

# PACKET A

# Freight Mobility Strategic Investment Board Six-Year Plan Preparation



Prepared by: TRANSPO GROUP 12131 113th Ave NE, Ste 203 Kirkland, WA 98034 425.821.3665

# transpogroup

Clients

Personnel

74 employees

Public Agencies,

Private Development

#### Headquarters

Kirkland, WA

Branch Office New City, NY

**EST** 1975

#### **Firm Overview**

**TRANSPO GROUP** has assisted municipal agencies with transportation engineering and design projects since 1975. We plan and design transportation systems for people—not just drivers of cars and trucks, but also the pedestrians, cyclists, and transit riders who share these systems.

We create transportation solutions, from transitoriented development to context-sensitive designs, that enable a more sustainable tomorrow for communities of all sizes, and still get everyone where they need to go today. Our team of engineers, planners and technical resources includes a full range of skilled experts to help you with your project.

#### **Added Value**

Transpo has an in-house Creative Services team that is highly skilled at creating graphics and artistic drawings to help illustrate concepts to the public, and an in-house GIS Services team, an experienced group of analysts who provide support in all aspects of GIS mapping – data collection, database development and design, and visually merging and displaying data within a base map to easily communicate information.

#### PLANNING SERVICES

- Safe Routes to Schools
- Multimodal Transportation
- Planning
- Active Transportation Planning
- Corridor Studies
- Complete Streets
- Traffic Simulation Modeling
- Traffic Impact Studies
- Travel Demand Modeling
- Parking Evaluations
- Transportation Impact Fees
- Traffic Operations Analysis
- GIS/CAD Services
- Freight Planning & Operations
- ADA Transition Plans
- Concurrency Evaluation
- Transit Planning
- Safety Studies
- Grant Applications

#### ENGINEERING SERVICES

- Roadway and Geometric Design
- Traffic Signals
- Roundabouts
- Intelligent Transportation Systems
- Illumination & Power Supply Design
- Geometric Design
- Traffic Calming
- Ped/Bike Facilities
- Pavement Markings and Signage
- Development Standards/Plan Review
- Safety Audits
- Cost Estimating
- Specifications Development
- Plans Preparation
- Work Zone Traffic Control
- ADA Design
- Sidewalks and Curb Ramps

#### **Relevant Project Examples**

#### Prioritization of Prominent Road-Rail Conflicts in Washington State

## Client: Joint Transportation Committee (JTC), Washington State Legislature

In 2016, the State Legislature directed the JTC to conduct a study to evaluate the impacts of prominent road-rail conflicts and to develop a corridor-based prioritization process for addressing the impacts on a statewide level. Transpo led the study and developed a data-driven approach to evaluate and prioritize crossings throughout the state. It started with collecting and reviewing available data for crossings. Data gaps and inconsistencies were identified, such as where no data existed or where data quality was in guestion. A prioritization framework was then prepared to analyze and test various evaluation criteria and scoring methodologies to understand the magnitude of crossing needs. To assist in the overall prioritization process, an at-grade crossing GIS database was created with ESRI ArcGIS, along with an interactive web application to store and display the results.

#### **PROJECT RELEVANCE**

- Developing a prioritization process focused on improving the safety of rail crossings in Washington State.
- Analyzing and utilizing a range of data
- Managing a diverse group of stakeholders from the freight industry, along with state and local agencies.

#### Study of Road-Rail Crossing Improvements

Client: Freight Mobility Strategic Investment Board (FMSIB)

When the original JTC study was completed in 2017 it identified the need to "utilize a corridorbased prioritization strategy to assist in developing solutions and prioritizing investments." To better understand the project needs throughout the state, the Legislature in 2017 directed FMSIB to identify and recommend a statewide list of rail crossing improvements. Transpo led the study that utilized the database developed from the prior effort, along with additional project data from Regional Transportation Planning Organizations (RTPOs) and Metropolitan Planning Organization (MPOs), to prepare a prioritized list of railroad crossing improvement projects utilizing a corridor-based process.

- Working directly for FMSIB
- Preparing a list of project priorities for the State Legislature
- Managing a diverse group of stakeholders from the freight industry, along with state and local agencies representatives.



Map of Statewide recommended rail crossing improvements projects

#### On-call Transportation Planning Analysis, Conceptual esign, ITS, and Communication Consulting

#### Client: Northwest Seaport Alliance, Port of Tacoma

**Transpo Group** has been delivering tasks as part of the 2018-2023 NWSA and Port of Tacoma Transportation Services IDIQ. The work over the last five years has focused on the following tasks:

*Port Community System Development* The team worked to develop and design a Port Community System (PCS) for the NWSA. The team designed the PCS to securely share information between public and private stakeholders and optimize, manage and automate port and logistics processes through a common platform for data exchange. This PCS can help to improve the coordination of freight movement at port facilities across the U.S. and it can advance terminal efficiency, reduce delays, and improve supply chain visibility for Beneficial Cargo Owners—all of which can act to promote retention and growth of discretionary cargo.

#### ITS Project Grant Management and Procurement Support

Grant management and procurement support was provided to ensure that the NWSA could use two awarded grants: a FAST formula grant supporting the development of the PCS, and a CMAQ grant focused on a FRATIS information dissemination system, a sub-system of the PCS.

#### West Seattle Bridge Scenario Planning and Modeling Support

The Duwamish MIC freight operational model was utilized to analyze future transportation network scenarios with the West Seattle Bridge closure to understand their associated impacts to NWSA and Port of Seattle facilities. The closure, coupled with the travel changes



Example freight project prioritization effort for the Port of Tacoma

resulting from the COVID-19 emergency, were evaluated from the NWSA perspective to identify potential operational changes or investments to maintain adequate freight mobility.

## Tideflats Area Modeling and Project Prioritization

The team enhanced the Tacoma Travel Model (TTM) to support the evaluation and confirmation of transportation project priorities in the Tacoma Tideflats area to improve mobility and reliability of truck trips to/from the Port terminals. The project involved multiple tasks aimed at enhancing roadway access priorities and project recommendations, such as refining the TTM to develop a more accurate representation of truck trips to/from & within the port area. The effort included a detailed trip generation study that developed first-of-its-kind trip generation rates for container terminals. To assist in the evaluation of network improvements, a detailed operational model was developed and a analytical framework was prepared to evaluate various network scenarios comprehensively.

- Performing a project evaluation and prioritization effort of freight relates projects
- > Familiarity with freight related needs in the state

#### I-5 JBLM Corridor Improvements

#### Client: WSDOT

Since 2008, Transpo has been assisting WSDOT and the surrounding communities to plan and identify improvements between Mounts Road and SR 512 along I-5. Transpo continues to support the GEC team with transportation planning and traffic engineering services as part of the delivery of the corridor improvements. The initial effort began with Transpo Group leading a feasibility study funded by the Department of Defense to identify a range of options to improve mobility through the I-5 JBLM corridor. Then in 2012, the State Legislature funded the Congestion Relief Study, with Transpo Group as a key team member providing the necessary transportation planning and modeling services. The study utilized practical design and least-cost planning strategies and 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. Using the Planning and Environmental Linkage (PEL) process, the team facilitated a unique methodology in developing evaluation criteria to screen the alternatives to a preferred shortlist package. Both the WSDOT Urban Planning Office and Headquarters Traffic Office endorsed the process in integrating planning principles with robust modeling applications and practical design considerations. The study was closely coordinated with multiple agencies and stakeholder groups, including the Federal Highway Administration (FHWA), JBLM, Camp Murray, Puget Sound Regional Council (PSRC), Pierce County, and the City of Lakewood.

#### **PROJECT RELEVANCE**

- Working with a group of diverse stakeholders to identify a program of improvements
- Developing materials to assist in funding advocacy at the State Legislature



Before - 2018



Before - 2018



After - 2021



After - 2021

#### Southern California Freight Study

#### Client: CALTRANS

Transpo assisted in developing a sustainable freight plan with a regional perspective on goods movement travel demands, sustainability challenges, innovative opportunities, and regional priorities across Caltrans Districts 7, 8, and 12. The study recommends a list of prioritized freight projects and strategies that will help reduce greenhouse gas emissions; reduce congestion; increase system efficiency and throughput; and reduce freight impacts on health, safety, and quality of life in communities that are disproportionately affected by major freight corridors and facilities.

#### **PROJECT RELEVANCE**

- Developing a list of prioritized freight projects
- Using a range of criteria to evaluate projects

#### **Environmental Review and Permitting IDIQ**

#### Client: Port of Seattle

Transpo supports the Port on transportation task orders including the annual traffic monitoring study for Terminal 91. The study is conducted to determine whether future traffic volumes and levels of service around the cruise ship terminal stay within established "trigger" levels in accordance with the Terminal 91 Short Fill Redevelopment Agreement (SFRA) between the Port of Seattle and the neighborhood community councils of Magnolia and Queen Anne. Other task orders have included transportation needs associated with potential redevelopment at Fisherman's Terminal, along with supporting the Port of Seattle in evaluating the impacts to Port properties and operations due to the expansion of light rail between West Seattle and Ballard.

#### **PROJECT RELEVANCE**

- Evaluating truck mobility needs
- Representing freight interests

#### **Container Terminal Access Study**

#### Client: Port of Seattle

Transpo led a team to update truck travel data and evaluation tools to evaluate truck operational measures along key access routes and connectors to the Port terminals, including numerous rail crossings. The study reviewed three Port operating scenarios that reflect alternative growth scenarios in container throughput. Transpo worked alongside Port staff to better identify truck travel paths to each of the terminals and intermodal facilities. and understand the daily and seasonal trends in the number of truck trips. The study included coordination with partner agencies and facilitation of a workshop to gain agreement on analysis methodology and evaluation tools. Transpo developed a truck model to provide an analytical framework that could be used by Port staff, and partner agencies in future planning efforts. The model was used to test improvement options such as improved rail and waterway crossings.

- Utilizing a multi-criteria analysis to identify potential improvements.
- Developing freight forecasts
- Working with a group of stakeholders representing the trucking, rail, and port industries.



#### Freight Access Project (FAP)

#### Client: Port of Seattle, Seattle Department of Transportation

Transpo led a team to complete the Freight Access Project (FAP), a partnership between SDOT and the Port of Seattle, to examine current and future truck freight bottlenecks and problem locations, and gain consensus on investments. The FAP sought to identify transportation improvement projects within the area that would increase safety for all travel modes, maintain and improve freight-truck mobility and access to accommodate expected general traffic, freight, and cargo growth, and ensure connectivity for major freight intermodal and transload facilities.

Transpo identified cost-effective operational and capital improvements to maintain and improve freight access and circulation, including key connections to the regional transportation system. The FAP resulted in a set of solutions and an implementation plan to guide future decision making on freight mobility improvements. The project included close coordination with members of the manufacturing and trucking industry, and the City's Freight Advisory Board.

#### PROJECT RELEVANCE

- Development of a prioritization process to confirm high priority projects
- Preparing a set of freight solutions for legislative action





#### Metropolitan/ Regional Transportation Plan & Coordinated Public Transit-Human Services Transportation plan

#### Skagit and Island Counties, WA

Transpo assisted the Skagit Council of Governments with an update to the Skagit-Island Metropolitan/Regional Transportation Plan. As part of the plan, Transpo worked with Skagit Transit and Island Transit to update the Coordinated Public Transit-Human Services Transportation plan. The plan addressed challenges posed by the land-use characteristics of both regions: Island County has unique requirements due to ferry service and its multi-island topography, and Skagit County has a predominately rural population. The plan identified the need for high priority projects such as expanding operations to connect rural populations to existing commuter services, and replacing transit vehicles.

- Preparation of a regional transportation plan
- Working directly for a RTPO/MPO organization

#### Statewide Human Services Transportation Plan

#### Client: WSDOT

Transpo worked with a diverse group of stakeholders to establish a statewide human services transportation plan (HSTP) that encourages collaboration in planning among regional organizations. As one of the first statewide HSTPs in the nation, the project built upon local needs and recommendations of the state's 13 regional transportation plans and integrated common strategies for application at a higher level. Transpo's work included a needs analysis, reviewing best practices, and conducting interviews in the field with riders. The final plan presented a broad set of recommendations to address gaps in existing HSTPs.

#### **PROJECT RELEVANCE**

- Preparing a statewide plan
- Coordinating with group of diverse stakeholders

#### Metropolitan and Regional Transportation Plan Update

#### Client: Yakima Valley Council of Governments (YVCOG)

Transpo developed and implemented a plan that recommends a regional multimodal transportation system to support the region's anticipated growth over the next 20 years. The team led a transportation needs analysis, a land use and economic analysis, project prioritization process based on financial constraints, and evaluation of potential environmental constraints associated with implementing specific projects. A broad public engagement process was also conducted.

#### PROJECT RELEVANCE

- Preparation of a regional transportation plan
- Working directly for a RTPO/MPO organization

#### I-5 Skagit Transportation Study

#### Client: WSDOT

Transpo and Stepherson recently assisted the WSDOT Northwest Region Mount Baker Area in completing the Phase 1 effort of the I-5 Skagit Transportation Study. The study 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 in Skagit County 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. This study analyzed current and future conditions and overlaid those needs with the community use of the interstate and the environmental issues within the corridor.

- Working directly for WSDOT
- Developing a project evaluation process



## 2. QUALIFICATIONS OF PROPOSED PROJECT MANAGER



JON PASCAL, PE Principal, Project Manager Jon is a principal of the firm with a wide range of experience in leading complex transportation

study efforts for public agencies throughout the state, including a strong understanding of the operations and objectives of ports and freight providers. His experience includes managing corridor and subarea studies, multimodal analyses, freight and logistics studies, citywide and regional transportation plans, alternatives evaluations, and economic and funding analyses. He was the project manager for the Joint Transportation Committee Statewide Road-Rail Prioritization effort for the State Legislature, and the follow-on rail crossing funding prioritization effort for the Freight Mobility Strategic Investment Board. He currently manages transportation services contracts for the Northwest Seaport Alliance, Port of Tacoma and Port of Seattle. Jon has had a long and successful history of providing transportation planning and policy support on freight related efforts. He led the development of the Port of Seattle Container Terminal Access Study and developed freight plans for the City of Seattle, and the Ports of Tacoma and Seattle. He has a deep understanding of the freight system, the transportation challenges industrial users experience, and the changing dynamics of freight logistics and demands.

#### **PROJECT EXPERIENCE**

#### **Rail Crossing Funding Priorities**

*Freight Mobility Strategic Investment Board* Jon managed a detailed prioritization effort that evaluated the type and cost of projects to address prominent road-rail conflicts identified as part of a statewide rail crossing study. The study developed and incorporated a corridor-based approach to identify the solutions and costs necessary to address the top crossings in the state.

#### AREAS OF EXPERTISE

- Freight Operations and Planning
- Multimodal Safety and Design
- Alternatives Analysis and Project Prioritization
- Transportation Policy
- Land Use and Travel Forecasting
- Public/Stakeholder Outreach

#### **EDUCATION**

MS, Engineering, University of Washington

BS, Forestry, University of Washington

#### LICENSURE

PE, Washington, Idaho

#### **MEMBERSHIPS**

- Institute of Transportation Engineering (ITE)
- Washington State Active Transportation Safety Council
- State Transportation Improvement Board
- Kirkland City Council

#### VALUE TO THE TEAM

- Managed the Joint Transportation Committee's Prioritization of Road-Rail Conflicts study and brings an understanding of developing a plan for legislative action.
- Regularly leads complex freight studies across the state evaluating and identifying infrastructure investments to improve freight mobility.
- Worked directly for FMSIB to prepare a similar statewide prioritization effort and report to the Legislature.

## 2. QUALIFICATIONS OF PROPOSED PROJECT MANAGER

#### **Industrial Areas Freight Access Plan**

Seattle Department of Transportation Jon led this joint effort with SDOT and the Port of Seattle to examine current and future truck freight bottlenecks and problem locations. He identified and prioritized operational and capital improvements to maintain and improve freight access and circulation within and between industrial centers.

#### Statewide Rail Crossing Study

Washington State Legislature Jon led a study for the Joint Transportation Committee (JTC) of the Washington State Legislature to evaluate the impacts of prominent road-rail conflicts and develop a corridor-based prioritization process for addressing the needs of at-grade rail crossings on a statewide basis.

#### Freight Transportation Services IDIQ

Port of Tacoma/Northwest Seaport Alliance Jon is managing an IDIQ contract completing task orders on freight focused projects such as evaluating project priorities around the Port of Tacoma or working to identify technology improvements to reduce freight congestion at the marine terminals in Seattle and Tacoma.

#### **Strategic Transportation Advisory IDIQ** *Port of Seattle*

Jon leads several transportation IDIQ contracts for the Port of Seattle to provide strategic transportation advice on policies, programs, and projects to advance the Port's freight priorities. He has been representing Port interests as part of the Sound Transit West Seattle to Ballard Light Rail Extension and ensuring impacts to freight mobility are avoided or mitigated.

VALUE AS PM	PROJECT EXAMPLE	CLIENT	
Managing projects of similar complexity and scope	I-5 JBLM Alternatives Analysis	City of Lakewood/WSDOT	
	Statewide Rail Crossing Study	State Legislature	
	JBLM Transportation Needs Analysis	South Sound Military and Communities Partnership	
Past history working on WSDOT transportation studies	SR 169/164 Corridor Studies	WSDOT	
	I-5 JBLM Corridor Improvements	WSDOT	
	SR 519 IJR and Environmental Doc.	WSDOT	
Evaluating and screening alternatives	I-5 JBLM Vicinity Congestion Relief	WSDOT	
	SR 164 East Auburn Access Study	Muckleshoot Tribe/WSDOT	
	North Lewis County Industrial Access	Lewis County	
	JBLM Growth Coordination Plan	JBLM	
Freight related plan development and policy development	Rail Crossing Priorities	FMSIB	
	Seattle Freight Access Plan	City of Seattle / Port of Seattle	
	Tideflats Project Prioritization	Port of Tacoma	

The team below was specifically assembled to bring together particular expertise to provide FMSIB with the knowledge and ability to manage a project prioritization process and work with a group of freight focused stakeholders. The chart below summarizes the roles of each key team member.



#### **Team Overview**

PRIORITIZATION

As shown in the team organizational chart, **Jon Pascal** will be our project manager and will guide the preparation of the 6-Year Plan. He will ensure the work is performed as planned, coordinate with FMSIB and stakeholders, and oversee quality while managing each of the work tasks. Jon is a hands-on project manager and will also play an active role in meetings and interviews with agencies. He successfully led a similar process for FMSIB to identify and rank solutions to address the highest priority railroad crossings in the state.

Mark Jensen will serve as Quality Control Manager. Mark is Transpo's Executive Director of Technology and has an extensive freight background. He will ensure our project management plan is followed. **Daniel Hendrick**s will lead the project evaluation and prioritization process, and also be responsible for the plan development. He will be assisted by **Brent Turley** and **Bob Sisco** in processing, collecting, and analyzing the project data during the plan development. The team offers familiarity with analyzing large datasets and prioritizing investments. Bob brings a history of developing easily accessible online maps and datasets so project team members and stakeholder can display the results of the prioritization exercise.

Helping with facilitation of meetings and interviews with stakeholders will be **Jane Jessen**. She will work closely with Jon on obtaining feedback on the prioritization results and plan development. She will also assist in preparing meeting materials, developing communication materials with lead agencies, and will be an integral part of the final plan preparation and supporting materials.



MARK JENSEN Quality Control Manager Mark has played lead role on over 30 freight planning and operations projects, focusing on a diverse set of technical areas, including

freight corridor planning, operations research, congestion management, commercial vehicle operations, freight technology systems engineering and pilots, freight security, and multiple areas of analysis/evaluation of projects and programs. He is currently about to begin work on a major truck parking planning and innovation project for WSDOT, which is being coordinated with the FMSIB. This work will build upon recent work he had performed in this area, including a freight operations concept he developed for the I-10 Corridor between LA and Houston to plan and design truck parking availability systems (TPAS) – this including writing the \$14M successful ATCMTD grant, which is now funding the construction of the TPAS at 24 I-10 corridor truck rest stops. He served 8-year terms on three TRB freight-related committees and wrote the national guidance book for TRB on public-private freight data sharing guidance and best practices.

#### **PROJECT EXPERIENCE**

#### Texas Freight Network Technologies and Operations Plan (FNTOP)

TxDOT

Mark recently led this 1.5 year, \$1.7M large-scale technology planning effort to guide the implementation of advanced ITS, truck automation, and connected technologies over the next decade.

#### I-10 Western Connected Freight Corridor ConOps

#### I-10 Corridor Coalition

The Coalition consists of the DOTs of CA, AZ, NM and TX, in partnership with TTI, Mark worked on the Conceptual Framework and ConOps, which encompasses Traveler Information; Truck Parking Availability; Roadside Safety Communication; and Infrastructure Support for Automation.

#### VALUE TO THE TEAM

- Conducted assessment for FHWA on ITS and big data for FMSIB needs, aiding freight project selection.
- Leads projects for senior legislative officials offering innovative transportation recommendations.
- Blends expertise in freight planning, operations, technology, and funding strategies for comprehensive support.

## I-710 Zero Emissions Freight Corridor

Mark led the technology planning effort for automated truck operations on the future potential construction of dedicated truck lanes on the I-710 freeway, and assessed future zero emission truck technologies – including fully electrics trucks and LNG trucks.

#### **Oregon Statewide Freight Plan**

#### Oregon DOT

Mark led the development of the freight infrastructure profile for the state, which encompassed the development of strategic freight criteria across all freight modes, and resulted in detailed GIS maps which helped to highlight key freight issues across the state.

#### FAST Corridor Phase II Study

#### WSDOT

Mark led the freight mobility operations analysis in support of the Everett-Seattle-Tacoma (FAST) Corridor Needs Study that was conducted for the WSDOT Office of Urban Mobility.

#### FHWA FMSIB Evaluation Project

*Freight Mobility Strategic Investment Board* Mark evaluated new technologies for supporting freight planning, policy, and funding. This involved interviewing legislative staff and transportation planners to identify ITS sensor metrics for project evaluation.



**DANIEL HENDRICKS, TE** *Project Evaluation and Prioritization* Daniel is a transportation engineer at Transpo Group with a diverse

background conducting transportation analyses for a wide range of project types in the State of Washington and beyond. He has extensive experience preparing and reviewing grant applications for several local, state and federal funding opportunities, ensuring project consistency with the funding goals and objectives of these programs. Daniel has worked on several freightfocused projects and has an understanding of the requirements for successfully delivering these projects. Daniel was part of the team providing on-call planning services to the Port of Long Beach (California), which included forecasting freight travel demands and developing grant funding strategies and pursuits. He has familiarity with WSDOT procedures and requirements and is currently working closely with them to deliver several projects on or connecting to the State highway network.

#### **PROJECT EXPERIENCE**

#### Meridian Avenue (SR 161) Corridor Study

#### City of Edgewood

Daniel is part of the team developing the proposed concept for the Meridian Avenue corridor through the City Of Edgewood. As this roadway serves as State Route 161, the preparation of this corridor study has required close coordination with WSDOT to ensure the project improvements align with the regional plans for the roadway network. Daniel has worked directly with the City, project partners (including WSDOT), and key stakeholders to ensure that the recommended concept addresses the needs of all parties. He worked closely with the project team to develop the evaluation criteria and metrics used to rank the proposed alternatives and arrive at a recommended concept for the roadway.

#### VALUE TO THE TEAM

- Developed evaluation criteria and ranked project alternatives for multiple projects following standard WSDOT processes.
- Developed and reviewed grant applications for numerous funding programs.
- Worked on numerous projects to gather information and feedback from key project partners.

#### Allen Street Corridor Transportation Study

#### City of Kelso

Daniel helped identify roadway improvements along Allen Street at the I-5 Interchange. He played a key role in evaluating and scoring the proposed concepts based on evaluation criteria developed to align with the project goals and objectives. As a project connecting directly to the State highway network, continuous coordination has been conducted with WSDOT to ensure that the design of the on- and offramp intersections does not create unintended impacts to the freeway network.

#### **Shoemaker Bridge Replacement Project**

#### City of Long Beach, CA

Daniel helped develop, review, and submit grant applications for several state and federal grant funding programs for the improvements associated with the replacement and realignment of Shoemaker Bridge and its connecting roadways. This bridge, which connects the City and the Ports of Los Angeles and Long Beach, serves as a key facility for the distribution of freight traffic throughout the region. Daniel was instrumental in evaluating and quantifying the benefits of the project (especially as they related to the priorities of each funding program) and weighing those against the project's construction and design costs. To date, the project has received over \$30 million in grant funding.



**BRENT TURLEY, PE** *Data Analysis* Brent is a leader in comprehensive transportation planning, corridor traffic analysis, travel demand

modeling, and multimodal network development. He combines his big-picture planning talents with his detailed data-driven engineering expertise to find practical long-lasting transportation solutions for communities, MPOs, and state agencies. He is an expert user of traffic operations software, travel demand modeling suites, and ESRI GIS platforms. Brent frequently participates in industry conferences, conducts technical development training, and has been published in the ITE Journal.

#### **PROJECT EXPERIENCE**

#### Prioritization of Prominent Road-Rail Conflicts in Washington State

Freight Mobility Strategic Investment Board Brent was a key lead in the development of the data-driven approach for evaluating road-rail conflicts throughout Washington State. The project included the compilation of various databases and data sources into one GIS-focused data set. Brent led in the refinement of data base attributes and prioritization framework to be used in the initial screening and final prioritization processes.

#### Study of Road-Rail Crossings Improvements

Washington Joint Transportation Committee This study was an implementation action item from the original Prioritization of Prominent Road-Rail Conflicts project. Brent developed the framework to translate the original slate of prioritized crossing improvements into a corridorbased strategy. Additional project data in the area were integrated from Regional Transportation and Metropolitan Planning Organizations to aid in prioritizing improvements based on rail corridors.

#### VALUE TO THE TEAM

- Prior history working for FMSIB
- Evaluating a range of data to assist in prioritizing projects
- Developing detailed analytical frameworks to address the needs of stakeholders of projects and stakeholders

#### **Container Terminal Access Study**

#### Port of Seattle

Brent assisted in the compilation of truck, auto, rail, and other port traffic movements through south Seattle to understand existing street network usage and forecast future potential increases in conflict points in the area. The area includes numerous truck-rail crossings that complicate freight movements to and from the Port of Seattle.

#### Wenatchee Valley Urbanized Area Freight Study

*Chelan-Douglas Transportation Council (CDTC)* Brent led the development of a defined freight network for the Wenatchee Valley area. Brent customized a decision tree to identify primary and supporting freight routes as well as truck-restricted roads, consistent with the feedback and guidance of the Technical Advisory Committee. The overall project was to identify strategies for improving the freight mobility within the Wenatchee region.

#### I-5 Joint Base Lewis-McChord Corridor Study WSDOT

Brent led the travel demand model development covering most of Pierce County and neighboring Thurston county to address the I-5 corridor LOS and project needs. He assisted the multidisciplined project team with the traffic forecasting and operations analysis of freeway, interchange, and local arterial improvement alternatives to relieve traffic congestion, improve safety, and increase transit and alternative commute opportunities on the I-5 corridor near JBLM.



**BOB SISCO, CDD** *GIS Analysis* Bob brings over 25 years of experience in computer technologies with 16 years

in GIS and civil engineering. He specializes in multiple platforms in both GIS and CAD software environments and their data interoperability. With an aptitude for organizing information and creating visuals designed to clearly illustrate complex issues, Bob's work at Transpo ensures that data is accessible to and understood by all variety of audiences and end-users.

Having served as both a consultant and a public agency employee, Bob offers a unique understanding of client needs. He brings a passion for interactive maps and information that display intelligent data to help guide decision makers using a variety of desktop, web, and mobile applications. His diverse experience includes implementation, management, and maintenance of enterprise GIS systems, interactive map application design, expertise in asset inventory GIS database design, designing and maintaining pavement management system GIS layers, and asset systems integration.

Bob is a professionally Certified Civil Designer (CDD) from the American Design Drafting Association, as well as an instructor for Civil CAD and GIS software courses at Lake Washington Institute of Technology.

#### **PROJECT EXPERIENCE**

#### **Road-Rail Conflicts Study Interactive Analysis**

Washington State Legislature

Bob assisted with a GIS data set of over 4,000 road-rail crossings to identify the most critical public active at-grade rail crossings. This involved GIS analytics to compile various data sets to filter and sort the important road-rail crossings. He created an interactive web portal to share analysis results with agency staff and elected officials.

#### VALUE TO THE TEAM

- Prior experience with FMSIB on the Road-Rail Crossing Improvements study
- Preparing online mapping and dashboards so stakeholders can interact with data in real-time
- Extensive experience with GIS/ CAD systems, interactive viewers, databases, and asset inventories related to transportation planning, design engineering, and asset management.

This Interactive WebGIS Portal allowed all stakeholders to view projects at crossings by tier, top 300 prominent road-rail crossing conflicts needing to be addressed, state routes and major roadways from WSDOT, freight routes from FGTSWA, and first-last freights mile connections from WSDOT; all selectable in a single web visualization application.

#### Various Interactive ADA Transition Plans & GIS Analysis, WA State

Tukwila | Duvall | SeaTac | King County | Bellingham | Whatcom County | Sammamish | Walla Walla| University of Washington | Mountlake Terrace | Monroe | Wenatchee | Renton | Woodinville | Port Angeles | Kenmore Bob continues to assist both past and present ADA Transition Plans for cities and counties in Washington State. His assistance with GIS data review, asset data collection, GIS analysis, interactive map viewer applications, and the development of a GIS-based online barrier removal tracking tool, allows agencies to leverage GIS technology; and to interactively visualize ADA databases, prioritization, and document barriers removed during transition.



JANE JESSEN Facilitation and Engagement Jane has worked in marketing and graphic design for over 25 vears and has been involved

in public outreach, marketing, and designing projects for Transpo for over 10 years. She has led public outreach efforts for for cities and counties throughout Puget Sound. She manages Transpo's Creative Services team, and regularly leads design projects of all sizes, from large-scale reports to web content design, developing outreach materials and infographics, all of which require a knowledge of the audience and an eye for detail. Jane and her team have supported numerous public outreach events, on-line open houses, created outreach graphics, report graphics, and designed and facilitated community surveys. Jane has an easy-going manner that put people at ease and helps foster a smooth outreach process, and allows her to focus on delivering quality products and good customer service.

#### **PROJECT EXPERIENCE**

#### **Meridian Avenue Corridor Study**

#### City of Edgewood

This study included a comprehensive public outreach plan that incorporates goals and objectives across a few different groups that Jane is responsible for coordinating, including a Corridor Working Group that consists of representatives from neighboring communities, transit partners, and WSDOT. Jane also led a series of stakeholder interviews of local businesses that are along the corridor and presented at a Public Open House to inform and gather feedback from the general public. She will be developing a public online survey, and assisting with an in-person public workshop once alternatives for the corridor are developed.

#### VALUE TO THE TEAM

- Expertise at facilitating meetings
- Public Outreach materials preparation experience
- > Online outreach development experience

#### Long Range Transportation Plan (LRTP) Update

Transpo delivered the 2020-2040 Long-Range Transportation Plan. Jane led the development of outreach materials, including survey development and public information boards for both formal project-oriented meetings and "pop-up" booths at major public events in the region. Surveys for the public were translated for the first time into the region's top five Limited English Proficiency (LEP) languages. She also managed the graphic design for the LRTP final document which will guide federal investment in the region's transportation network over the plan's 20-year horizon.

#### **ADA Transition Plans**

Multiple Agencies | Washington State Transpo has completed dozens of ADA Transition Plans for agencies throughout Washington State, and Jane has provided both outreach and graphics support for most of these plans. Graphics include the design of websites and surveys for extensive public outreach processes for clients such as the University of Washington and King County. These websites typically include an interactive map that allows members of the public to identify specific locations of concern. The data that is collected during the initial phase of the project, as well as recommendations and priority projects are summarized in a final report to easily convey information for public consumption.

## 4. FIRM'S PROJECT MANAGEMENT SYSTEM

#### **Approach to Project Management**

Client service is a central value to Transpo that defines how we approach and deliver each of our projects. We believe that the success of a project depends on understanding FMSIB's expectations, providing services that are commensurate with industry and agency standards, and meeting identified project and stakeholder needs.

At the outset of the project, Transpo will work with FMSIB staff to confirm roles and responsibilities for project team members, identify communication protocols, and identify success criteria for the project. Subsequently, Transpo will work to finalize the project scope, deliverables, budget and schedule. Risk assessment, change management strategies and project communication plans will be incorporated into this process. Once these tasks have been reviewed and confirmed by the project team, Transpo will proceed with the project as planned, providing continuous support and regular team communications.

At the end of all projects, Transpo conducts a project closure process that includes a project debrief where the initial project goals and objectives are revisited and lessons learned from the project are shared among the project team.

This general project management framework is standard for Transpo's projects.

#### Quality Assurance / Quality Control Process



Transpo's assigned Project Manager, Jon Pascal, is ultimately responsible for ensuring that the

project meets FMSIB's expectations, standards, and requirements. Transpo has implemented a comprehensive Quality Assurance/Quality Control Process (QC Process) that facilitates quality control at all levels of a project, from planning and coordination through execution, delivery, and follow-up. Mark Jensen will serve as our Quality Control Manager for this project. Transpo's QC process is two-fold: it is designed to facilitate communication between the project manager and client, and it is designed to provide standards and resources to the project team to facilitate execution of specific work tasks.

Electronic forms serve as a checklist for points when quality control is identified to be executed on a specific project. At the outset of each project, the project manager and QC manager work together to fill in the checklist by identifying all tasks that will require QC, develop a plan for internal project progress meetings, and a plan for regular client contact. This form is a living document that is maintained in the project directory throughout the life of the project and is flexible enough to be adapted as the needs of the project evolve. The QC manager is involved in all pivotal project decision points, and all deliverables are checked for technical and qualitative accuracy before leaving our office.

Transpo has developed a set of project management and technical standards that are at our staff's fingertips. Project management guidelines are provided for everything from project kick-off meetings to project closure. All components of Transpo's QC process, including the QC checklist, policies, and standards are organized in a central location, readily accessible to all staff members through our intranet.

#### **Project Tracking System**

Transpo uses both state-of-the-art and standard proven tools to track budget, scope, and schedule for each of our projects.

#### **Tracking Budgets**

Transpo uses Vision, a comprehensive database system created by Deltek, to track everything from client contact information to project budget status. A link to the Vision database is located on each of our staff's computers. Every project manager and assigned team member at Transpo has pre-set reports that can be run at any time to

## 4. FIRM'S PROJECT MANAGEMENT SYSTEM

check the status of all projects they are managing. Through these reports, project managers and QC managers have immediate access to realtime detail for their individual project assignments that can be generated on a monthly, weekly or even daily basis. One of the reports is called an Earnings Report, which our project managers and QC managers use to review total budget, remaining backlog, percent progress, budget spent to date and invoicing status – all on a task-by-task and total-project basis. Other preset reports are configured to provide detail on all hours billed to date by each staff member, on subconsultant billings and on all expenses.

#### **Tracking Scope**

Through both Vision and our QC process, Transpo project managers and QC managers track project progress relative to scope. Through regular internal project team meetings, the work scope is re-visited and compared with actual project progress (provided via project schedule tracking) and with budget progress (provided via Vision reporting). We also provide monthly status updates to our clients, reporting both scope and budget progress, in addition to status updates at regularly scheduled team meetings.

At the earliest point when scope changes are anticipated, we ensure that the project team is aware of an impending change and work to assess the best means to address the potential change. Transpo's standard practice is to notify our clients of anticipated changes, work together to assess the needs and impacts of the change and proceed with the change only upon written client authorization. While every effort is make to address project scope needs at the outset of a project, Transpo often proposes a fee contingency with projects in the event of changes and we also build in a time contingency into our project schedules.

#### **Tracking Schedule**

Transpo uses both Microsoft Project and Excel to develop and track project schedules. Selection of

the specific software depends on the complexity and length of the project. At the project outset, the project manager works with our clients to determine the optimal project timeline, including key deliverables, critical path tasks, required review times, scheduled vacations for both our staff and our clients, and other time-sensitive events or tasks that are anticipated over the life of the project. The schedule developed at this time is saved as a project baseline and the schedule progress is then maintained actively over the course of the project. At any given time, the actual project progress can be seen relative to the established baseline.

#### **Interacting with the Project Team**

The team includes a number of staff, requiring close coordination and communication on project related tasks.

**Regular Project Team Meetings** To meet the schedule and to coordinate project activities, Jon will set up regular team meetings to review project scope, schedule, budget, specific work tasks, staffing needs, deliverables and project progress. These meetings will typically last 30 minutes to address the key activities for the week and to discuss any upcoming client or stakeholder meetings.

#### **Client Meetings**

Regular conference calls and in-person meetings will be scheduled with the FMSIB project manager. It is assumed that twice-monthly conference calls will occur on the same day and time, such as the second and fourth Tuesdays of the month at 10:00 AM. Many of the same items will be reviewed at the client meetings as those reviewed at the project team meetings. The conference call will include key project team members, as needed, based on the agenda items to be discussed. The conference calls may occur using online meeting capabilities such as Zoom or Microsoft Teams web based services.

# Task 1: Project Data Collection and Compilation

Transpo will coordinate with the Metropolitan Planning Organizations (MPOs), Regional Transportation Planning Organizations (RTPOs), Washington Public Ports Association (WPPA), and Local Agencies throughout the State of Washington to compile a list of eligible freight projects for inclusion within the FMSIB Six-Year Investment Program. As part of these outreach efforts, we will work with the appropriate lead agencies to gather the following information for each proposed freight project:

- Contact Information (i.e., lead agency, contact person, phone number and email)
- Project Information (i.e., project location, description, importance, Freight Target Area [FTA])
- Cost and Funding Information (i.e., cost estimate by project phase and funding source, FMSIB funding request)
- Project Status Information (i.e., construction year, current project phase, right-of-way [ROW] status, environmental status)
- Summary of Project Benefits and Impacts

Coordination with these agencies will mirror and expand on current FMSIB efforts to gather project information on proposed freight projects in the State. On March 6, 2024, FMSIB released the *High Priority Freight Mobility Project Funding Needs Request for State of Washington Six-Year Freight Mobility Strategic Investment Program* to Washington State local agencies requesting applications and supporting documentation for projects to include within the FMSIB Six-Year Investment Program. The application form requests the above-listed information for proposed freight projects.

GIS Interactive Mapping and Online Dashboard

At Transpo, we are always looking for new ways to present information to audiences of all technical backgrounds. We have used GIS Interactive Mapping for a variety of clients such as the Joint Transportation Commission on statewide road-rail crossing analysis.

Our team can build interactive online data portals which have been particularly helpful in multi-stakeholder efforts, allowing Transpo and our clients to explore data and analysis most relevant to individual jurisdictions and organizations quickly and easily during workshops and meetings. These maps are effective communication tools for the public the data portals can bolster jurisdictional and organizational partner engagement and understanding and further facilitate the development of collaborative solutions.



Screenshot of the interactive mapping tool developed by Transpo Group for the JTC Road-Rail Conflicts Study

Transpo will compile the responses received as part of this effort to develop a draft list of freight projects to be evaluated and prioritized. The application responses will be summarized into a master spreadsheet. The master list of projects will then be sorted by MPO/RTPO, and the consolidated list of projects will be provided to the corresponding MPO and/or RTPO for review. This will allow these agencies to provide a second round of review to ensure that all high-priority freight projects are included within the master list of projects. In addition, Transpo will request that MPOs and RTPOs rank the projects within their region to inform the project prioritization process.

Transpo will also conduct outreach to the WPPA to collect freight project information for ports throughout the State. We will rely on the WPPA to gather project information from all 75 member port districts. If necessary, Transpo will conduct focused outreach to key port districts and organizations within the State (e.g., Port of Seattle, Port of Tacoma, Port of Olympia, Northwest Seaport Alliance [NWSA], etc.). Project information gathered from WPPA and member port districts will be compiled into the master project spreadsheet.

#### **DELIVERABLES**

 Master spreadsheet containing project information received from MPO, RTPO, WPPA, and Local Agency partners

#### FMSIB RESPONSIBILITIES

 Provide project applications received from Local Agency partners

#### Task 2: Project Evaluation

For each of the projects within the master project spreadsheet, Transpo will evaluate and rank each project to determine the projects which are of highest priority to receive funding. The first step of the evaluation process will be to screen projects from the master project list which do not meet the following eligibility criteria for inclusion within the FMSIB Six-Year Investment Program:

- 1. Projects located along or connecting to a Designated Strategic Freight Corridor
- 2. Projects planned to begin construction within the 6-year planning period

Eligible freight projects will then be evaluated based on the criteria established by FMSIB and outlined on page 4 of the application form. Each project will be scored based on a total of eight (8) criteria spanning four (4) priority areas, as summarized in **Table 1**.

TABLE 1. PROJECT SCORING CRITERIA				
Priority Area	Evaluation Criteria	Possible Score		
Statewide Freight Importance	Corridor Tonnage	5 points		
	Truck Percentage/Volume	3 points		
Project Funding	Non-State Match Percentage	3 points		
	Percent of Funding "Committed"	5 points		
	Listing in Regional Plan	3 points		
Cost Considerations	Cost Effectiveness	2 points		
Overburdened Communities	Engagement with Overburdened Communities	3 points		
	Alternatives/Measures to Address Impacts to Overburdened Communities	2 points		
	Total possible score	26 points		

In coordination with FMSIB, Transpo will develop a scoring rubric which can be used to assign a numerical score to projects for each of the eight criteria. Transpo will develop this scoring rubric based on information provided by FMSIB, if available, and present the scoring approach to the FMSIB project team. Based on comments received, we will update and revise the scoring rubric prior to conducting the evaluation and scoring for the projects on the master list.

Based on the information provided in the application and using the agreed upon scoring rubric, each project will be scored for the eight evaluation criteria and will be assigned an overall score. The overall score will be used to rank and prioritize all projects within the master list of projects.

Once all projects have been assigned a score, an overall master list of projects will be provided which ranks all projects in the State which are considered for inclusion within the FMSIB Six-Year Investment Program. To ensure geographic diversity of projects funded through this program, a ranked list of prioritized projects will be provided for each of the FMSIB Statutory Regions: Puget Sound, Western Washington, and Eastern Washington (Statewide projects will be categorized separately). As a separate form of evaluation, the ranked list of projects will be sorted by FTA to evaluate project and funding alignment with FMSIB's goal investment targets. The FMSIB's FTAs are summarized in **Table 2**.

Using the ranked list of prioritized projects, with consideration for regional balance and the FMSIB goal investment targets, Transpo will identify the highest priority freight projects which should receive funding during the next biennium (FY July 2025 - June 2027). The highest priority projects for the following two biennia (FY July 2027 – June 2029 and FY July 2029 – June 2031) will be identified separately using the same process.

#### DELIVERABLES

- Evaluation criteria scoring rubric
- Ranked list of prioritized projects (for entire State and sorted by FMSIB Statutory Region and FTA)
- High-priority freight project list for the next biennium (FY July 2025 - June 2027) and the following two biennia (FY July 2027 – June 2029 and FY July 2029 – June 2031)

TABLE 2. PROJECT AND FUNDING ALIGNMENT				
Freight Category	Freight Target Area (FTA)	Goal Investment Target		
Statewide Freight Importance Project Funding	Bridge Preservation	20%		
	Road Preservation	15%		
	Bridge and Road Replacement	15%		
Improving Operations of Existing System	Transportation Systems Management and Operations	5%		
Expanding the Existing System	Grade Separations	15%		
	Expansion of Freight Corridors			
Achieving the Freight System of the Future	Truck Parking	15%		
	Land Banks			
	Zero Emissions			

#### **Task 3: Interviews with Lead Agencies**

Once the highest-priority projects have been identified, Transpo will work with FMSIB to hold interviews with the appropriate lead agency for each high-ranking project to review and confirm the information provided within the project application. These interviews will be used to gather more detailed information on the project and to ensure that the project has or is on track to have the necessary approvals and documentation to meet the provided project schedule. As part of these interviews, the lead agencies will be asked to provide a brief presentation on the project covering the following topics:

- 1. Project description/workplan
- 2. Project benefits and impacts
- 3. Current project progress (i.e., design/ environmental/ROW status)
- 4. Project schedule/timeline

In addition, Transpo and the FMSIB team will prepare a list of questions/ topics to cover in the interviews.

These interviews will be conducted with the lead agency (and appropriate MPO/RTPO, if applicable) for each project identified for funding in the next biennium (FY July 2025 -June 2027). Based on the findings of these interviews, the projects will be reevaluated and rescored, if necessary, to determine those projects which should receive funding.

#### DELIVERABLES

- List of project interview questions
- Documentation/summary of the Lead Agency interviews (in Word format)

#### FMSIB RESPONSIBILITIES

Participation in lead agency interviews

# Task 4: Evaluation Presentation toFMSIB Committees and Leadership

Transpo will prepare and provide presentations to the appropriate FMSIB committees and leadership throughout the duration of the project to give regular updates on the project status and the evaluation approach/findings. Presentation materials will be developed based on the materials and results of preceding tasks. Transpo will work closely with the FMSIB project team to finalize the presentation ahead of each meeting. As part of this project, Transpo anticipates up to 3 presentations with FMSIB committees and 1 presentation to FMSIB leadership (for a total of 4 presentations). Feedback gathered during these presentations will be used to update and refine the project evaluations and prioritized projects. A preliminary schedule for the presentations is provided below.

#### Presentation 1 (Spring 2024)

Presentation to FMSIB committees to review statistics on the number/location/type of project applications received. Other discussion topics will include the evaluation criteria and scoring rubric.

#### Presentation 2 (Summer 2024)

Presentation to FMSIB committees to discuss the results of the evaluation and prioritization process. We will present the projects which scored highest and confirm the list of local agencies who should be invited for interviews.

#### Presentation 3 (late Summer/ early Fall 2024)

Presentations to FMSIB committees to discuss the findings of the local agency interviews and identify those projects that were selected for funding.

#### Presentation 4 (Fall 2024)

Presentation to FMSIB leadership to preset the funding recommendations to be included within the FMSIB Six-Year Investment Program.

#### DELIVERABLES

Four presentations in PPT format

#### FMSIB RESPONSIBILITIES

 Scheduling presentations to FMSIB committees and leadership

#### **Task 5: Draft and Final Reports**

Transpo will prepare draft and final report documentation outlining the prioritization process and findings. The report will document the process and results of Tasks 1 through 4, with supporting graphics, tables, and maps to present the prioritization process information in an easily understood format. The development of the draft report will follow an iterative process, in which the document will be developed and revised based on input gathered from key project partners (i.e., FMSIB staff, committee members, and leadership). This process will ensure that the final report is a high-quality document, which is familiar to key project stakeholders.

To meet the December 1st deadline for provision of the final Six-Year Investment Program Report to the State Legislature, Transpo will aim to deliver the draft report to FMSIB project team members by mid-October. This will allow 6-7 weeks for comments to be collected and incorporated into the final report.

#### DELIVERABLES

- Draft report in Word and PDF formats
- Final report in Work and PDF formats



#### **Visual Communication**

Transpo has an in-house Creative Services team that is highly skilled at creating graphics to help illustrate concepts to the public. We create a variety of graphics tailored to client needs ranging from before and after photo/illustrative renderings, cross-section renderings, infographics, custom drawn illustrations, video simulations, and more.

Our creative design staff has worked on many of the projects listed in our experience section here, including the Joint Transportation Committee Road-Rail Conflicts documents, and are available to assist in a similar way with the final deliverables of this project.

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