

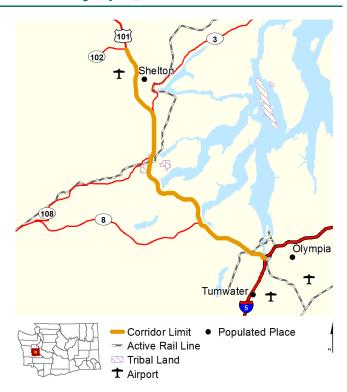
# **Corridor Sketch Summary**

Printed at: 3:23 PM 1/27/2019

WSDOT's Corridor Sketch Initiative is a collaborative planning process with agency partners to identify performance gaps and select high-level strategies to address them on the 304 corridors statewide. This Corridor Sketch Summary acts as an executive summary for one corridor. Please review the User Guide for Corridor Sketch Summaries prior to using information on this corridor:

# US 101: SR 102 Jct (Shelton) to I-5 Jct (Tumwater/Olympia)

This 23-mile long north-south corridor travels along US Route 101, between Sanderson Airfield just north of the city of Shelton at State Route 102, and the Interstate 5 junction in Tumwater/Olympia. The corridor passes along several inlets of Puget Sound including Hammersley, Little Skookum, Totten, and Eld. The character of the corridor is generally rural with the exception of the areas near Olympia and Shelton. There are small pockets of commercial and residential development dispersed throughout the corridor. At the southern end of the corridor, the character becomes denser as it reaches Olympia and Tumwater. Land uses near Olympia and Tumwater include significant residential and commercial developments including Capital Mall, Auto Mall, and large public institutions including South Puget Sound Community College and Evergreen State College, Capital Medical Center, and state government offices. The corridor passes through several natural areas, including Kennedy Creek Natural Area. Terrain on the corridor is rolling, with forests surrounding developed areas.



#### **Current Function**

US 101 is a major north-south route, connecting communities along the west coast of the United States between Olympia and Los Angeles, California and is an alternate route to I-5. This section of US 101 links Mason and Thurston counties, connecting the Olympic peninsula with the urban centers of Shelton and Olympia/Tumwater as well as the rest of the state through its I-5 connection. This corridor is one of the few north-south routes along the east side of the Olympic Peninsula and intersects SR 102, SR 3, SR 108, SR 8, and I-5. Both commuters accessing jobs and recreational traffic heading towards the Olympic National Forest, Hood Canal, Olympic National Park, and several state parks use the corridor. The largest traffic generator on the corridor is the Olympia/Tumwater area. The corridor is also part of the Washington Coastal Corridor highway, Pacific Coast Scenic Byway, a designated scenic and recreation highway, and accommodates significant weekend and seasonal recreational traffic. The Squaxin Island Tribe is also located along the corridor. Intercity Transit, Mason Transit, and the Travel Washington Dungeness Line provide service along the corridor.

#### **Future Function**

Based on the projected population, land use, and economic trends, the future function of this corridor is expected to remain the same.

# **Highlights and Performance**

This portion of US 101 is a two-lane, undivided highway with a center turn lane in Shelton. The route becomes a divided highway south of the SR 3 junction. The highway expands to six lanes when it nears the I-5 junction. At several points, it also includes extended right turn auxiliary lanes. The annual average daily traffic on this corridor is highest at the I-5 junction between Olympia and Tumwater and lowest at the SR 102 junction in Shelton.

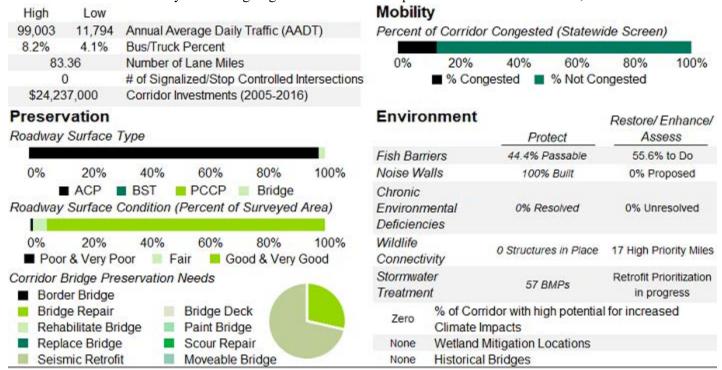
### What's working well?

- Roughly 99% of surveyed pavements on the corridor are in fair or better condition.
- There are three fixed-route transit services on the corridor; one also provides ADA-specialized transit.
- The corridor includes several shared-use trails, which are heavily utilized during the summer.
- There are no chronic environmental deficiencies or habitat connectivity issues in the corridor.

### What needs to change?

- Roughly 13% of the corridor experiences significant congestion on a regular basis.
- Missing links in shared-use facilities and certain interchanges impede pedestrian/bicycle mobility.
- There are seven bridges with preservation needs on the corridor, including five seismic retrofits.
- There are fish passage barriers present on the corridor.

WSDOT monitors the state system in ongoing efforts to track asset performance. For this corridor, WSDOT finds:



1) 2015 data unless otherwise noted. 2) For more information see the User Guide for Corridor Sketch Summaries at http://bit.ly/WSDOTcorridorsketch

### What we heard from our partners

WSDOT collected feedback from agency partners. Key themes included:

- Interest expressed for shared-use facilities in Olympia in order to increase bicycle tourism and the mobility of the area's college students.
- Desire for fixed-route transit near the Little Creek Casino and a connecting route between college campuses.
- Geometric concerns at US 101 off-ramp to SR 3 South, Evergreen Parkway NW eastbound on-ramp, Old Olympic Highway on-ramps, and I-5/Crosby interchange.
- Interest in evaluating US 101/Wallace Kneeland Boulevard interchange improvements (west side of US 101) and tourism opportunities in Shelton.
- Interest to evaluate a separated grade crossing near US 101 and Lynch Road.
- Desire to evaluate City of Olympia West Olympia Access improvements (US 101/Kaiser and Yauger Vicinity).

# **Strategies**

WSDOT identified the following strategies and associated actions to keep the corridor working well and address performance gaps. Regional partners collaborated on high-level mobility strategies. The identified strategies are not meant to be all-inclusive, nor an established list of priorities. Further evaluation is needed before any strategy can be recommended as a solution to address performance. Project funding decisions will take place at the programming phase, and are subject to statewide prioritization. For more strategy information, visit the Corridor Sketch Summary User Guide.

| Policy Goals / Strategies | Description and Near-Term Actions  |
|---------------------------|--|
| <b>Economic Vitality</b>  |  |
| Under Development         | WSDOT will continue to work with partners in developing strategies to address economic vitality.   |
| Environment               |  |
| Protect and Maintain      | Protect and maintain existing assets that provide environmental function (these include WSDOT's mitigation sites, storm water systems, fish passable culverts).  |
| Enhance or Restore        | Enhance or restore natural areas and environmental functions associated with the multimodal transportation system.   |
| Fish Barrier Retrofit     | WSDOT has prioritized the removal of state-owned culverts that block habitat for salmon and steelhead. See interactive map of uncorrected fish barriers at http://www.wsdot.wa.gov/Projects/FishPassage/default.htm. |
| Mobility                  |  |
| Assessment                | Further information about the proposed strategies can be found attached at the end of this document.   |
| Preservation              |  |
| Maintenance               | Based on expenditure history, it is expected that the top three activities will continue to be maintenance on snow and ice control, pavement repair, and vegetation control.   |
| Pavement                  | WSDOT has identified one Pavement action in the next six years encompassing 36% of the corridor.   |
| Structures                | WSDOT has identified one Structures action in the next six years at a single location on this corridor.  |
| Safety                    |  |
| Investment                | WSDOT has identified two Safety Investment actions in the next six years encompassing 12% of the corridor.   |
| Stewardship               |  |
| Planning                  | Under Practical Solutions, the Corridor Sketch Initiative identifies corridor performance, and assesses alternative strategies to improve the quality, effectiveness, and efficiency of the transportation system.   |



Mobility assessment for segment of Corridor 215
US 101: Wallace Boulevard off ramp to Shelton-Matlock Road
(Milepost 345.5-346.5)

This segment of US 101 is an urban recreational, freight, and commuter route and is within a portion of the city of Shelton and its Urban Growth Area.

This segment experiences mainline delay on one lane in the southbound direction, particularly during weekends for one hour in 2015.

### **Corridor Segment Characteristics**

- US 101 is an urban, three-lane facility with two lanes northbound and one lane southbound.
- The speed limit on this segment is 60 mph and passes through rolling terrain.
- The Freight and Goods Transportation designation on the segment was T-2 with an annual tonnage of roughly 5,040,000 and 1,200 daily trucks in 2015.
- The average daily traffic before the Shelton-Matlock Road ramp was 17,000 vehicles in 2016.
   Trucks accounted for 7.5% of traffic in 2015.

### **Contributing Factors**

 High traffic volumes on one lane in the southbound direction increase delays, particularly on weekends.

# **Mobility Strategies: Operational Improvements**

Implement advanced warning signage to reduce delays.

# **Demand Management**

 Evaluate separated multi-use trail/path for nonmotorized use to encourage mode shift.

### **Further Study**

- Develop options to reduce queuing at interchange.
- Evaluate methods to reduce congestion on this segment.

### **Acceptance**

- WSDOT considers the current performance of this corridor segment acceptable.
- WSDOT anticipates that a future Shelton Hills
   Development on the west side of US 101 will
   mitigate impacts to Wallace Kneeland Boulevard
   interchange.





Mobility assessment for segment of Corridor 215

Segment US 101: Gore Shelton-Matlock Road off ramp to SR 3 off ramp
(Milepost 347-350.2)

This segment of US 101 is an urban recreational, freight, and commuter route. This segment is located southwest of the city of Shelton

This segment experiences mainline delay in both directions all week for up to 15 hours at US 101/SR 3 overcrossing in 2015.

# **Corridor Segment Characteristics**

- US 101 is typically a rural two-lane undivided facility with a posted speed of 60 mph passing through rolling terrain.
- The Freight and Goods Transportation designation on the segment was T-2 with approximately 5,040,000 in annual tonnage with 1,200 daily trucks in 2015.
- The average daily traffic on the segment ranged from a high of 19,000 vehicles between the US 101/Shelton-Matlock interchange and US 101/SR 3 interchange to a low of 16,000 vehicles at the SR 3 bridge in 2016. Trucks accounted for 7.5% of traffic in 2015.

# **Contributing Factors**

- High volumes on a two-lane facility cause mainline delays.
- Trucks may be using SR 3 to access the Port of Shelton instead of Railroad Ave via US 101/Shelton-Matlock Road interchange resulting in delay.

# Mobility Strategies: Operational Improvements

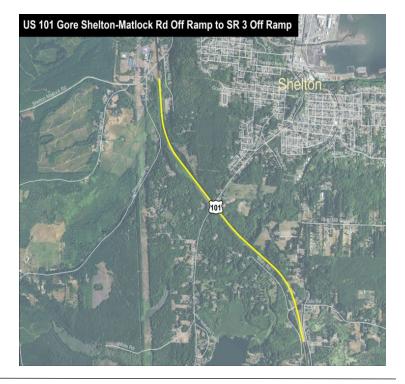
- Reduce posted speed between the US 101/Shelton-Matlock interchange and US 101/SR 3 interchange to reduce the number of slowing vehicles at ramps.
- Implement advance warning signage to reduce delays.

# **Demand Management**

 Implement separated multi-use trail/path for non-motorized use to encourage mode shift.

### **Further Study**

- Research effects of SR 3 southbound off ramp configuration on traffic speeds between the Shelton-Matlock interchange southbound on ramp and US 101/SR 3 interchange off ramp.
- Consider ways to reduce queuing behind slow trucks and recreational vehicles to improve efficiency.
- Evaluate ways to reduce US 101/SR 3 interchange congestion at Cloquallum Rd interchange to improve efficiency.
- Using a Practical Solutions approach, explore options to reduce congestion on this segment.





# Mobility assessment for segment of Corridor 215 US 101: Shaker Church Road to SR 8 Undercrossing (Milepost 361.3-361.4)

This segment of US 101 is an urban commuter, recreational, and freight route. The nearby US 12/Shaker Church Road NW at-grade intersection is used as an alternate route for vehicles heading westbound to SR 8.

This segment experienced high traffic volumes traveling on one lane ramps and mainline at/near the US 101/SR 8 interchange for three hours in the southeast direction on weekdays and one hour on weekends. The northwest direction is two hours on weekends in 2015.

# **Corridor Segment Characteristics**

- US 101 is an urban, divided facility with one lane going southbound and a 40 mph advisory speed warning and one lane transitioning into two lanes in the northbound direction with a posted speed of 60 mph in rolling terrain.
- The Freight and Goods Transportation designation on the segment was T-2 with an annual tonnage 7,970,000 with 1,800 daily trucks in 2015.
- The average daily traffic volumes on the segment was 31,000 vehicles in 2016, with trucks accounting for 4% of traffic.

### **Contributing Factors**

- High traffic volumes on the one-lane on and off ramps and transitions into and out of the ramps are congested during peak periods.
- Trucks have difficulty making the sharp turns and at times have had to back out on Shake Church Road causing delays.

# Mobility Strategies: Operational Improvements

- Install signage for southbound zipper merging in the morning peak hour to reduce queuing.
- Implement statewide Intelligent Transportation Systems to reduce delays.
- Consider creating specific merging lanes with signs and lighting to reduce queuing.
- Develop options for increasing ramp throughput and reduce queuing at the US 101/SR 8 interchange.

### **Further Study**

- Coordinate with Thurston County on their consideration of truck restrictions on Shaker Church Road to increase corridor efficiency.
- Evaluate options developed in a prior US 101/SR 8 Technical Traffic Operations Analysis Report, dated September 2013 in order to improve corridor mobility.
- Evaluate options to reduce congestion and reduce queuing at US 101/SR 8 interchange.





# Mobility assessment for segment of Corridor 215 US 101: Black Lake Boulevard on ramp to I-5 (Milepost 365.9-367.4)

The Black Lake Boulevard interchange and Crosby-Cooper Point Road SW interchange on US 101 provide indirect access to the Capital Mall, Capitol Village Shopping Center, Capital Medical Center, Olympia Auto Mall, South Puget Sound Community College, Thurston County District Court, and the Mottman Industrial Area. The I-5/US 101 interchange is a major regional interchange.

This segment includes high mainline traffic volumes with closely spaced urban interchanges in both directions for one hour every weekend and for one hour in the eastbound direction all week between Cooper Point-Crosby interchange and I-5 in 2015.

# **Corridor Segment Characteristics**

- This section of US 101 is an urban, divided, sixlane facility with a 60 mph posted speed between Black Lake Boulevard interchange and Crosby-Cooper Point Road SW interchange and 45 mph posted speed between Crosby-Cooper Point Road SW interchange to I-5.
- The segment passes through rolling terrain.
- The Freight and Goods Transportation designation on the segment was T-1 with an annual tonnage of 9,880,000 and 2,400 daily trucks in 2015.
- Average daily traffic volumes on the segment were 78,000 vehicles from Black Lake Boulevard interchange to Crosby-Cooper Point Road SW interchange and 100,000 vehicles from Cooper Point Road SW interchange to I-5/US 101 interchange in 2016. Trucks accounted for 4.9% of traffic in 2016.

### **Contributing Factors**

 High traffic volumes on mainline with merge, diverge, and weaving at the on and off ramps reduce capacity.

# Mobility Strategies: Operational Improvements

- Implement Intelligent Transportation Systems to reduce delays.
- Improve signage for I-5 northbound and southbound near Cooper Point-Crosby interchange.

### **Demand Management**

• Implement separated multiuse trail for non-motorized use to encourage mode shift.

### **Further Study**

- Work with City of Olympia on the US 101/Kaiser Road SW undercrossing park and ride Lot which would be served by transit and reduce vehicle trips.
- Study methods to reduce on-ramp confusion on the Crosby-Cooper Point Road SW interchange's eastbound ramps.
- Review existing studies including the West Olympia Access Study, Interchange Justification Report, and technical memorandum dated March 21, 2013 using a Practical Solutions lens in order to identify strategies to improve mobility on the corridor.



### For more information

To find out more information about this corridor or how to get involved, please contact:

### **Dennis Engel**

Olympic Region Planning Office Planning Manager 360-357-2651 engeld@wsdot.wa.gov

Washington State Department of Transportation's Corridor Sketch Initiative is a set of planning activities that engage our partners to define the context and performance information for all of the state's 304 highway corridors. The Corridor Sketch complements and supports regional planning processes in Washington. It is not intended to duplicate, substitute or compete with other planning efforts; nor is it intended to generate lists of projects.

Under 23 U.S. Code § 148 and 23 U.S. Code § 409, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

#### Americans with Disabilities Act (ADA) Information

Individuals requiring reasonable accommodations may request written materials in alternate formats, sign language interpreters, physical accessibility accommodations, or other reasonable accommodations by contacting the event sponsor (enter name of event sponsor and phone number), by (insert date-usually two weeks advance notice). Persons who are deaf or hard of hearing may contact the event sponsor through the Washington Relay Service at 7-1-1.

#### Title VI Statement to Public

It is the Washington State Department of Transportation's (WSDOT) policy to assure that no person shall, on the grounds of race, color, national origin and sex, as provided by Title VI of the Civil Rights Act of 1964, be excluded from participation in, be denied the benefits of, or be otherwise discriminated against under any of its federally funded programs and activities. Any person who believes his/her Title VI protection has been violated may file a complaint with WSDOT's Office of Equal Opportunity (OEO). For Title VI complaint forms and advice, please contact OEO's Title VI Coordinator at (360) 705-7098.

### Información del Acta (ADA) de Estadounidense con Discapacidad

Este material se puede hacer disponible en un formato alternativo por correo electrónico al equipo de Asuntos de diversidad/ADA WSDOT en wsdotada@wsdot.wa.gov o llamando gratis, 855-362-4ADA (4232). Personas sordas o con problemas de audición pueden solicitar llamando el relé de estado de Washington al 711.

### Notificación de Titulo VI al Público

Es la póliza de el Departamento de Transportación del Estado de Washington de asegurar que ninguna persona sea excluida de participación o sea negado los beneficios, o sea discriminado bajo cualquiera de sus programas y actividades financiado con fondos federales sobre la base de raza, color, origen nacional o sexo, como proveído por el Título VI de el Acto de Derechos Civiles de 1964. Cualquier persona que cree que sus protecciones de Titulo VI han sido violadas, puede hacer una queja con la Oficina de Igualdad de Oportunidades (OEO). Para información adicional con respecto a procedimientos de quejas de Titulo VI y/o información con respecto a nuestras obligaciones sin discriminación, por favor de comunicarse con le Coordinador de Titulo VI de la Oficina de Igualdad de Oportunidades (OEO) (360) 705-7082.