMO nationwide.

ADDITIONAL TEAM MEMBERS KNOWN TO WSDOT (continued)



Strategic Communications, Transit / Social Equity: Jennifer Rash provided strategic counsel and facilitation during the implementation of the WSDOT TSMO Program Plan. She conducted stakeholder interviews across WSDOT Regions and Divisions. She was also instrumental in helping WSDOT lobby to pass the Connecting Washington transportation package.



Freight Operations, Planning, Policy, and Analytics: Donald Ludlow has managed WSDOT's State Freight System Plan Update since 2021. In his role as Project Manager, he tailored the plan to meet state and federal planning requirements, NHFP investment planning, environmental justice, freight performance measures, and economic analysis. The plan included truck parking inventory and needs assessment, stakeholder engagement, project identification and prioritization, and analytics.



Safe Systems: Brian Chandler, PE, PTOE, RSP2IB, has managed the 2024 Washington Target Zero update by applying the Safe System Approach, traffic safety culture, and equity considerations. As part of the TSMO Program, he assisted in creating the WSDOT subcommittee focused on work zone operations, safety, and innovation that developed a Capability Maturity Framework (CMF).



Grant Writing: Sydney Borek has years of experience directly supporting the implementation of the WSDOT TSMO Program through grant and technical writing, strategic technology and operations planning, and meeting facilitation. She is "Transportation Equity Certified" and committed to incorporating this experience and passion throughout her projects and work.



Smart Work Zones / Automated Speed Enforcement: Mahmood Shehata, PE, has expertise in traffic studies, simulation modeling, traffic signal warrant analysis, ITS planning studies, traffic calming measures, traffic forecast projections, and capacity analysis. He is currently providing strategic support to WSDOT in the development of Washington's Speed Safety Cameras in Work Zones program.



TSMO Program Planning and Implementation: Dennis Mitchell, PE, has successfully developed TSMO program plans for five of Texas DOT's 25 districts to institutionalize TSMO as a core practice within research, planning, programming, design, construction, operations, and maintenance business processes. He also led the development of FHWA guidance materials for implementing TSMO strategies in rural areas with a focus on safety and emerging technologies.

The STV team is a comprehensive and cohesive group of proven leaders and technical experts with deep personal connections to WSDOT and each other through career and project experience. Together, we have the cultural and relational expertise necessary to support TSMO implementation as trusted advisors. We are committed to listening to WSDOT's needs and emphasizing the value of TSMO to achieve the goals focused in the areas of: Safety, Resilience, Workforce Development, Diversity, Equity, and Inclusion.

A. Quality Assurance/Quality Control Processes

Quality is a fundamental STV value, and implementation of a Project Quality Plan (PQP) is driven from the contract and our corporate governance. Our approach to delivering high-quality services includes setting expectations, providing coaching, tracking trends, allocating time to perform the processes, and consistently reviewing work products to verify quality. The PQP will provide the framework for all quality activities for this contract and subsequent task orders and includes:

- ▶ Outline applicable quality management systems and standards
- ▶ Define individual's roles and responsibilities
- ▶ Outline QA/QC processes
- ▶ Detail document control procedures, including reviews and comment resolution
- ▶ Define change management procedures
- ▶ Detail teaming partner quality management procedures

STV'S COMPREHENSIVE APPROACH TO QA/QC

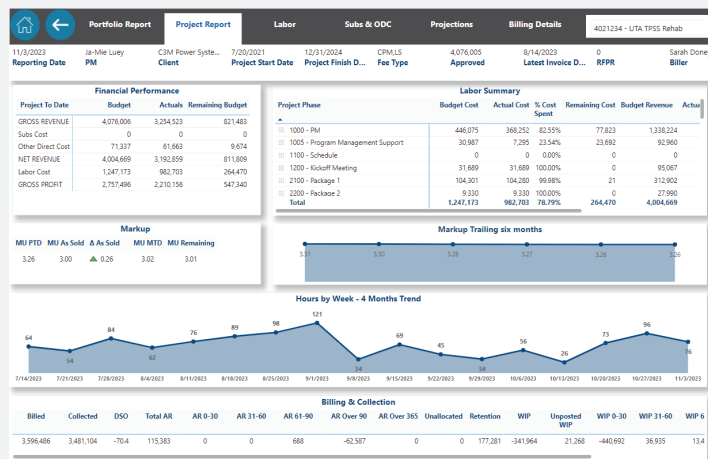
1	2	3
QUALITY MANAGEMENT	QUALITY MOBILIZATION	QUALITY IMPROVEMENT
<ul style="list-style-type: none"> ▶ Define the overarching quality policy ▶ Conduct independent audits ▶ Provide clear points of escalation ▶ Assign a completely independent quality manager ▶ Implement an ISO 9001 compliant Design Quality Management Plan with specific design control procedures for all task order products 	<ul style="list-style-type: none"> ▶ Prepare task order-specific quality plans ▶ Establish proper multidisciplinary quality review coordination standards ▶ Require each teaming partner to use project QA/QC plan, which will be developed to meet WSDOT requirements ▶ Implement appropriate QA/QC processes at the correct times per established schedules ▶ Utilize forms and checklists to fully document QC reviews and identify plans of action for correction, if needed 	<ul style="list-style-type: none"> ▶ Conduct periodic independent surveillance audits ▶ Document findings and recommendations ▶ Take corrective actions, when warranted ▶ Embrace the concept of the learning organization, modifying our processes to reflect new knowledge ▶ Complete QA reviews to verify the QC process was performed in accordance with the quality procedures

The ultimate responsibility for QA/QC resides with our Project Manager, **Ted Bailey**; Quality Manager, **Dan Corey**; and individual Task Order Managers. We will develop a PQP for WSDOT to reporting upon execution of the contract. We will ensure that all deliverables go through the necessary QA/QC processes.

- ▶ *STV's overall approach to QA/QC includes three key areas: (1) Management that sets a framework for high-quality deliverables; (2) Mobilization where QA/QC processes are executed; and (3) Improvements where we apply feedback and lessons learned.*

B. Tracking Systems to Monitor Project Budget and Scope

STV's Project Controls Systems provides for total cost control from task inception through its completion. Project reports provide a detailed analysis to the Project Manager and Task Order Manager, as well as an overall summary of all functional task areas. STV utilizes the following systems to manage budget and scope:



▶ **Microsoft Power BI:** Dashboard that details performance of each task order and enables monitoring of project progress.

▶ **COST PLANNING**

Dynamic analysis of historical cost data for similar tasks to inform and establish task order budgets.

▶ **BST ENTERPRISE**

Budgets are input upon Task Order set up, and up-to-date direct labor reports can be run throughout the project.

▶ **WORK BREAKDOWN STRUCTURE**

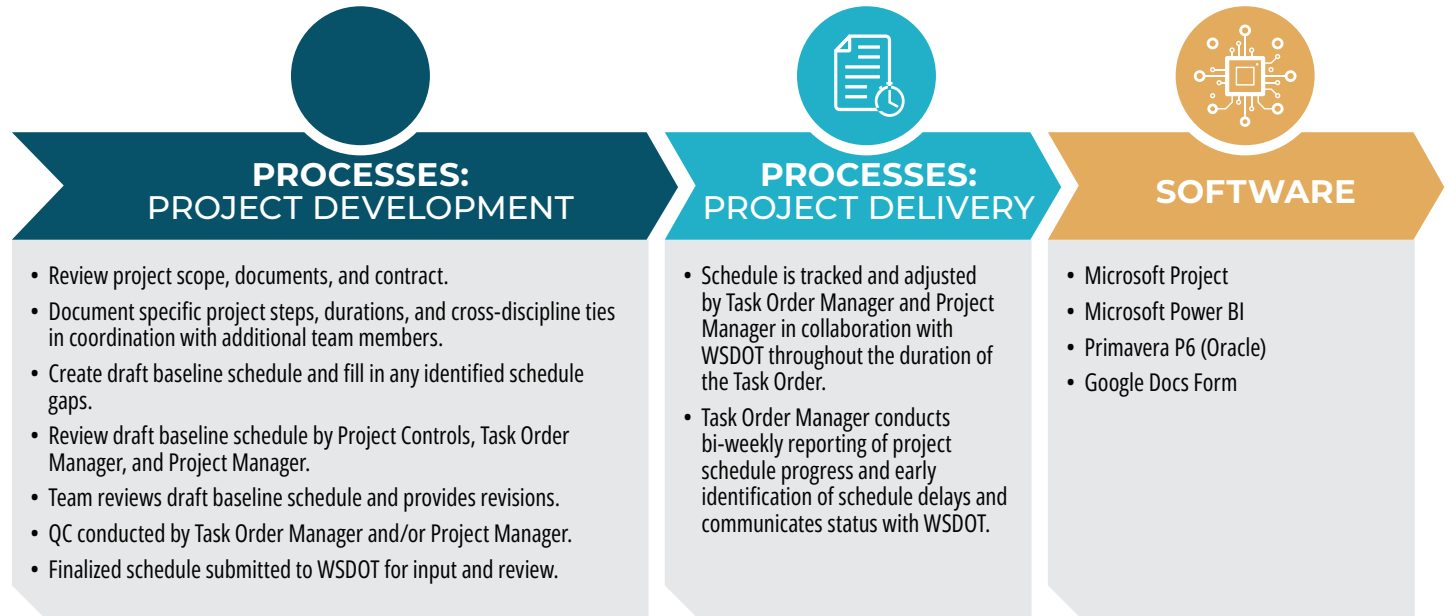
Defines responsibilities, design schedule, direct cost, and direct labor budgets.

▶ **COST CONTROL REPORTS**

Customized to reflect each task order and details cost and man-hour data to control task expenditures.

C. Scheduling Program/Process

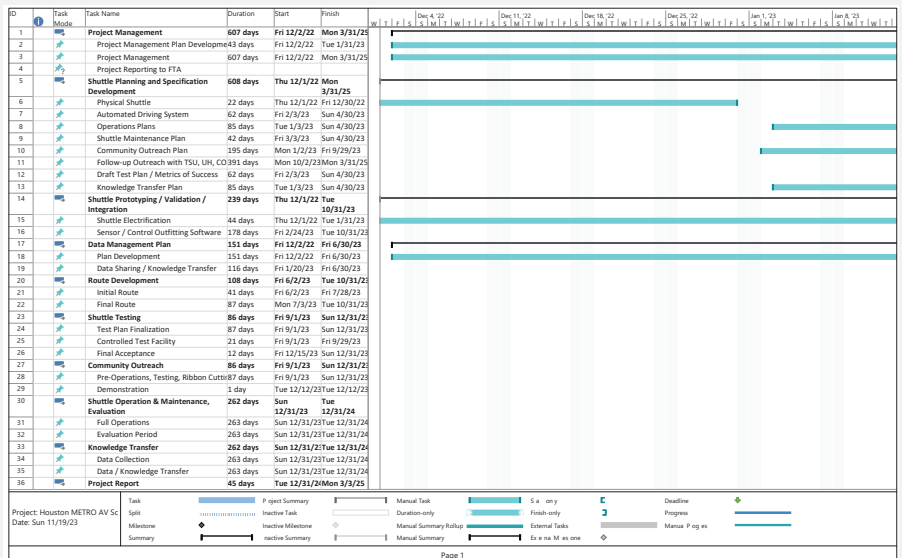
The STV team will develop well-organized and reasonable schedules, with input from WSDOT, carefully planning both the internal STV team resources, external coordination, and approval inputs needed to accomplish the work and make sure the design efforts stay on schedule. STV uses the following processes and software to plan, manage, and track project schedules.



Ted will use **Microsoft Project** and/or a **Google Docs Form** to track the progress of all task order deliverables based on the complexity of the project, with the ability to provide weekly project progress report updates. Since joining STV, Ted has used these scheduling tools on multiple projects, including:

- ▶ Houston Metro AV Shuttle
- ▶ Dallas Fort Worth International Airport EV Roadmap
- ▶ TriMet Next Gen Transit Signal Priority: Planning and Implementation

Microsoft Project and Google Docs, alongside Microsoft Power BI, provide a comprehensive suite of tools right-sized for each project, offering near real-time ability to manage the scope, schedule, and budget for all task orders.



▶ The STV team's proposed Project Manager, Ted Bailey, used Microsoft Project to manage the scope, schedule, and budget of the recent Houston Metro AV Shuttle project (shown above).

WSDOT TSMO Phase 2 Weekly Update

6/26/23 through 6/30/23

DKS

Contract Owner	Project	Task Manager	Upcoming Tasks/Direction Needed	Upcoming Deadlines	Completed Tasks / Delivery Date	Delivery Deadline	Schedule Impacts	General Notes
HQ TSMO Plan	WSDOT TSMO Phase 2 - Task 1: Project Management	Elliot Hubbard	Complete		Transition planning for Phase 2 contract			
	WSDOT TSMO Phase 2 - Task 2: Internal & External Engagement and Mtgs	Elliot Hubbard	Complete		DKS/PRR submitted newsletter	6/13/2023		
	WSDOT TSMO Phase 2 - Task 3: HQ Q Organization and TOD Meeting Facilitation	Karl Typolt	Complete		Task 3 SOW is complete, TSMO case study slide deck	12/9/2022		Confirm with Pam - deliverables complete
	WSDOT TSMO Phase 2 - Task 4: Business Cases	Elliot Hubbard	Complete					
	WSDOT TSMO Phase 2 - Task 5: Sustainability and Equity	Elliot Hubbard	Complete		Submitted final draft EJ actions memo and slides	2/15/2023		
	WSDOT TSMO Phase 2 - Task 6: Support Early Actions	Elliot Hubbard	Complete		Submitted revised TSMO Planning Guidance memo, incorporating updated TSMO process steps (from SWR) and ICE+TSMO considerations	9/30/2022		

▶ On the previous TSMO contract, our team members helped WSDOT track and manage concurrent task orders using Google Docs. For this contract, we will use our scheduling tools to help WSDOT plan and manage tasks in real time and report on progress and percent complete. For example, a Power BI Dashboard can summarize task information in an easily digestible and exportable format in real time.

D. Interacting with Internal Project Team

Interaction and collaboration between STV team members is a fluid and continuous process that includes defined team-wide collaboration points, task-specific meetings, and on-demand discussions. The key leaders of our team are familiar with each other, many of them having worked together for many years, and have an established rapport. The internal communication process between STV team members is an essential foundation for supporting all interactions with WSDOT and other stakeholders. This comprehensive approach results in a effective and reliable full service team for meeting all project delivery expectations.

The STV team can provide WSDOT with a project team that has proven delivery on high quality, meaningful work. Many of our team members, across six firms, successfully collaborated together on the 2019 WSDOT TSMO Program and are excited to continue their established working relationships internally and externally with WSDOT staff.



Internal meetings will include an overview of past work and plan for upcoming work. This will ensure that team members are apprised of all tasks being performed and planned interactions with WSDOT.



Over the shoulder meetings will be used to facilitate discussions about any project work and involve WSDOT personnel.



Specific meetings will be established for each Task Order to meet the unique communication needs of each.



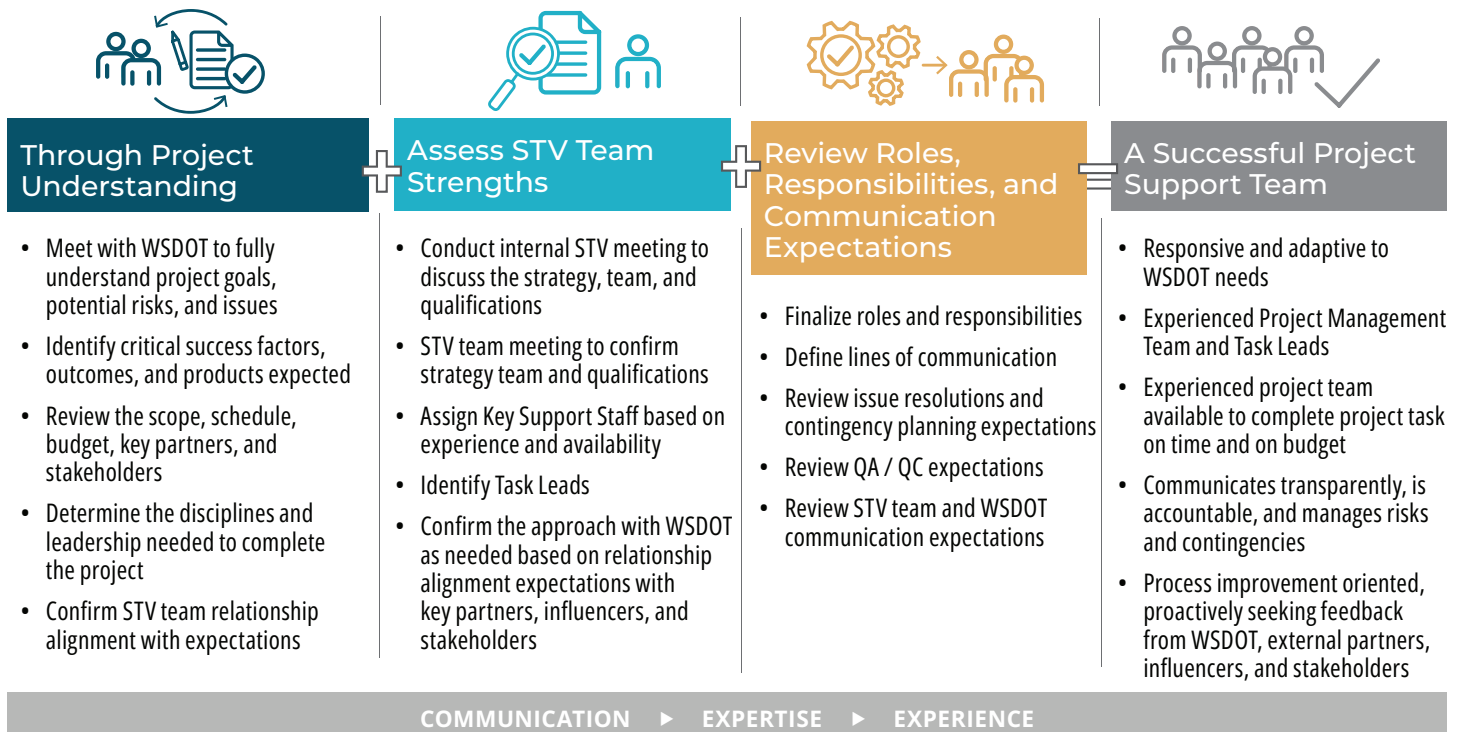
Email, text, and phone will be used for real time communications between the STV team members, as well as WSDOT.

▶ **Processes for Internal Collaboration and Interaction:** Ted will keep internal team members informed through monthly knowledge sharing, as well as weekly or bi-weekly meetings for tasks in progress, and will always be available via phone, text, or email.

E. Interaction with Client and Stakeholders

STV is serving as the prime consultant for this contract and will be managed by Ted Bailey out of our Bellevue, Washington office. Being in close proximity to WSDOT HQ and Northwest and Olympic Regions, Ted will be able to quickly respond to any request for meetings from WSDOT. The majority of our team members reside within the Pacific Northwest and are able participate in any in-person interactions with WSDOT, key partners, influencers, and stakeholders. We are always available for a virtual interaction via Teams, Zoom or any other virtual meeting platform. When collaborating on a specific task order, we can utilize a host of tools to foster collaborative interactions with WSDOT, key partners, influencers, and stakeholders as needed. With support from the Task Leaders, Ted will focus all communication and decision-making with WSDOT through the WSDOT TSMO Agreement Manager (Pam) unless otherwise requested by WSDOT.

PROJECT STAFFING: HOW WE BUILD A FULL SERVICE TEAM



The STV team has spent the past 20 years developing, supporting, and executing TSMO projects with WSDOT. With this first-hand experience, we know which processes, expertise, and approach is needed to be successful. Our team has been strategically assembled to provide the depth and breadth of services to expeditiously deliver task orders with built-in leadership and task lead redundancy to ensure we deliver on-time and under budget.

The STV team is comprised of the individuals that WSDOT knows and trusts. We are a team of accomplished transportation professionals dedicated to advancing WSDOT's mission, vision, and goals. We offer strong, comprehensive experience developing and supporting TSMO Programs and ongoing implementation strategies across the nation. STV has also provided ITS operations services in more than 40 TMCs throughout the U.S. and abroad. Our team is prepared to develop a summary report of the TSMO arena nationwide, including a summary of the best practices and lessons learned from other states around the nation.

- ▶ **Expanded Capacity and Subject Matter Experts:** With 14 firms and more than 560 staff in Washington state and the greater Portland metropolitan area, the STV team brings deep capacity to ensure we can deliver resources when you need them. Our team has been built to provide subject matter experts in all disciplines and with redundancy in anticipation of accelerated schedules and concurrent work. We are organized by leaders who have the expertise to manage the day-to-day delivery of task orders based on the scope of work. Having multiple individuals under each category allows our team to manage and deliver multiple similar task orders concurrently.
- ▶ **Team Culture:** The STV team understands the need to provide a team culture that can respond to WSDOT's demands to plan, design, build, and maintain safe transportation infrastructure. An on-call contract requires teams to mobilize quickly and to collaborate efficiently with all stakeholders. Our team has been assembled to include partners who understand the intricacies of an on-call and who can flex and adapt as needed. We bring you trusted partners, a majority of which have worked with us on previous TSMO and transportation operations projects, in addition to familiar faces of those WSDOT knows and trusts.
- ▶ **Committed Leadership Who Have Helped WSDOT Deliver:** Members of our team have worked alongside WSDOT on the previous TSMO Program Plan contract. We bring experience managing a large team of subconsultants and staff to meet the fluctuating needs of a long-term contract such as this. Under the leadership of Ted Bailey, Bryan Williams, and Jim Peters, WSDOT can rest assured that our team will remain flexible and nimble and that all of your project needs will be met with ample resources, industry leaders, and support staff as desired by WSDOT.
- ▶ **A Leadership Team that Shares WSDOT's Culture and Values:** Our team leaders are collaborative, inclusive, and respectful. With decades of experience delivering for WSDOT, Ted, Bryan, Jim, and others have exhibited integrity in every project. We strive for excellence and are committed to a continued focus on user experience, managing safety and mobility as an asset.

Benefits of the STV Team:

- ▶ *People You Know and Trust*
- ▶ *Continuity to Continue What You Started*
- ▶ *Redundancy to Ensure Task Orders Are Accomplished Successfully*
- ▶ *Expertise to Tackle Any TSMO Project*

A. Proposed Work Plan

Our team speaks your language and grasps the intricacies of the WSDOT processes and culture. Through the continuity of our team members from the previous contract and past WSDOT experience, we will carry forward that knowledge into all our work planning and delivery with you.

We anticipate that task orders will come from a variety of WSDOT Divisions, but primarily from the Multimodal Development and Delivery Divisions and others that are part of WSDOT's TSMO Council supporting the implementation of TSMO throughout the organization. When a potential task order is identified, Ted, Bryan, and Jim, along with the appropriate task leaders, will meet with the WSDOT TSMO Agreement Manager and other WSDOT representatives as needed to establish a work plan. Ted, Bryan, Jim, and the appropriate task leaders and key discipline leads will facilitate all communication and decision-making with the WSDOT TSMO Agreement Manager unless otherwise requested by WSDOT.

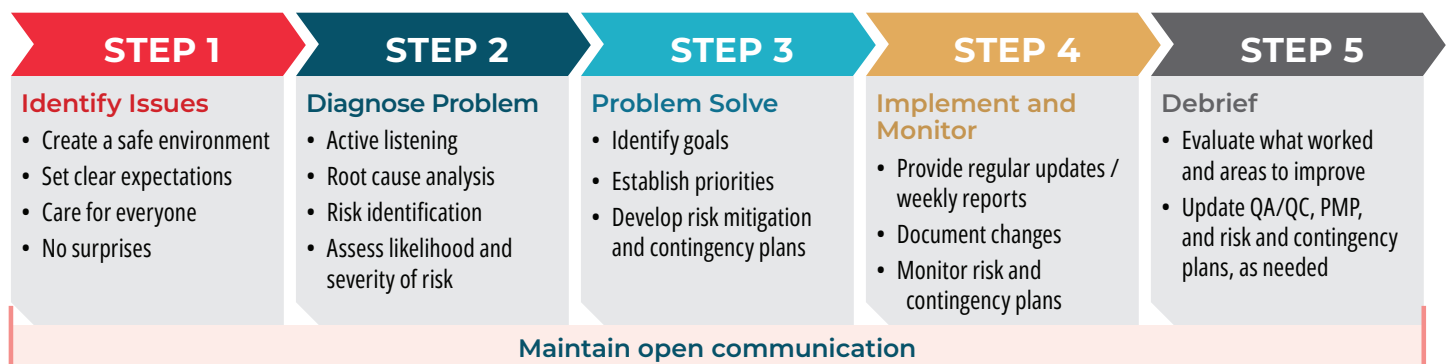
Developing a work plan is a critical first step as it sets the foundation for clarifying expectations and objectives; allocating resources and assigning responsibilities; developing communication protocols; and providing a detailed scope, budget, and schedule. **Our process for developing and executing a work plan is outlined in the table below and illustrates our understanding of each work plan element and specific roles/responsibilities of participants.**

Work Plan Element	Description	Roles & Responsibilities	
		WSDOT	STV Team
1. Scope Task Order	Initial discussion to define WSDOT's needs, goals, products, and outcomes	TSMO Agreement Manager, Others as needed	PM, Strategic Advisor, Deputy PM, Task Lead(s)
2. Draft Task Order Work Plan	Develop scope, schedule, and budget and identify issues and risks; establish the full service team		PM, Strategic Advisor, Deputy PM, Task Lead(s)
3. Notice to Proceed (NTP)	WSDOT review and approve Task Order Work Plan	TSMO Agreement Manager	PM, Deputy PM
4. Project Kickoff	Develop PMP, QA/QC, Risk, and Contingency Management Plan	TSMO Agreement Manager, Others as needed	PM, Deputy PM, Strategic Advisor, Task Lead(s)
5. Weekly STV Team Meetings and Project Activity Reports	Develop weekly project activities reports, monitor scope, schedule, and budget; identify and monitor contingencies, issues and risks, and project progress	TSMO Agreement Manager	PM, Deputy PM, Strategic Advisor, Task Lead(s)
6. Bi-Weekly Meetings with WSDOT	Review weekly project activity reports; review contingencies as needed; plan for future Task Orders	TSMO Agreement Manager	PM (Strategic Advisor, Task Leads as needed)
7. Project Work Plan Completion	Implement QA/QC process		PM, Strategic Advisor, Task Lead(s)
8. Final Product Delivered to WSDOT for Review, Approval, and Acceptance	WSDOT review and acceptance of final products; all comments and revisions addressed	TSMO Agreement Manager, Others as needed	PM, Deputy PM, Strategic Advisor, Task Lead(s)
9. Project Debrief	Lessons learned, celebrate success, and recognition	TSMO Agreement Manager, Others as needed	PM, Deputy PM, Strategic Advisor, Task Lead(s)
10. Client Feedback	Continuous process improvement (input from all team members, WSDOT, key partners, and stakeholders as needed)	TSMO Agreement Manager, Others as needed	PM, Deputy PM, Strategic Advisor, Task Lead(s)

Addressing Contingencies: The STV definition of a project work plan contingency is any unforeseen event or circumstance that would require changes to scope, schedule, budget, intended work plan task order products, and outcomes, as well as changes to key personnel for all teaming partners listed in the organizational chart. The STV team will address contingencies by performing three steps for every task order: (1) prepare a work plan to manage and communicate the work with all parties; (2) include contingency schedule and budget for each task order as coordinated with WSDOT; and (3) utilize a “no surprises” approach, which will allow STV and WSDOT to proactively manage contingencies. We are committed to openly and proactively communicating potential issues with WSDOT. Ted and our delivery team members will create a culture that fosters early and continuous identification, planning, and monitoring process for identifying contingencies and risks.

B. Approach to Resolve Issues

The STV team’s approach to resolving issues is centered around proactive communication and building trust with WSDOT, which we accomplish by being reliable, doing what we say we’re going to do, and being well prepared. As discussed earlier, we strive for “no surprises” and use multiple tactics to create an environment that supports information sharing and communicates things as they happen. Our team is committed to the following communication when developing a Risk Mitigation Plan to resolve issues:



Risk Mitigation Plan: One of our key tools in our project management toolkit in our approach to issue resolution is the development and ongoing management of a Risk Mitigation Plan. This process starts early in a project and is a collaborative effort between the STV team and WSDOT to proactively identify potential areas of risk, as well as the likelihood, the severity, and the associated mitigation and contingency strategies to minimize the risk and resolve the issue. This process is unique to each task order, as the types of issues are unique to each project.

The table to the right illustrates how the identified risks are scored, using a 1-3 scale of likelihood and severity. Scores 1-3 are “low risk,” 4-6 are “medium risk,” and 7-9 are “high risk.” The product of likelihood and severity yields the score for use in prioritization of mitigation and contingency strategies by the STV team in coordination with WSDOT. Proactive collaboration and transparent communication are foundational to a successful Risk Mitigation Plan. Refer to Table 1 shown right.

When each potential risk issue has been identified, the practice is to then develop a mitigation plan or strategy to avoid the risk from happening in the first place and, if applicable, a contingency plan to address what will be done if the risk is realized. Refer to Table 2 shown right.

▶ **Table 1**

Risk	Likelihood	Severity	Score
Risk Issue #1	1	3	3
Risk Issue #2	2	2	4
Risk Issue #3	3	3	9

▶ **Table 2**

Risk	Mitigation	Contingency
Risk Issue #1	Mitigation Strategy for Risk Issue #1	Contingency for Risk #1
Risk Issue #2	Mitigation Strategy for Risk Issue #2	Contingency for Risk #2
Risk Issue #3	Mitigation Strategy for Risk Issue #3	Contingency for Risk #3

C. Assumptions for Work Breakdown Structure

The STV team’s general philosophy to the distribution of work between WSDOT and subconsultant team deliverables is to be great partners and ensure you can count on us to deliver, focusing on what is best for WSDOT first. The STV project leaders have a project first mentality and service mindset. We take pride in being great leaders and proactive communicators, and it brings us joy when projects successfully apply TSMO principles.

Every task order is always a partnership; however, we lead first because our goal is to ease the workload for WSDOT and instill confidence that we’ll always do what we say we’re going to do and deliver valuable products and results. In addition to the technical support our team brings to project delivery from a project management and **Work Breakdown Structure (WBS)** standpoint, the roles between WSDOT and the STV team include:

- ▶ **STV Team:** Support WSDOT; reduce stress; provide expertise; serve as trusted advisors; proactively manage scope, schedule, and budget; communicate openly; be flexible; manage teaming partners; monitor and mitigate contingencies and risks; and deliver quality products on time and under budget.
- ▶ **WSDOT:** Provide project oversight and direction; make final decisions; coordinate with partners and WSDOT leadership; and provide existing information.

In addition to being used as a tool to identify and agree upon roles and responsibilities between STV team members and WSDOT, the WBS plays a much more powerful role in overall effective project management. The Project Management Institute (PMI) Project Management Book of Knowledge (PMBOK) defines the WBS as a “deliverable oriented hierarchical decomposition of the work to be executed by the project team.” The WBS is the document where the Project Manager breaks the overall project into tasks, subtasks, and deliverables. As discussed earlier, based on project complexity Microsoft Project and/or a Google Docs Form will be our primary tool for documenting and managing the WBS, which can be tracked and reported on at various levels and frequencies based on WSDOT’s needs. The WBS will start out at the highest subtask level possible and only add the more detailed sub-sub task levels necessary to ensure project success.

ASSUMPTIONS REGARDING WSDOT AND STV TEAM RESPONSIBILITIES		
Deliverable Stage	WSDOT	STV Team
Contract Management	<ul style="list-style-type: none"> ▶ Approve contract ▶ Approve changes ▶ Engage regularly with STV PM/CRM, and Strategic Advisor ▶ Provide overall direction 	<ul style="list-style-type: none"> ▶ Deliver to the contract ▶ Monitor and communicate changes ▶ Maintain regular communications with WSDOT TSMO Agreement Manager
Scope, Schedule, and Budget	<ul style="list-style-type: none"> ▶ Describe the project needs and identify critical milestones ▶ Approve the proposed team members ▶ Review and approve scope, schedule, and budget 	<ul style="list-style-type: none"> ▶ Listen to the project needs ▶ Propose task leads and team members ▶ Deliver key team members ▶ Prepare the scope and budget
Project Delivery	<ul style="list-style-type: none"> ▶ Provide project oversight ▶ Review deliverables ▶ Coordinate with stakeholders and community ▶ Approve any changes 	<ul style="list-style-type: none"> ▶ Manage approach and schedule ▶ Facilitate meetings ▶ Coordinate with stakeholders and community ▶ Prepare work plan ▶ Prepare deliverables ▶ Manage contingencies ▶ Provide progress reports
Quality Management	<ul style="list-style-type: none"> ▶ Approve quality management and risk mitigation plans ▶ Audit quality management administration ▶ Report any non-conformances with plan 	<ul style="list-style-type: none"> ▶ Develop, manage, and administer QA/QC and risk mitigation plans ▶ Review each deliverable for quality ▶ Maintain quality documentation ▶ Self-report any non-conformances with plan
Project Closeout	<ul style="list-style-type: none"> ▶ Review consultant performance ▶ Participate in debrief ▶ Celebrate success together 	<ul style="list-style-type: none"> ▶ Complete project closeout documentation ▶ Facilitate a debrief to learn and grow ▶ Celebrate success together

The STV team has been assembled with multiple individuals who have worked well together with WSDOT and with other TSMO projects. Our past positive working relationships ensure WSDOT can work with individuals they trust. Ultimately, the distribution of work between STV and the subconsultant team members will be based on the unique project task orders. As STV’s Project Manager and Consultant Resource Manager, Ted will collaborate with WSDOT to provide the right people for the right tasks.

D. Key Issues and Critical Milestones

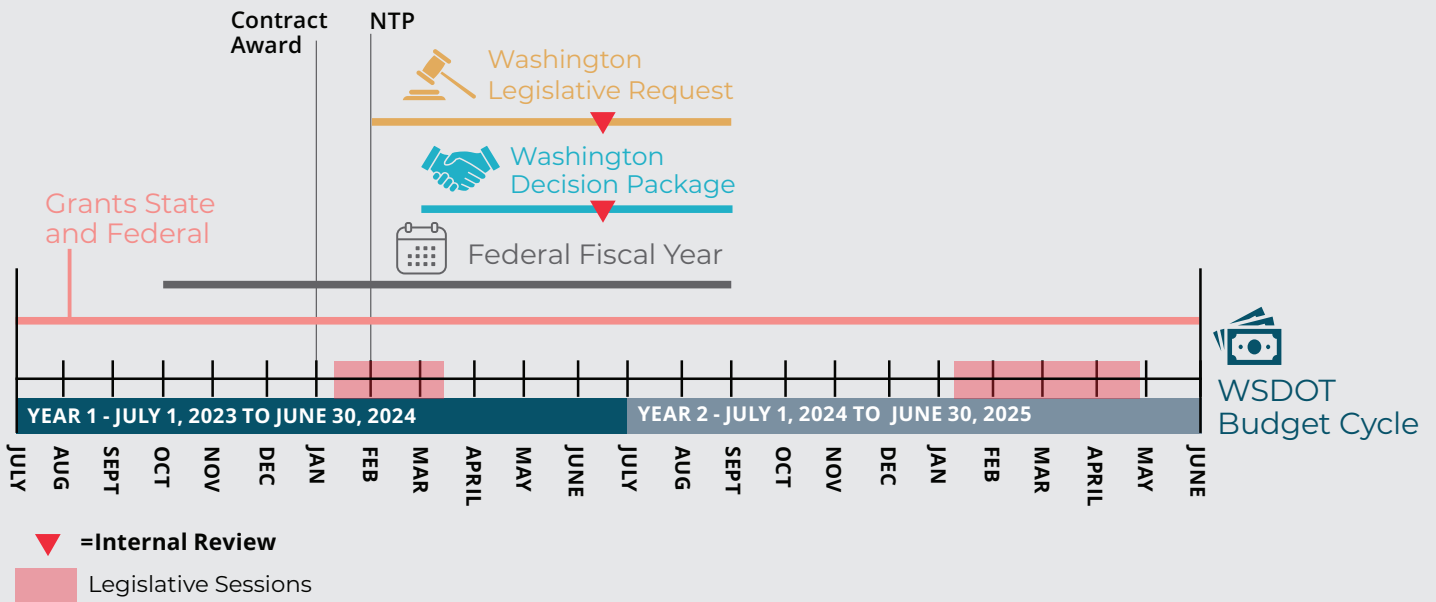
Our team members all understand the big picture that WSDOT is trying to achieve with TSMO, and we personally care about the people and outcomes. We are sensitive to the key issues and critical milestones WSDOT faces as a public agency and will provide strategic and tactical support navigating these challenges and serve as dedicated ambassadors and trusted advisors.

Key Issues: The 2024 TSMO Program Plan agreement is a Master Task Order Agreement that would likely support multiple task orders that address unique issues. Based on our experience managing on-calls and multiple task order agreements, the STV team anticipates the following potential issues.

Issue	Solution	Benefit
Managing multiple simultaneous task orders with overlapping subject matter experts	Use the STV team’s project management resources and technology to keep track of progress and provide weekly progress report, highlighting any issues.	WSDOT TSMO Agreement Manager is kept informed about available resources, track orders status, and can report back to partners about TSMO activity progress.
Aligning task order needs with expertise	A team that has a deep and personal understanding of WSDOT’s TSMO needs and will listen carefully, identify the skills needed, and align available resources with the task order.	WSDOT has access to multiple trusted individuals who have deep experience with WSDOT and the internal culture.
Producing deliverables in tight timeframes	Utilizing our team’s significant resources and experience to clearly delineate task order schedules and monitor progress to identify and resolve issues early.	WSDOT can rely on the STV team to deliver on quick turnaround tasks with quality and effectiveness.
Securing buy-in from all partners	A team that knows and understands WSDOT well—we will actively listen, proactively communicate, and help share the “why” when decisions need to be made with conflicting inputs.	WSDOT gains buy-in from partners and meets the goals of the project while working towards the overall agency goals.
Securing adequate funding for the Transportation Operations Program	Provide insights, expertise, and big picture visioning to help WSDOT tell the story of the value and importance of TSMO and to achieve the goals and priorities focused on the key areas of Safety, Resilience, Workforce Development, Diversity, Equity, and Inclusion.	External stakeholders, leaders, and the legislature understand the value of management and operations and support efforts to fund WSDOT’s Operations and Safety Programs.

Critical Milestones: The critical milestones for this TSMO Task Order Agreement will vary based on the specific task or state or federal funding and project programming requirements. For individual task orders, the STV team will work with WSDOT to identify the critical milestones on a task order-by-task order basis. The graphic below illustrates other critical milestones for WSDOT, federal funding, and relevant state and federal grants. These are important for project funding, programming, and advocating for TSMO program implementation funding and regulation changes at the state and federal level.

Given the importance of these elements to the success of each project task order and the WSDOT TSMO Program, we will work with WSDOT to refine and build upon this initial overview of key issues and critical milestones at the beginning of the contract.



▶ The STV team will work with WSDOT to identify critical milestones, federal funding, and relevant grants.

Developing Critical Milestones at the Task Order Level: In addition to supporting WSDOT through identifying, tracking, and responding to key issues and critical milestones at the big picture or programmatic level, it is equally important to identify these at the Task Order Level as well. This can be done by asking a series of simple questions at the beginning of the project and revisiting them occasionally through the project lifecycle as needed. Some examples of these questions are as follows:

1. Are there already pre-identified key milestones associated with the deliverables for this project?
 - a. Are they internally assigned for keeping the scope managed, or are they associated with external milestones, such as:
 - i. Supporting legislative reporting or tracking needs?
 - ii. State and federal funding and/or other external partner or stakeholder requirements?
2. Are there funding-related milestones associated to the projects?
 - a. Does the funding appropriation or allocation expire at a specific date to meet grant, agency, state, or federal requirements?
3. Are there additional external milestones, such as project deliverables, needed to support a regional or local agency initiative or separate project?

These types of questions will be used by the STV team in collaboration with WSDOT to develop the WBS and associated Risk Mitigation Plans.

E. Policy and Commitment to Client Communications

The STV team is committed to transparent and clear communication that puts the project first by prioritizing the well-being of individuals and relationships. This approach is the foundation for the delivery of high-quality task orders in a timely and cost-effective manner. We know that communication is the foundation of all successful teams performing collaborative deliverables and projects. We make the following commitments for this project and to WSDOT:

- ▶ Email/phone/call acknowledgment/response: < 24 hours
- ▶ Internal team and status check-ins: Weekly
- ▶ Emailed Task Orders status updates: Bi-weekly
- ▶ Project Task Orders reviews with WSDOT: Weekly, virtual or in-person, or as needed based on task order needs
- ▶ Invoicing and progress reports: Monthly
- ▶ Electronic Task Order schedule tracking: As needed, in real-time
- ▶ In-person project meetings with WSDOT: As needed, with 1-2 days notice
- ▶ Troubleshooting, questions, brainstorming: A phone call away, any time of day

These aren't just the project team's commitment—these are STV's commitment. Our company's values mean more to us than words on paper. We strive every day to deliver on all of these, which make up our Commitment to Client Communications, as described throughout our SOQ.

"As Project Manager and Consultant Resource Manager, I am personally committed to keeping an open line of communication with WSDOT. Our philosophy is 'no surprises,' and we will communicate often and early and keep WSDOT in the loop on all activities. I am excited for the opportunity to lead this team for a client and project I feel extremely passionate about."

Ted J Bailey

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STV'S CORE VALUES

- ▶ **Integrity** means we do what's right.
 - We are consistent and transparent.
 - We are ethical and accountable.
 - We are safety-focused and quality-driven.
 - We know diversity leads to better outcomes.
- ▶ **Partnership** means we partner to deliver.
 - We value all relationships.
 - We are collaborative to drive innovation.
 - We are resourceful to create solutions.
 - We are actively engaged in our industry and our communities.
- ▶ **Optimism** means we see opportunity.
 - We see potential in every situation.
 - We are energized to create a better future.
 - We are empowered to use our talents.



INTEGRITY | PARTNERSHIP | OPTIMISM

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