

1 INTRODUCTION / NEED AND PURPOSE FOR THE PROJECT

1.1 WHAT IS THE I-5 JBLM VICINITY CONGESTION RELIEF PROJECT?

The Washington State Department of Transportation (WSDOT) is proposing improvements along Interstate 5 (I-5) in the vicinity of Joint Base Lewis-McChord (JBLM) in southern Pierce County to reduce traffic congestion and improve person and freight mobility. The improvements, collectively known as the I-5 JBLM Vicinity Congestion Relief Project, are the subject of this Environmental Assessment (EA). This EA describes existing conditions and discusses the effects of the No Build and Build Alternatives on the built and natural environment. The No Build Alternative represents conditions if nothing is done along I-5, while the Build Alternative represents the congestion relief project.

The I-5 JBLM Vicinity Congestion Relief Project (**Project**) is a program of proposed improvements on I-5 that would relieve the chronic congestion in the vicinity of JBLM. The improvements are described in detail in Chapter 3 (Description of Alternatives) and briefly highlighted here.

Figure 1.1-1 is a map of the Project Corridor and surrounding vicinity.

Project improvements are planned within north and south study areas. The proposed improvements in the **North Study Area** are:

- ◆ A fourth travel lane on I-5 from south of Thorne Lane southbound to Center Drive and from Steilacoom-DuPont Road northbound to Thorne Lane.
- ◆ A northbound auxiliary lane from the Berkeley Street northbound on-ramp to the Thorne Lane northbound off-ramp. A northbound auxiliary lane from Thorne Lane on-ramp to the Gravelly Lane Drive off-ramp. The existing auxiliary lanes would be maintained as follows:
 - Southbound between Thorne Lane and Berkeley Street.
 - Southbound between Center Drive and Mounts Road.
 - Northbound between Center Drive and Steilacoom-DuPont Road.
- ◆ Reconstruction of the Thorne Lane interchange with a new bridge approximately 350 feet south of the existing bridge. The new bridge would grade-separate Thorne Lane over I-5, the adjacent rail line and Union Avenue. Ramp intersections would be built as multi-lane roundabouts.
- ◆ Reconstruction of the Berkeley Street interchange with a new bridge centered approximately 120 feet south of the existing bridge. The new bridge would grade-separate Jackson Avenue over I-5, the adjacent rail lane, and Militia Drive, tying into

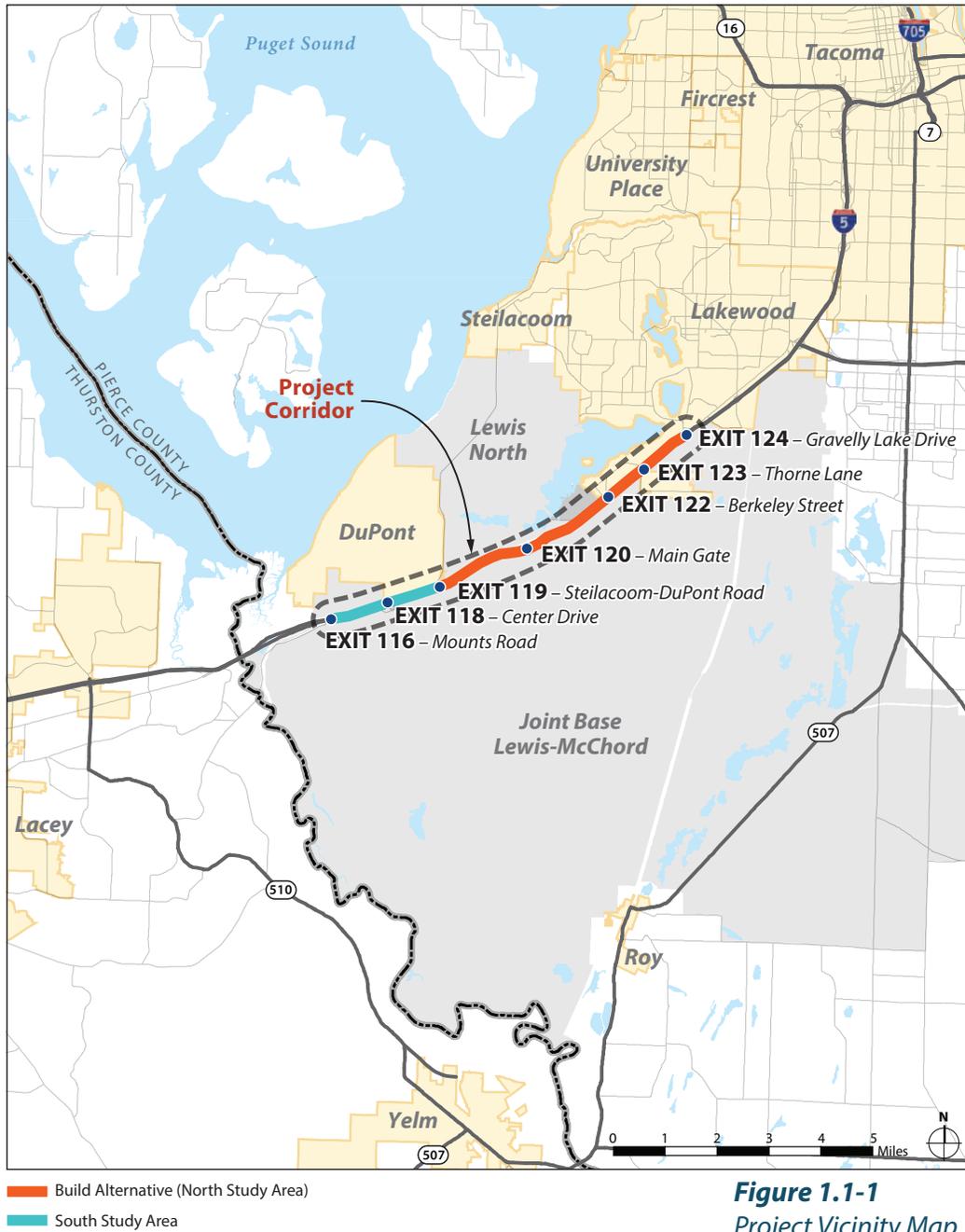


Figure 1.1-1
Project Vicinity Map

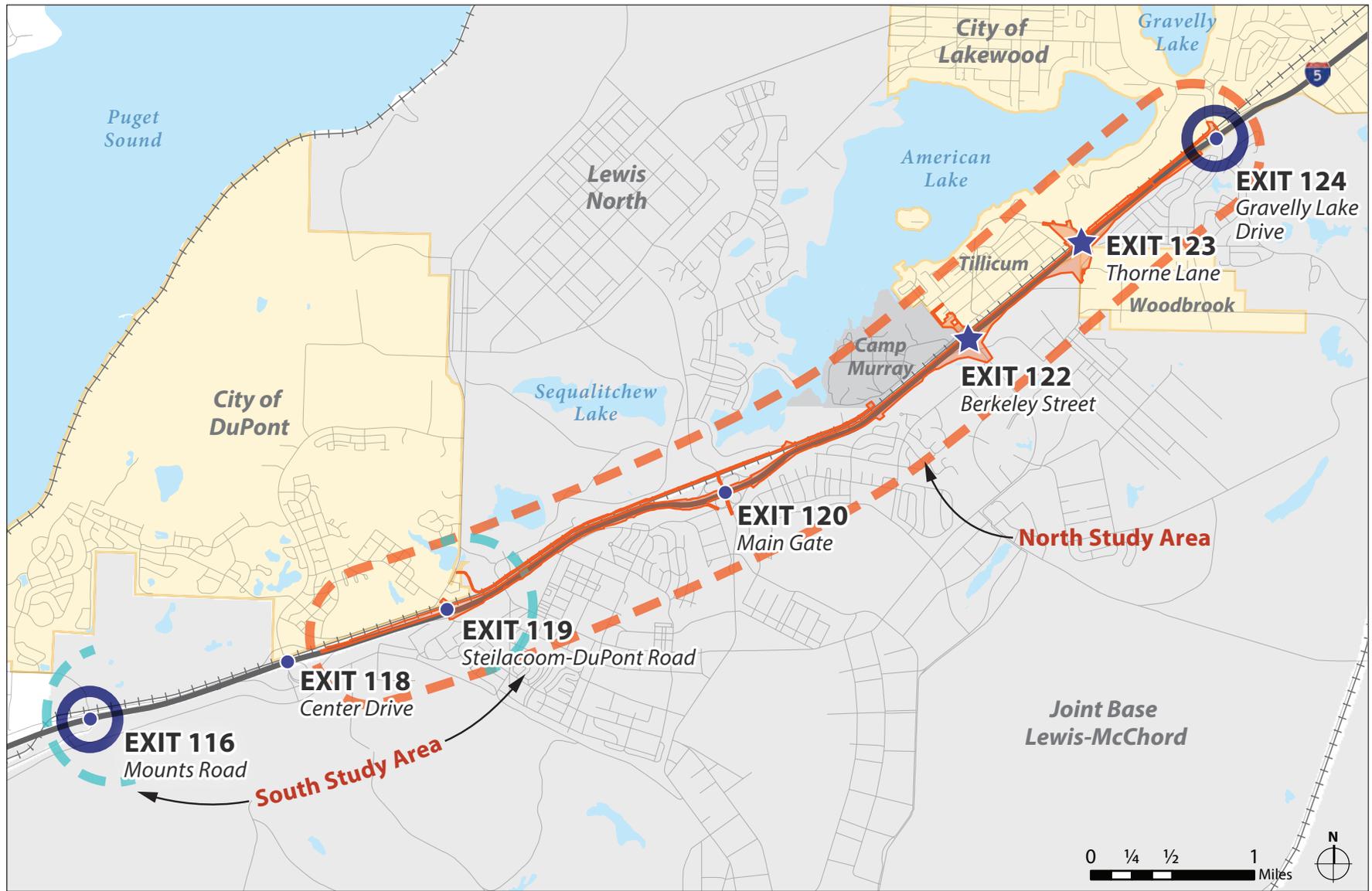
Berkeley Street at Washington Avenue. Ramp intersections would be built as multi-lane roundabouts.

- ◆ Gravelly-Thorne connector local road between Gravelly Lake Drive and Thorne Lane to carry local trips that may otherwise use I-5. This improvement includes a southbound vehicle lane and two-way shared use path between Gravelly Lake Drive and Thorne Lane.
- ◆ A shared use path for pedestrians and bicyclists from Berkeley Street to Steilacoom-DuPont Road.

The **South Study Area** ranges from north of the Steilacoom-DuPont Road interchange to the Mounts Road interchange. Improvements in this area may include added capacity on the I-5 mainline as well as potential modifications to the Steilacoom-DuPont Road and Center Drive interchanges. The South Study Area was established to address additional planning needs as described more fully in Section 1.6.

1.2 HOW WERE THE PROJECT LIMITS IDENTIFIED?

The beginning and end points of transportation projects are known as the project termini. The beginning and end points must be logical and result in an improvement that functions efficiently and improves operations of the system. Logical termini are defined as rational beginning and end points for a transportation project and for review of its environmental impacts. Figure 1.1-2 shows the I-5



- Existing I-5 Mainline
- Existing Interchange
- Rebuild Interchange
- Build Alternative Footprint
- North Study Area
- South Study Area
- Project Termini

Figure 1.1-2
Project Termini and Study Areas

JBLM Vicinity Congestion Relief Project's northern terminus is in the Gravelly Lake Drive Interchange (Exit 124) vicinity and its southern terminus is in the Mounts Road Interchange (Exit 116) vicinity. WSDOT and the Federal Highway Administration (FHWA) identify logical termini when evaluating a project's potential impacts in order to prepare a meaningful environmental evaluation and avoid committing to transportation improvements before they are fully evaluated.

The most common location for project termini are points of major traffic generation, such as intersecting roadways. Other considerations in establishing logical termini include local topography, socioeconomics and future travel demand in addition to traffic volumes. Logical termini for the I-5 JBLM Vicinity Congestion Relief Project were selected based on the need to address the chronic congestion on I-5 where it passes through JBLM. This segment of I-5 experiences regular congestion associated with heavy volumes of traffic entering and exiting from the neighboring communities of Lakewood and DuPont as well as JBLM. Combined with high volumes of traffic commuting through the corridor between Olympia, Tacoma and Seattle, traffic volumes regularly outpace I-5's existing capacity.

Congestion is exacerbated by frequent rear-end and sideswipe collisions typically associated with heavy traffic. Northbound congestion tends to build in the vicinity of Mounts Road and diminish between Thorne Lane and Gravelly Lake Drive where I-5 widens to four lanes. Southbound congestion builds between Gravelly Lake Drive and Thorne Lane where I-5 reduces from four lanes to three. Local topography in the vicinity of Mounts Road makes it the logical southern terminus. South of Mounts Road I-5 descends into the Nisqually River valley, an area with topographic conditions that increase cost and create an imbalance with other constraints such as land use and environmental impacts.

The Exit 124 and Exit 116 termini allow WSDOT to meet the need and purpose of the Project, and at approximately eight miles long, it is large enough to address environmental considerations on a broad scale. This allows WSDOT to design a project that has independent utility. Projects with independent utility are those that are fully functional on their own, without the need to construct any other segments.

1.3 WHY IS THE PROJECT NEEDED?

Congested traffic along I-5 in the JBLM vicinity, characterized by stop-and-go conditions, has become commonplace during weekday morning (AM) and evening (PM) peak periods, as well as weekend afternoons during summer months. Holiday weekends bring particularly acute levels of congestion. Contributors to the traffic demand are both regional and local. Most of the traffic growth in the Project corridor occurred before 2003, and is associated with significant growth in Thurston and Pierce counties. Additionally, JBLM, a secure military facility, has become the biggest military installation on the West Coast and affects traffic congestion levels. Factors contributing to the chronic traffic congestion include the following:

- ◆ Heavy existing and expected future volumes of through traffic traveling between Lacey/Olympia/other points south and Tacoma/Seattle/other points north.
- ◆ Military base security requirements, environmental considerations and right of way constraints limit public roadway options other than I-5 through and within the study area.
- ◆ Seven closely spaced I-5 interchanges over a short distance of eight miles are subject to high entering and exiting volumes.

- ◆ High volume of vehicle trips to and from DuPont, Lakewood, and JBLM.
- ◆ Vehicle trips using I-5 for local and short distance travel in the Project area.
- ◆ Fewer through lanes between Mounts Road and Thorne Lane (six) than north of Thorne Lane (eight).

Between 2010 and 2014, there were 1,963 recorded collisions on I-5 along the eight mile stretch north of Gravelly Lake Drive to south of Center Drive. This is an average of about 393 collisions per year, or more than one per day. Of this total, 67 percent involved rear-end collisions, and almost 15 percent involved sideswipe collisions. Both collision types are indicative of high levels of congestion combined with frequent lane changes. Most of these collisions involved only property damage, but 19 collisions did involve serious injuries and three others included fatalities. Traffic congestion resulting from collisions create intermittent, unpredictable delays that can take hours to clear and is compounded by the lack of viable alternate routes.

1.4 WHAT IS THE PURPOSE OF THE PROJECT?

The Project would reduce chronic traffic congestion and improve person and freight mobility along I-5 in the vicinity of JBLM while continuing to maintain access to the communities and military installations neighboring the freeway. The purpose of the proposed action is to address existing and expected future deficiencies along I-5. The proposed Project would improve I-5 through the JBLM area to achieve the following objectives:

- ◆ Relieve congestion on I-5 within the vicinity of JBLM.
- ◆ Improve local and mainline system efficiency.

- ◆ Enhance mobility.
- ◆ Improve safety and operations.
- ◆ Increase transit and Transportation Demand Management (TDM) opportunities.

1.5 WHY WAS AN ENVIRONMENTAL ASSESSMENT CONDUCTED?

Consistent with the requirements of the National Environmental Policy Act (NEPA), WSDOT and the Federal Highway Administration (FHWA) determined that an Environmental Assessment (EA) is the appropriate level of environmental documentation for the Project. One of the purposes of this EA is to identify the level of significance of the Project impacts, and to address both environmental effects and appropriate mitigation measures. The issuance of this EA and the interaction with the public, agencies, and Tribes will allow the FHWA to determine the significance of Project impacts on the environment. Adoption of the NEPA EA will meet the SEPA analysis requirements.

1.6 WHAT IS THE NEPA STRATEGY FOR THIS PROJECT?

This Environmental Assessment is being conducted using a tiered approach due to the large and complex nature of the program of improvements. Project funding is programmed over ten years, between 2015 and 2025. Complexities in the southern portion of the corridor include how I-5 interacts with the Steilacoom-DuPont Road interchange (Exit 119) and the JBLM DuPont Gate. Initial project planning conducted between WSDOT and JBLM included construction of a re-configured Exit 119 interchange about 1,000 feet north of the existing location. This new interchange would have required relocation of the JBLM DuPont Gate.

However, in October of 2015 JBLM communicated to WSDOT that they had reevaluated the proposed new DuPont Gate location, and had concerns regarding the interchange operation and associated DuPont Gate safety and JBLM base security. These concerns necessitate additional evaluation of other options. The timing of this request for reconsideration of the previously agreed upon new DuPont Gate location, and its direct relationship to the location and configuration of the Steilacoom-DuPont interchange, triggered the need for a tiered environmental review.

Tiered Environmental Review

A tiered environmental review means that two rounds – or “tiers” of review are conducted. The first tier is a broad corridor level discussion of potential improvements and environmental issues. A second tier includes project specific improvements and project specific environmental analysis. In this EA, environmental review has progressed to a second tier for the North Study Area. The proposed improvements in the North Study Area are referred to as the Build Alternative. The project specific environmental analysis for the Build Alternative is presented in Chapter 4.

What is Tiered Environmental Review? *Rather than preparing a single environmental analysis as the basis for approving the entire project, an agency conducts two or more rounds – or “tiers” – of environmental review. The first tier analyzes at a broad or corridor level scale. A second tier follows with greater detail of analysis at a project specific scale.*

Analysis has progressed to the first, corridor level tier in the South Study Area where specific footprint improvements are not currently defined. Second tier analysis for the South Study Area will be presented in a separate environmental document after improvements are identified. Design and construction of planned improvements in the

North Study Area would not preclude design options or otherwise dictate the outcome of the South Study Area. The corridor level evaluation for the South Study Area is presented in Chapter 5.

1.7 PERMITS AND APPROVALS NEEDED

The Build Alternative would require permits and approvals from various agencies before commencement of construction. See Table 1.7-1 for potential required approvals.

Table 1.7-1 Potential Permits and Approvals

Trigger	Permit Application or Review Document	Approval	Issuing Agency
Stream or wetland impacts	Joint Aquatic Resource Permits Application (JARPA)	Section 404 Authorization	U.S. Army Corps of Engineers (USACE)
		Section 401 Water Quality Certification and Coastal Zone Management Act Consistency Determination	Washington State Department of Ecology (DOE)
	APPS (Aquatic Protection Permitting System)	Hydraulic Project Approval (HPA)	Washington State Department of Fish and Wildlife
	State Environmental Policy Act (SEPA) Document	SEPA Determination and Adoption of NEPA Document	Washington State Department of Transportation (WSDOT)
	National Environmental Policy Act (NEPA) Environmental Assessment	Finding of No Significant Impact (FONSI)	Federal Highway Administration
	Critical Areas Report*	Critical Area Approval	Local Municipality
Non-exempt government action	SEPA	SEPA Determination and Adoption of NEPA Document	WSDOT
	NEPA Review	NEPA Environmental Assessment and FONSI	Federal Highway Administration (FHWA)
Disturbance of ≥ 1 acre	Permit Coverage Notice of Intent	National Pollution Discharge Elimination System (NPDES) Construction Stormwater General Permit	DOE for WSDOT ROW EPA for JBLM land
Fill/grading/building in the floodplain	Floodplain permit	Depends on jurisdiction and impact	Depending on location: cities of Lakewood and DuPont, Pierce County, JBLM
Clearing and grading	Clearing/grading permit	Depends on jurisdiction and impact	Depending on location: cities of Lakewood and DuPont, Pierce County, JBLM

Table 1.7-1 Continued. Potential Permits and Approvals

Trigger	Permit Application or Review Document	Approval	Issuing Agency
Demolition	Demolition permit	Depends on jurisdiction and impact	Depending on location: cities of Lakewood and DuPont, Pierce County, JBLM
Structures/walls	Building permit	Depends on jurisdiction and impact	Depending on location: cities of Lakewood and DuPont, Pierce County, JBLM
New well	Well permit review	JBLM injection wells	EPA/DOE
Construction noise	Construction noise variance	Noise variance	Depending on location: cities of Lakewood and DuPont, Pierce County, JBLM
Utility work	Utility coordination	Utility permit – depends on jurisdiction and impact	Depending on location: cities of Lakewood and DuPont, Pierce County, JBLM

Notes:

* *Critical Areas Review may be required depending on the jurisdictional municipality. Many jurisdictions evaluate critical areas as part of the SEPA process. Depending on the jurisdiction and the degree of impact, a local variance, public agency utility exception, or reasonable use exception may be needed.*