2.1 WHAT IS THE SETTING FOR THE PROJECT?

2.1.1 Interstate 5

Interstate 5 (I-5) is the main north/south route through Washington State. It is classified as part of the National Highway System (NHS) and is designated as a Highway of Statewide Significance (HSS) by WSDOT. It is a principal route for the movement of people, goods, services, and the military within Washington, and between Washington and other states and countries. WSDOT designated I-5 as a Truck Freight Economic Corridor, recognizing it as the state’s most important north-south interstate corridor for the role it plays in linking Washington’s trade with the rest of the United States, Canada, and Asia, and for its role in linking marine and air cargo port complexes with essential state warehouse districts, industrial lands, intermodal transportation hubs, and major population centers.

Within the Project area, I-5 traffic has increased 73 percent between 1986 and 2011, from just under 68,000 vehicles to over 118,000 vehicles. Truck volumes during this same time increased 82 percent to over 12,000 trucks per day. Truck volumes on I-5 at the border between Pierce County and Thurston County are some of the highest in the state.

The traffic increase in the Project area has been influenced both by population and employment growth in the south Puget Sound region, and by increased economic activity at the state level, fostering a rapid rise in freight movement. No through lanes have been added to I-5 in the Project corridor since 1975. Since that same time, the population in Pierce and Thurston counties increased by more than 114 percent.

I-5 provides the primary access to JBLM and the Washington State National Guard at Camp Murray, both of which are secure military bases. Seven highway interchanges in the Project corridor provide access to security gates into and out of these bases, through which more than 150,000 vehicles pass every weekday. JBLM is the largest single-site employer in the state of Washington, with over 46,000 active duty military and 16,000 civilian employees.

The presence of a secure military facility on both sides of I-5 through the study area creates unique constraints, as there are no alternate parallel routes for regional travel. I-5 through this area is on an easement granted by the U.S. Department of Defense in the late 1950s to Washington state.

Existing weekday peak period travel demand along I-5 exceeds available capacity in several locations. Average southbound travel speeds along I-5 in 2013 during the PM peak hour are below 42 miles per hour.
per hour (mph) from Gravelly Lake Drive to Steilacoom-DuPont Road. Average northbound travel speeds are below 42 mph between Steilacoom-DuPont Road and Thorne Lane. By 2040 those speeds are projected to range from 10 mph to 18 mph with frequent periods of stop-and-go traffic. Congestion during the PM peak period often lasted up to three hours in 2013, and is expected to increase to nearly six hours in 2040.

2.1.2 Transit Operations and Efficiency
Three public transit providers operate within the study area: Intercity Transit, operating out of Olympia; Pierce Transit, operating out of Lakewood; and Sound Transit, the central Puget Sound regional transit agency. These agencies provide local and express service in and through the Project corridor. Service is available all day, with increased service frequencies during peak commute periods in the morning and evening. In late 2013, fixed-route bus service offered by these three agencies accounted for nearly 500 people in the PM peak hour.

The cost to agencies of providing service increases as congestion mounts because transit vehicles are caught in the same traffic delays as private vehicles. Congestion also impairs service reliability which negatively impacts the attractiveness of transit as a travel option.

Transit providers offer vanpool services as an alternative to bus service. Vanpools provide flexibility and more direct service options; one vanpool typically carries between five and eight people. In 2013, vanpools transported about 725 people through the Project area during the PM peak hour.

In total, transit and vanpools accounted for approximately 1,200 people during the PM peak hour in 2013. This level of ridership removed about 1,000 vehicles from I-5 during the PM peak hour, the equivalent of about half a lane of traffic. This is absent any time or reliability incentive such as that offered by HOV lanes, suggesting more people would use these travel modes if incentives were available.

2.1.3 Freight Mobility
Freight and goods transportation for roadways, railways and waterways in Washington State is classified through the Washington State Freight and Goods Transportation System. The system assigns classifications to roadways based on freight volume.

I-5 carries over ten million tons of freight annually, which classifies it as a T1 freight corridor, the highest designation in the state. In 2014, trucks account for nine to ten percent of total daily traffic in the Project area. These high truck volumes contribute to congestion, particularly on the steep hill climb north out of the Nisqually Valley and into the Project area.

Trucks are also impacted by congestion; unreliable travel times and chronic delays increase the cost of moving freight. Research conducted during development of the Washington State Freight Mobility Plan shows that congestion translates to a direct cost of doing business for freight-dependent businesses. Washington’s economy is heavily trade dependent, so increases in the cost of moving freight are felt throughout the economy.

2.1.4 At-Grade Rail Crossings
Sound Transit owns an operating rail line immediately adjacent to I-5 on the west side of the highway. At this time it is not heavily used, and it carries freight trains exclusively. Beginning in 2017, the type of rail service will change. Amtrak is expected to run 12 northwest Cascade trains and two long-distance Coast Starlight trains a day on this line, at operating speeds up to 79 mph. More frequent service, potentially
longer trains, and increased traffic management at rail crossings will contribute to congestion on local streets. Impacted intersections are in close proximity to highway interchanges, increasing the risk of traffic backing up onto the off-ramps or highway.

2.2 WHAT PLANNING HAS BEEN CONDUCTED FOR THE PROJECT AREA?

The history of recent transportation planning along the I-5 corridor goes back more than a decade. As a part of the I-5 JBLM Vicinity Congestion Relief Study, an environmental scan was conducted using data collected from the resources agencies, other sources and field reconnaissance. As decisions were made during the planning process, potential environmental impacts or issues were identified and considered in the screening and evaluation of options. Key studies providing both context for the current planning effort and guidance in the exploration of reasonable improvement options are presented in Table 2.2-1 (on next page). The table also lists study area reports produced for the Congestion Relief Study that led to development of the Build Alternative.

2.3 HOW WERE TRIBES AND GOVERNMENTAL AGENCIES INVOLVED?

Active participation by public agencies and the Nisqually Indian Tribe has been on-going since the I-5 JBLM Vicinity Congestion Relief Study effort began in 2013. Stakeholders were formed into two working groups – the Executive Committee and the Technical Support Team, identified in Section 2.3.1. Elected officials or agency administrators participated in the Executive Committee, and technical staff from the agencies comprised the membership of the Technical Support Team.

2.3.1 Executive Committee and Technical Support Team Participants

Membership of the Executive Committee and Technical Support Team included the following agencies:

- FHWA
- City of Lakewood
- Thurston Regional Planning Council
- WSDOT
- City of DuPont
- Puget Sound Regional Council
- Joint Base Lewis-McChord
- Town of Steilacoom
- Pierce Transit
- Camp Murray
- Pierce County
- Sound Transit
- Intercity Transit
- Nisqually Tribe

Executive Committee

As an advisory group to WSDOT and the Project team, the Executive Committee fostered community support through communication of study goals and progress and ultimately identified solutions with fellow elected officials, agency administration representatives, and the public. It was composed of representatives in leadership positions from the agencies listed above. The Executive Committee provided policy level support and interagency oversight during the I-5 JBLM Vicinity Congestion Relief Study development process, as well as the Interchange Justification Report design and NEPA documentation phase of the Project.
Introduction / Need and Purpose

Description of Alternatives

North Study Area Analysis

2 Setting, Planning and Outreach

Table 2.2-1 History of Transportation Planning in the I-5 JBLM Vicinity

<table>
<thead>
<tr>
<th>Previous Studies &amp; Documents</th>
<th>Relationship to the Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-5 JBLM Vicinity UR &amp; Environmental Documentation, Corridor Plan Feasibility Study (WSDOT 2014)</td>
<td>This report documented a vision and improvement strategy or “framework plan” for the I-5 corridor to meet 2040 travel demand. This framework plan was essential to provide context for a long-range I-5 strategy to help guide the decision-making process for interchange improvements. Accurately identifying the number and type of lanes needed on I-5 is a necessary precursor to designing interchange ramps and bridges.</td>
</tr>
<tr>
<td>Existing Conditions Report (I-5 JBLM Vicinity Congestion Relief Study Reports – WSDOT 2014)</td>
<td>This report documented the multimodal transportation planning context for the corridor as well as existing facilities, services and operational performance.</td>
</tr>
<tr>
<td>I-5 JBLM Vicinity Congestion Relief Study – Multimodal Alternatives Analysis and Updated Environmental Scan (WSDOT 2015)</td>
<td>The primary purpose of this report was to document the multimodal alternatives analysis process including key findings, conclusions and recommendations. Analysis focused on packaging the most promising highway, multimodal, and local connectivity options into comprehensive alternatives; screening these alternatives against evaluation criteria; and determining what options should be carried forward into the NEPA and IJR phase of the study. The report included expanded analysis of environmental resources and potential environmental impacts of the alternatives.</td>
</tr>
<tr>
<td>Planning &amp; Environmental Linkage Summary (PEL) (June 2015)</td>
<td>A PEL study is an approach to transportation analysis that considers environmental, community and economic goals earlier in the transportation planning process than has traditionally occurred, and prior to environmental analysis under the National Environmental Policy Act (NEPA). The PEL process helps avoid duplication of effort at various stages throughout the Project, reducing “backtracking” to alternatives that have been evaluated, and enhancing stewardship by identifying environmental needs and opportunities to avoid or minimize potential impacts earlier in Project development. The PEL process also encourages seamless and more transparent decision-making that minimizes duplication of effort, promotes environmental stewardship and reduces delays in Project implementation. A PEL activity summary was prepared in June 2016.</td>
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<table>
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<tr>
<th>Other Relevant Studies</th>
<th>Relationship to the Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point Defiance Bypass Project – WSDOT Rail Division, Environmental Assessment &amp; Finding of No Significant Impact (2013)</td>
<td>This Project involves relocation of Amtrak rail services to the rail line immediately west of I-5 in the study area. Scheduled for 2017, service would impact traffic at each I-5 interchange.</td>
</tr>
<tr>
<td>I-5 Transportation Alternatives Report – City of Lakewood (2010)</td>
<td>This study of the Project area was initiated by City of Lakewood to address chronic congestion on I-5 in the vicinity of the City. The report ultimately led to funding by the Washington State Legislature for the I-5 JBLM Vicinity Congestion Relief Study.</td>
</tr>
<tr>
<td>Joint Base Lewis-McChord (JBLM) Joint Coordination Plan – City of Lakewood (2010)</td>
<td>This study evaluated a wide array of community and infrastructure impacts associated with JBLM growth including transportation.</td>
</tr>
<tr>
<td>I-5/Fort Lewis Congestion Study – WSDOT Planning Office (2005)</td>
<td>This Legislative study focused on I-5 congestion in the vicinity of Fort Lewis. The study identified several short-term improvements, but concluded that it would be necessary to widen the Interstate highway to adequately address existing and future congestion.</td>
</tr>
<tr>
<td>Cross-Base Highway EIS – FHWA/WSDOT (2004)</td>
<td>This proposed new highway would provide regional travelers with a six-mile long, multi-lane facility between the I-5/Thorne Lane interchange (Exit 123) at the west end, and 176th Street at SR 7 on the east end providing a route through, instead of around, JBLM. Project 1, Spanaway Loop Road to SR 7 was completed in 2009; however, the remainder of the Project has been suspended awaiting funding and pending litigation.</td>
</tr>
</tbody>
</table>

12 | I-5 JBLM Vicinity Congestion Relief Project Environmental Assessment
Technical Support Team
The Technical Support Team participated in every phase of the study to collaboratively address member organization needs and concerns, and move effectively through the alternatives analysis and documentation process. The Technical Support Team played an interagency advisory role during the planning phase by providing a technical review of study materials. This role continued during preparation of the NEPA analysis documentation and the corridor Interchange Justification Report.

2.3.2 Transportation Agencies Coordinated With As Part of the Study
Transportation agencies involved in the planning effort largely participated through the Executive Committee and the Technical Support Team. These agencies included: WSDOT, the cities of DuPont and Lakewood, the town of Steilacoom, Pierce County, Intercity Transit, Pierce Transit, Sound Transit, Thurston Regional Planning Council, Puget Sound Regional Planning Council and the Federal Highway Administration. Several of these agencies also participated in smaller focus groups to address detailed analysis of specific study elements during the development of evaluation criteria and the identification and screening of improvement options.

2.4 HOW WAS THE PUBLIC INVOLVED?
A focused public outreach effort has been integral to the Project planning and identification of the Build Alternative. Outreach has taken a variety of forms which are described below. A detailed recap of the public involvement process is included in Appendix F. In summary, providing meaningful venues and focused opportunities for participation was important because the objective of the Project is to improve I-5 mobility for the travelling public, neighborhoods and businesses adjacent to I-5. A public involvement plan, tailored to the needs of this Project, supported the back-and-forth exchange of information and input a project of this magnitude requires.

As information regarding the Project and potential congestion relief strategies was generated, it was provided to the general public and targeted audiences using a variety of tools. Information and feedback was collected from the public to inform the analysis. Central to this strategy was development and use of materials that were easy to understand by a non-technical audience. Graphics-rich materials conveyed complex technical concepts while reader-friendly language made the study, considerations, analysis, and recommendations comprehensible to a wide audience.

2.4.1 Website
The primary vehicle for providing on-going information to the public was the Project website hosted by WSDOT. Designed to be easily navigable, visitors to the site could obtain details regarding the Project from easy-to-understand content on the Project home page. Those looking for more detailed information and data could readily find reports, analyses, summaries, maps, schedules, and other Project-related information. Visitors to the website were invited to sign-up to receive email notifications of meetings and other Project milestones. There was also an easy to find form with which to leave detailed questions, comments, and complaints.

2.4.2 Media
Media outreach was an important mechanism for raising awareness about the study effort, generating community interest, and promoting public events. Given the statewide significance of I-5, outreach extended well beyond the study area to include media throughout the Puget Sound region. This included radio, television,
print, and on-line media in addition to specialized media sources such as those targeted to the military community.

2.4.3 Open Houses
Two open houses provided in-depth opportunity for broad community engagement. These meetings were styled in such a way that visitors could get an overview or they could dive into the Project detail. Topic stations featured large, graphic-rich displays staffed by subject matter experts. Each station included flip charts and markers to capture concerns, ideas, and questions while comment stations provided visitors with a chance to sit down and share their more extended thoughts on comment forms. Roving Project staff helped orient visitors, answer general questions, and gather comments and insights.

Both open houses were designed to facilitate meaningful public input at critical stages. The first open house (June 2014) generated several potential strategies for improving I-5 mobility that had not been identified by the Technical Support Team such as extending Transmission Line Road on JBLM east to intersect 176th Street SE. These ideas were added to the list of strategies to be evaluated and several were incorporated into various alternatives programs.

The second open house (May 2015) served not only as a Project update, but also as a NEPA scoping opportunity. This meeting resulted in feedback on concerns to be evaluated during the environmental review process. Cut-through traffic was identified as key concern in the Tillicum neighborhood.

2.4.4 Neighborhood Meetings
In addition to general open houses, the Project team hosted two special meetings for the Tillicum and Woodbrook neighborhoods in September 2015 and May 2016. Tillicum is an isolated neighborhood in Lakewood bounded by I-5 to the east, American Lake to the west, the Tacoma Country and Golf Club to the north, and Camp Murray to the south. It is not possible to get into or out of Tillicum without using I-5. These meetings were designed to provide focused outreach and increase understanding of the Project, as well as solicit any new information to be considered during Project evaluation or design.

In October of 2015 a community meeting was held at the Tacoma Country and Golf Club. This meeting focused on the Thorne Lane interchange and proposed Gravelly-Thorne connector. Construction of the Gravelly-Thorne connector would require acquisition of right of way from the Country and Golf Club along the eastern boundary of this private golf course. Residents and golf club members expressed concern regarding potential impacts to the golf course and exposure of the area to increased vehicle and pedestrian activity. Attendees were briefed on the Project followed by a question and answer session.

A neighborhood meeting focused on the residents and businesses in the city of DuPont and town of Steilacoom was held in May 2016. This meeting addressed the planned improvements throughout the corridor and the traffic pattern shifts anticipated to occur following the first phase of Project improvements. The meeting was designed to provide focused outreach, increase understanding of the Project, and solicit feedback from DuPont and Steilacoom residents and business owners.

2.4.5 Briefings and Listening Sessions
In addition to open houses tailored to the general public, presentations were made to other public groups including: the city councils of DuPont, Lakewood and Yelm; the Pierce County Council; a
joint meeting of Thurston Regional Planning Council and the Intercity Transit; the Puget Sound Regional Council; and the Lakewood Chamber of Commerce Military Affairs Committee. Special briefings were also made to a joint meeting of elected officials, and to the Environmental Protection Agency (EPA). Three “listening posts” were held in the study area during spring of 2014, in which members of the Executive Stakeholder Committee and Technical Support Team could talk one-on-one with Project staff about specific aspects of the Project or process for which they had any concerns or ideas. Additionally, numerous briefings were held with various departments within both JBLM and WSDOT.

2.5 HOW HAS THE PROJECT PROCESS RESPONDED TO STAKEHOLDER FEEDBACK?

From the beginning of the planning process stakeholder feedback has been sought and used to identify improvement options, create and apply screening tools to evaluate potential solutions, and work through challenging design and environmental issues. The stakeholder and public engagement processes varied in terms of audiences and technical complexity, but common themes emerged across the groups:

- Existing interchange designs can be improved.
- Improvements need to be sensitive to adjacent neighborhoods.
- Property impacts should be avoided.
- Access to and from I-5 needs to be efficient for commuters, neighboring communities and military installations.

Public input from meetings such as the Tillicum and DuPont neighborhood meetings helped to influence the design of the new I-5/Berkeley Street interchange that includes an overpass into the neighborhood at Washington Avenue. Input received at the meetings stressed the importance of a design that discourages cut-through traffic in residential areas. Input from agency stakeholders influenced design of the roadway into the Madigan Gate to enhance safety and security for the traveling public and the military installation. Feedback from agency stakeholders was solicited regularly through the planning and preliminary design process to ensure Project design reflected the needs of both I-5 users and the communities immediately adjacent to the freeway. Input received at the Tacoma Country and Golf Club meeting resulted in a revised design for the Gravelly-Thorne connector that minimizes impacts to the golf course and several homes near the Gravelly Lake Drive southbound on-ramp. Feedback from community meetings held in the Tillicum and Woodbrook neighborhoods also resulted in additional analysis of potential economic impacts of the Project on Tillicum area business.