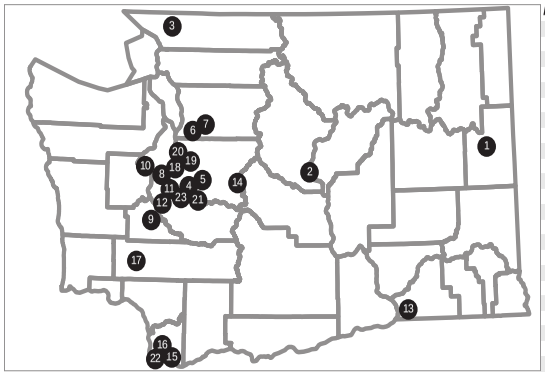
# DRAFT 2007-2026 HSP: Mobility Implementation Plan



| Key | Project Title |
|---|---|
| 1 | US 395 North Spokane Corridor |
| 2 | SR 28 East Wenatchee Corridor |
| 3 | SR 539 Lynden to the USA/Canada Border |
| 4 | SR 509 Complete SR 509 from I-5 to Des Moines Memorial Drive |
| 5 | SR 18 Issaquah Hobart Road to I-90 |
| 6 | SR 522 Paradise Lake Road to Monroe |
| 7 | US 2 Monroe Bypass |
| 8 | Completion of Puget Sound HOV System |
| 9 | SR 510/SR 507 Yelm Bypass |
| 10 | SR 3 Belfair Bypass |
| 11 | SR 167 from SR 509 at the Port of Tacoma to SR 167/SR 512 at Puyallup |
| 12 | SR 704 Crossbase Highway |
| 13 | US 12 US 730 to McDonald Road |
| 14 | I-90 Snoqualmie Pass East |
| 15 | SR 14 Camas / Washougal |
| 16 | I-205 SR 14 to NE 134th Street |
| 17 | I-5 13th Street to Mellen Street |
| 18 | SR 518/SR 509 Interchange |
| 19 | I-405 Lynnwood to Tukwila - Corridor Improvements |
| 20 | SR 520 Bridge Replacement and HOV |
| 21 | SR 410 Bonney Lake Vicinity - Corridor Widening |
| 22 | I-5 Columbia River Crossing |
| 23 | I-5/SR 161/SR 18 "Triangle" Interchange |

Preservation
Safety
Economic Vitality
Mobility
Environment

What are we trying to improve?
Level of Service?
Throughput?
Reliability?
Speed?

*Strategies*

| | | |
|---|---|---|
| Add General Purpose Lanes, Light/Heavy Passenger Rail, Transit/Multi-modal Facilities, HOV/HOT Lanes, Interchange Modification | Higher cost projects<br>Corridor-wide benefits<br>Typical Maximum Fix | **Tier III**<br>**Plan Years 15 to 20** |
| Improvements to Parallel Corridors (inc. local roads), Auxiliary Lanes, Direct Access Ramps, Collector Distributor Lanes | Moderate to Higher cost projects<br>Potential network benefits<br>Typical Moderate Fix | **Tier II**<br>**Plan Years 10 to 15** |
| System/Access Management, Signal Timing and Coordination, Operational Improvements, ITS, Traveler Information, Land Use, Ramp Modification, Turn Lanes, Intersection Improvements, Ramp Metering, Bus Pull-outs, Park and Ride Lots, Van Pools, Incident Response, Tolling | Low cost projects<br>High return on investment<br>Short delivery schedules<br>System-wide implementation<br>Typical Minimum Fix | **Tier I**<br>**Plan Years 2 to 20** |
| Safety Improvements, Preservation | Lower cost projects,<br>Limited mobility benefits | **All Plan Years** |
| System-wide Analysis, Performance Measurement and Monitoring | | **Continuous** |

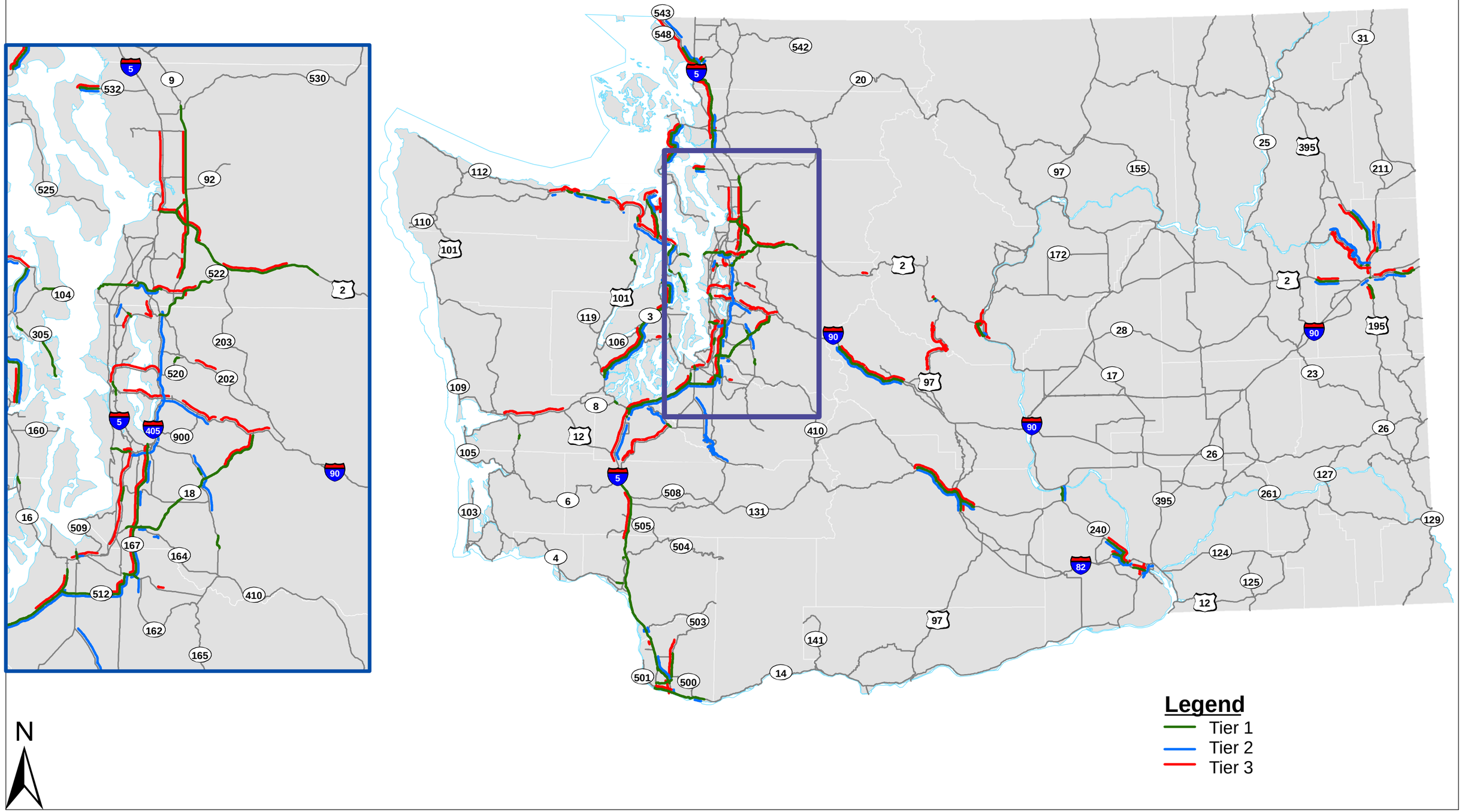
Expanding Capacity (Bigger System)
System Efficiency (Efficient System)
System Preservation (Healthy System)

**Project Cost**

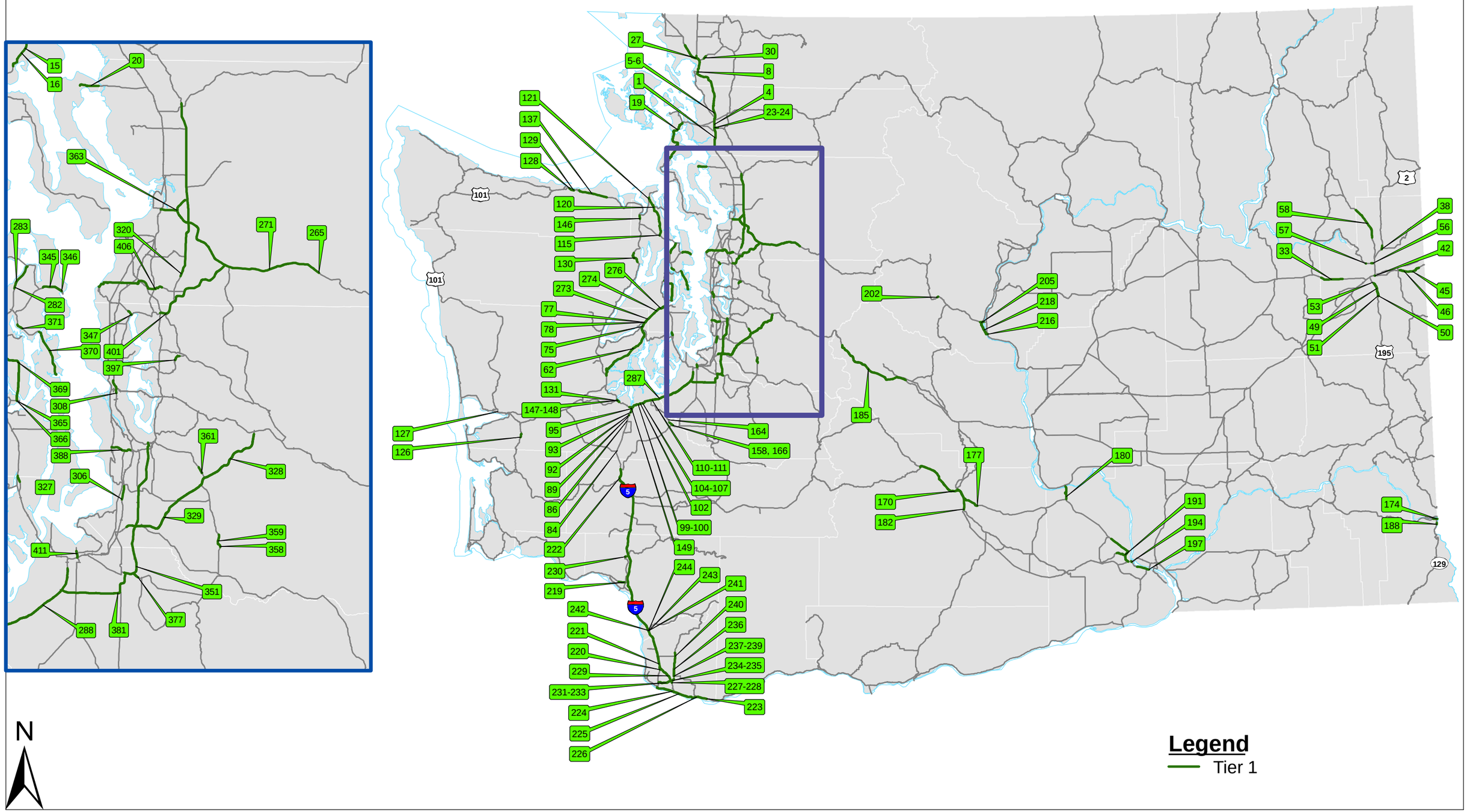
**Time to Implementation**

# Appendix

# 2007-2026 DRAFT Mobility Implementation Plan: Solutions



# 2007-2026 DRAFT Mobility Implementation Plan: Solutions



# *Tier I Solutions*

| Key | Highway Number | Milepost | Title | Current or Future Problem | Cost Estimate |
|---|---|---|---|---|---|
| 1 | I-5 | 221.19 to 232.95 | I-5/SR 538 to Hopper Rd - Interchange Improvements | Current/Future | $10,000,000 |
| | *Solution:* | Intersection improvements at Cook Road and George Hopper Road interchanges, along with any other improvements which are determined by the findings of the Freeway Master Plan. | | | |
| | *Expected Benefits:* | 20% reduction in accidents, 10% reduction in delay. | | | |
| 4 | I-5 | 228.99 to 228.99 | I-5/Hopper Rd Interchange - Intersection Improvements | Current | $4,000,000 |
| | *Solution:* | Intersection improvements at ramp terminals | | | |
| | *Expected Benefits:* | Reduced delays at ramp terminal intersections, and reduction of southbound left-turn queuing. | | | |
| 5 | I-5 | 232.95 to 232.95 | I-5/Cook Rd Interchange - Intersection Improvements | Current | $10,000,000 |
| | *Solution:* | Intersection improvements at ramp terminals | | | |
| | *Expected Benefits:* | Reduced delays at intersections, and reduction of queuing on ramps. | | | |
| 6 | I-5 | 232.95 to 250.87 | I-5/Samish River to N Lake Samish - Freeway Improvements | Future | $6,000,000 |
| | *Solution:* | A truck climbing lane from the Samish River to Bow Hill Road., and a longer ramp taper at the North Lake Samish SB on-ramp. | | | |
| | *Expected Benefits:* | 20% reduction in accidents, 20% reduction in delay. | | | |
| 8 | I-5 | 250.87 to 262.69 | I-5/ Fairhaven to Ferndale - Freeway Master Plan | Future | N/A |
| | *Solution:* | To be determined by the Freeway Master Plan | | | |
| | *Expected Benefits:* | N/A | | | |
| 15 | SR 20 | 30.05 to 30.36 | SR 20/Swantown Rd to Erie St - Widening and Improvements | Current | $6,000,000 |
| | *Solution:* | Widen to 4 lanes, close median, U-turns or roundabouts at Swantown and Erie. | | | |
| | *Expected Benefits:* | Reduced delays at intersections, and reduction of queuing. | | | |
| 16 | SR 20 | 30.05 to 47.01 | SR 20/S Oak Harbor to Sharpe's Corner - Short Term Improvements | Current | $70,000,000 |
| | *Solution:* | Incorporating access management strategies in the corridor will help to reduce accidents and delays caused by the many driveways which exist here. Intelligent Transportation Systems (ITS) strategies will help to make the corridor more efficient by providing real-time information to drivers, as well as the traffic operations staff. Transportation Demand Management will help to reduce the demand of vehicles using the corridor. The pavement in this corridor will need to be rehabilitated, based on data from the WSPMS. | | | |
| | *Expected Benefits:* | Better flow of traffic using existing facilities as much as possible. Eliminating left turns out of driveway will reduce accidents. | | | |
| 19 | SR 20 | 47.3 to 47.34 | SR 20/Sharpe's Corner to Fiadalgo Bay Rd - Intersection Improvements | Current | $5,000,000 |
| | *Solution:* | Multi-lane roundabouts at each intesection | | | |
| | *Expected Benefits:* | Reduced delays at intersections, and reduction of westbound left-turn queuing. | | | |
| 20 | SR 532 | 0 to 2.91 | SR 532/Sunrise Dr to County Line - Corridor Improvements (Minimum) | Current | $22,000,000 |
| | *Solution:* | Incorporating access management strategies in the corridor will help to reduce accidents and delays caused by the many driveways which exist here. Intelligent Transportation Systems (ITS) strategies will help to make the corridor more efficient by providing real-time information to drivers, as well as the traffic operations staff. Transportation Demand Management will help to reduce the demand of vehicles using the corridor. The pavement in this corridor will need to be rehabilitated, based on data from the WSPMS. | | | |
| | *Expected Benefits:* | Better flow of traffic using existing facilities as much as possible. Eliminating left turns out of driveway will reduce accidents. | | | |
| 23 | SR 538 | 0 to 0 | I-5/SR 538 - Ramp Terminals | Current | $4,000,000 |
| | *Solution:* | Intersection improvements at ramp terminals | | | |
| | *Expected Benefits:* | Reduced delays at ramp terminal intersections. | | | |
| 24 | SR 538 | 0 to 1.27 | SR 538/I-5 to LaVenture Rd - Corridor Improvements (Minimum) | Future | $22,000,000 |
| | *Solution:* | Incorporating access management strategies in the corridor will help to reduce accidents and delays caused by the many driveways which exist here. Intelligent Transportation Systems (ITS) strategies will help to make the corridor more efficient by providing real-time information to drivers, as well as the traffic operations staff. Transportation Demand Management will help to reduce the demand of vehicles using the corridor. The pavement in this corridor will need to be rehabilitated, based on data from the WSPMS. | | | |
| | *Expected Benefits:* | Keep traffic flowing by maximizing the existing roadway as much as possible. | | | |

# Tier I Solutions

| Key | Highway Number | Milepost | Title | Current or Future Problem | Cost Estimate |
|---|---|---|---|---|---|
| 27 | SR 539 | 0 to 0.87 | SR 539/I-5 to Kellogg Rd - Corridor Improvements (Minimum) | Current | $40,000,000 |
| | *Solution:* | Incorporating access management strategies in the corridor will help to reduce accidents and delays caused by the many driveways which exist here. Intelligent Transportation Systems (ITS) strategies will help to make the corridor more efficient by providing real-time information to drivers, as well as the traffic management center. Transportation Demand Management will help to reduce the demand of vehicles using the corridor. The pavement in this corridor will need to be rehabilitated, based on data from the WSPMS. | | | |
| | *Expected Benefits:* | Better flow of traffic using existing facilities as much as possible. Eliminating left turns out of driveway will reduce accidents. | | | |
| 30 | SR 542 | 1.74 to 2.79 | SR 542/McLeod Rd to Britton Rd - Corridor Improvements (Minimum) | Future | $10,000,000 |
| | *Solution:* | The pavement in this corridor will need to be rehabilitated, based on data from the WSPMS. Some intersection and spot capacity improvements will be needed to address congestion/delay issues. These improvements could include signals, roundabouts, turn lanes, and auxiliary lanes. | | | |
| | *Expected Benefits:* | Keep traffic flowing by maximizing the existing roadway as much as possible. | | | |
| 33 | US 2 | 259.21 to 266.89 | US 2/Fairchild Air Force Base to I-90 - Access Control and I/S Improvements | Current | $5,500,000 |
| | *Solution:* | Various improvement strategies have been developed over the last several years to alleviate growing congestion on the route segment. In the near-term, improvements to existing intersections, including the addition of signalization and possibly roundabouts, will be required to maintain adequate LOS as new developments are completed. Channelization may also be needed to address traffic flow disruptions. | | | |
| | *Expected Benefits:* | Intersection improvements will alleviate substantial delay currently experienced on minor streets while improving the safety of mainline operations. Raised median channelization will improve operating speeds by eliminating conflicting movements while also improving safety. | | | |
| 38 | US 2 | 288.92 to 290.2 | US 2/Deer Rd to Pend Orielle Co Line - Access Consolidation and I/S Improvements | Current | $3,500,000 |
| | *Solution:* | In the short range, improvement strategies include the use of raised channelization, acceleration/deceleration lanes, approach consolidation, right-in/right-out only, and additional signage to alleviate congestion and preserve operating speeds. | | | |
| | *Expected Benefits:* | These projects will serve to maintain an acceptable level-of-service on the facility and to enhance safe operations in areas where turning movements into residential and commercial land uses are creating congestion and delay. | | | |
| 42 | I-90 | 278.83 to 279.05 | I-90/US 2 I/C EB Off-Ramp - Ramp and Terminal Improvements | Current | $2,700,000 |
| | *Solution:* | Ramp and terminal improvements. | | | |
| | *Expected Benefits:* | Improved operation on the ramp, and at the ramp terminal, will eliminate mainline I-90 congestion as well as safety issues related to the potential for ramp queuing interfering with I-90 mainline movements. Air quality may improve as a result of less delay. Freight movements will benefit as a result of less delay. | | | |
| 45 | I-90 | 288.13 to 295.22 | I-90/Sullivan I/C to Idaho State Line - Enhanced ITS and Incident Response Capabilities | Current | $3,540,000 |
| | *Solution:* | Provide for enhanced ITS and incident response capabilities within the route segment. | | | |
| | *Expected Benefits:* | Improved traffic flow resulting from increased incident detection, response capabilities, and motorist advance warning. | | | |
| 46 | I-90 | 288.13 to 289.63 | I-90/Sullivan I/C to Barker I/C - Construct General Purpose Lanes | Current | $12,000,000 |
| | *Solution:* | Construction of an additional lane, in each direction, between Sullivan Rd. and Barker Rd. interchanges. | | | |
| | *Expected Benefits:* | Construction of additional capacity will allow travel speed to be maintained above the 70% of posted speed threshold. | | | |
| 49 | US 195 | 85.96 to 90.75 | US 195/Hatch Rd to I-90 - Provision of Park & Ride Facilities | Current | $2,000,000 |
| | *Solution:* | Provision of Park & Ride facilities. | | | |
| | *Expected Benefits:* | Reduction in single occupant vehicles within the corridor, resulting in improved safety and mobility. | | | |
| 50 | US 195 | 85.96 to 90.75 | US 195/Hatch Rd to I-90 - Provision of ITS | Current | $2,830,000 |
| | *Solution:* | Provision of ITS capabilities in the corridor to alert motorists to traffic delays caused by incidents, accidents, or congestion, especially at the US 195 interchange with I-90, which is a chokepoint. | | | |
| | *Expected Benefits:* | ITS capabilities will enhance safe operations of the facility through motorist awareness of delay caused by incidents on the facility. | | | |
| 51 | US 195 | 85.96 to 90.75 | US 195/Hatch Rd to I-90 - I/S Modifications and Improvements | Current | $5,500,000 |
| | *Solution:* | Left turn restrictions and intersection improvements for turning traffic. | | | |
| | *Expected Benefits:* | Elimination of left turn movements, as well as the construction of acceleration and deceleration lanes, will improve the safe operations at intersections located within the route segment. | | | |
| 53 | US 195 | 91.21 to 91.22 | US 195/Cheney-Spokane Rd to Lindeke Rd - Construction of I/C and Arterial | Current | $19,800,000 |
| | *Solution:* | Construction of a fully directional interchange at Cheney-Spokane Rd. and new City of Spokane arterial. | | | |
| | *Expected Benefits:* | Elimination of conflicts between mainline and minor street traffic as well as the diversion of some traffic from US 195 to local street system. This will allow US 195 to be maintained as a high-speed regional facility. | | | |
| 56 | SR 291 | 0.5 to 1.18 | SR 291/Wall St to Ash St - I/S Improvements | Current | $400,000 |
| | *Solution:* | Signal timing improvements and construction of dedicated turn lanes at signalized intersections will help to improve travel through this chokepoint. | | | |
| | *Expected Benefits:* | Improved travel speeds will improve regional air quality. Reduced travel times will benefit regional, as well as local, freight mobility. SR 291 also provides direct access to many recreational opportunities in the Spokane area. | | | |

# *Tier I Solutions*

| Key | Highway Number | Milepost | Title | Current or Future Problem | Cost Estimate |
|---|---|---|---|---|---|
| 57 | SR 291 | 3 to 3.1 | SR 291/Assembly Rd I/S - Construct Fly-over Ramp | Current | $2,309,000 |
| | *Solution:* | Construction of flyover ramp will greatly decrease congestion and improve safety at the intersection. | | | |
| | *Expected Benefits:* | This project will eliminate a chokepoint that is created by high traffic volumes, an unusual intersection configuration, and is exacerbated by special events and recreational facilities located nearby. | | | |
| 58 | US 395 | 176.79 to 188.48 | US 395/Fender Rd Vic to Stevens Co Line - I/S Improvements | Current | $3,000,000 |
| | *Solution:* | Channelization improvements that will improve operations at intersections with failing LOS. | | | |
| | *Expected Benefits:* | Reduction of accidents at existing at-grade intersections. Reduced delay at intersections, which are projected to operate at LOS F in the 2020 forecast year. Reduction of delay on mainline, which is currently functioning at LOS E, with portions of the route functioning at LOS F in the forecast year. | | | |
| 62 | SR 3 | 0 to 36.69 | SR 3/South Kitsap and North Mason County - Subarea Study | Current/Future | $1,250,000 |
| | *Solution:* | South Kitsap/East Mason County Subarea Study | | | |
| | *Expected Benefits:* | | | | 0 |
| 75 | SR 3 | 24.88 to 26.35 | SR 3/SR 106 to SR 300 - Two Way Left Turn Lane Extension and Sidewalk | Current | $8,503,000 |
| | *Solution:* | Concept A: 3 lane facility (raised median). This project will widen State Route 3 from a 2/3 lane facility to a 3 lane facility (TWLTL) from SR 106 to SR 300 in Belfair. This project assumes a Belfair Bypass will be constructed eliminating the need for a 4/5 lane facility in Belfair. A two way left turn lane should only be considered if access classification is reduced from class 3 to class 4 or if Belfair Bypass diverts more traffic away from SR 3. Origin/Destination studies indicate ~15% or less traffic may be diverted without a US 101 connector. Our planning level estimate assumes ROW width going from 60 ft to 80 ft with treatment locations for storm water outfalls. A Belfair estimate assumed width staying at 60 ft or going to 100 ft. In either case it is a deviation since SR 3 HSS rural requirement is 150 ft when widened. Sidewalks are also assumed for a pedestrian benefit. | | | |
| | *Expected Benefits:* | Mobility Benefits for extending a two-way left turn lane is ~$3,000,000 and Safety Benefits (30% reduction placeholder) is ~$4,000,000. The project will also address two fish passage barriers. A partnership with Mason County to fund improvements is anticipated because they are required to address sewer issues in the community of Belfair. Combining sewer improvements and widening improvements is beneficial to the County because of reduced utility relocation costs associated with widening. The sewer project is anticipated to cost around $16,000,000 to $17,000,000. If projects are combined, the total estimated cost would be less than $26,000,000. | | | |
| 77 | SR 3 | 26.35 to 26.36 | SR 3/SR 300 Jct - Modify Intersection | Current | $112,000 |
| | *Solution:* | Concept A: Intersection improvements. Prohibit eastbound left turn movements from SR 300 to SR 3 and install raised median. Consider right-in, right-out only if a safety and operational analysis calls for it later, otherwise assume some costs for loss of access rights due to diversion, ~$100 per frontage foot for developments between SR 3 and NE Clifton Rd. | | | |
| | *Expected Benefits:* | Prohibit left turn movement from SR 300 onto SR 3 for an intersection benefit of ~$24,000 and a placeholder safety benefit of ~$169,000. Total benefits of approximately $193,000. The intersection of SR 300 and NE Clifton Lane was analyzed for the addition of the rerouted vehicles prohibited from turning left at SR 300/SR 3 I/S (9 vehicles). A two-way stop was considered to replace the existing four-way stop. This did not improve the LOS at this intersection and this location was not considered a bottleneck and chokepoint. | | | |
| 78 | SR 3 | 26.35 to 27.63 | SR 3/SR 300 to Belfair Yard Rd Vic - Widening and Intersection Improvements | Current | $13,257,000 |
| | *Solution:* | Concept A: 4 lanes (divided outside of Belfair). This project will widen State Route 3 from a 2/3 lane facility (Existing NB climbing lane MP 26.93 to MP 27.66) to a 4 lane facility between SR 300 and the Mason/Kitsap County Line with intersection improvements at SR 3/NE Clifton Lane (SB right turn on SR 3, EB right turn on NE Clifton creating a double left, and two additional through lanes on mainline SR 3). Sidewalks in area of existing TWLTL (MP 26.38 to MP 26.86) | | | |
| | *Expected Benefits:* | GP for ~$8,866,000, intersection benefits for $3,568,000, and placeholder safety benefits of ~$6,351,000 (30%). Total benefits of ~$18,785,000. | | | |
| 84 | I-5 | 88.7 to 88.71 | I-5/Grand Mound I/C Vic - Add WB lane on US 12 from SB Off Ramp I/S to Elderberry St Vic | Current | $3,799,000 |
| | *Solution:* | Concept A: This project will add a WB auxiliary lane on US 12 between the I-5 SB off ramp stop controlled terminal and the right turn drop lane at Old Highway 99 (Elderberry). | | | |
| | *Expected Benefits:* | Unknown at this time. This conceptual solution is a placeholder for an emerging bottleneck/chokepoint location. | | | |
| 86 | I-5 | 99.65 to 99.66 | I-5/93rd Ave SW I/C - Signal and Channelization at SB Off Ramp I/S | Current | $1,528,000 |
| | *Solution:* | Concept A: New signal and channelization (Separated right and left turn lanes along the off ramp and left turn lane on 93rd Ave. SW to the SB on). | | | |
| | *Expected Benefits:* | Unknown at this time. This conceptual solution is a placeholder for an emerging bottleneck/chokepoint location. | | | |
| 89 | I-5 | 101 to 101.01 | I-5/Tumwater Blvd I/C - Signal at NB Off Ramp I/S and EB Acceleration Lane on Tumwater Blvd | Current | $3,418,000 |
| | *Solution:* | Concept A: Traffic signal and EB acceleration lane on Tumwater Blvd. | | | |
| | *Expected Benefits:* | Intersection benefits are ~$2,374,000 assuming .5% traffic growth and safety benefits are ~$1,459,000 for total benefits of ~$3,828,000. Tumwater Blvd provides a direct access to and from the Olympia Airport improving port accessibility. | | | |
| 92 | I-5 | 101.69 to 101.7 | I-5/Tumwater Blvd I/C - Signal Modification and Channelization at SB Off Ramp I/S | Current | $6,264,000 |
| | *Solution:* | Concept A: Signal modification and channelization (Right turn and acceleration lanes) | | | |
| | *Expected Benefits:* | Intersection benefits are ~$6,152,000 assuming zero traffic growth and safety benefits are ~$1,848,000 for total benefits of ~$7,999,000 with projected 2005 traffic volumes Assume signal modification, right turn lanes, and acceleration lanes will be partially funded with private developer participation through the City of Tumwater. Tumwater Boulevard provides a direct access to and from the Olympia Airport improving port accessibility. | | | |

# *Tier I Solutions*

| Key | Highway Number | Milepost | Title | Current or Future Problem | Cost Estimate |
|---|---|---|---|---|---|
| 93 | I-5 | 102.86 to 115 | I-5/Trosper Rd I/C to Pierce County Line - Ramp Metering | Current | $3,236,000 |
| | *Solution:* | Concept A: Ramp metering. This project will improve upon the existing Intelligent Transportation System by providing ramp metering at ~15 on-ramps in the northbound and southbound directions of Interstate 5 in the urban areas of Tumwater/Olympia/Lacey. | | | |
| | *Expected Benefits:* | General purpose lane benefits are ~$46,612,000. I did not assume any safety benefits even though congestion type accidents along mainline could be improved. Benefits assume ramp meters will increase capacity along mainline from ~1800 pcphpl to ~2000 pcphpl. For HCM 2000 analysis assume this capacity improvement correlates to an ~200 pcphpl decrease in adjusted traffic volumes along mainline. | | | |
| 95 | I-5 | 104.12 to 104.13 | I-5/N 2nd Ave Off Ramp I/S - Three Way Stop Controlled I/S | Current | $6,000 |
| | *Solution:* | Concept A: Install stop signs on local arterials (Desoto and N 2nd Avenue) to create 3-way stop. A signal with acceleration lane could be considered or additional turn lane at next local arterial (balance lane utilization), but would result in a B/C ratio less than 1. | | | |
| | *Expected Benefits:* | Intersection benefit of ~$301,000 and safety benefit of ~$469,000 with total benefits of ~$770,000 based upon signal with acceleration lane. B/C for signal with acceleration lane likely to be 0.83 or less with costs greater than $1 million. | | | |
| 99 | I-5 | 107.16 to 107.17 | I-5/Pacific Ave I/C - NB Off Ramp Double Left Turn | Current | $3,533,000 |
| | *Solution:* | Concept A: Create an I-5 Northbound off ramp double left turn movement to Westbound Pacific Avenue at the ramp terminal and consider modifying the existing Eastbound Pacific Avenue roadway section to create a double left turn movement toward the I-5 Northbound on ramp terminal. | | | |
| | *Expected Benefits:* | Intersection benefits for ~$3,984,000 and safety benefits for ~$984,000. Total benefits of ~$4,968,000. | | | |
| 100 | I-5 | 107.58 to 109.26 | I-5/Pacific Ave I/C to Martin Way I/C - Collector Distributor Lanes or Extend Auxiliary Lanes | Current | $40,000,000 |
| | *Solution:* | Concept B: Collector-Distributor lanes or Auxiliary Lanes (Both the C-D and Auxiliary lane proposals need further study for ramp diverge, merge, and weave. This project will install one lane collector-distributor lanes or auxiliary lanes in both northbound and southbound directions. Consider making proposed C-D lanes 2-lanes where existing or acquired right-of-way will accommodate the extra widening without high bridge widening costs or class 1 trail relocation costs. Design deviations are anticipated for the C-D proposal. Consider alternative auxiliary lane proposal to reduce the estimated costs and to eliminate probable design deviations. A C-D will require a design deviation at the Lilly Road and College Street undercrossings. Also, installing C-D lanes may require an Access Point Decision Report for interchange modifications. An extension c the existing auxiliary lane between Sleater Kinney Road and College Street northbound could also be considered. It may be desirable to complete a feasibility study prior to constructing C-D lanes or extending auxiliary lanes in this vicinity. | | | |
| | *Expected Benefits:* | General purpose lane benefits of ~$175,983,000 and Safety benefits of ~$5,059,500 for a total benefit of ~$181,042,500. | | | |
| 102 | I-5 | 108 to 108.01 | I-5/Sleater Kinney I/C - SB Acceleration Lane on Sleater Kinney | Current | $945,000 |
| | *Solution:* | Concept A: Southbound acceleration taper and/or auxiliary lane on Sleater Kinney to allow free right turn movements at the ramp terminal (EBR). | | | |
| | *Expected Benefits:* | Intersection benefits for ~$3,596,000 and safety benefits for ~$421,000 for total benefits of ~$4,017,000. If acceleration lane extends to South Sound Mall right-in, right-out access it could help with traffic arrivals at the mall during special events (e.g. July fireworks). Widening for the acceleration taper and/or lane also means widening the existing bike tunnel. A wider roadway cross section will help deter bicycles from crossing Sleater Kinney at-grade and encourage usage of the bike tunnel to cross under Sleater Kinney. | | | |
| 104 | I-5 | 108.71 to 109.01 | I-5/Martin Way I/C - NB Off Ramp Deceleration Lane Extension | Current | $2,094,000 |
| | *Solution:* | Concept A: Northbound I-5 deceleration lane. Providing a 0.3 mile (1570 ft) NB deceleration lane into the Martin Way I/C off ramp will improve ramp diverge from LOS E t C (0.15 mile or 800 ft NB deceleration lane would improve year 2003 ramp diverge from LOS E to D). Unable to identify any low cost ramp terminal improvements at the NB off/on ramp terminal that would improve overall intersection LOS to better than LOS F due to high local arterial traffic volumes. A "Northeast Lacey Access" Study would consider various alternatives at Martin Way and at other locations that could be addressed further in an access point decision report and/or environmental documentation. | | | |
| | *Expected Benefits:* | General purpose lane benefit of ~$8,672,000 and safety benefit of ~$199,000 for total benefits of ~$8,871,000. Interstate 5 is a T-1 freight route. | | | |
| 105 | I-5 | 109.22 to 109.23 | I-5/Martin Way I/C - Add Additional Lane on Martin Way to Double Length of Left Turn Storage Both D | Current | Unknown |
| | *Solution:* | The Martin Way O'xing - Bike Lanes project could be modified/supplemented to add one additional lane under I-5 on Martin Way to double the length of left turn storage an place bike path behind bridge columns. | | | |
| | *Expected Benefits:* | | | | 0 |
| 106 | I-5 | 109.26 to 109.27 | I-5/Martin Way I/C - Expand Park and Ride Lot and Consider Transit Only Right Turn Lane to NB On F | Current | Unknown |
| | *Solution:* | Expand existing Martin Way park and ride lot by 60 stalls (expansion may be greater than 60 stalls due to closure of the Marvin Road park and ride lot). A "transit only" right turn drop lane between the existing Martin Way park and ride lot and the I-5 Northbound on ramp could also be considered in partnership with the City of Lacey along with other options. | | | |
| | *Expected Benefits:* | | | | 0 |
| 107 | I-5 | 109.41 to 109.42 | I-5/Martin Way I/C - SB Off Ramp Double Right Turn | Current | $2,554,000 |
| | *Solution:* | Concept A: Ramp terminal improvements. This project will add a southbound right turn lane to create two right turn lanes and extend the storage lane length of the existin left turn lane (~doubling length) at the southbound off ramp terminal. City of Lacey will be a partner for the "SR 5 Martin Way O-xing Bike Lanes" under agreement GCA-2701. It is possible that this nearby shelf project could happen at the same time as the bottleneck/chokepoint double right turn proposal. It is also possible that widening under the I-5 bridge for the urban bike project could be modified such that any future additional widening could be used to extend the left turn lanes (doubling them from ~400 feet to ~800 feet of storage) with the bike lanes being constructed behind bridge piers. | | | |
| | *Expected Benefits:* | Intersection benefit of ~$4,491,000 and safety benefit of ~$745,000 for total benefits of ~$5,236,000. Interstate 5 is a T-1 freight route. | | | |

# Tier I Solutions

| Key | Highway Number | Milepost | Title | Current or Future Problem | Cost Estimate |
|---|---|---|---|---|---|
| 110 | I-5 | 112.32 to 113.77 | I-5/Marvin Rd I/C - Add Right Turn Lane to SB Off Ramp Creating Double Left Turn Lanes | Current | $3,967,000 |
| | *Solution:* | Concept A: Ramp terminal improvements. This project will construct an exclusive right turn lane on the Interstate 5 Southbound off ramp to Marvin Road. It may be possible to minimize impacts at the existing traffic signal by dropping the right turn lane behind the mast arm in the NE quadrant into an acceleration lane and taper for free right. The existing right turn could then be restriped as a second left (with through movement to the I-5 SB on ramp). | | | |
| | *Expected Benefits:* | Intersection benefit of ~$6,150,000 and safety benefit of~$205,000 for total benefits of ~$6,355,000. Marvin Road has Class II bike lanes. The exclusive right turn would help facilitate freight movements toward the industrial area north of the interchange where distribution centers are proposed/exist. | | | |
| 111 | I-5 | 112.77 to 113.77 | I-5/Marvin Rd I/C to Nisqually I/C - SB Climbing Lane | Current | $25,000,000 |
| | *Solution:* | Southbound climbing lane from the Nisqually on ramp past crest of 3% vertical curve near the Marvin Road (SR 510) I/C. This auxiliary lane would also function as an acceleration lane and deceleration lane from the Nisqually on ramp to the Marvin Road off ramp and help reduce weaving conflicts. | | | |
| | *Expected Benefits:* | Unknown benefits at this time | | | |
| 115 | SR 19 | 0 to 14.09 | SR 19 and SR 20/SR 104 to Port Townsend Ferry Terminal - Corridor Analysis | Current/Future | $850,000 |
| | *Solution:* | Corridor Analysis: A corridor analysis plan will identify intersection locations that would benefit from intersection improvements (e.g. left or right turn channelization for mobility and new signal locations for safety). | | | |
| | *Expected Benefits:* | | | | 0 |
| 120 | SR 19 | 10.68 to 10.69 | SR 19/SR 116 Intersection - Signal and Channelization or Roundabout | Current | $1,298,000 |
| | *Solution:* | Concept A: Intersection improvements (signalization and channelization). Install an additional southbound left turn lane (creating double left), a northbound right turn lane, reconfigure the westbound channelization by installing a right turn lane and consider a northbound acceleration lane, and install a signal system. | | | |
| | *Expected Benefits:* | Intersection benefit of ~$1,380,000 and safety benefit of ~$22,000 for total benefits of ~$1,402,000. | | | |
| 121 | SR 20 | 7.79 to 8.26 | SR 20/SR 19 to Old Fort Townsend Rd - Widening or Channelization | Current | $3,071,000 |
| | *Solution:* | Concept A: 4 lane divided highway. This project will widen State Route 20 from a 2 lane facility to a 4 lane divided facility from SR 19 to Old Fort Townsend Road (Class 2 access management with > 20,000 AADT in 2025). | | | |
| | *Expected Benefits:* | Safety benefits of ~$130,500, intersection benefits of ~$231,000, and general purpose lane benefits of ~$9,786,000 for total benefits of ~$10,147,500. Direct route to Port Townsend Ferry Terminal for Port Accessibility. | | | |
| 126 | US 101 | 72.17 to 73.4 | US 101/One Mile S of Artic Rd - SB Truck Climbing Lane | Current | $5,681,000 |
| | *Solution:* | Concept A: 3 lane facility (climbing). This project will widen US 101 from a 2 lane facility to a 3 lane facility (climbing lane) in the southbound (decreasing) direction. Includes retaining walls in 2 areas identified as unstable slopes. Required repair on 1 fish bearing passage barrier is included in the estimate. No treatment was included for the other 11 fish passage barriers because they appear to have no fish use (GeoDatabase-GIS workbench). | | | |
| | *Expected Benefits:* | Safety benefits of ~$4,945,000 and a climbing lane benefit of ~$402,000. For this analysis assume maximum benefits of ~$5,347,000. T-2 freight route and repair one fish passage. | | | |
| 127 | US 101 | 87.24 to 87.26 | US 101/SR 109 Intersection - Double Left Turn | Current | $1,086,000 |
| | *Solution:* | Concept A: Add NB lane. This project will add a northbound (increasing) lane through/left turn creating double left at SR 109 intersection. During low tides (clam season) SR 109 is a primary route to the Pacific Ocean Beaches. Consider restriping and signal modification to create double left if right-of-way constraints in the central business district (CBD) are severe and if future NB left turn volume growth is disproportionably high. | | | |
| | *Expected Benefits:* | Intersection benefits of `$68,000 and safety benefits of ~$1,543,000 for total benefits of~$1,611,000. SR 109 is the primary access to the Port of Grays Harbor and is the recreational route to Pacific Ocean beaches. Special events such as low tides for clam digging increase traffic volumes. Assume ~300 feet of sidewalk to be included. | | | |
| 128 | US 101 | 248.09 to 249.98 | US 101/Race St to Brook Ave - Access Management, Signal Replacement, and Sidewalk | Current | $8,425,000 |
| | *Solution:* | Concept A: Access Management and signal coordination. This project will apply Access Management control between Golf Course and Delguzzi, replace six signal systems with interconnect (Assumed saltwater corrosion requires replacement of existing signals), repair two fish barriers within project limits, and provide continuous sidewalks within city limits. | | | |
| | *Expected Benefits:* | Intersection benefits of ~$1,797,000 and safety benefits at ~$12,917,000 for total benefits of ~$14,714,000. Consider access management controls that improve non-motorized use (continuous sidewalks, purchase of access rights). There are 2 fish passage barriers that require repair in this segment. This segment is also a T-2 freight route which is used by the Port of Port Angeles and is a recreational route from Hurricane Ridge in the Olympic National Park and private ferry to Victoria B.C. | | | |
| 129 | US 101 | 248.99 to 249.89 | US 101/Port Angeles Couplet from Golf Course Rd to Race St - Access Management, Signal Replace | Current | $3,327,000 |
| | *Solution:* | Concept A: Access Management and signal coordination. This project will apply Access Management controls between Golf Course and Race Street on the Front Street Couplet, replace two signal systems with interconnect (Assumed saltwater corrosion requires replacement of existing signals), repair one fish barrier within project limits, and provide continuous sidewalks within city limits. | | | |
| | *Expected Benefits:* | Intersection benefits of ~$233,000 and safety benefits at ~$3,596,000 for total benefits of ~$3,829,000. Consider access management controls that improve non-motorized use (continuous sidewalks). There is one fish passage barrier that requires repair in this segment. This segment is also a T-2 freight route which is used by the Port of Port Angeles and is a recreational route to Hurricane Ridge in the Olympic National Park and private ferry to Victoria, B.C. | | | |
| 130 | US 101 | 296.65 to 300.71 | US 101/Falls View Campground to Spencer Creek Rd Vic - SB and NB Truck Climbing Lanes | Current | $1,502,000 |
| | *Solution:* | Concept A: 3 lane facility (climbing lane). This project will widen US 101 from a 2 lane facility to a 3 lane facility (climbing lane) between Falls View Campground and Buckhorn Road on US 101 at the locations noted in the deficiency statement. | | | |
| | *Expected Benefits:* | Climbing lane benefit of ~$173,000 and safety benefit of ~$5,889,000 for total benefits of ~$6,062,000. Hood Canal Bridge East Half Replacement Closure is a special event which will increase traffic volumes in the summer of 2009 or later. US 101 is a recreational route into the Olympic National Park/Forest with scenic views in the Mt. Walker Vicinity. The project cost estimate is from the Project Engineers Office and includes a 30% variance. | | | |

# Tier I Solutions

| Key | Highway Number | Milepost | Title | Current or Future Problem | Cost Estimate |
|---|---|---|---|---|---|
| 131 | US 101 | 359.36 to 359.95 | US 101/SR 8 Interchange - Ramp Widening to Two Lanes in Increasing Direction | Current | $7,000,000 |
| | *Solution:* | Concept A: 2 lane ramps. Observed Southbound and Eastbound (increasing direction) queues extend back to Steamboat Island Road Interchange and Westbound (decreasing direction) queues extend back to Mud Bay Interchange. Phase 1 could be in the Southbound to Eastbound direction and phase 2 in the Westbound direction. Phase 2 (Westbound decreasing direction) may include an auxiliary lane to the upstream interchange. | | | |
| | *Expected Benefits:* | A bike path is proposed behind the pier columns in the increasing direction. US 101 is a T-1 route with over 10 million tons of freight hauled annually. | | | |
| 137 | US 101 | 252.35 to 262.29 | US 101/Deer Park Rd to River Rd - Traffic Circulation and Access Plan Study | Future | $500,000 |
| | *Solution:* | Traffic Circulation and Access Plan | | | |
| | *Expected Benefits:* | | | | 0 |
| 146 | US 101 | 281.68 to 282.85 | US 101/SR 20 to E Uncas Rd S - Passing Lane and Right Turn Lane | Future | $8,823,000 |
| | *Solution:* | Southbound (Increasing) Passing Lane with Northbound (decreasing) right turn lane on US 101 into the SR 20 wye connection. Includes retaining wall work at one unstabl slope location, one fish barrier repair, and one fish passage extension. | | | |
| | *Expected Benefits:* | | | | 0 |
| 147 | US 101 | 359.51 to 359.67 | US 101/SR 8 Interchange - Study Interchange Alternatives | Current | $200,000 |
| | *Solution:* | SR 8/US 101 Interchange Feasibility and Design | | | |
| | *Expected Benefits:* | | | | 0 |
| 148 | US 101 | 359.62 to 360.51 | US 101/SR 8 Interchange - Ramp Widening to Two Lanes in Decreasing Direction and Auxiliary Lane | Current | $9,169,000 |
| | *Solution:* | Concept A: 2 lane ramps. Observed Southbound and Eastbound (increasing direction) queues extend back to Steamboat Island Road Interchange and Westbound (decreasing direction) queues extend back to Mud Bay Interchange. Phase 1 could be in the Southbound to Eastbound direction and phase 2 in the Westbound direction. Phase 2 (Westbound decreasing direction) may include an auxiliary lane to the upstream interchange. | | | |
| | *Expected Benefits:* | US 101 is a T-1 route with over 10 million tons of freight hauled annually. | | | |
| 149 | US 101 | 364.57 to 365.56 | US 101/Mottman Interchange to I-5 - Auxiliary Lanes | Current | $10,352,000 |
| | *Solution:* | Concept A: Auxiliary Lanes. Provide a Northbound (decreasing) deceleration lane into the Mottman/Cooper Point I/C off ramp that also serves as a climbing lane (~MP 366.65 to MP 366.91) and provide a Southbound (increasing) auxiliary lane between the Mottman/Cooper Point on ramp and the I-5 SB/2nd Avenue off ramp diverge that also serves as an on ramp acceleration lane from Mottman and off ramp deceleration lane into 2nd Avenue off ramp (~MP 366.75 to MP 367.35). | | | |
| | *Expected Benefits:* | General purpose lane benefit of ~$7,296,000 (increasing auxiliary lane), climbing lane benefit of ~$4,569,000 (decreasing auxiliary), and safety benefits of ~$11,608,000 for total benefits of ~$23,473,000. US 101 is a T-1 freight route. | | | |
| 158 | SR 507 | 28.2 to 28.56 | SR 507/Manke-Koeppen Rd and Vail Rd - Channelization and Signal | Current/Future | $2,310,000 |
| | *Solution:* | Concept B: Alternate Route. This project will provide improvements on SR 507 to encourage an interim alternative route to the City of Yelm's proposed Y-2 alternative utilizing existing County roadways already used by local traffic familiar with the area. Provide channelization at Manke (121st Avenue SE)/Koeppen Road Intersection (MP 25.42 Vicinity). Channelization to include a SB right turn pocket, NB right turn lane, and WB right turn pocket to create a left turn storage lane. Also consider a signal system at Vail Road SE (MP 30.50) provided concerns about violating driver expectancy can be addressed (e.g. advanced warning signal for SR 507 NB traffic incidating signal status before the horizontal/vertical curve). It appears that Koeppen Road to 123rd Avenue SE to Morris Road SE to Bald Hills/SR 507 (or 123rd to Hannus Rd SE t Vail Rd SE to SR 507) mimics the City of Yelm's proposed Y-2 alternative. Because it is located further to the south or southeast away from the City of Yelm it will divert less traffic away from the congested area. Manke Road is often used as a short-cut to Rainier Road and also serves industrial sites where truck traffic interacts with traffic flows on SR 507. | | | |
| | *Expected Benefits:* | Intersection benefits of ~$252,000 (Manke/Koeppen for ~$106,000 and Vail for ~$146,000). Safety benefits were not calculated because no improvements were identified for the actual bottleneck/chokepoint segment within the City of Yelm. The benefits at Manke/Koeppen may not be accurate since volumes and distributions were based on nearby intersection to the north. Traffic counts at Manke/Koeppen are needed to determine if intersection benefits are higher. | | | |
| 159 | SR 507 | to | SR 507/Yelm Loop - New Alignment Y-2 | Current | Unknown |
| | *Solution:* | Loop road alternative southeast of Yelm Core Business District | | | |
| | *Expected Benefits:* | | | | 0 |
| 164 | SR 510 | 10.75 to 10.76 | SR 510/Yelm Loop - New Alignment Y-1 | Current | Unknown |
| | *Solution:* | New Southeasterly alignment for SR 510 and SR 507 in the City of Yelm (Y-1) | | | |
| | *Expected Benefits:* | | | | 0 |
| 166 | SR 510 | 11.81 to 13.07 | SR 510/Burnett Rd to SR 507 - Two Way Left Turn Lane and Sidewalk | Current | $10,296,000 |
| | *Solution:* | Concept A: Two-way left turn lane (Y5). This City of Yelm project will provide a continuous two-way left turn lane with sidewalk (curb & gutter), bike shoulders, and bus pullouts between Burnett Road (Yelm WCL) and SR 507. Assume City of Yelm to be the lead agency because they are establishing a local improvement district (LID) from 93rd Avenue to NW Killion Road. SR 510 bottleneck/chokepoint limits are also within City of Yelm incorporation limits, therefore, roadway standards should conform to City standards (city streets as part of State Highways, RCW 47.24). Assume local arterial realignment at the skewed intersections of 93rd Avenue and Killion Road. | | | |
| | *Expected Benefits:* | Two-way left turn lane benefits are ~$3,369,000 and safety benefits are ~$9,340,000 for total benefits of ~$12,709,000. State Route 510 is listed as a designated bicycle touring route in the Thurston County Comprehensive Plan 1995. Intercity Transit has indicated a need for bus pullouts within the City of Yelm. Yelm schools will benefit from continuous sidewalk, curb, and gutter. | | | |

# *Tier I Solutions*

| Key | Highway Number | Milepost | Title | Current or Future Problem | Cost Estimate |
|---|---|---|---|---|---|
| 170 | US 12 | 184.7 to 202.13 | US 12/W Naches Rd to ECL Naches - Safety Improvements | Future | $8,000,000 |
| | *Solution:* | Improve access control through Naches with curb, gutter and sidewalk. Safety improvements include rumble strips and widening shoulders. Channelize US 12/W. Naches Road intersection. | | | |
| | *Expected Benefits:* | Installing curb, gutter and sidewalk within the Town of Naches will improve the safety and operation of this segment of US 12, and provide a safe separate pedestrian facility. Reduce run-off-the road accidents by installing shoulder rumble strips. Chan | | | |
| 174 | US 12 | 429.24 to 430.67 | US 12/SR 128 to SR 129 - I/S Improvements and Signals | Future | $2,537,000 |
| | *Solution:* | This improvement project will upgrade intersections and install signals through the Clarkston area. | | | |
| | *Expected Benefits:* | This project will serve to maintain an acceptable level of service on the facility and to enhance safe operations in areas where turning movements are creating congestion and delay. There are $8,806,611 in safety benefits associated with this improvement | | | |
| 177 | SR 24 | 0.08 to 5.52 | SR 24/Bell Rd/Rivard RD/Faucher RD - Signals | Future | $1,300,000 |
| | *Solution:* | Signalize Bell, Rivard, and Faucher Roads intersections. Install rumble strips. | | | |
| | *Expected Benefits:* | Signalize the three unsignalized intersections to enhance safety and maintain acceptable level-of-service for those intersections adjacent to the City of Moxee. Reduce run-off-the road accidents by installing shoulder rumble strips. | | | |
| 180 | SR 24 | 38.43 to 43.51 | SR 24/SR240 to Columbia River - Climbing Lane | Future | $4,512,000 |
| | *Solution:* | The solution for this section of the corridor is to construct a truck climbing lane. This will move the high percentage of trucks out of the SB through lane and allow traffic to maintain speed. | | | |
| | *Expected Benefits:* | This project is proposed to help maintain SR 24 as a free flow higher speed facility by reducing congestion and delay in this section of steeply graded highway. There are $806,006 in climbing lane benefits associated with this solution in addition to $6,432,595 in Safety benefits | | | |
| 182 | I-82 | 30.69 to 38.45 | I-82/Yakima River Crossing to Naches River Crossing - Bridge Replacement | Future | $15,100,000 |
| | *Solution:* | 1).Twin Bridges replacement, 2).Eastbound US 12 to eastbound I-82 merge revision, 3).Improve pedestrian and recreational access to the Naches and Yakima rivers, 4).Protect/armor the interstate right-of-way from the Yakima River at the south end of this section | | | |
| | *Expected Benefits:* | This project will serve to maintain an acceptable level of service on the facility and to enhance safe operations in areas where merge and weave movements are creating congestion and delay. | | | |
| 185 | I-90 | 56.56 to 84.47 | I-90/Stampede Pass and Cabin Creek I/C's - Reconstruct I/C | Future | $12,350,000 |
| | *Solution:* | MP62.69 to MP 63.98: Exit 62 and 63 (Stampede Pass and Cabin Creek) interchange improvements. Reconstruct interchanges to comply with standard verticle and horizontal clearances. MP 79.42 to MP79.63: In conjunction with Washington State Patrol, construct eastbound "weigh-in-motion" weigh station. | | | |
| | *Expected Benefits:* | This project will serve to maintain an acceptable level of service on the facility and to enhance safe operations. | | | |
| 188 | SR 129 | 40.5 to 41 | SR 129/Fleshman Way - I/C Improvements | Current | $8,500,000 |
| | *Solution:* | This project will improve traffic flow through the SR 129/Fleshman Way interchange area by reconfiguring the ramps, constructing a roundabout and eliminating at grade stops through the interchange area. | | | |
| | *Expected Benefits:* | This project will serve to maintain an acceptable level of service on the facility and to enhance safe operations in areas where turning movements are creating congestion and delay. There are $3,752,583 in Safety benefits and $16,110,480 in intersection benefits associated with this project. | | | |
| 191 | SR 224 | 6.82 to 10.15 | SR 224/S 38th Ave/S 41st Ave/S 40th Ave/Bombing Range Rd/38th Ave - I/S Improvements and Sign | Future | $1,368,000 |
| | *Solution:* | This low cost proposal will add right turn lanes at intersections at MP 7.56, MP 8.01, and MP 8.10. It will also add signal systems at MP 7.68 and 8.23. | | | |
| | *Expected Benefits:* | This project will serve to maintain an acceptable level of service on the facility and to enhance safe operations in areas where turning movements are creating congestion and delay. There are $20.280,651 in safety benefits associated with this project. | | | |
| 194 | SR 240 | 21.43 to 34.38 | SR 240/Twin Bridges Rd to Horn Rd - I/S Improvements | Current/Future | $358,000 |
| | *Solution:* | This project will channelize two intersections at MP 25.14 (Twin Bridges Road) and MP 20.49 (Horn Road) and add right turn lanes and illumination. | | | |
| | *Expected Benefits:* | This project will serve to maintain an acceptable level of service on the facility and to enhance safe operations in areas where turning movements are creating congestion and delay. There are $38,917,181 in Safety benefits associated with this project. | | | |
| 197 | SR 240 | 37.08 to 41.34 | SR 240/Edison St I/C - EB Offramp Improvements and Signal | Current/Future | $1,170,000 |
| | *Solution:* | This project will improve the eastbound off ramp connection with Edison St. by adding a lane to the ramp for an additional right turn movement onto Edison. The raised traffic island will be removed so that the existing through, left and right movements will change to a dedicated double right turn with a through and left as the other leg eastbound. A signal would also be added and interconnected with the city system if warrants are met. | | | |
| | *Expected Benefits:* | This project will serve to maintain an acceptable level of service on the facility and to enhance safe operations in areas where turning movements are creating congestion and delay. There are $ 1,344,512 in safety benefits associated with this project. | | | |
| 202 | US 2 | 99.89 to 100.24 | US 2/Leavenworth Vicinity - Signal management | Current | $200,000 |
| | *Solution:* | Adaptive signal management | | | |
| | *Expected Benefits:* | Congestion relief through better traffic flow management | | | |
| 205 | US 2 | 118.54 to 119.99 | US 2/School St to Odabashian Bridge - Median barrier | Future | $60,000 |
| | *Solution:* | Extend median barrier in the vicinity of School St. intersection to turn School St. intersection into a right in right out only intersection. | | | |
| | *Expected Benefits:* | Congestion relief through better traffic flow management | | | |

# Tier I Solutions

| Key | Highway Number | Milepost | Title | Current or Future Problem | Cost Estimate |
|---|---|---|---|---|---|
| 216 | SR 285 | 0 to 5 | SR 285, SR 285 Couplet/E Wenatchee to US 2 - Signal management | Current | $1,000,000 |
| | *Solution:* | Adaptive signal management and camera use to better manage traffic flows through the segment and better access management practices. | | | |
| | *Expected Benefits:* | Congestion relief through better traffic flow management | | | |
| 218 | SR 285 | 2.2 to 5 | SR 285, SR 285CO/North Wenatchee Avenue - Study | Current | $6,000,000 |
| | *Solution:* | Study needs to be conducted to clarify solutions and address access management. | | | |
| | *Expected Benefits:* | Congestion relief with alternative traffic corridors for traffic entering or leaving Wenatchee to East Wenatchee or to the West. | | | |
| 219 | SR 4 | 58.71 to 60.78 | SR 4/32nd Ave to Washington Way - Access Management | Current | $2,100,000 |
| | *Solution:* | Access management (median curb, where feasible) between 32nd Avenue and Washington Way | | | |
| | *Expected Benefits:* | A significant reduction in intersection related accidents is projected. The mobility benefits are hard to quantify; but safety benefits alone give this project a benefit cost ratio (B/C) of 2.09. | | | |
| 220 | I-5 | 6.8 to 8.23 | I-5/I-205 - NE 134th St Interchange, Stage II | Current | $35,000,000 |
| | *Solution:* | Partnership with Clark County to widen NE 134th St structure over I-205 and to construct ramps to I-205 Southbound | | | |
| | *Expected Benefits:* | Alleviation of congestion and delays | | | |
| 221 | I-5 | 8.8 to 81.27 | I-5 Corridor - Install ITS | Current | $4,000,000 |
| | *Solution:* | (1) From MP 8.8 to 10.5, Infill ITS (Intelligent Transportation Systems) technology (fiber / conduit, data stations, and CCTV), with data stations approximately every half mile<br>(2) From MP 20.5 to 21 (I-5 Woodland Interchange): wireless communications, traffic cameras, and data stations | | | |
| | *Expected Benefits:* | The proposed ITS facilities will reduce trip time (8% to 48% delay reduction), air pollution (5% to 13% CO emission reduction), and energy consumption (6% to 12% fuel consumption reduction); increase travel reliability; enhance the ability to communicate during emergencies (40% incident response time reduction); and improve safety (10% fatal accident reduction in urban areas). | | | |
| 222 | I-5 | 78.64 to 81.89 | I-5/Chamber Way to Mellen Street - Add Lanes and Rebuild Structures | Future | $153,000,000 |
| | *Solution:* | Widen to six general purpose lanes, with additional auxiliary lane between interchanges, and rebuild bridges and interchanges as necessary to accommodate increased capacity. Lessen potential flooding damage and delays by raising the roadway or building a levee. | | | |
| | *Expected Benefits:* | The widening project will increase interstate capacity, improve safety, encourage regional economic development and reduce delay due to congestion, growth projections and flooding. | | | |
| 223 | SR 14 | 0 to 18.13 | SR 14/I-5 to Washougal East City Limit - Install ITS | Current | $6,700,000 |
| | *Solution:* | (1) Variable message sign (VMS) at ARM 3.00 WB; ARM 4.6 (west of Ellsworth) WB; 205 WB (close to ARM 6); ARM 7.0 WB (cost: $1,292,400)<br>(2) CCTV at intersections, interchanges and blind spots (cost: $582,000) | | | |
| | *Expected Benefits:* | Depending on the location, benefits for ITS facilities vary. It is widely acknowledged that ITS has positive impacts on mobility, safety, and environment. For example, nationwide studies indicate ramp metering can increase speeds from 16% to 62%, and decrease collisions from 15% to 50%. | | | |
| 224 | SR 14 | 5.58 to 5.59 | SR 14/SE Ellsworth Ave - Install Signal | Current | $523,000 |
| | *Solution:* | Add signal at SR 14 EB Ramp and SE Ellsworth Rd. | | | |
| | *Expected Benefits:* | This project will improve the intersection LOS from E to B using 2006 traffic volume. Additionally, reductions are expected for delay (68%), property damage collisions (30%), and injury/fatal collisions (50%). | | | |
| 225 | SR 14 | 6.96 to 8.31 | SR 14/I-205 to SE 164th Ave - Add Auxiliary Lanes | Current | $25,500,000 |
| | *Solution:* | Re-stripe and extend ramps between I-205 and 164th Ave., including lengthening/widening WB on ramp from 164th | | | |
| | *Expected Benefits:* | Based on the WSDOT Mobility Projects Prioritization Process (MPPP) estimates, this project will bring $87 million mobility benefits and $15 million safety benefits in 20 years, with a B/C ratio of 5.76. The delay reduction is estimated to be 74% (Benefit Collision Delay Program); and the collision reduction is estimated to be 30% to 50% (MPPP software). The ratio of peak hour speed to posted speed in 2025 will be increased from 58% under no-build scenario to at least 83% under build scenario (Highway Segment Analysis Program). | | | |
| 226 | SR 14 | 14.64 to 14.65 | SR 14/SE Union St - Complete Interchange | Current | $25,000,000 |
| | *Solution:* | Complete the interchange to full build-out at SR 14/Union St. SWR proposes to complete full build-out of this interchange before building new interchanges elsewhere along the corridor. | | | |
| | *Expected Benefits:* | Anticipated collision reduction is 30%. This project is a component of increasing capacity while decreasing delay and accidents through greater control and fewer access points. | | | |
| 227 | I-205 | 3.66 to 4.31 | I-205/SR 500 - Construct Flyover Ramp | Current | $33,000,000 |
| | *Solution:* | Build flyover from SR 500 WB to I-205 SB | | | |
| | *Expected Benefits:* | This flyover will alleviate some weaving problems, increase driving speed, and improve safety. | | | |
| 228 | I-205 | 4.9 to 6.32 | I-205/SR 500 to Padden Parkway - Add Lanes | Current | $100,000,000 |
| | *Solution:* | Widen roadway from SR 500 to Padden Parkway to 8 lanes (6 general purpose, 2 auxiliary) | | | |
| | *Expected Benefits:* | This widening project will reduce year 2026 delay time by 84%, and increase year 2026 driving speed to 91% of posted speed. | | | |

# *Tier I Solutions*

| Key | Highway Number | Milepost | Title | Current or Future Problem | Cost Estimate |
|---|---|---|---|---|---|
| 229 | I-205 | 6.41 to 10.41 | I-205 Corridor - ITS Improvements | Current | $2,000,000 |
| | *Solution:* | Install ITS technology (fiber / conduit, data stations, CCTV, and VMS), with devices at approximately every half mile | | | |
| | *Expected Benefits:* | The proposed ITS facilities will help redistribute volumes in the system, reduce trip time, increase travel reliability; enhance communication during emergencies; and improve safety. | | | |
| 230 | SR 411 | 11.77 to 12.27 | SR 411/PH No 10 Rd - Install Signal and Construct Turn Lane | Current | $800,000 |
| | *Solution:* | Replace four-way stop with signal and channelization. | | | |
| | *Expected Benefits:* | Approximately $800,000 in mobility benefits and $160,000 in safety benefits are expected. | | | |
| 231 | SR 500 | 0 to 5.96 | SR 500/I-5 to NE Fourth Plain Blvd - Install ITS | Current | $2,220,000 |
| | *Solution:* | (1) CCTV at intersections, interchanges and blind spots (Cost: $568,000 )<br>(2) Data stations every 1/2 mile and at interchanges/intersections (Cost: $679,000) | | | |
| | *Expected Benefits:* | Depending on the location, benefits for ITS facilities vary. Overall it is widely acknowledged that ITS has positive impacts on mobility, safety, and environment. For example nationwide studies/projects indicate ramp metering can increase speed from 16% to 62%, and decrease collisions from 15% to 50%. | | | |
| 232 | SR 500 | 0.38 to 0.42 | SR 500/NE 15th Ave - Install Signals | Current | $1,230,000 |
| | *Solution:* | Add two signals at SR 500/15th Ave intersection. Note: further study is needed to determine final solutions. | | | |
| | *Expected Benefits:* | The benefit cost ratio is 2.95. Benefits are seen in a delay reduction for 2007 of 68%. Anticipated collision reduction ranges from 30% ~ 50%. The average intersection delay and vehicles-to-capacity ratio were determined using Synchro software (for both build and no-build scenario). Accidents occuring on related ramps (type LX, Q1 and R1) are included in the safety benefits. | | | |
| 233 | SR 500 | 1.8 to 2.38 | SR 500/NE 42nd Ave and NE 54th Ave - Construct Interchange | Current | $51,000,000 |
| | *Solution:* | Build 42nd Ave bridge and 54th Ave interchange<br>A. ARM 1.80, 42nd Ave (Falk Road) bridge (cost: $14 million; B/C: 32.61)<br>B. ARM 2.38, 54th Ave Interchange (cost: $37 million; B/C: 2.32) | | | |
| | *Expected Benefits:* | This project will improve mobility by removing two signalized intersections on a high-volume corridor. Upon the completion of the project, the whole corridor will become a full control limited access highway with a delay reduction of 64%. | | | |
| 234 | SR 500 | 5.09 to 5.26 | SR 500/I-205 - Add Ramp Lane | Current | $2,000,000 |
| | *Solution:* | Add 1 additional on ramp lane from WB 500 to NB 205 | | | |
| | *Expected Benefits:* | This project will reduce the weaving problem between the two interchanges. | | | |
| 235 | SR 500 | 5.94 to 5.98 | SR 500/SR 503 and NE Fourth Plain Blvd - Construct Turn Lanes | Current | $1,000,000 |
| | *Solution:* | NB to EB dual right turns at Fourth Plain Rd. | | | |
| | *Expected Benefits:* | The initial benefit cost ratio is 5.42. In-depth benefit analysis is expected in the funded $100,000 study. | | | |
| 236 | SR 503 | 0 to 4.31 | SR 503/NE Fourth Plain Blvd to NE 149th St - Access Management | Current | $1,300,000 |
| | *Solution:* | Add median curb, where feasible, from Fourth Plain to 149th Street | | | |
| | *Expected Benefits:* | The benefit cost ratio is estimated to be 7.88 based on the assumption that median curb can reduce driveway/median related accidents by 70%. | | | |
| 237 | SR 503 | 0 to 9.13 | SR 503/NE Fourth Plain Blvd to NE 244th St - Install ITS | Current | $5,300,000 |
| | *Solution:* | (1) CCTV at intersections, interchanges and blind spots from SR 500 to SR 502 (cost: $1,486,000)<br>(2) Data stations every ½ mile and at intersections and interchanges SR 500 to SR 502 (cost: $ 1,583,000) | | | |
| | *Expected Benefits:* | Depending on each corridor/location, benefits for ITS facilities vary. Overall it is widely acknowledged that ITS has positive impacts on mobility, safety, and environment. | | | |
| 238 | SR 503 | 0.77 to 1.27 | SR 503/Padden Parkway and SR 500 - Construct Interchange | Current | $32,000,000 |
| | *Solution:* | Build an interchange at Padden Parkway | | | |
| | *Expected Benefits:* | The benefit cost ratio is 1.33. The benefit estimations are calculated through WSDOT Mobility Projects Prioritization Process (MPPP) program. | | | |
| 239 | SR 503 | 1.02 to 2.02 | SR 503/Padden Parkway - Install Directional Signs | Current | $140,000 |
| | *Solution:* | Directional signs (overhead signs) to route traffic to I-205 via the Padden Parkway | | | |
| | *Expected Benefits:* | Alleviation of congestion along SR 503 SB and SR 500 WB to SB I-205. | | | |
| 240 | SR 503 | 7.85 to 7.89 | SR 503/SR 502 - Construct Turn Lanes | Current | $2,100,000 |
| | *Solution:* | Add right turn channelization on east leg, west leg, and north leg | | | |
| | *Expected Benefits:* | Expected benefits include a delay reduction of 50% (comparison year: 2026) and collision reduction of 10% to 40%. | | | |

# Tier I Solutions

| Key | Highway Number | Milepost | Title | Current or Future Problem | Cost Estimate |
|---|---|---|---|---|---|
| 241 | SR 503 | 53.68 to 54.11 | SR 503/N Goerig St to I-5 - Access Management | Current | $234,000 |
| | *Solution:* | Control access: install median curb where feasible | | | |
| | *Expected Benefits:* | The benefit cost ratio is 3.36. Only safety benefits are included in the BC analysis. | | | |
| 242 | SR 503 | 53.97 to 53.98 | SR 503/Millard St - Re-align Intersection and Install Signal | Current | $3,900,000 |
| | *Solution:* | Realign and grade East CC Street to Millard Street and signalize intersection at Millard Street | | | |
| | *Expected Benefits:* | This project has a benefit cost ratio (B/C) of 3.65. With the new alignment, East CC Street joins A Street. This realignment would eliminate the East CC Street intersection that is closely spaced with the NB off ramp/Atlantic Street intersection. The intersection at A Street and SR 503 would become signalized. An anticipated delay reduction of 50% was determined through Synchro. Only the PM peak hour was modeled. This time savings was multiplied by 2 to get a rough estimate of total benefits. | | | |
| 243 | SR 503 | 53.97 to 54.06 | SR 503/E CC St to Atlantic St - Improve Intersections | Current | $5,900,000 |
| | *Solution:* | (1) ARM 53.97, intersection improvements, possible roundabout, at East CC Street and Lewis River Rd<br>(2) ARM 54.06, intersection improvements, possible roundabout, at Lewis River Road, Atlantic St and Goerig Street | | | |
| | *Expected Benefits:* | BC Ratio 2.32; delay reduction: 50%; collision reduction: 25%. The roundabouts show a very significant time savings in the base year. There is an acceptable LOS through the year 2021. However, it is very important to note that there are failing movements for both roundabouts in year 2026. Despite these failing movements, it still performs better than the no build alternative. The results of the PM peak were multiplied by 2 to get a rough estimate of time savings over the day. | | | |
| 244 | SR 503 | 54.06 to 54.07 | SR 503/I-5 Southbound Onramp- Construct Turn Lane | Current | $351,000 |
| | *Solution:* | Construct additional (second) left turn lane from WB 503 to SB Pacific Ave/I-5 on ramp | | | |
| | *Expected Benefits:* | The benefit cost ratio (B/C) is 5.17. Delay reduction of 23% is estimated. The purpose of this project is to decrease delay as well as queuing between signalized intersections. A more detailed study is needed to determine how long this fix will last before the intersections fail. | | | |
| 265 | US 2 | 0 to 28.87 | US-2 - I-5 to Goldbar - Intelligent Transportation Systems (ITS) improvements | Current | $9,600,000 |
| | *Solution:* | Intelligent Transportation Systems (ITS) improvements - Closed Circuit Television (CCTV), DATA Stations, Highway Advisory Radio System (HARS), Ramp Meter, fiber optics. | | | |
| | *Expected Benefits:* | The addition of ITS improvements will help improve operations on US-2 and will help to address mobility and safety deficiencies here. | | | |
| 271 | US 2 | 21.37 to 24.17 | US-2 - City of Sultan - I/S improvements and access management | Current | $3,602,000 |
| | *Solution:* | Intersection improvements and access management with specific improvements at Old Owen Road, Main Street and 339th Avenue. | | | |
| | *Expected Benefits:* | With less stop and go traffic, vehicle emissions will be reduced and access to recreational facilities along US-2 will be enhanced. | | | |
| 273 | SR 3 | 27.66 to 28.78 | SR 3 - Mason/Kitsap County Line Vicinity to Lake Flora Road Vicinity - Widening | Current | $13,537,000 |
| | *Solution:* | Concept A: 4 lane divided highway and Northbound right turn lane at Lake Flora Road. This project will widen State Route 3 from a 2 lane facility to a 4 lane divided facility from the Mason/Kitsap County Line through Lake Flora Road. It does not include intersection signal at Lake Flora as recommended in a 1992 Design Study, but does propose a northbound right turn lane at Lake Flora. | | | |
| | *Expected Benefits:* | GP for ~$7,346,000, intersection benefits of ~$967,600, and safety benefits of ~$8,257,300 for total benefits of ~$16,571,000. There are 2 existing storm water outfalls within the project limits. | | | |
| 274 | SR 3 | 32.31 to 34.18 | SR 3 - SR 3 between Sunnyslope Road and SR 16/Gorst Spur - Widening | Current | $24,308,000 |
| | *Solution:* | Concept A: 4/5 lane divided highway ( 5 with SB auxiliary climbing lane). This project will widen SR 3 from a 2/3 lane (climbing) facility to 2 lanes Northbound and 3 lanes Southbound between Sunnyslope Road and SR 16/Gorst Spur Vicinity (4 lanes in Gorst). It does not include intersection signal at Sunnyslope as recommended in a 1992 design study, but does propose channelization at Sunnyslope Intersection (Retain SB left turn, SB accel lane, and provide a NB right turn lane). | | | |
| | *Expected Benefits:* | GP for ~$6,155,000,safety benefits for ~$7,265,000, climbing lane benefits for ~$10,650,000, and intersection benefit for ~$234,000 for total benefits of ~$24,304,000. 3 existing storm water outfalls, 1 fish passage, and T-2 route near SKIA hauls between 4 million to 10 million tons of freight per year. Special events may include a proposed NASCAR facility south of this segment. | | | |
| 276 | SR 3 | 34.15 to 36.59 | SR 3 - SR 3 between SR 16 and SR 304 - ITS | Current | Unknown |
| | *Solution:* | Intelligent Transportation Systems (ITS) Master Plan Improvements | | | |
| | *Expected Benefits:* | Unknown at this time | | | |
| 282 | SR 3 | 56.03 to 57.09 | SR 3 - Pioneer Way to Kinman-Big Valley Roads - truck/climbing lane | e to vertical curve and hi | $6,121,000 |
| | *Solution:* | Concept A: Southbound (decreasing) truck/climbing lane on SR 3 between Pioneer Way and Kinman-Big Valley Roads. | | | |
| | *Expected Benefits:* | Climbing lane benefit of $3,800,000 and safety benefit of $97,000 (30% placeholder reduction of all accidents). | | | |
| 283 | SR 3 | 57.09 to 60.02 | SR 3 - Kinman/Big Valley Road to SR 104 - add a NB lane | Future | $23,347,000 |
| | *Solution:* | Concept B: This project will add a NB general purpose lane between Big Valley and the SR 3/SR 104 intersection. | | | |
| | *Expected Benefits:* | GP for ~$8,954,000, holding lane for ~$3,060,000, safety for ~$8,349,000, and intersection for ~$724,000. Air quality enhanced since fewer vehicles wait in holding queues, Port accessibility for northbound vehicles bound for Kingston Ferry terminal will not be impeded by bridge openings, at least one fish passage barrier repair (total 3 | | | |

# *Tier I Solutions*

| Key | Highway Number | Milepost | Title | Current or Future Problem | Cost Estimate |
|---|---|---|---|---|---|
| 284 | SR 3 | 60.02 to 60.03 | SR 3 - SR 3/SR 104 Intersection Vicinity - Flyover jug-handle | when Hood Canal Bridg | $14,200,000 |
| | *Solution:* | Concept A: Flyover jug-handle with holding area per VE Report | | | |
| | *Expected Benefits:* | Unknown at this time. This conceptual solution is a placeholder for a bottleneck/chokepoint location. | | | |
| 287 | I-5 | 115 to 123.64 | I-5 - Thurston/Pierce County Line to Thorne Lane - ITS | Current | $5,170,000 |
| | *Solution:* | Construct Intelligent Transportation System (ITS) improvements per ITS Master Plan. | | | |
| | *Expected Benefits:* | The implementation of the ITS system components here will help to improve mainline flow on I-5. | | | |
| 288 | I-5 | 116.77 to 131.25 | I-5 - Mounts Road to 48th Street - Install ramp metering on ramps where warranted. | Current | $6,138,000 |
| | *Solution:* | Install ramp metering on ramps where warranted. | | | |
| | *Expected Benefits:* | Ramp metering will reduce delay | | | |
| 293 | I-5 | 122.89 to 123.39 | I-5 - Mounts-Old Nisqually Rd I/C to Gravelly Lake Drive I/C - Construct auxiliary lanes and noise walls | t level of service segmen | $8,000,000 |
| | *Solution:* | Concept B: Northbound Auxiliary Lane. This project will modify weave, merge, and diverges between two interchanges by increasing distance for these movements with installation of a Northbound auxiliary lane between Berkeley on-ramp and Thorne Lane off ramp (MP 122.89 to MP 123.39). Thorne Lane Interchange is near the location of a future urban interchange that will serve a new SR 704. A noise wall could be a negotiated item for additional right-of-way easement from Fort Lewis Military Base. | | | |
| | *Expected Benefits:* | GP for ~$69,800,00 and Safety benefits of ~$3,000,000 (Assumes auxiliary lane acts as 4th freeway lane) | | | |
| 306 | I-5 | 147.23 to 149.23 | I-5 - I-5 at 272nd Street Interchange - Construct a SB auxiliary lane between SR 516 and S 272nd with | Current | $14,479,000 |
| | *Solution:* | Construct a southbound auxiliary lane between SR 516 and S 272nd Street with a two lane off ramp to 272nd Street. | | | |
| | *Expected Benefits:* | The provision of a SB auxiliary lane will provide additional capacity and improve traffic flow through this I/C. | | | |
| 308 | I-5 | 164.02 to 165.69 | I-5 - I-5 at I-90 Interchange - Construct a two lane off-ramp from NB I-5 to EB I-90. | Current | $20,976,000 |
| | *Solution:* | Construct a two lane off-ramp from NB I-5 to EB I-90. | | | |
| | *Expected Benefits:* | The addition of a 2-lane off-ramp will improve vehicle flow through the I-5/I-90 I/C, which is currently very congested. | | | |
| 320 | SR 9 | 4.03 to 29.57 | SR 9 - 176th St. SE to SR 530 - ITS | Current | $20,000,000 |
| | *Solution:* | Construct Intelligent Transportation Systems (ITS) improvements. | | | |
| | *Expected Benefits:* | The addition of ITS improvements here will improve SR 9 operations and help to address mobility and safety deficiencies. | | | |
| 327 | SR 16 | 14.86 to 15.75 | SR 16 - Burnham Drive Interchange to SR 302 Bridges - Construct EB and WB auxiliary lanes | and short distance betwe | $3,933,000 |
| | *Solution:* | Concept A: Eastbound and Westbound auxiliary lane between Burnham Drive Interchange and SR 302 Bridges. The short distance between on and off ramps 210-ft and 950-ft, respectively, combined with pipeline traffic volumes will result in a failing LOS weave (22 mph) with the auxiliary lane additions. This is an interim conceptual solution that will help reduce traffic weaving impacts. | | | |
| | *Expected Benefits:* | Unknown at this time. This conceptual solution is a placeholder for an emerging bottleneck/chokepoint location. | | | |
| 328 | SR 18 | 2.21 to 28.41 | SR 18 - SR 167 to I-90 - ITS | Current | $37,980,000 |
| | *Solution:* | Install Intelligent Transportation Systems (ITS) including Closed Circuit Television (CCTV), data station, Highway Advisory Radio System (HARS), Highway Advisory Radio Transmitter (HART), ramp meter, Variable Message Sign (VMS), and fiber optic line. | | | |
| | *Expected Benefits:* | The addition of ITS improvements here will improve SR 18 operations and help to address mobility and safety deficiencies here. | | | |
| 329 | SR 18 | 2.87 to 27.91 | SR 18 - I-5 to I-90 - Intersection improvements and signalization | Current | $2,500,000 |
| | *Solution:* | Install signals as planned by Northwest Region Traffic. | | | |
| | *Expected Benefits:* | The addition of ITS improvements here will improve SR 18 operations and help to address mobility and safety deficiencies on this SR 18 corridor segment. | | | |
| 343 | SR 99 | 0 to 0.2 | SR 99 - Hwy 99 at I-5 Interchange - Widening and intersection improvements | Current | $2,583,000 |
| | *Solution:* | Add a southbound thru lane on Hwy 99 from 54th to NB On Ramp to I-5. Improve intersection of HWY 99 and 54th Avenue. | | | |
| | *Expected Benefits:* | Additional SB thru lane and I-5 interchange improvements will improve capacity and vehicle flow through this I/C segment. | | | |
| 344 | SR 99 | 39.77 to 39.99 | SR 99 - Hwy 99 at SR 104 Interchange - Construct Business Access and Transit (BAT) lanes | Current | $32,549,000 |
| | *Solution:* | Add one lane each direction to connect with Business Access and Transit (BAT) lanes that cities have built or are planning to build on each side of the HWY 99 and SR 104 Interchange. | | | |
| | *Expected Benefits:* | BAT lane and I/C enhancement will improve transit, HOV and GP movement through this I/C. | | | |

# *Tier I Solutions*

| Key | Highway Number | Milepost | Title | Current or Future Problem | Cost Estimate |
|---|---|---|---|---|---|
| 345 | SR 104 | 20.58 to 24.45 | SR 104 - SR 307 (Bond Road) to Kingston Ferry - SR SR 104 Alternative Analysis (widening and tunn raffic (Fri, Sat. Sun. duri | | $1,500,000 |
| | *Solution:* | SR 104 Alternative Analysis (widening and tunnel options). | | | |
| | *Expected Benefits:* | | | | 0 |
| 346 | SR 104 | 22 to 24.41 | SR 104 - Miller Bay to Kingston Ferry - Construct a new park and ride/remote ferry holding lot | Current | $12,000,000 |
| | *Solution:* | Construct a new park and ride/remote ferry holding lot for passenger ferry traffic and seasonal peaks in automobile ferry traffic. | | | |
| | *Expected Benefits:* | New Park-and-ride will allow for more WSF walk-on and transit trips. | | | |
| 347 | SR 104 | 31.45 to 31.75 | SR 104 - Intersection of SR SR 104 and SR SR 522 (Lake City Way) - Widening and intersection char | Current | $7,661,350 |
| | *Solution:* | Add one lane each direction on SR 104 from 178th to SR 522 with intersection channelization improvements at 178th, 175th and SR 522. | | | |
| | *Expected Benefits:* | Intersection channelization and added lane in each direction will improve vehicle flow and safety through the SR 104/SR 522 I/S. | | | |
| 351 | SR 167 | 7.03 to 28.6 | SR 167 - Puyallup to Renton -ITS | Current | $29,000,000 |
| | *Solution:* | Install Intelligent Transportation Systems (ITS) including Closed Circuit Television (CCTV), data station, Highway Advisory Radio System (HARS), Highway Advisory Radio Transmitter (HART), ramp meter, Variable Message Sign (VMS), and fiber optic line. | | | |
| | *Expected Benefits:* | The provision of ITS project improvements here will improve SR 167 mainline operations and will help address congestion and safety deficiencies. | | | |
| 358 | SR 169 | 3.76 to 5.16 | SR 169 - SE 383rd St. to Green River - Construct a southbound truck climbing lane. | Current | $9,803,000 |
| | *Solution:* | Construct a southbound truck climbing lane. | | | |
| | *Expected Benefits:* | Improvement of freight and general GP traffic flow. | | | |
| 359 | SR 169 | 5.3 to 6.32 | SR 169 - Green River to Crest of Hill (ARMP 6.32) - Construct NB truck climbing lane | Current | $6,328,000 |
| | *Solution:* | Replace the existing northbound truck climbing shoulder with a truck climbing lane and extend it to the north. | | | |
| | *Expected Benefits:* | Improvement of freight and general GP traffic flow. | | | |
| 361 | SR 169 | 16.02 to 17.02 | SR 169 - Near Cedar River - Construct a SB truck climbing lane. | Current | $2,929,000 |
| | *Solution:* | Construct a southbound truck climbing lane. | | | |
| | *Expected Benefits:* | Improvement of freight and general GP traffic flow. | | | |
| 363 | SR 204 | 0 to 2.28 | SR 204 - US-2 to SR 9 - Relocate Frontier Village access | Current | $5,247,000 |
| | *Solution:* | Relocate Frontier Village access out of intersection with SR 9 and look at removing signal at 91st. Add storage for traffic from eastbound SR 204 to northbound SR 9. | | | |
| | *Expected Benefits:* | Access management and intersection treatments here will address congestion deficiency and improve traffic flow. | | | |
| 365 | SR 303 | 0 to 5.59 | SR 303 - SR 304 to Brownsville Hwy. - Construct intersection improvements and Traffic System Mana | Current | $1,500,000 |
| | *Solution:* | Construct Traffic System Management (TSM) improvements including signal coordination, channelization at intersections where needed and signal priority. | | | |
| | *Expected Benefits:* | The addition of ITS improvements will help improve operations on SR 303 and will help address mobility and safety deficiencies here. | | | |
| 366 | SR 303 | 0 to 9 | SR 303 - SR 304 to Clear Creek Rd. - ITS | Current | $11,200,000 |
| | *Solution:* | Install two Closed Circuit Television (CCTV) units near Clear Creek Rd. and conduit from SR 304 to Clear Creek Rd. | | | |
| | *Expected Benefits:* | The addition of ITS improvements will help improve operations on SR 303 and will help address mobility and safety deficiencies here. | | | |
| 369 | SR 303 | 2.91 to 3.91 | SR 303 - SR SR 303/Riddell Road to McWilliams Road - Access management and intersection improv | Current | $3,098,000 |
| | *Solution:* | Access management and intersection improvements. | | | |
| | *Expected Benefits:* | Access management and intersection improvements here will improve vehicle flow and address safety deficiencies associated with heavy turn movements in the center lane. | | | |
| 370 | SR 305 | 0 to 7.03 | SR 305 - Bainbridge Ferry Terminal to Suquamish Way - Intersection improvements with transit queue | Current | $3,109,000 |
| | *Solution:* | Intersection improvements with transit queue jump lanes. | | | |
| | *Expected Benefits:* | Intersection improvements will improve traffic flow and transit queue jumps will improve transit service reliability here. | | | |

# *Tier I Solutions*

| Key | Highway Number | Milepost | Title | Current or Future Problem | Cost Estimate |
|---|---|---|---|---|---|
| 371 | SR 305 | 9.69 to 10.7 | SR 305 - Knoll Road to Poulsbo City Limits - Add Channelization at Noll Rd., SR SR 305. and Johnso | Current | $1,043,000 |
| | *Solution:* | Channelization: Noll Rd. - Add left turn lane and center merge lane to SR 305. Johnson Way - Add left turn lanes to SR 305. | | | |
| | *Expected Benefits:* | Channelization and addition of LT/Center lanes will improve traffic flow and reduce congestion. | | | |
| 377 | SR 410 | 0.27 to 1.43 | SR 410 - SR 167 to SR 162 - WB Auxiliary Lane | Current | $9,355,000 |
| | *Solution:* | Construct a westbound auxiliary lane from SR 162 to East Main Avenue. | | | |
| | *Expected Benefits:* | Provision of WB auxiliary lane will improve traffic flow and reduce congestion. | | | |
| 379 | SR 410 | 11.84 to 11.85 | SR 410 - SR 410 at SR 165 Intersection - Intersection Improvements and Signalization | Current | $1,100,000 |
| | *Solution:* | Signalize the intersection of SR 165 and SR 410. Construct an eastbound SR 410 to southbound SR 165 turn lane which bypasses the signal. | | | |
| | *Expected Benefits:* | Intersection signalization and EB turn lane provision here will reduce congestion and improve safety and operations at this intersection. | | | |
| 381 | SR 512 | 0 to 12.06 | SR 512 - Lakewood to Puyallup - ITS | Current | $14,000,000 |
| | *Solution:* | Install Intelligent Transportation Systems (ITS) including Closed Circuit Television (CCTV), data station, Variable Message Sign (VMS), conduit and fiber optic line. | | | |
| | *Expected Benefits:* | The provision of ITS improvements here will improve SR 512 mainline operations and help address congestion and safety deficiencies. | | | |
| 384 | SR 512 | 5.85 to 5.86 | SR 512 - SR-512 at Canyon Road Interchange - Two Lane Eastbound Off-Ramp | Current | $5,108,000 |
| | *Solution:* | Construct a two lane eastbound off-ramp to Canyon Road. | | | |
| | *Expected Benefits:* | The addition of 2 lane EB off-ramp here will improve SR 512 mainline operations and help reduce congestion. | | | |
| 385 | SR 512 | 5.86 to 5.87 | SR 512 - SR-512 at Canyon Road Interchange - Two Lane Westbound Off-Ramp | Current | $3,930,000 |
| | *Solution:* | Construct a two lane westbound off-ramp to Canyon Road. | | | |
| | *Expected Benefits:* | The addition of a 2 lane WB off-ramp here will improve SR 512 mainline operations and help reduce congestion. | | | |
| 388 | SR 518 | 0 to 3.42 | SR 518 - SR 509 to I-5 - ITS | Current | $6,000,000 |
| | *Solution:* | Closed Circuit Television (CCTV), DATA Stations, Highway Advisory Radio System (HARS), Ramp Meter, Variable Message Sign (VMS), Fiber | | | |
| | *Expected Benefits:* | The addition of ITS improvements will help improve SR 518 operations and will help address mobility and safety deficiencies here. | | | |
| 397 | SR 520 | 10.73 to 11.79 | SR 520 - 51st to West Lake Sammamish Parkway - Eastbound Auxiliary Lane | Current | $2,733,000 |
| | *Solution:* | Construct an eastbound auxiliary lane from the 51st Street eastbound on-ramp to the eastbound off-ramp at West Lake Sammamish Parkway. | | | |
| | *Expected Benefits:* | The addition of an EB auxiliary lane will reduce congestion and improve operations on SR 520 | | | |
| 401 | SR 522 | 11.1 to 24.68 | SR 522 - I-405 to US-2 (Monroe) - ITS | Current | $23,000,000 |
| | *Solution:* | Install Intelligent Transportation Systems (ITS) including Closed Circuit Television (CCTV), data station, Highway Advisory Radio System (HARS), Highway Advisory Radio Transmitter (HART), ramp meter, Variable Message Sign (VMS), and fiber optic line. | | | |
| | *Expected Benefits:* | Provision of ITS improvements here will improve SR 522 operations and help address congestion and safety needs. | | | |
| 406 | SR 524 | 0 to 11 | SR 524 - Edmonds to Bothell - ITS | Current | $9,860,000 |
| | *Solution:* | Install Closed Circuit Television (CCTV), intersection loop detection, and fiber optics. | | | |
| | *Expected Benefits:* | The addition of ITS improvement s will help improve SR 524 operations and will help address mobility and safety deficiencies here. | | | |
| 411 | I-705 | 0 to 0.72 | SR 705 - I-5 to SR 509 - ITS | Future | $1,575,000 |
| | *Solution:* | Construct Intelligent Transportation System (ITS) improvements per ITS Master Plan (see note). | | | |
| | *Expected Benefits:* | The implementation of the ITS system components here will help to improve mainline flow on I-5. | | | |