

West Pierce County SMART Corridor

Corridor Description

The West Pierce County SMART Corridor includes urban, suburban, and rural areas. Tacoma is located on the eastern shore of Puget Sound and is the major urban center in Pierce County. Other communities on the east side of Puget Sound include large suburbs, such as Lakewood and Puyallup, as well as smaller suburban communities and rural areas. Pierce County on the Kitsap Peninsula is a combination of suburban and rural development, and includes the community of Gig Harbor.

This corridor includes major commercial/retail centers, industrial activity areas, and other major trip generators, which affect travel patterns. Major commercial/retail centers are located in downtown Tacoma north of I-5, in the Tacoma Mall area near the junction of I-5 and SR 16, and in the South Hill Mall area adjacent to SR 512 in south Puyallup and the Puyallup Fairgrounds. Major industrial activity areas are located in Tacoma at the Port of Tacoma facilities on Commencement Bay, in the Fredrickson Manufacturing and Industrial Center, and south of Lakewood at Joint Base Lewis McChord. Other major trip generators in the corridor include Pacific Lutheran University, Tacoma Community College, hospitals, University of Puget Sound, the University of Washington Tacoma Campus, and the Tacoma Dome.

Major employers in the corridor include:

- Multicare Health System
- U.S. Army
- U.S. Air Force
- Public School Districts
- State of Washington

2009 Population Estimate	695,000
2009 Covered Employment Estimates	
Metropolitan Cities: Tacoma	99,615
Core Cities: Lakewood, Puyallup	47,022
Larger Cities: Fife, University Place	17,728
Smaller Cities: Bonney Lake, Buckley, Gig Harbor, DuPont, Steilacoom, Roy, Fircrest, Edgewood, Milton, Ruston, South Prairie, Sumner	16,558
Unincorporated Urban	43,804
Rural	13,757
Total	238,484

Existing Congestion and Mobility Conditions

Roadways: The following facilities operate at 70% of the posted speed limit during peak periods and therefore have been identified as a bottleneck and/or chokepoint by WSDOT:

- Segments of SR 16 between Tacoma Narrows Bridge and Tacoma
- I-5 from county line to county line
- SR 705 north of I-5 interchange
- SR 512 from I-5 to South Hill Mall Regional Growth Center
- SR 161 between 36th St SE vicinity and 8th St SE vicinity
- Segments of SR 7 through Spanaway and at SR 507 interchange
- SR 507 from SR 7 interchange to 8th Ave S vicinity
- SR 162 from SR 410 vicinity to Orting vicinity

Arterials identified by the Regional Traffic Operators Committee as key arterials for freight, transit, high volume/capacity ratio and alternate routes to the interstate include:

- 16th Ave S/SR 161/Enchanted Parkway South/Meridian Ave E (P1): between SR 99 and 224th Street E
- SR 99/E G Street/E 26th St/South Tacoma Way/Pacific Highway SW/Gravelly Lake Dr SW (P8): between King County line and Nyanza Road SW/Gravelly Lake Drive SW
- Pacific Avenue/SR 7 (P6): between Stadium Way and 224th Street East

Pavement Conditions¹⁷: The following are the pavement condition index (PCI) scores for the West Pierce SMART Corridor.

Condition	PCI Range
Excellent	89-100
Good	67-88
Fair	49-66
Poor	21-48
Fail	<20

Jurisdiction	2008 Weighted Avg.* Jurisdiction PCI
Tacoma	68.7
Lakewood	82.2
Puyallup	83.4
Fife	62.2
University Place	79.3
Gig Harbor	78.0
DuPont	84.5
Steilacoom	71.4
Fircrest	57.5
Edgewood	76.7
Milton	46.0
Ruston	75.3
Sumner	51.8
Bonney Lake	65.5
Buckley	56.5
Orting	9.6
Unincorporated Pierce County	81.03
Pierce County Weighed Average*	77.4

* weighted by length of roadway segment (ft)

Roadway Safety: PSRC is building on the safety policy guidance outlined in VISION 2040 and aligning it with the goals, strategies and objectives identified in the Washington State Strategic Highway Safety Plan, *Target Zero*. This plan aims to reduce serious injury and fatality collisions to zero by 2030 by focusing on four priority areas that promote safer and smarter roadways, safer walkways and pathways for bicyclists or pedestrians, enhanced emergency response systems, and improved passenger and driver behavior. The following map identifies the locations of collisions that resulted in a serious injury or fatality in 2007.

Ferries: One Washington State Ferry route and one Pierce County Ferry route serve the West Pierce County **SMART** Corridor:

- Point Defiance (Tacoma)/Tahlequah (Vashon Island)
- Steilacoom/ Anderson Island/ Ketron Island (Pierce County Ferries)

Transit: Almost all of Pierce Transit’s Public Transportation service area and all of Sound Transit service area is within the West Pierce County SMART Corridor. Pierce Transit does extend

¹⁷ Pavement Condition Index (PCI) scores are reported to WSDOT by individual jurisdictions, or are collected by WSDOT in the case of smaller cities, on a biennial basis. PCI scores are a composite measure representing environmental and structural distresses on pavement and measured on 0-100 scale where zero is the lowest. The scores presented in this document are not representative of a jurisdiction’s entire roadway network; rather they include the principal and minor arterials for which each jurisdiction has submitted PCI information per requirements of RCW 46.68.113. Scores have been weighted by the length of the measured roadway segments to present a more accurate representation of the condition of the arterial network.

outside of this SMART corridor to provide service to Buckley in the East Pierce County SMART corridor. Pierce Transit provides 42 fixed local routes in Pierce County along with commuter service to Seattle, Olympia, and Kitsap County. Pierce Transit operates seven transit centers: Tacoma Dome Station North, Commerce Street Transfer Area, Tacoma Community College, Lakewood, South Hill and Sumner and I-5/SR 512 Transit Center, along with 21 park-and-ride lots. Sound Transit provides Sounder Commuter Rail service between Tacoma and Seattle with stations in Puyallup and Sumner. Sound Transit also provides seven bus routes between downtown Tacoma and King County/Seattle; two bus routes east to serve Puyallup and Sumner stations and surrounding areas; one bus route northwest to Gig Harbor on the Kitsap Peninsula; and four bus routes continue south of downtown Tacoma to Lakewood and DuPont. Sound Transit operates the 1.5-mile Link LRT line in downtown Tacoma starting from the Tacoma Dome Station at Freighthouse Square to the Commerce St Transit Center in downtown Tacoma.

In addition, Sound Transit has two Sounder commuter rail bus feeder routes: one connecting South Hill with Puyallup and one connecting Bonney Lake with Sumner. Pierce Transit has multiple routes connecting the South Hill Transit Center and the Sounder Station in Puyallup, one local route in Sumner and another local route serving Bonney Lake. The Federal Way route along SR 161 through South Hill to Graham also connects over to SR 7 to the west and to Route 1, Pierce Transit's most frequent and highest ridership route. Two of Pierce Transit's routes also connect to the Fredrickson Industrial Growth Center from the South Hill Transit Center. In the Mid-County area around Fredrickson and between South Hill and Orting, Pierce Transit offers a dial-a-ride service called Bus Plus.

Existing Transit Congestion: Pierce Transit identified SR 512, SR 7/Pacific Avenue and 6th Avenue West as having the greatest roadway congestion in its service district. On Pierce Transit's Route 1, the highest ridership route in the county along SR 7 and 6th Ave W, there is congestion from high passenger loading in downtown Tacoma and mobility device loading along the route. From WSDOT's congestion records, I-5 from Joint Base Lewis-McChord to Fife also has significant roadway congestion, not only in the peak hour, but during off peak and weekends as well. There is also considerable congestion affecting the 590 series of Sound Transit buses that operate on the I-5 corridor between Tacoma and Seattle. With the increase in troops assigned to Joint Base Lewis-McChord and returning from overseas assignment, traffic congestion on I-5 has reached significant enough levels for WSDOT to issue a traffic alert in the summer of 2010 suggesting travelers take alternative routes on Sunday afternoons from 2 – 8 p.m. The weekday congestion on the southern portion of I-5 adversely affects the joint Pierce Transit-Intercity Transit sponsored bus service between Tacoma and Olympia/Lacey.

Special Needs Transportation: To provide the most options to people with special transportation needs, Pierce Transit has expanded and enhanced the fixed-route transit service in this corridor. Regular accessible bus service is intended to be the primary mode of public transportation for persons with disabilities. For those individuals who are unable to take the fixed-route transit service, Pierce Transit provides ADA-required paratransit service through their SHUTTLE program. SHUTTLE is a shared-ride service for people who, because of their disability, are unable to ride a regular Pierce Transit bus. SHUTTLE provides door-to-door

service, or, in some instances, transportation to transit centers to connect with regular bus service. SHUTTLE operates oversized vans, all of which are wheelchair accessible.

In addition, Pierce Transit offers dial-a-ride service between Orting and the South Hill Mall, as well as to the Mel Korum YMCA. The *Orting Loop* is open to all who want to ride. At the South Hill Mall, you can transfer to buses serving destinations all over Pierce County. As part of increasing access from the less developed areas to the fixed-route transit service, Pierce Transit operates the *Beyond the Borders* program: seniors, people with disabilities, or low-income residents of Pierce County who live outside of the Pierce Transit service area are eligible for free transportation services from their home to a Pierce Transit bus stop in Graham or on SR 7. From these stops, they can connect to the Pierce Transit Service Area.

On the west side of the sound from Gig Harbor, Sound Transit provides regional express bus connections to Seattle while Pierce Transit and Intercity Transit provide express bus connections to Tacoma Community College and south to the Olympia/Lacey area. Pierce Transit also provides regular bus service to Gig Harbor and *Bus Plus* scheduled and dial-a-ride service on the Key Peninsula to Key Center from Gig Harbor and SR 16.

TDM Programs: Approximately 75 Commute Trip Reduction sites are located along I-5 clustered around Tacoma, University Place, and Lakewood. Additionally, the city of Tacoma has implemented a GTEC program consisting of a variety of efforts designed to engage and incentivize the community to reduce commute trips. These include targeted efforts to reduce student commute trips to University of Washington, Tacoma, a residential walking and bicycling campaign, and the creation of the Transportation Partnership with the Chamber, Pierce Transit and downtown business partners. Jurisdictions and transit agencies operating in the corridor implement various incentive programs and other efforts that support rideshare and transit investment as well as discourage single-occupant vehicles.

Transportation System Management and Operations: The WSDOT Olympic region traffic management center is currently the only traffic management center serving the corridor. There are also roving incident management teams assisting with incident clearance to reduce related congestion and delay. Transit Signal Priority is in place on some major arterials within Tacoma, and the city of Tacoma and Pierce Transit have a good working relationship. Improved multi-agency coordination of communications, signal control would benefit corridor mobility. West Pierce is included in various regionwide ITS programs such as 511, transit trip planning and the ORCA regional transit fare card. Portions of freeway through Tacoma are included in the WSDOT traveler information web and mobile applications displaying travel times.

Bicycle and Pedestrian Facilities¹⁸: There are significant gaps in the system, but the trails, bike lanes, wide shoulders, shared wide lanes and sidewalks allow one to get around by bicycle. Guides such as the Pierce County Bike Map and the Cascade Bicycle Club's Regional-Class

¹⁸ Existing conditions provided in fall 2009 by participants in the Bicycle and Pedestrian Advisory Committee.

Bicycle Network Map provide bicyclists with optional routes in the West Pierce County Corridor. The Pierce County Bike Map will be updated in 2011.

Joint Base Lewis McChord has an extensive system of bike lanes and encourages nonmotorized transportation. The Cushman Powerline Trail leads from the Scott Pierson Trail in Tacoma to Gig Harbor. University Place has one of the best bike lane systems in Washington State. In Tacoma, bicycles may be transported on the Link light rail streetcar and access downtown for free. Bikes are also welcome inside a Pierce Transit bus or on external bike racks if space is available.

Off-road facilities include the Scott Pierson, Riverwalk, and Foothills Trails. The trail network is more fully developed than the on-road bicycle network. On-road facilities include paved shoulders of state highways having high traffic volumes and speeds and/or heavily used county roads with varying shoulder widths and other conditions less suitable to safe and comfortable bicycling. There is very limited wayfinding signage.

While the more urbanized areas generally have more complete walkway systems and supporting facilities, some of the Pierce County's regional growth centers have sparse sidewalk networks. Pedestrians are often confronted with unsafe and sometimes inaccessible walking routes and bus stops lacking covered waiting areas, route information, and benches. Pedestrian access to transit service varies in quantity and quality.

Pierce Transit and Sound Transit offer secure bicycle lockers at park-and-ride lots, transit centers, and Sounder commuter rail stations as well as bicycle racks on buses. Each Sounder car is equipped with tie-downs for two standard-size bicycles. There is very limited information on the availability of bicycle racks and end-of-trip facilities such as lockers and showers.

The City of Tacoma recently adopted a Mobility Master Plan which identifies key network and route gaps in the bicycling and pedestrian systems. Tacoma also recently passed Complete Streets Guidelines for mixed use centers and residential areas.

The Pierce County Council recently passed the Pierce County Regional Trails Plan for a comprehensive system of trails throughout the county.

Bicycle and Pedestrian Safety: The City of Tacoma has posted Safe Walking Routes for all the elementary schools within the city on the Tacoma Public Schools website, with links to each individual school. Wildwood Elementary School in the Puyallup School District has identified safe walking routes to school, which are posted on their website underneath the bus schedules and routes.

Freight: All of the major facilities identified within the West Pierce County SMART Corridor are significant to freight and are classified as either T1 or T2 on the State of Washington's freight tonnage classification system, each moving more than 4-10 million tons per year. This CMP corridor contains designated regional growth centers, which are likely to generate smaller specialized deliveries. The Port of Tacoma is a designated manufacturing industrial center which

serves as a major freight generator for heavy truck and freight rail movements. The Frederickson Manufacturing Industrial Center serves as a freight generator for a variety of commercial vehicle movements. In addition, the warehousing and distribution centers surrounding the Port of Tacoma and Frederickson Manufacturing Industrial Centers are significant freight generators.

Park-and-Ride Lots: The West Pierce County SMART Corridor contains six major (over 250 stalls) and 18 smaller (fewer than 250 stalls) park-and-ride lots. Collectively, the corridor contains 5,913 stalls with an average utilization rate of 88% (2009).

Park-and-Ride Lot	2009 Capacity	2009 Occupancy	2009 Utilization
72nd St Transit Center	68	6	9%
Center Street	75	12	16%
Dupont Station	125	102	82%
Holy Disciples Catholic Church	56	7	12%
Key Center/Peninsula Market	12	3	25%
Kimball Dr P&R	306	244	80%
Lakewood Station	615	259	42%
Narrows P&R	196	130	67%
North Purdy/Purdy Crescent	200	169	84%
Parkland Transit Center	62	36	58%
Puyallup Train Station	364	363	100%
Roy "Y"	100	24	24%
South Hill (Elim Evangelical)	20	1	5%
South Hill P&R	350	226	65%
South Purdy P&R	20	0	0%
South Tacoma East 1 (North Side)	33	12	36%
South Tacoma East 2 (South Side)	44	26	59%
South Tacoma Station*	220	5	2%
South Tacoma West	78	11	14%
Spare Lot at 6th and 3rd	57	54	95%
SR 512 (Lakewood)	493	423	86%
Sumner Gravel Lot	41	35	85%
Tacoma Dome Station	2,283	2,039	89%
TCC Transit Center	95	76	80%

* Opened 2/09

Security and Emergency Management: According to the Regional Transportation Recovery Plan, six potential disruption scenarios can affect the West Pierce transportation system. The following describes the potential system disruption/closure and the most likely reroutes. See Maps and Alternate Routing Plan for specific and additional information.

Pierce County Closure of Tacoma Narrows Bridge

There is one route presented as an alternative for this scenario. Diverting traffic from SR 16 onto SR 3 in Gorst to US 101 to I-5. In addition, the Puget Sound (Tacoma Narrows) could be used as an additional transportation corridor for passenger-only ferries.

Pierce County Closure of I-5 over Puyallup River

The primary reroute entails diverting traffic from I-5 onto SR 512, SR 167, I-405 back onto I-5. There are also several local and port access alternatives that can accommodate this scenario.

Pierce County Closure of I-5 from SR 16 to King County Line

There are two routes presented as alternatives for this scenario. Northbound traffic can divert from I-5 onto I-405, SR 167, SR 512 and back on I-5. Southbound traffic can divert from I-5 onto SR 512, SR 167, I-405 back onto I-5.

Pierce County Closure of I-5 SR 512 Interchange

There are two routes presented as alternatives for this scenario. Northbound through traffic will be diverted from I-5 onto SR 7, SR 507, SR 510 and back to I-5 southbound. Southbound through traffic will be diverted from I-5 onto SR 510, SR 507, SR 7 and back to I-5 northbound. There are also several local directional access alternatives that can accommodate this scenario.

Pierce County Closure I-5 from SR 512 to Thurston County Line

For the closure of SR 512 to Thurston County Line, there are both local and regional trip reroutes presented as alternatives for this scenario. These alternatives are as follows:

Local trips

Northbound route entails diverting traffic from I-5 to SR 512, SR 7, SR 702, and SR 510 back onto I-5. Southbound route diverts traffic at I-5 onto SR 512 to SR 7, SR 507, and SR 510 back onto I-5. There is also a maritime solution alternative that can accommodate this scenario. Local passenger-only service could be set up depending on ridership from Steilacoom to Baird Cove. The Puget Sound could be used as an additional transportation corridor for freight, if needed.

Regional Trips

Northbound regional traffic will be diverted from I-5 to I-90 to I-82 onto I-84. Southbound regional traffic will be diverted from I-5 to I-84 to I-82 onto I-90.

Pierce County Closure of I-5 from SR 512 to SR 16 Interchange

There is one main alternative, with northbound through traffic diverted from I-5 onto SR 7, SR 702, SR 507, SR 510 and back onto I-5, and southbound through traffic diverted from I-5 onto SR 510, SR 507, SR 702, and SR 7 and back onto I-5.

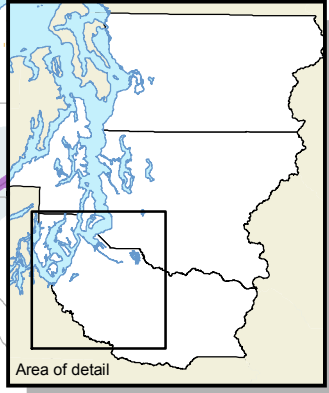
Thurston County Closure of All Crossings of Nisqually River

The Nisqually River discharges to the Puget Sound between Tacoma and Olympia and extends into the highlands of Mount Rainier. I-5 is the major north-south corridor in western

Washington, which crosses the Nisqually River along with various local bridges. If the bridges are all closed, it will require routing traffic around the Puget Sound (through Olympia and Shelton) or routing traffic south and heading due east around Mount Rainier. These routes are as follows:

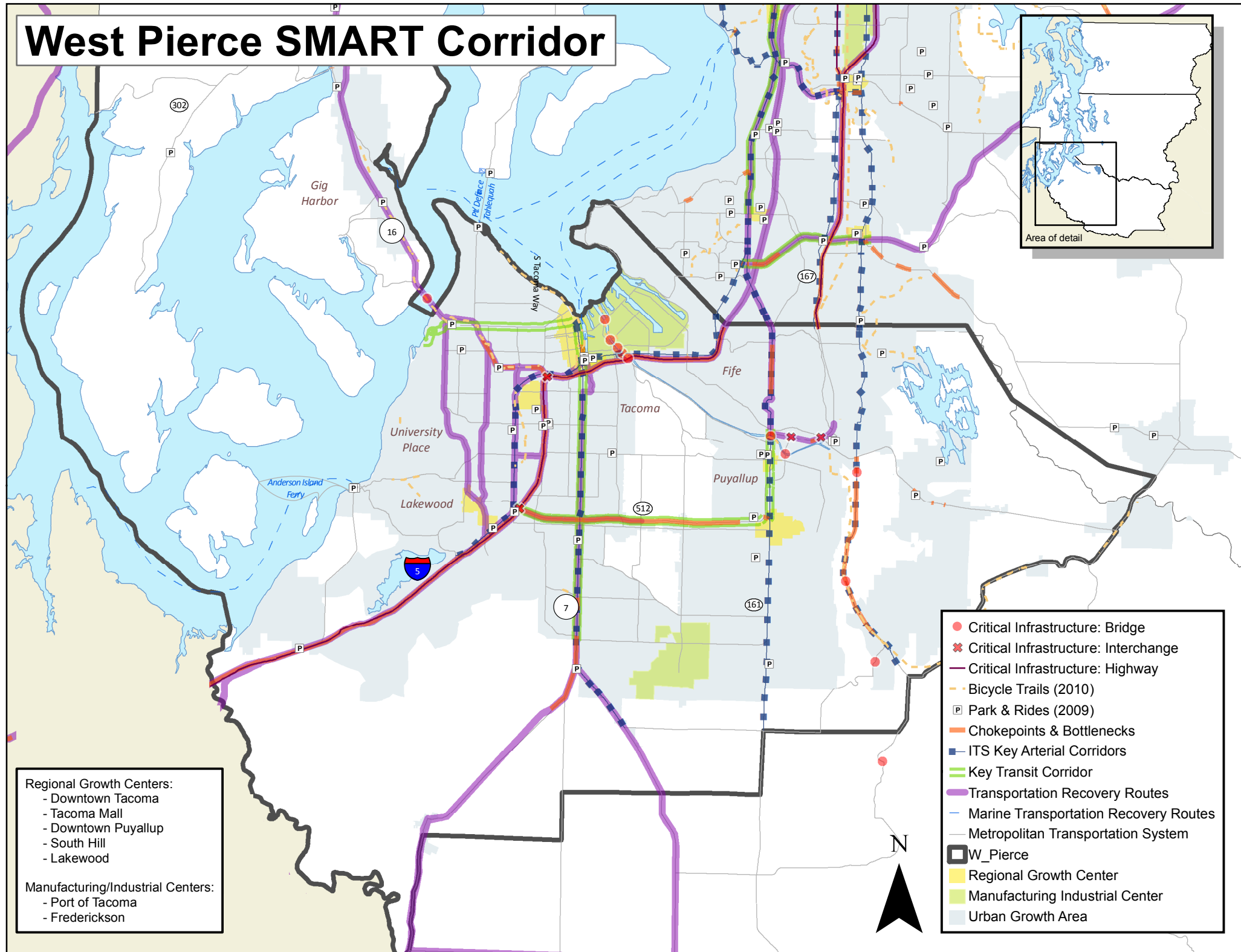
- East–west routing will entail diverting traffic from I-5 southbound onto SR 16, SR 3 to US 101 back on I-5 southbound.
- West–east routing will entail diverting traffic from I-5 northbound onto US 101, SR 3 to SR 16 back on I-5 northbound.

West Pierce SMART Corridor



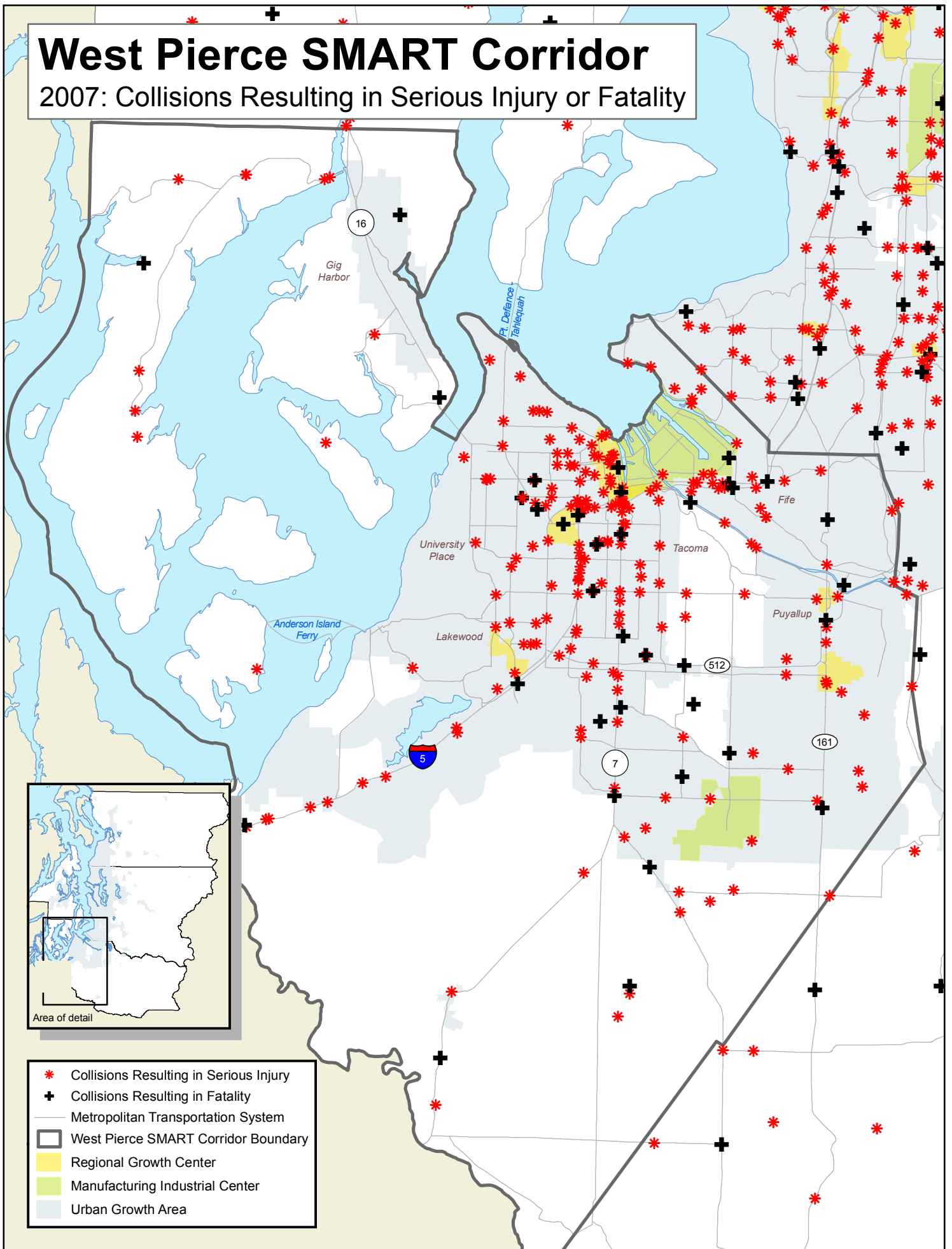
- Regional Growth Centers:**
- Downtown Tacoma
 - Tacoma Mall
 - Downtown Puyallup
 - South Hill
 - Lakewood
- Manufacturing/Industrial Centers:**
- Port of Tacoma
 - Frederickson

- Critical Infrastructure: Bridge
- ✕ Critical Infrastructure: Interchange
- Critical Infrastructure: Highway
- - - Bicycle Trails (2010)
- Ⓟ Park & Rides (2009)
- Chokepoints & Bottlenecks
- ITS Key Arterial Corridors
- Key Transit Corridor
- Transportation Recovery Routes
- Marine Transportation Recovery Routes
- Metropolitan Transportation System
- ◻ W_Pierce
- Regional Growth Center
- Manufacturing Industrial Center
- Urban Growth Area



West Pierce SMART Corridor

2007: Collisions Resulting in Serious Injury or Fatality



Note: Collision data provided to PSRC by WSDOT Transportation Data Office

West Pierce SMART Corridor

Freight & Goods
Transportation System

- West Pierce
- Intermodal Connectors
- At Grade Railroad Crossing
- Ferry Terminals
- Truck Count Locations
- Marine Deepwater Ports
- Major Airports
- Mainline/Branch Railroads
- FHWA Intermodal Connectors
- State Heavy Tonnage Routes (2009)
Tonnage Class
 - T-1 (> 10 million tons/year)
 - T-2 (4-10 million tons/year)
- Current MTS Roadway
- Manufacturing Industrial Center
- Incorporated Urban Areas
- Unincorporated Urban Areas
- Goods Dependent Employment
 - > 2,500 / TAZ

