

# Olympia Bicycle Master Plan

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Photo by Duncan Green

# CITY OF OLYMPIA BICYCLE MASTER PLAN

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## EXECUTIVE SUMMARY

The Bicycle Master Plan strives to increase the number of people biking for transportation and to improve the safety of bicyclists in Olympia. This plan helps guide the creation of a multimodal transportation system.

The *Olympia Comprehensive Plan* (Comp Plan) calls for an increasingly multimodal transportation system and reducing the growth in motor vehicle use. Promoting bicycling for transportation helps this community respond to air and water quality issues, climate change, economic changes, increasing densities, and growing traffic congestion.

The 2009 Transportation Mobility Strategy reinforces the need to build a sustainable multimodal transportation system. This system will better balance its support for all modes, making walking, biking and transit more safe and inviting.

In 2009, Olympia's bicycle network includes 32 miles of bike lanes and 10 miles of trails. Programs that encourage bicycling and provide bicycle safety education have helped the community make the best use of the investment in the bicycle infrastructure. Olympia is committed to making bicycling a safe and inviting mode of transportation.

This Bicycle Master Plan was written in collaboration with the Bicycle and Pedestrian Advisory Committee (BPAC), a citizen board advising the City Council. The plan includes sections on education, encouragement and enforcement (E3) programs, facilities, funding and performance measures.

This plan strives to create a safe and inviting bicycling network and foster an ethic towards the value of bicycling in this community.

The following goals guide this plan:

- Goal 1: Encourage bicycling for transportation
- Goal 2: Provide safe and inviting bicycle facilities
- Goal 3: Improve safety through education and enforcement

The plan's recommendations are:

1. Implement ongoing education, encouragement, and enforcement activities to improve the safety of and encourage bicycling.

These programs are needed to create an ethic towards bicycling, heighten awareness of bicycling benefits, teach skills to and mentor new riders, teach children about bicycling and communicate to all roadway users their responsibility to safely share the road.



In 2009, Olympia's bicycle network includes 32 miles of bike lanes and 10 miles of trails.

At a minimum, continue with the success of the 2008 and 2009 Education, Encouragement and Enforcement (E3) grant-funded program. As funding becomes available, use the proposed range of education, encouragement and enforcement activities to enhance annual work programs with these priorities in mind:

- Present a positive image and promote bicycling as a safe and inviting form of transportation.
- Provide safety education and urban cycling skills to bicyclists.
- Encourage bicyclist visibility and use of helmets.
- Enforce laws that protect bicyclists.
- Introduce children to bicycling as current and future users of the transportation system.
- Encourage businesses and employers to support bicycling.

2. Continue to build the bicycle network. This network is composed of bike lanes, signage/markings, trails and paths, and bike parking facilities. Projects should be programmed for funding and construction as funding resources become available. An effective bike network is supported by maintenance and operations practices. Bicycles should be a consideration in all aspects of the function of the transportation system.

- Construct bike lanes, shoulders, trails and pathways with consideration to the priorities described here. A strong facilities network is key to increasing bicycling for transportation.
- Complement the facilities network with signs, markings and other unique treatments, particularly sharrows, signal detection markers, and colored bike lanes. Consider application of new treatments, such as bike boxes and bicycle boulevards, where appropriate. Consider unique connector treatments such as ramps and bridges, where needed.
- Utilize operational policies and procedures to make the bicycling network function effectively, including sweeping, pavement resurfacing, and signal detection of bicycles.
- Ensure that bicyclists are considered in the design of roundabouts and traffic calming and in transit planning. Enforce construction practices so that bicycle travel is not obstructed.
- Explore expanding bike parking and end-of-trip facilities through partnerships and new programs.

3. Identify and secure additional funding for bicycle improvements.

The current level of funding is not enough to meet the facilities construction and programmatic activities outlined in this plan. In order to complete the bicycle facility network and to establish ongoing education, encouragement, and enforcement programs, the City will need to secure additional funding.

- Increase annual funding for bicycle projects in the *Capital Facilities Plan (CFP)*.

- Continue to combine bicycle projects with other transportation projects for economics of scale in construction.
  - Seek grants for transportation and/or bicycle projects.
  - Identify funding sources for education, encouragement and enforcement programs.
4. Use data, goals and benchmarks to monitor progress in implementing this plan. Data on bicycle ridership and bicyclist safety is collected annually. Data, goals and benchmarks should be used to guide annual programs.
- Streamline data collection methods where needed.
  - Establish goals and benchmarks, such as those proposed here, or others.
  - Review data annually, gauge against benchmarks, goals and targets, and refine programs, as needed.

The plan does not represent a major shift in focus, but rather enhances current efforts. It outlines how to continue bicycle network construction, as well as education, enforcement and encouragement programs to pursue. The plan does not make any immediate budget requests.

Recommendations are based on our success with facilities construction and resulting increases in ridership, and successes in the recent E3 grant work. The plan is important because it reaffirms the vision for bicycling in Olympia, and sets groundwork for the future.

## SECTION 1: INTRODUCTION

Clean, economical and efficient, bicycling is ideal for short trips, and plays an important role in Olympia’s multimodal future. The Bicycle Master Plan strives to increase the number of people biking for transportation and to improve the safety of bicyclists in Olympia.

The plan is a framework for continuing to increase bicycle network connectivity through bike lanes, trails, paths and signed routes. These efforts go hand-in-hand with the education, encouragement, and enforcement efforts that the City began in 2008, and are needed to support the use of bicycling as a viable mode of transportation.

To implement the education, encouragement, and enforcement program on an ongoing basis and to complete the proposed facility projects within the recommended time period, the City will have to secure additional funding dedicated to bicycle facilities and programs.

### **A Preview of Olympia**

Olympia has a long-standing commitment to bicycling. The bicycling network includes bike lanes, trails, pathways, signage systems, and bike parking. Safe and inviting facilities are needed to make bicycling a viable mode of transportation.

The bicycling network is built through construction and re-construction of streets, adding signs and markings, and trail and path construction. Private development contributes to the network by adding bike lanes as part of required street frontage improvements, and providing bike parking with new buildings.

In 2008, Olympia implemented the Bicycle and Pedestrian Education, Encouragement, and Enforcement (E3) grant. This program helps the City make the best use of investments in the bicycle network.

Bicycling has grown in this community. Participation in the annual County-wide Bicycle Commuter Contest has grown steadily since 1988. For more consistent tracking of bicycle use, in 2008, the City began counting bicycles on six major corridors using pneumatic tubes in the roadway.

According to the 2006 City Services Survey conducted by Elway Research, 33% of respondents thought it was “very easy” to get around Olympia by bicycle. Almost 24% of respondents said they ride a bike regularly, and 32% of bike riders rated facilities for bicycles in Olympia as “excellent,” up from 18% in 2002.

In 2006, 32% of bike riders rated facilities in Olympia as “excellent,” up from 18% in 2002.

## Policy Vision

Bicycle planning is needed to implement the goals and policies of the Comp Plan and the *Regional Transportation Plan (RTP)*, which prescribe a reduction in motor vehicle travel.

The RTP and Comp Plan goals are to:

- Create density and diverse land uses in our urban core – in our downtown and along high-density corridors.
- Build a multimodal transportation system and reduce our dependence on single-occupancy vehicles.
- Use Transportation Demand Management (TDM) programs to reduce drive-alone commute trips. Commute trips are the single largest type of trip on our streets, and by reducing this type of traffic, we can more cost effectively manage our transportation system.

Land-use forecasts indicate that 40% of all housing that will exist in 2030 will be built between 2007 and 2030. Increased density in the urban area will result in the need to increase the number of trips made by walking, biking and transit. A more human-scale multimodal transportation system will be more efficient and can contribute positively to the fabric of our community.

Olympia's Transportation Mobility Strategy, accepted by the City Council in August 2009, provides guidance for transportation policy, planning and operations. The strategy shifts thinking about transportation to become more holistic, and ultimately will create more choices for system users.

The Transportation Mobility Strategy consulting team reviewed a draft of the Bicycle Master Plan and provided input. This plan is consistent with the recommendations of the Transportation Mobility Strategy.

The Bicycle Master Plan, along with many other sub plans, implements the visions and goals of the Comp Plan. The Comp Plan is scheduled to be updated in 2011, and this Bicycle Master Plan articulates the goals and needs for bicycling to inform the update process.



## **Bicycle Friendly Community Status – Silver Awards 2004 and 2008**

In 2004 and 2008, the City of Olympia received a Bicycle Friendly Community Award from the League of American Bicyclists. Olympia received the Silver Award both years, the third highest status of the four tiers of awards.

The reviewers of the 2008 application noted the following positive elements in Olympia’s application:

- The number of people who commute to work by bike.
- Good mix of bike facilities and percentage of Arterial streets with bike lanes.
- On-street and off-road bicycling accommodations.
- The education, enforcement and encouragement program.
- Long-running bicycling-encouragement efforts.

As improvements, the reviewers suggested the City:

- Continue to close gaps in the cycling network.
- Set a target to increase the percentage of trips made by bike in Olympia.
- Expand public education campaigns to promote the “share the road” message.
- Expand the youth cycling education program to reach every school.

This award is helpful in gauging how well Olympia is doing, relative to other cities in the nation to promote bicycling. For this plan, the award evaluation provides useful perspective on Olympia’s success and future needs.

## **A New Approach – Beyond Facilities**

This plan builds upon the *1997 Bicycle Facilities Program* and includes the additional new elements of education, encouragement and enforcement.

Since the 1997 program, staff and citizen advisors recognize that facilities alone do not compose a comprehensive approach to non-motorized transportation. Increasing bicycling requires similar attention to education, encouragement and enforcement. When people are prepared with the knowledge of how to use the new facilities, have an understanding of their rights and responsibilities, as well as possess the necessary riding skills, the shared street space in our community will be safer for all users.



In 2004 and 2008, the City of Olympia received a Bicycle Friendly Community Award from the League of American Bicyclists.

## SECTION 2: VISION AND GOALS

### **Vision: A Multimodal Future**

Olympia is building a multimodal transportation system, one that contributes to the economic, environmental and social well being of this community.

A multimodal ethic means all modes are considered on par with one another in policies and planning: that we consider and protect access by walking, biking, driving and riding the bus. Safety and choice for all modes is considered at once, and one mode is not considered over another. While this ethic should guide our work, we will also need to find a thoughtful balance in certain circumstances, and tradeoffs between the modes will need to be identified and articulated.

Biking and walking create less congestion, are safe, convenient, human-scale, and allow for more human interaction. Access to safe and inviting transportation choices enhances the livability of our community as a whole, and allows denser land uses to work effectively. Appendix A outlines the range of bicycling benefits.

This plan hopes to elevate bicycling in everyday decisions about how Olympia functions. From street design and building codes, to road maintenance and employer policies, bicycling will be considered. Biking will be viewed by the public as a positive and valuable aspect to life in Olympia, and the safety of bicyclists is a high priority to all roadway users.

Wherever practical, the City will remove barriers to safe bicycle transportation and increase the number of trips made by bicycle. The City of Olympia will provide leadership, infrastructure, resources, and maintenance practices to implement this plan and move towards a more multimodal transportation system.

The following are the goals of the Bicycle Master Plan:

### **Goal 1: Encourage Bicycling as Transportation**

The primary focus of this plan is to develop bicycling as a safe and inviting mode of transportation. The City will work collaboratively with other organizations to encourage an increase in bicycle trips, and foster an ethic towards the value of bicycling.



Biking will be viewed by the public as a positive and valuable aspect to life in Olympia, and the safety of bicyclists is a high priority to all roadway users.

**Goal 2: Provide Safe and Inviting Bicycle Facilities**

Bicycling should be a convenient choice for short trips in Olympia. A safe and inviting network of bicycle facilities can influence an increase in trips made by bike.

**Goal 3: Improve Safety through Education and Enforcement**

Even with a good network of bicycle facilities, people won't bicycle if they don't feel safe, primarily as it relates to riding on streets. Education and enforcement can result in safe bicyclist and motor vehicle driver behavior, and influence an increase in trips by bike.

## SECTION 3: BACKGROUND

### The State of Bicycling in Olympia

The City of Olympia has made significant progress in building a bicycle network in the past decade. The network development coincides with the rise of bicycle commuting, according to census data, commute trip reduction data, and the Bicycle Commuter Contest. Some indicators of success include:

Census data indicates that bicycle commuting has increased from 1.3% in 1990 to 2% in 2000, a 10-year period when significant improvements to the bicycle network were built in Olympia.

- 32 miles of bike lanes exist within a total 69 miles of Arterials and Major Collector streets.
- 10 miles of off-street trail exist in Olympia's City limits.
- Olympia's urban trails network plans for a total of 38 miles of trails.
- Of the 8 major bridges in Olympia, 6 have a bike lane or shoulder for bicycling.
- Over 200 people receive the City's "Olympia Walks, Olympia Bikes" quarterly newsletter.
- 140 people have participated in *Urban Cycling*, a workshop instructing adults about riding in traffic.
- 1,633 County residents participated in the May 2009 Bicycle Commuter Contest.

### Bike Usage from 2000 to 2009

US Census Data: Census data indicates that bicycle commuting has increased from 1.3% in 1990 to 2% in 2000, a 10-year period when significant improvements to the bicycle network were built in Olympia.

Gateway Corridor Construction Surveys: From 2001 to 2003, the City of Olympia made improvements to the 4<sup>th</sup> and 5<sup>th</sup> Avenue Corridors. The Olympia Gateway Corridor Project conducted telephone surveys in 2002 and 2003 about the project's impacts and commute habits. The surveys found that 39% of respondents used an alternative to driving alone in the previous year, compared to 23% in 2002. Of those who used an alternative, 24% bicycled.

Customer Satisfaction Survey: A 2006 Customer Satisfaction Survey conducted for the City of Olympia asked questions about transportation in Olympia. Less than half of the respondents thought it was "very easy" (rated 1 or 2 on a 7-point scale) to get around Olympia on foot (46%), in a car (40%), on a bicycle (33%), or using mass transit (35%). One quarter of respondents, (24%) said they ride a bike regularly. One-third (32%) of these respondents rated facilities for bicycles in Olympia as "excellent" (6 or 7 on a 7-point scale), up from 18% in 2002.

2009 Bicycle Commuter Contest: The Bicycle Commuter Contest has experienced steady growth. The 2009 Bicycle Commuter Contest tracked an increase in participation with a record 1,633 registrants, compared to 1,488 in 2008.

The Bicycle and Pedestrian Advisory Committee's responsibilities include overseeing the development of a Bicycle Master Plan for approval by the Council.

See Section 6: Performance Measurements for more information on data that is currently tracked related to bicycling.

### **The History of Bicycle Planning**

In 1984, the City's first bike lanes were added to East Bay Drive. Through the 1990's, bike lanes became more integrated with other street improvements, and bicycling has become a greater part of the City's transportation system. Some of the major milestones in Olympia's bicycling history include:

1988 Bicycle Advisory Committee: In 1988, the Olympia City Council established the Bicycle Advisory Committee to more formally hear the advice of the public about accommodating and promoting bicycling.

1990 Growth Management: Also in 1990, all across Washington State, communities were required to comply with Growth Management Legislation and plan comprehensively for growth and define a vision and goals for their transportation system. Olympia, like many communities, decided that bicycle and pedestrian facilities were an integral part of the transportation system. Communities adopted regulations so that bicycle and pedestrian facilities would be built as new development improved the street frontage, as well as plan for City spending on bicycle and pedestrians improvements.

1992 Bicycle and Pedestrian Advisory Committee (BPAC): In 1992, the Olympia City Council expanded the scope of Olympia's Bicycle Advisory Committee to include consideration of pedestrian programs and policies. The Bicycle and Pedestrian Advisory Committee's (BPAC) responsibilities, set forth in Chapter 2.62 of the *Olympia Municipal Code*, include:

- Oversee the development of a Bicycle Master Plan for approval by the Council, and annually propose plan amendments based on an annual review.
- Establish a list of recommended bikeway priorities for consideration during the City's annual review of capital improvement projects.
- Review preliminary plans for creating and enhancing bikeway facilities.
- Make recommendations on roadway design standards.
- Share information about existing and proposed bicycling and pedestrian programs with other community groups concerned with bicycle and pedestrian programs and safety.
- Make recommendations on any bicycle and pedestrian matters.



1995 ISTEA: In 1995, the Intermodal Surface Transportation Efficiency Act (ISTEA) was federal legislation that facilitated the development of bicycle and pedestrian improvements in all 50 states and the communities therein. This was the first federal acknowledgement of the value of bicycle and pedestrian facilities and a shift from a focus on motor vehicle improvements to multimodal improvements.

1997 Bicycle Facilities Plan: In 1997, a Bicycle Facilities Program was developed with an emphasis on facilities development. The program identified streets where bicycle facilities should be added, primarily bike lanes. The program was coordinated with the planned street resurfacing projects in the City’s Pavement Management Program. When a street is resurfaced, it presents the opportunity to add the striping for bike lanes at little cost. Prior to the 1997 program, the City incrementally planned for bicycle facilities—as opportunities arose with other roadway improvements, bicycle improvements were considered. Of the 33 miles of bike facilities planned in the *1997 Bicycle Facilities Program*, 12 miles remain. ISTEA funding contributed to a number of important bicycle projects in Olympia (Sleater-Kinney and Harrison Avenue).

### **This Plan in Context**

Bicycle planning is needed to implement the goals and policies of the Comp Plan and the RTP, which prescribe a reduction in motor vehicle travel. The following is a review of the planning documents that address the importance of bicycling in this community.

Olympia Comprehensive Plan (Comp Plan): The Comp Plan, adopted in 1994 and amended annually, is the primary guiding document for City facilities and activities, and it supports bicycling in many areas. The key passage guiding the development of this plan reads as follows:

“The City shall support bicyclists and pedestrians by providing safe, convenient, and inviting routes and walkways between activity centers and in areas where the use of alternatives to driving alone for commuters is encouraged. In these areas, facilities and services needed to support the use of alternatives shall be identified and a funding strategy put in place.” [Transportation Policy T 1.11]

Other specific bicycle transportation directives of the Comp Plan are summarized below:

- T 1.1 Promote alternatives to driving alone
- T 1.13 Give high priority for bikeway improvements on high-density corridors
- T 1.14 Incorporate bikeway design into street standards and urban trail plans
- T 1.17 Consider bicycle and pedestrian facilities in all overlay and construction
- T 3.13 Provide for bicycle and pedestrian connections
- T 3.17(b) Promote safe, convenient pedestrian and bicycle travel
- T 3.20(j) Provide a network of paved, shortcut bicycle paths
- T 5.7 Design all streets – especially Arterials – to be safe for bicyclists

The Comp Plan provides that all Arterial and Major Collector streets, as well as selected Neighborhood Collector streets, have bicycle facilities.

The Comp Plan Bicycle Transportation Map (Map 6-2) shows planned on-street bicycle facilities in the 20-year horizon. This guides the frontage improvements built with new development. This map also shows the projects that the City intends to build.

Visit [www.olympiawa.gov/city-government/codes-plans-and-standards/olympia-comprehensive-plan.aspx](http://www.olympiawa.gov/city-government/codes-plans-and-standards/olympia-comprehensive-plan.aspx) for more information.

Transportation Mobility Strategy: The Olympia Transportation Mobility Strategy, accepted by the City Council in August 2009, provides guidance for transportation policy, planning and operations. The strategy shifts thinking about transportation to become more holistic, and ultimately will create more choices for system users. New policy directions include:

- Transit: Develop a system of bus corridors with high quality and frequent transit service.
- Land Use: Better connect land use and transportation. Increasing the densities in the core and along major corridors will make the transit system work better, as well as support walking and biking.
- Concurrency: Rethink the measurement used for transportation concurrency (how congestion is gauged and addressed). Integrate transit into roadway capacity measures and transit improvements into the use of impact fees.
- Connectivity: Increase connectivity for all modes by connecting the gridded street system and creating non-motorized pathways.

In addition to the new directions mentioned above, the strategy recommends continuing current efforts, including building complete streets that support and encourage all modes, and continuing to pursue Transportation Demand Management (TDM) to reduce growing motor vehicle volumes.



The goal of the Washington State Bicycle Facilities and Pedestrian Walkways Plan is to double the percentage of total trips made primarily by bicycling and walking in Washington within the next 20 years, and simultaneously reduce the number of bicyclists and pedestrians killed or injured in traffic accidents.

Visit [www.olympiawa.gov/city-services/transportation-services/plans-studies-and-data.aspx](http://www.olympiawa.gov/city-services/transportation-services/plans-studies-and-data.aspx) for more information.

Regional Transportation Plan (RTP): The 2025 RTP analyzes how the region’s transportation system will work into the next 20 years. The plan looks at land-use patterns and forecasts of population and employment growth. With this data, a transportation model can predict where and how we will travel. A list of regionally significant transportation projects is developed and these projects are then implemented by Thurston County’s local jurisdictions. The plan prioritizes safety, preservation, and efficiency, and invests in multiple modes of transportation.

One regional land-use forecast predicts that 40% of all housing that will exist in 2030 will be built between 2007 and 2030. Increased density in the urban area will result in the need to increase the number of trips by walking, biking and transit.

The following are among the goals of the plan:

- Ensure that transit transfer centers accommodate multiple modes of travel and safe, efficient connections among those modes of travel.
- Work towards an integrated multimodal transportation system that supports adopted land-use plans, increases travel options, and reduces the overall need to drive alone.
- Increase overall operating efficiency of the transportation system through effective use of measures that reduce the need to drive alone at peak periods.
- Increase the share of all trips made safely and conveniently by walking and biking.

Visit [www.trpc.org/programs/transportation/regional+planning](http://www.trpc.org/programs/transportation/regional+planning) for more information.

Washington State Bicycle Facilities and Pedestrian Walkways Plan: To implement the Bicycle Facilities and Pedestrian Walkways Plan and to fully integrate biking and walking into the transportation system, the State emphasizes that local, regional and state agencies will have to take coordinated implementation steps. The plan sets a statewide goal and series of objectives in each of the State’s five transportation policy areas as established in State law, RCW 47.01.012.

The statewide goal is to:

“Double the percentage of total trips made primarily by bicycling and walking in Washington within the next 20 years, and simultaneously reduce the number of bicyclists and pedestrians killed or injured in traffic crashes.”

Visit [www.wsdot.wa.gov/BIKE/Bike\\_Plan.htm](http://www.wsdot.wa.gov/BIKE/Bike_Plan.htm) for more information.

Unified Development Code: This code defines the specific requirements applied to all new property development in Olympia. In 1995, the code was extensively revised to implement the principles contained in the Comp Plan, updated in 1994. The key elements

relating to bicycle facility development are to require bicycle facilities as part of new roadway construction, and to require convenient and secure bicycle parking as part of virtually all new construction.

Visit [www.olympiamunicipalcode.org](http://www.olympiamunicipalcode.org) for more information.

Engineering Design and Development Standards: These guidelines and standards are the requirements for engineering of infrastructure constructed in the City and Urban Growth Area. These standards apply to streets, driveways, sidewalks, curbs, street lighting, street trees, water, sewer, storm drainage, and solid waste. With regard to bicycle facilities, the guidelines specify the types of streets required to include a bicycle facility, the type of required facility, and the specific dimension for the construction of the facility.

Visit [www.olympiawa.gov/city-government/departments/community-planning-and-development.aspx](http://www.olympiawa.gov/city-government/departments/community-planning-and-development.aspx) for more information.

Capital Facilities Plan (CFP): This plan is a six-year facilities development plan for the City, listing specific projects and funding sources for each. Implementation of bicycle projects will be through annual inclusion of projects in the CFP.

Visit [www.olympiawa.gov/city-government/budget-financial-reports.aspx](http://www.olympiawa.gov/city-government/budget-financial-reports.aspx) for more information.

Sidewalk Program: The *2003 Sidewalk Program* is an extensive listing of sidewalk needs in Olympia. The program lists missing sidewalk segments on Arterials, Major Collectors and Neighborhood Collectors – the three main types of streets in the City’s street system. The missing segments are prioritized, based on their location to pedestrian trip generators and street characteristics (presence of bike lanes, for example). A total of 84 miles of sidewalk were missing at the time of the inventory.

Visit [www.olympiawa.gov/city-services/transportation-services/plans-studies-and-data.aspx](http://www.olympiawa.gov/city-services/transportation-services/plans-studies-and-data.aspx) for more information.

Parks, Arts & Recreation Plan: Olympia’s *Parks, Arts and Recreation Plan* was adopted by the City Council in 2002 and identifies services and facilities developed for recreation. This plan is scheduled to be updated in 2010. The plan includes facilities, such as trails, that play an important role in recreational biking, and biking for transportation.

Visit [www.olympiawa.gov/city-services/parks/parks-arts-and-recreation-plan.aspx](http://www.olympiawa.gov/city-services/parks/parks-arts-and-recreation-plan.aspx) for more information.

In 2009, the Urban Cycling workshops educated 140 adults about riding with traffic on urban streets.

Thurston Regional Trails Plan: The *Thurston Regional Trails Plan* identifies trails throughout the county and those specific to Olympia. The plan was adopted by the Thurston Regional Planning Council in 2007 and serves as a blueprint for jurisdictions in the development of the region's trail network. Of the total planned and existing trail network, 145 miles, Olympia's share is 38 miles.

Visit [www.trpc.org/programs/transportation/regional+planning/regionaltrailsplan.htm](http://www.trpc.org/programs/transportation/regional+planning/regionaltrailsplan.htm) for more information.

Neighborhood Connections (or Public Pathways): The *Neighborhood Connections Study* inventoried short bicycle and pedestrian paths connecting streets to other streets, parks and schools. These connections make trips by bike or on foot more convenient and direct, allowing more route options than the street system provides. Paths are both formal and informal, on public or private land. The intent is to develop a program to improve and maintain connections. To date, there is not a formal City program with funding to develop, improve or maintain these paths. At the time of the acceptance of this plan, the City Council was considering a resident-led process for developing neighborhood connections or public pathways.

Visit [www.olympiawa.gov/city-services/transportation-services/plans-studies-and-data.aspx](http://www.olympiawa.gov/city-services/transportation-services/plans-studies-and-data.aspx) for more information.

Commute Trip Reduction (CTR) Plan: Approximately 60 large worksites in Olympia are affected by the state-mandated CTR Law. By ordinance, the City requires certain actions of these employers to reduce drive alone commuting by their employees. Drive-alone rates, vehicles miles travelled, and commute mode use are monitored every two years at these worksites. Bicycling is promoted as part of worksite CTR programs. As an example, the City of Olympia provides bikes to employees to use for commuting purposes and work-related daytime errands. A majority of City employees are eligible to receive a \$2.00 per day incentive for commuting by bike (as well as for walking and ridesharing).

Visit [www.olympiawa.gov/city-services/transportation-services/plans-studies-and-data.aspx](http://www.olympiawa.gov/city-services/transportation-services/plans-studies-and-data.aspx) for more information.

Many important planning documents guide Olympia's work to promote bicycling. As demonstrated below, progress in facilities and programmatic efforts shows Olympia's commitment to bicycling.

### **Bicycle Education and Encouragement Programs to Date**

In 2008, Olympia initiated the Bicycle and Pedestrian Education, Encouragement and Enforcement (E3) Program. This is a year-long grant-funded program to promote walking and biking for transportation and increase the safety of these modes. Many successful projects were created, most notable being the *Urban Cycling* workshops which educated 140 adults about riding with traffic on urban streets.

Prior to 2008, successful education and encouragement projects were implemented as part of other projects or through partnerships with other community groups. Periodically, the City included bicycle and pedestrian safety education and encouragement messages on City utility truck signs and in utility bill inserts.

Education and encouragement efforts to date include:

Thurston County Bicycle Map: The Thurston County Bicycle Map is produced by a partnership of the City of Olympia, Thurston Regional Planning Council, Intercity Transit, the State of Washington and other funding partners. First produced in 1999, the map is updated every three years. The maps are free to the public and are viewed as a valuable encouragement tool. The map focuses on routes, safety, points of interest, and bicycle-related tips.

Visit [www.trpc.org/programs/transportation/bike+map](http://www.trpc.org/programs/transportation/bike+map) for more information.

Washington State Bicycle Commute Guide: The Washington State Bicycle Commute Guide reviews all aspects of bicycle commuting, from wrinkle-free packing of work clothes, to bicycle maintenance, to traffic laws as they affect bicycling. While the guide serves a statewide audience, it was developed by Olympia residents and local government agency representatives using grant funds. The guide is distributed to employees and residents of Olympia through fairs and large employer CTR programs. The guide has since been used as a model for other communities nationwide.

Visit <ftp://ftp.wsdot.wa.gov/dotshare/localprograms/bike/BikeCommute.pdf> for more information.

Bicycle Commuter Contest: The Bicycle Commuter Contest encourages people to bike to work, school, and to run errands during the month of May. Participants keep track of their miles and can win prizes for consistency and total miles traveled. Participation in the contest has continually increased, with approximately half of a given years' participants new to the contest. In 2009, 1,633 people participated in the Bicycle Commuter Contest, up from 1,488 in 2008.

Gateway Corridor Project Construction Mitigation: From 2001 to 2003, this large Public Works project in Downtown Olympia impacted most of the community. Bicycle and pedestrian safety was a major component of the communication with the public during construction. Information shared with the public promoted biking during construction, and encouraged all users to share the road. As part of this project, safety tips for bicyclists were printed on magnets, included in brochures, advertisements and videos, and discussed on the project's website.

In 2009, 1,633 people participated in the Bicycle Commuter Contest, up from 1,488 in 2008.

## **Bicycle Safety Enforcement to Date**

During the 2008/2009 Bicycle and Pedestrian Education, Encouragement and Enforcement (E3) grant program, Public Works partnered with the Police Department on the enforcement element of this program.

A soft enforcement emphasis campaign was pursued with little or no ticketing. The focus was to raise awareness of particular actions by motorists, bicyclists and pedestrians. When interacting with bicyclists, pedestrians and drivers, police officers provided educational cards explaining the rules of the road and encouraging safer behavior by all roadway users.

A list of focus areas for promoting safer behavior by bicyclists, pedestrians and motorists were developed. These focus areas for roadway safety are based on an analysis of past collision reports.

## **Bike Facility Development to Date**

**Bike Lanes:** Bike lanes, defined as a 4- or 5-foot lane in the street for bike travel, are the most common type of facility the City builds. Bike lanes are a cost-effective way to provide safe space for on-street bicycling. The City builds bike lanes on the three largest street types – Arterials, Major Collectors and selected Neighborhood Collectors.

Bike lanes are important on high-vehicle volume streets because they allow motor vehicle drivers and bicyclists to more predictably share the roadway with one another.

In the past decade, the focus on bike lanes was influenced by studies that indicated that a motorist would be less likely to move into an opposing travel lane to pass a bicyclist if there was a white line separating the bicyclist from the motor vehicle, even given the same amount travel space.

Another key influence in Olympia's bike lane construction was other cities' experiences with re-striping roadways. Portland and Seattle found that by narrowing or, in some cases, removing travel lanes, there would be enough room to stripe bike lanes without adversely affecting motor vehicle traffic. Olympia has added bike lanes by narrowing travel lanes and removing lanes that are shown not to be needed in 20-year traffic forecasts. In many cases, a 4-lane road was converted to one lane in each direction, with bike lanes and a center turn lane. In addition to the safety improvement provided by bike lanes, the center turn lane can significantly reduce the potential for certain types of accidents.

If there is not adequate width to accomplish 4- or 5-foot bike lanes, sometimes shoulders are created with a white stripe to distinguish the motor vehicle travel lane from the shoulder. Shoulders, while not ideal, provide some space for bicyclists and pedestrian

Olympia has added bike lanes by narrowing travel lanes and removing lanes.

travel. The difference between a shoulder and a bike lane is that a bike lane is a formal travel lane for a special use; bike lanes cannot be used for parking and are maintained regularly.

Prior to the *1997 Bicycle Facilities Program*, there were 50,800 feet of bike lanes in Olympia. Since the 1997 plan, an additional 119,660 feet were constructed totaling over 170,460 feet, or 32 miles of bike lanes.

The *1997 Bicycle Facilities Program* focused on completing routes into and through Downtown, to support bicycle commuting to the County’s employment hub. While there remain many major streets that need bike lanes, another focus of this plan is to connect missing links in the network and overcome unique barriers in the network.

**Bike Parking, Showers and Lockers:** End-of-trip facilities such as bicycle parking, showers and lockers for clothes storage complement the on-street network, making bicycling more viable for transportation.

In the last 10 years, the City has built four bike parking areas in Downtown. Built into the parking lane in the street, these areas are surfaced with brick pavers and, in addition to bike racks, include benches and planters. The Olympia Transit Center has bike lockers and covered racks. The City’s Racks-on-Demand Program installs small A-shaped racks on sidewalks where Downtown businesses have no other space to accommodate bike parking. Since 2000, the City has installed nearly 50 bike racks on Downtown sidewalks.

Commercial buildings often provide bicycle parking – from racks for customers, to lockers for employees. College campuses and the State’s Capitol Campus provide large bike “cages,” a limited-access storage space for commuters to park their bikes. Olympia’s *Unified Development Code* was amended in 1995 to require bike parking. Just as a new development must provide car parking spaces, bicycle parking is also required. Depending on the type of development, at a minimum, a covered bike rack must be provided close to a building’s main entrance. For some land uses, bike lockers are required to accommodate bicycle storage for commuters.

Clothes lockers and showers can also be required as a mitigation measure in certain types of development. These are intended to encourage employees to walk and bike to commute to work.

**Trails:** Trail construction has been a multi-jurisdictional effort. The I-5 bike way was built by the State, and the Chehalis-Western Trail was built by Thurston County. Olympia and Lacey collaborated on the Woodland Trail. Funding and priorities for trails is established in the City’s Parks Plan.



Olympia’s *Unified Development Code* was amended in 1995 to require bike parking. Just as new development must provide parking spaces, bicycle parking is also required.

A bicycle that is in the center of the lane and behind the stop bar or crosswalk will trigger the signal just as a car would.

Pathways: Public pathways are bicycle and pedestrian short cuts, also referred to as “Neighborhood Connections.” The City has signed four pathways on public property and is considering providing guidelines so that resident volunteers can improve pathways in their neighborhood. No formal funding for pathways is established.

Bicycling and Transit: All buses operated by Intercity Transit, Thurston County’s transit authority, include bike racks on the front of the vehicle, with the exception of the Dash, the Downtown circulator shuttle. There is no charge for using the bike rack. Given the racks limited capacity, a rider may be unfortunate in finding the rack already full and must wait for the next bus.

Maintenance of Facilities: Maintenance of paths and streets with bike facilities is essential to making those facilities useful to the public. Olympia’s commitment to sweeping bike lanes has increased, given the public’s stated need for the importance of clean lanes. Glass and debris can result in flat tires and become a significant deterrent to bicycling. Gravel and leaf debris can create slipping hazards.

Prior practice was that bike lanes on more minor streets and shoulders are swept at least once every two weeks. Bike lanes on major streets were swept once a week. Because bike lanes are on the outer edges of a street, debris can collect there to a greater degree than the motor vehicle travel lane. Sweeper operators typically sweep this outer edge, ensuring complete cleaning of the bike lane.

In 2009, reductions in the City budget cut sweeping services on all streets. Prior levels of sweeping had been effective, as communicated by cyclists to the City. Prior levels of sweeping should be restored once funding is available.

Off-street facilities are swept at varying intervals depending on the jurisdiction in which they are located. Olympia’s sections of the I-5 bike path are swept once per month; the County sweeps the Chehalis-Western multi-use path no more than once every 2 months.

Bicycle Detection at Traffic Signals: There are over 92 traffic signals in the City of Olympia. Signals are either pre-timed or actuated. A pre-timed signal operates on a pre-determined schedule, regardless of how many vehicles are present at the intersection. These signals don’t have detection loops for bicycles or vehicles, because the green light is programmed to occur on a pre-determined schedule.

An actuated signal reacts to the presence of a vehicle or bicycle via detection loops in the pavement. A bicycle that is in the center of the lane and behind the stop bar or crosswalk will trigger the signal just as a car would. The detector senses all types of metal in a bicycle. If a signal is actuated, and the intersection has bike lanes, the bike lanes include detection loops.

At an actuated signal, the Public Works Department will recalibrate detectors when they lose sensitivity and do not detect the metals in a bike. To trigger the signal where there is a bike lane, bicyclists should act like a motor vehicle and position themselves in the center of the lane and behind the stop bar or crosswalk. More education on how signals work for bicyclists is needed. Markings at intersections will also help reinforce proper bicycle positioning to trigger signals.

## SECTION 4: EDUCATION, ENCOURAGEMENT AND ENFORCEMENT

This section describes programmatic activities that work towards Goal 1 to encourage bicycling as a mode of transportation, and Goal 3 to improve safety through education and enforcement.

To date, no formal program or continued funding of these activities has been established. As future funding becomes available, work programs can draw from this section's proposed activities. Experience from the E3 Grant Program will help guide the development of future work programs.

The *Walk and Roll Program* found an average increase of 180% in walking and biking trips by students on event days.

### **Learning from E3 Successes**

In 2008 and 2009, the E3 Program was implemented using grant funds and included these successful elements:

Newsletter: An email newsletter to a growing group of constituents describing City activities to promote bicycling both through new network improvements, as well as education and encouragement programs.

Yard Signs: Yard signs that encouraged drivers to slow down and drive carefully because kids and neighbors were walking and biking were created. The signs were reprinted after the first run was distributed. While there are no statistics that the signs did affect driver behavior, based on their popularity, it could be concluded that the signs indicate a willingness by residents to build an ethic towards creating safe conditions for walking and biking.

School Outreach: A pilot program called *Walk and Roll* was implemented at two elementary schools. The program found an average increase of 180% in walking and biking trips by students on event days at these schools, and a 56% reduction in students being dropped off in cars on event days.

Bike Lights and Helmet Giveaways: At the beginning to the 2008/2009 school year, bike lights and helmets were given away at the two colleges – The Evergreen State College and South Puget Sound Community College. Bike lights are distributed throughout the City by volunteers and by police officers during the peak commute hours.



“Thanks again for such a great class... honestly, I can't thank you enough. Urban Cycling has taken the fear out of riding, now I have a true understanding of the bike laws in action and not just a brochure.” – Urban Cycling Student

**Enforcement Cards:** Two enforcement cards with basic rules of the road, as they pertain to motorists and bicyclist and motorists and pedestrians, were created and distributed by police officers as part of a soft enforcement campaign.

**Bike to Work Day:** On National Bike to Work Day in April 2009, three stations were set up at locations to capture the attention of bicycle commuters (a trailhead, a park, and a grocery store all on the edge of Downtown). Food, safety information and safety straps were distributed to bicyclists who stopped at the stations.

**Urban Cycling Workshops:** Urban cycling workshops were held which taught adults urban bicycling skills, safety maneuvers, basic maintenance, and route planning. A City staff person and three volunteers from the Capitol Bicycling Club became trained and certified as instructors through the League of American Bicyclists. Once the initial series of workshops was held, a demand for additional workshops grew and a waiting list was created.

One workshop participant shared the following feedback: “Urban Cycling has taken the fear out of riding, now I have a true understanding of the bike laws in action and not just a brochure.”

An important premise of the 2008/2009 work is that we are all responsible for the safety of the street system. While bike lanes are ideal, many streets will not have them and bicyclists need the skill to operate as safely as a motor vehicle.

### **Proposed Encouragement Programs and Activities**

The activities described here are not listed in priority order; rather they are a range of activities that can be combined to create an annual work program, as funding becomes available.

**General Awareness Campaign:** Bicycle encouragement and safety messages are distributed to the public through a range of media venues including websites, bus boards, utility inserts, community newsletters, and radio and television public service announcements.

Community organizations, such as neighborhood association meetings, and community gathering events, such as annual transportation workshops, may assist with campaign development and promotion.



Work commute trips are the largest share of trips on our system.

General awareness campaigns may focus on themes such as:

- Promoting bicycling as a viable mode for both work and non-work trips
- Educating motorists and bicyclists about rights, responsibilities and how to safely share the road

Examples of media stories to engage general audiences include:

- Newspaper ads featuring testimonials by bicycle commuters
- Articles by business and community leaders about the benefits of bicycling
- A discussion of bicyclist safety, cyclists' responsibilities, and how motorists can help create safe streets

Web Resources and Publications: Ensure that adequate information is readily available for those who want to learn more about bicycling. Lead or participate in the development of:

- Newsletters that build awareness and a constituency for bicycling
- Web-based frequently asked questions about rules of the road, maintenance, signal function, construction projects, etc.
- Rules of the road materials
- Basic maintenance tips
- Thurston County Bike Map
- Bicycle Commute Guide
- Family Commute Guide
- Bicycling safety videos
- Kids bicycling map

Workplace Support of Bicycling: Work commute trips are the largest share of trips on our system. Work to enhance existing commuter programs that support bicycling:

- Support the Bicycle Commuter Contest
- Support existing Employee Transportation Coordinators (ETC) with educational and encouragement materials
- Develop CTR programs for smaller businesses including a transportation stipend for bicycling
- Advise on bike parking and other end of trip facilities
- Promote the Racks on Demand Program in the Downtown
- Provide grants to retrofit buildings for bike parking, showers, and lockers
- Facilitate a bike buddy program to support first-time bicycle commuters
- Support the Wheel Options Campaigns

Bicycle-friendly Businesses: Develop and promote a Bicycle-friendly Business Program and recognize businesses that participate. The program might include:

- Outlining 10 steps to becoming a bicycle-friendly business (using bicycles for deliveries, short trips for business and non-business use, etc.)

- Bike parking guidance and bike facility development
- Promoting alternate transport for delivering goods and services
- Providing awards to bicycle-friendly businesses
- Promoting businesses that provide discounts to bicyclists
- Developing a Shop-by-Bike program

School Support of Bicycling: Influencing school-related trips is important both to long-term behavior change and to affect the traffic and safety issues near schools today. Assist with programs that encourage students to bicycle:

- Help coordinate events at schools, such as Walk and Roll, during the spring and fall to promote walking and biking
- Support development of school-based rodeos to promote bicycling skills
- Update and maintain “safe routes to schools” map
- Facilitate programs such as Safe Speed Pledges to create motor vehicle safety awareness in neighborhoods surrounding schools
- Partner to ensure that kids under 16 have access to free or discounted helmets
- Develop mentoring program for kids new to bicycling

Mentoring Program: Assist with programs that mentor new cyclists:

- Create systems to link experienced cyclists with new cyclists, with a focus on learning to bicycle for transportation
- Support new riders with route planning information and safety resources
- Start novices on a safe, fun commute route with practice rides of commute routes
- Create programs and materials that educate and encourage cycling for commute and errand trips

Recreational Bicycling: Partner with other community groups to promote recreational bicycling, with the understanding that recreational bicycling can lead to bicycling for transportation:

- Promote bicycling for families: publish guides, places to ride and tips
- Publish bicycle maps of good recreational routes
- Support development of tours and community rides, rides for kids and their families

Bicycling Support at Public Buildings and Events: Foster an ethic towards bicycling at public facilities and events by:

- Providing valet bike parking and security at community events
- Providing bicycle parking facilities



- Providing bicycling route and parking information in meeting and event announcements
- Providing locks, pumps and helmets to loan at public buildings

### **Proposed Educational Programs and Activities**

Adult Safety Education Campaign: Partner with other community groups to provide:

- Education about the rights and responsibilities of bicycling in the street
- Education to motorists about how to share the road, and bicyclists’ rights and responsibilities
- Education to motorists and bicyclists about common car-bicycle conflicts
- Educational services and classes, including the *Urban Cycling* workshop, other workshops, skill rides, materials, etc.
- Education about the importance of front and rear lighting and reflective clothing
- Education about the value of wearing a helmet and proper fitting
- Helmets, safety vests, and bike lights for free, or at low cost
- Outreach to colleges, businesses, and organizations on bicycling safety

Kid Safety Education Campaign: Partner with other community groups to provide:

- Ongoing educational services such as community bike rodeos, kids’ skills rides
- Education about the value of wearing a helmet and proper fitting
- Helmet give-aways and fittings
- Materials for families that address their safety concerns
- A display at Hands on Children’s Museum
- Brochures provided at any point of sale for bike shops
- Models of school programs, class curriculum, and smaller class or school projects

Safety Analysis: Understand safety needs and target audiences for different safety messages:

- Evaluate bicycle-related collisions to assist with shaping safety messages
- Develop and communicate reporting methods for harassment and non-collision incidents

### **Proposed Enforcement Programs and Activities**

Work with the Police Department and community groups on targeted enforcement campaigns. Consider soft enforcement, with little or no ticketing, along with the distribution of educational materials, to help raise



awareness. Use available collision data related to bicycling to inform enforcement emphasis areas. Pair media education campaigns with targeted enforcement for maximum effect.

Use Collision Data to Inform Enforcement: An analysis of bicycle collision data, recorded by the Olympia Police Department at the scene of the collision, can shape safety messages and guide enforcement emphasis areas. As an example, collision analysis from 2005 to 2007 indicated that the single highest cause of accidents was riding against traffic in the bike lane or travel lane. The data also indicated that most common locations for bicycle collisions were in marked crosswalks and sidewalks. These are usually visible actions that can be targeted with education and enforcement. Annually evaluate collision reports and see out emerging trends. Use data to inform enforcement actions.

Enforcement Guidance: Enforce laws as they pertain to the safety of bicycling. Bicycles are vulnerable users of the transportation system. They have the responsibility to obey traffic laws, be visible, protect themselves, be aware of the unique limitations of drivers, and respect all roadway users rights.

Motor vehicle drivers must obey the law, respect other roadway users, be aware of a cyclist's speed and unique limitations, and make efforts to protect them.

Traffic laws should be equally enforced and rights of roadway users should be equally protected. As it applies to bicyclists on the street system, this motto is appropriate: "Same Road, Same Rights, Same Responsibilities."

Addressing Common Conflicts: Common conflicts between motorists and bicyclists are drawn from seven years of evaluating collision reports and communication with the public. The following messages are drawn from that experience and are recommendations for future enforcement campaigns, unless new trends emerge.

*Suggested Communication with Motorists relative to Bicyclists:*

- Look for the profile of a bicycle in the stream of traffic when entering the roadway.
- Look for bicyclists when making left turns across multiple lanes - situations where drivers are distracted and may not see the profile of an approaching bicyclist.
- When passing a bicyclist, maintain at least a 3-foot buffer space around the bicyclist.
- Look for bicyclists when making right turns, or "right hooks." Motorists may not anticipate the speed of an approaching bicyclist on their right, particularly on downhill streets.

As it applies to bicyclists on the street system, "Same Road, Same Rights, Same Responsibilities".

*Suggested Communication with Bicyclists:*

- Do not ride against traffic in the travel lane or bike lane.
- Follow all traffic laws including stopping at stop signs and red lights and signaling when turning and changing lanes.
- Be visible. Use a front white light and red rear reflector during dark hours or foggy weather. While not required by law, encourage use of red rear lights.
- Wear reflective clothing.
- Wear a helmet. While not required, this is an important safety message to share.
- Do not ride on the sidewalk in the Downtown core.
- Outside of the Downtown, capable adults should not ride on the sidewalk.

*Special Attention: Addressing Sidewalk Bicycle Riding*

Riding on the sidewalk is the cause of conflicts with pedestrians, but can also result in collisions with motorists at driveways and intersections. The public frequently asks about the City's policy related to bicycling on sidewalks.

The Revised Code of Washington (RCW 46.90.555) states that riding a bicycle on a sidewalk in a business district is prohibited. The City adopts this policy as part of the Model Traffic Ordinance. A business district is larger than the Downtown core and includes any street serving commercial buildings and land uses. Therefore, the RCW indicates it is not acceptable to bicycle on sidewalks anywhere except residential streets.

The following approach for communicating with the public about bicycling on the sidewalk is suggested:

- *Discourage sidewalk riding in the Downtown core by any bicyclist.* There are too many potential conflicts with pedestrians, and with shorter Downtown blocks, too many potential conflicts at intersections with vehicles.
- *Outside of the Downtown, capable adults should be discouraged from riding on the sidewalk.* It is acceptable for children and other inexperienced or vulnerable riders to ride on the sidewalk. Sidewalk riding is also acceptable on arterials with higher speeds and no bicycle facilities, or during road construction. When riding on the sidewalk, bicyclists must keep speeds low and yield to pedestrians. When crossing at intersections, cross as if they were a pedestrian.

**Education, Encouragement and Enforcement Recommendations**

Implement ongoing education, encouragement, and enforcement activities to improve the safety of and encourage bicycling.

These programs are needed to create an ethic towards bicycling, heighten awareness of bicycling benefits, teach skill and mentor new riders, teach children about bicycling, and communicate to all roadway users their responsibility to safely share the road.

At a minimum, continue with the success of the 2008 and 2009 Education, Encouragement and Enforcement (E3) grant-funded program, in particular, the newsletter and *Urban Cycling* workshops. As funding becomes available, use the proposed range of education, encouragement and enforcement proposed activities to enhance annual work programs with these priorities in mind:

- Present a positive image of bicycling and promote bicycling as a safe and inviting form of transportation.
- Encourage businesses and employers to support bicycling.
- Provide safety education to protect bicyclists.
- Encourage bicyclist visibility and use of a helmet.
- Enforce laws that protect bicyclists.
- Introduce children to bicycling as current and future users of the transportation system.

## SECTION 5: FACILITIES

This section focuses on the development of the network as it is built by the City and works toward Goal 2 to provide safe and inviting bicycle facilities. This section builds on the *1997 Bicycle Facilities Program*.

This section includes facilities, treatments, procedures and approaches to incorporating bicycling in the transportation system. Some elements of this section are proposed priorities, while others are concepts proposed for consideration. These identified facilities are as of 2009. The project list is amended annually through the *Capital Facilities Plan* (CFP) process and the *Transportation Improvement Plan* (TIP) process. Please consult the annual editions of the CFP and TIP for the most recent updates to the project list.

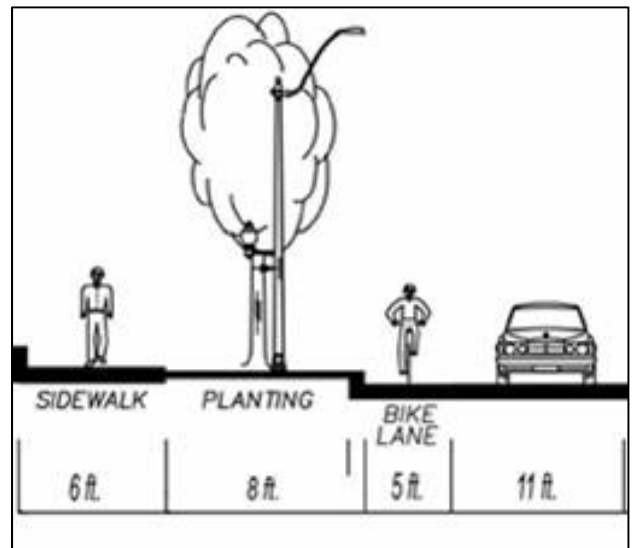
Bike lanes are important on high-vehicle volume streets because they allow motor vehicle drivers and bicyclists to more predictably share the street with one another.

### Proposed Bike Lane Projects: 20-year Planning Period

Bike lanes on major streets are provided for direct travel; they are the backbone to Olympia's bicycle network. Bike lanes are important on high-vehicle volume streets because they provide a designated space for bicyclists. A bike lane is a legal lane, for a special use. Cars cannot drive or park in a bike lane and bike lanes cannot be blocked. Streets with bike lanes are classified as Class II bicycle facilities.

Bike lanes are important on high-vehicle volume streets because they allow motor vehicle drivers and bicyclists to more predictably share the street with one another. While any bicyclist who rides on the street system should have the skills to operate without a bike lane, bike lanes serve a function of providing an inviting facility for bicycling, an incremental incentive to encourage a broader spectrum of people to bicycle for transportation.

A bike lane is typically 5-feet wide next to a curb. Five feet is needed to provide enough room for bicycles to allow for some swerving to avoid debris, and shy away from the curb and large vehicles in the adjacent lanes. Four feet of width is acceptable where no curb is present. Motor vehicles are less likely to move into oncoming traffic to pass a bicyclist if there is a line separating the bicyclist from the motorist. The white line between cars and bikes allows drivers and bicyclists to be more predictable to one another.



Bike lanes are typically constructed as part of street resurfacing projects or street widening projects. City Street Standards require bike lanes on Arterials, Major Collectors and selected Neighborhood Collector streets. When new streets are built, bicycle facilities (primarily bike lanes) are included on these classifications of streets. As the City repairs or reconstructs these streets, the opportunity to add bike lanes is pursued.

First Tier Bike Lane Projects: These streets are planned in the 2010-2015 CFP for bike lane construction as part of planned roadway resurfacing or reconstruction projects.

- 18<sup>th</sup> Avenue, SE, from Boulevard Road to Hoffman Road
- San Francisco Avenue, NE, from East Bay Drive to Bethel Street
- Mottman Road, SW, from Mottman Court to South Puget Sound Community College
- 14<sup>th</sup>/Walnut Road, NW, from Kaiser Road to Division Street
- Herman Road, SE, from Wiggins Road to the Chehalis Western Trail
- Cooper Point Road, NW, from 14<sup>th</sup> Avenue to 28<sup>th</sup> Avenue
- Fones Road, SE, from Pacific Avenue to 18<sup>th</sup> Avenue
- 18<sup>th</sup> Avenue, SE, from Hoffman Road to Fones Road

In the remaining 20-year planning period, bike lane needs have been identified on Arterials and Major Collectors. These are listed in proposed priority groupings. The ability to construct bike lanes is dependent on City funding levels, the ability to coordinate with other construction projects, and the availability of grants. Bike lanes on some of these streets will be constructed by private development as frontage improvements. The Comp Plan Bicycle Transportation Map (Map 6-2) will reflect these priorities. The City will attempt to achieve this level of bike lane construction, but where significant barriers to construction exist, other treatments such as shoulders or sharrows should be pursued.

Second Tier Bike Lane Projects: These projects are tentatively planned for the 2015 to 2020 time period. These projects are the highest priority projects following the 2010-2015 CFP projects listed above.

- Pine Avenue, NE, from Puget Street to east City limits
- Elliott /20<sup>th</sup> Avenue, NW, from Crestline Boulevard to Road 65
- Legion Way, SW, from Water Street to Capitol Boulevard (eastbound only to avoid parking removal)
- Bethel Street, NE, from San Francisco Avenue to 26<sup>th</sup> Avenue
- Martin Way and Pacific Avenue “Y”
- Crestline Boulevard/Raft Avenue/Schneider Hill, NW, from West Bay Drive to Elliott Avenue
- West Bay Drive, NW, from Olympic Way to Schneider Hill Road
- Marine Drive, NE, from Olympia Avenue to Market Street
- Henderson Boulevard, SE, from Union Avenue to I-5
- Morse-Merryman Road, SE, from Sugarloaf Street to Wiggins Road
- 4<sup>th</sup> Avenue, W, from Black Lake Boulevard to Perry Street
- 4<sup>th</sup> Avenue, W, from Black Lake Boulevard to Kenyon Street

- 5<sup>th</sup> Avenue, SE, across the Capitol Lake dam (both directions)
- Martin Way from the Pacific Avenue “Y” to Lilly Road

Third Tier Bike Lane Projects: These projects are mid-level priorities and are recommended to be completed roughly between 2021 to 2025.

- Ensign Road, NE, from Martin Way to Lilly Road
- Kenyon Street, NW, from Capital Mall access road to Harrison Avenue
- Hoffman Road, SE, from 27<sup>th</sup> Avenue to Morse Merryman Road
- Kaiser Road, NW, from Harrison Avenue to 14<sup>th</sup> Avenue
- 26<sup>th</sup> Avenue, NE, from Bethel Street to Chehalis Western Trail
- McPhee Road, NW, from Capital Mall Drive to Harrison Avenue
- Wiggins Road, SE/27<sup>th</sup> Avenue from Hoffman Road to Wiggins Road to Yelm Highway
- Decatur Street, SW, from 9<sup>th</sup> Avenue to Caton Way
- Lakeridge Drive, SW, from Deschutes Parkway to Evergreen Park Drive
- Fern Street, SW, from 9<sup>th</sup> Avenue to end of street
- Road 65, NW, from 20<sup>th</sup> Avenue to 14<sup>th</sup> Avenue

Fourth Tier Bike Lane Projects: These projects are long-term priorities and are recommended to be completed roughly between 2026 to 2029.

- Ames Road, NE, from Gull Harbor Road to East Bay Drive
- Ensign Road, NE, from Lilly Road to Chehalis Western Trail
- 12<sup>th</sup> Avenue, NE, from Puget Street to South Bay Road
- Sleater-Kinney Road, NE, from 15<sup>th</sup> Avenue to 18<sup>th</sup> Avenue
- Miller Avenue, NE, from Bethel Street to Friendly Grove Road
- Union Avenue, SE, from Capitol Way to Eastside Street
- Lilly Road, NE, from Winwood Place to Urban Growth Boundary
- 7<sup>th</sup> Avenue, SW, from Kaiser Road to McPhee Road
- Friendly Grove Road, NE, from Miller Avenue to Urban Growth Boundary
- Gull Harbor Road, NE, from Urban Growth Boundary to City limits
- Wheeler Avenue, SE, from Eastside Street to Boulevard Road (convert one sided path)

### **Proposed Wide Shared Lanes: Class III Routes**

Wide shared lanes are a minimum width of 12 feet for bicycles and motor vehicles and are referred to as Class III facilities. A white edge line can be used to create a 3- to 4-foot shoulder to separate bicycles from motor vehicles. Signage designates the street as a bike route. These are established on streets where the width for a full bike lane is not viable, due to cost or topography, or where a full bike lane is determined not to be needed, but some additional width for bicyclists can be created. While no specific projects are planned, this treatment may be used in retrofit situations.

## **Proposed Directional Signing and Wayfinding**

A system of route signs informs bicyclists of network connections for bicycles. Directional signs are used to show alternate routes, help navigate through confusing sections of routes, and help lead bicyclists to trail entries or major destinations.

Alternate routes can be identified on low-volume streets. While there are no facilities specifically for bicyclists, volumes and speeds are low on these streets, and bicycles can safely travel in the lane with motor vehicles. Not all streets are signed; rather, alternate or preferable routes are signed for bicyclists when major streets do not provide a bike lane.

A logo or image for the signing system will be created, possibly in coordination with Parks for use in trail signing. The logo or image will be used on signs to provide identity and continuity for users. Wayfinding signs include directional arrows or words such as “to Division Street.” Possible locations for the signing include:

- Washington Street, SW, Capitol Way to 18<sup>th</sup> Avenue through the South Capitol Neighborhood
- Olympia Avenue, NE, from East Bay Drive to Puget Street
- Jefferson Street/Chestnut Street/13<sup>th</sup> Avenue Route to I-5 bike path
- Henderson Boulevard Route to I-5 bike path
- The Olympia Woodland Trail and I-5 Bikeway entries
- The Decatur Street path entry

## **Proposal for Streets with No Planned Bicycle Facilities**

While these Arterial and Major Collector streets would ideally have bike lanes, they have established curbs, parking and/or lane removal has been determined to not be possible, or the developed land adjacent to the street prevents widening. Major reconstruction or reconfiguration is unlikely under today’s plans and policies. If no major change is likely, these streets may be considered for signing, markings or other treatments which make the street safer and more inviting to bicycling. These should be noted as special cases and periodically reviewed for opportunities for bike lanes or other improvements for bicycling.

- Pacific Avenue, SE, from Pacific Avenue “Y” to City Limits
- Black Lake Boulevard, SW, from US 101 to Harrison Avenue
- Carlyon Avenue, SE, from Quince Street to Capitol Boulevard
- O’Farrell Avenue, SE, from Capitol Boulevard to Eskridge Boulevard
- Eskridge Boulevard, SE, from Cain Road to Henderson Boulevard (currently Class IV)
- Sleater Kinney Road, SE, from I-5 to Martin Way
- Jefferson Street, SE, from 8<sup>th</sup> Avenue to Union Avenue
- Cooper Point Road, SW, from Caton Way to Capital Mall Drive
- 4<sup>th</sup> Avenue from Simmons Street to Jefferson Street
- State Avenue, NE, from Cherry Street to Water Street

- Lilly Road, SE, from Pacific Avenue to Martin Way
- Lilly Road, NE, from Martin Way to St. Peter Hospital

While these are classified as Major Collectors, they are not recommended for bike lanes:

- 5<sup>th</sup> Avenue, SE, from Water Street to Eastside Street
- Adams Street, SE, from State Avenue to 8<sup>th</sup> Avenue
- Legion Way, SE, from Eastside Street to Fir Street
- Madison Avenue, NW, from Division Street to Rogers Street
- Rogers Street, NW, from Bowman Avenue to 4th Avenue
- 8<sup>th</sup> Avenue, SE, from Capitol Way to Eastside Street
- Carriage Loop, SW
- Carriage Street, SW
- Central Street, NE, from Bigelow Avenue to 11th Avenue
- Fir Street, NE, from Legion Way to Pine Avenue
- Wilson Street, NE, from 12<sup>th</sup> Avenue to Pine Avenue
- Wilson Street, SE, from 18<sup>th</sup> Avenue to 22<sup>nd</sup> Avenue

Of the 25 miles of Arterials, approximately 7 miles are not recommended for bicycle facilities at this time. Of the 44 miles of Major Collectors, approximately 6 miles are not recommended for bicycle facilities at this time unless significant changes in land use, parking, use of the street, or street design standards change.

### **Proposed Approach to Trails**

Trails are off street paths, usually 10 feet wide and paved, for walking and biking. Olympia’s proposed trails are documented in the December 2007 version of the *Thurston Regional Trails Plan*. Trails that provide a direct connection into the Downtown or high-density corridors are a high priority. Trails that allow bicyclists to avoid difficult intersections or corridors without bicycle facilities are also a high priority.



From a bicycle network standpoint, the priority trail projects are:

- Chehalis Western Trail between I-5 and Woodland Trail
- West Bay Trail
- Black Lake and Percival Canyon Trail
- 101 Trail
- Woodland Trail from Eastside Street to Deschutes Parkway (Tumwater Historical Park)
- Downtown Railroad and East Olympia Trail

### **Proposed Approach to Public Pathways**

Public pathways, also referred to as “Neighborhood Connections,” are short-cut paths or trails that connect a street to another street, neighborhood, park, school, or public building. The City has signed four pathways. A process whereby volunteer groups make improvements to pathways is under consideration.

No funding program for improvements or maintenance to pathways has been established. From a bicycle network standpoint, priority should be given to purchasing, improving, signing and maintaining the following types of pathways:

- Pathways to trails such as the Chehalis Western Trail, Olympia Woodland Trail or new trails such as the Percival Canyon Trail.
- East-west pathways that improve access between Cain Road, SE, and Boulevard Road, this being one of the areas of the City where streets are least connected.
- Pathways that allow a bicyclist to avoid major intersections, highway interchanges and Arterials without a bicycle facility.
- Pathways to schools.
- Pathways to transit centers and transit routes.
- Pathways to parks.

### **Proposal for Shared Lane Markings or “Sharrows”**

Pavement markings and signs raise driver and bicyclist awareness of a unique segment along a route where motorists and bicyclists must share the lane. Shared lane markings or “sharrows” are used for short segments where bikes must be in the travel lane and should take a position in the flow of traffic.

Sharrows have beneficial use when retrofitting hilly or steep streets with bike lanes. In many retrofit situations, there



“Sharrows” raise driver and bicyclist awareness of a unique segment along a route where motorists and bicyclists must share the lane.

may not be adequate curb-to-curb width for two bike lanes. Available width can be used for the uphill bike lane, since bicyclists are typically moving at a slower speed than motorists. In the downhill direction, a sharrow can be used because bicyclists are traveling at a speed closer to the flow of traffic and can more easily share the lane with motorists.

In other cities, sharrows are also used in roundabouts and in turn lanes with a high volume of bicycle traffic, to raise driver awareness of the presence of bicyclists. Signs can support sharrows or colored bike lane pavement markings.

To date, these marking have been used on Legion Way, SE, from Pear to Plum, and San Francisco Street, NE, from East Bay to Quince. Evaluation of these treatments will be done. Additional locations where such treatments may be beneficial include:

- 5<sup>th</sup> Avenue dam (sharrow or colored bike lane)
- 4<sup>th</sup> Avenue from Plum Street to Chestnut Street (sharrow or colored bike lane in right-turn lane)
- Legion Way from Chestnut Street to Plum Street (sharrow or colored bike lane in right-turn lane)
- Water Street between Legion Way and 5<sup>th</sup> Avenue (sharrow)
- Roundabouts (sharrow)
- Segments of Pacific Avenue, SE (sharrow)
- Segments of Black Lake Boulevard, SW (sharrow)
- West 4<sup>th</sup> Avenue or “Hospital Hill” (sharrow)
- Olympic Way downhill (sharrow)
- Capitol Way downhill (sharrow and width added to uphill)
- Pacific Avenue and Martin Way Y-intersection (sharrows or colored bike lanes)

Depending on the effectiveness of the treatment, sharrows could be considered for use system-wide where bike lanes cannot be constructed in the near future.

### Proposal for Colored Bike Lanes

Colored bike lanes are used to raise driver awareness that they are crossing over a bike lane, or to draw special attention to the presence of bicyclists. Colored bike lanes can raise awareness for bicyclists that they are approaching a potential conflict point with motor vehicles. Colored bike lanes can also be used to designate the predominant movement of bicycle traffic through intersections.



Blue and green have been used to color bike lanes. Some cities use green to avoid confusion because blue is associated with facilities for disabled people.

To date, these marking have been used at State Avenue and Puget Street (colored bike lane), Preliminary observations of the treatment indicate it is effective in drawing driver attention.

Additional locations where such treatments may be beneficial include:

- 5<sup>th</sup> Avenue dam (sharrow or colored bike lane)
- 4<sup>th</sup> Avenue and Plum Street (sharrow or colored bike lane in right-turn lane)
- Legion Way and Plum Street (sharrow or colored bike lane in right-turn lane)
- Pacific Avenue and Martin Way Y-intersection (sharrows or colored bike lanes)

### **Consideration of Bike Boxes**

Bike boxes are a rectangular space immediately in front of a stop bar at an intersection, approximately 10 feet in depth for the width of a travel lane. The area is colored and designated for bicycles. The bike box provides priority to bicyclists at intersections, allowing cyclist to clear the intersections before motorists. The bike box allows bicyclists to proceed before any vehicles make a turn, in particular, it prevents right-turning motorists from collisions with cyclists travelling straight through the intersection.

The City has not had any experience with bike boxes. The concept is included in this plan for future consideration. At intersections where cyclists and right turning vehicles are encountering conflicts, bike boxes may be considered.

### **Consideration of Bicycle Boulevards**

Bicycle boulevards are slower low-volume streets where bicycles are expected to travel in the street, as motor vehicles would. There are no bike lanes on boulevards, rather shared lanes. A street could include a combination of traffic-calming and pedestrian enhancements for a street with bikes and pedestrians as the intended primary modes.

Bike boulevards are an option for certain corridors where vehicle volumes are low or expected to be diverted without detriment to the rest of the system. Often physical diverters at intersections allow bikes to pass through, but not motor vehicles. The City has not had any experience with bicycle boulevards. The concept is included in this plan for future consideration. Olympia will evaluate the use of bicycle boulevards for future application.

All busses are equipped with bike racks on the front of the vehicle for first-come, first-serve use.

## Considerations for Bike Parking and End-of-Trip Facilities

Facilities at common destinations can make the trip by bike more inviting and convenient, such as bike parking and storage space for clothing. End-of-trip facilities can be built by the City, or by private development as part of the *Unified Development Code*.

Considerations for future City efforts include:

- Programs that focus on Downtown and commercial areas as bicycle-friendly destinations
- Programs that focus on schools, parks and public facilities as bicycle-friendly destinations
- Materials explaining bike parking goals, the code’s requirements, and innovative design
- “Bike Station” one-stop commuter center Downtown in partnership with the YMCA or other health club
- Grants or loans for commercial building/school retrofits for bike parking, showers, etc.
- Continued support for the Racks on Demand program

## Consideration of Bike Stations

Bike Stations are located in dense employment centers, and serve bicycle commuters with bike lockers, clothing lockers, showers and possibly a coffee stand, café or other amenities. They can benefit employees from multiple worksites minimizing the need for individual small employers or older buildings to provide these services for bicyclists. Stations only work when a high density of employees are located nearby and, like a bus station, commuters can conveniently make the station the terminus of their main trip and walk the few blocks to their workplace. In Olympia, as densities increase in the Downtown, or at nodes along high-density corridors, bike stations should be considered as public/private partnerships.

## Transit System and Bicycling Considerations

Intercity Transit, which serves Olympia, is a bicycle-friendly transit system. All buses are equipped with bike racks on the front of the vehicle for first-come, first-serve use. The Downtown Olympia Transit Center provides bike lockers for rent. Among the improvements that should be considered for better integration of transit and bicycle systems are:



While in the roundabout, a bicyclist should choose the proper lane position and establish themselves in the lane, just like a car.

- Increasing the capacity of Intercity Transit bus and van bike racks
- Endorsing programs that allow bike racks on neighboring transit system (Mason, Pierce, Grays Harbor) busses, vanpools, and at transit stations where they are needed
- Supporting the development of a bike loan program which is integrated with transit stations or other public buildings
- Encouraging foldable bikes on transit
- Supporting covered and secured bike racks at bus stops and transfer centers, as needed
- Linking bike network improvements to transit stops and centers.

### **Proposed Approach to Pavement Surfaces**

Smoother surfaces are more advantageous for bicycling. The City seeks the most cost-effective surface treatment for different types of streets, while maintaining the function of the street for bicycles. Typically, an asphalt overlay is used on major streets; the smoothest type of resurfacing. On smaller streets, other treatments are used to reduce costs.

Staff consulted with the Bicycle and Pedestrian Advisory Committee and developed an agreement on the use of asphalt, chip seal, and other paving treatments. Chip seal is gravel applied on tar and compacted by motor vehicles. The process results in loose gravel, which can present hazards to bicyclists. The agreement states that, from a bike-ability standpoint, asphalt is acceptable on all streets. Chip Seal is acceptable on lower-volume Neighborhood Collectors and Local Access streets. Chip seal is not acceptable on Arterials and Major Collectors without an additional treatment to fill the voids, reduce loose rock, and make the surface smoother.

### **Proposed Approach to Roundabouts**

Olympia's roundabouts are designed so that a bicyclist can travel through the roundabout like a car, or join pedestrians on a wide sidewalk intended as a shared facility. Bicyclists using the shared sidewalk and crosswalk must yield to pedestrians.

Bike lanes are not typically striped through roundabouts because of the conflict between an existing motor vehicle (right-turning vehicle) adjacent to a through-traveling bicyclist.

While roundabouts do not have striped bike lanes, traffic moves more slowly allowing bicyclists and motorists to share space. While in the roundabout, a bicyclist should choose the proper lane position, and establish themselves in the lane, just like a car. Bicyclists have the same rights as a motorist when riding in a roundabout. Less

experienced cyclists can exit the bike lane as they approach the roundabout and travel on the wide, shared-use sidewalk. Sidewalks at roundabouts are typically built wide enough for shared use by bicyclists and pedestrians.

Consideration may be given to the use of sharrows in roundabouts in unique situations to raise driver awareness of the presence of bicyclists, and to reinforce for bicyclists proper lane positioning.

### **Proposed Approach to Traffic Calming**

Traffic-calming devices include speed cushions, traffic circles and narrow points. Some devices force vehicles to the right or left of the direct path within the travel lane. This is called horizontal deflection. Devices that cause horizontal deflection are generally discouraged on signed bike routes because they may force a motor vehicle into the path of a bicyclist. On bicycle routes, devices that only cause vertical deflection are recommended, such as speed cushions.

### **Proposed Approach to Construction Mitigation Standards and Practices**

A bike lane is treated as any other vehicular lane with appropriate signing to notify the rider that the bike lane is closed ahead. Contractors and inspectors refer to the *Manual of Uniform Traffic Control Devices* (MUTCD) and consult with Public Works staff for guidance.

When it becomes necessary to temporarily close a bike lane, a sign reading “Bike Lane Closed Ahead” shall be placed in advance of the start of the taper for the work zone. Signage about motor vehicle lane closures should not be placed in the bike lane. If needed, then “Bike Lane Closed Ahead” signs should be located in advance of this situation.

### **Proposal for Bicycle Detection Markings at Traffic Signals**

There are over 92 traffic signals in the City of Olympia. Signals are either pre-timed and programmed to change, or actuated, meaning the signal reacts to the presence of a vehicle or bicycle via detection loops in the pavement.

Anytime a signal can detect cars, it should be able to detect bicycles. Lane positioning is crucial to detecting bikes. At an actuated signal, a bicycle that is in the center of the lane and behind the crosswalk or stop bar will trigger the signal, just as a car would.

This plan proposes increasing the use of bicycle detection markings where there is significant bicycle traffic, and no bike lane at an actuated signal. Where there is a bike lane at an actuated signal, a detector loop is in the bike lane and there is no need for a marking. At a time signal, there is no need for a marking because the presence of a bike

There are over 92 traffic signals in the City of Olympia. Anytime a signal can detect cars, it should be able to detect bicycles.

or car does not influence the signal. To date, one bicycle detection marking is used at Legion Way, in the eastbound direction at Plum Street.

### **Facilities Recommendations**

Continue to build the bicycle network. This network is composed of bike lanes, signed routes, trails, and paths, as well as bike parking and other end-of-trip facilities. Projects should be programmed for construction as funding resources become available. An effective bike network is supported by maintenance and operations practices. Bicycles should be considered in all aspects of the function of the transportation system.

- Construct bike lanes, shoulders, trails and pathways, with consideration to the priorities described here. A strong facilities network is key to increasing bicycling for transportation.
- Complement the facilities network with signs, markings and other unique treatments, particularly sharrows, signal detection markers, and colored bike lanes.
- Consider application of new treatments, such as bike boxes and bicycle boulevards where appropriate. Consider unique connector treatments such as ramps and bridges to create seamless routes and overcome barriers.
- Utilize operational policies and processes to make the bicycling network function effectively, including sweeping, pavement resurfacing, and signal operations.
- Ensure that bicyclists are considered in the design of roundabouts and traffic calming, and in transit planning. Enforce construction practices so that bicycle travel is not obstructed.
- Explore expanding bike parking and end-of-trip facilities through partnerships and new programs.

## SECTION 6: FUNDING

### Current Funding

The 6-year *Capital Facilities Plan* (CFP) dedicates \$100,000 per year to the Bicycle Program. This is the single source of City funds for constructing bicycle facilities. The annual commitment of capital funds to bicycle facilities goes toward a prioritized list of projects, which are coordinated with other construction projects for cost efficiencies. Grants also significantly augment City funds to complete projects. Bicycle Program capital funds provide a “local match” for leveraging grants funds.

The 2008-2009 Education, Encouragement and Enforcement program totaled \$207,000: \$187,000 came from a grant and the City match was \$20,000.

Maintenance of bicycle facilities come from the operating budget for the Public Works Department.

### Evaluation of Funding Needs

The bike projects in this plan are organized into first- through forth-tier groupings to indicate relative priority order, and are recommended to be completed within the next 20 years.

The highest priority on-street bicycle projects in the 6-year period from 2010 to 2015 total over \$13,000,000. The current dedicated funding for bicycle facilities is \$100,000 per year, totaling \$600,000 for the 6-year period. The cost of projects are intended to be completed within the next 12 to 20 years have not been estimated, but are expected to represent a similar level of funding need.

At a minimum, grants are needed to be able to fill the funding deficit and complete these projects. Some increase in City funds, over the \$100,000 that is currently allocated annually, will insure that projects proceed in a timely manner, and that bicycle facilities can continue to be built as part of larger construction projects.

Trails and public pathway are not currently funded through any transportation funding sources. Trails are funded through parks programming, both capital dollars and grants. Public pathway improvements are not currently funded, yet remain a priority of the Council, citizens and staff.



The highest priority on-street bicycle projects in the 6-year period from 2010 to 2015 total over \$13,000,000.

The need for retrofitting existing streets with bicycle facilities is a finite need. However, the cost for completing the on-street bicycle network is sizable.

The 2008-2009 E3 program was possible due to a grant. Some commitment of City funds to E3 work is needed to insure an on-going program.

The funding levels for street maintenance and operations are important to bicycling: sweeping, patching, and maintaining signs and markings.

### **Funding Strategies**

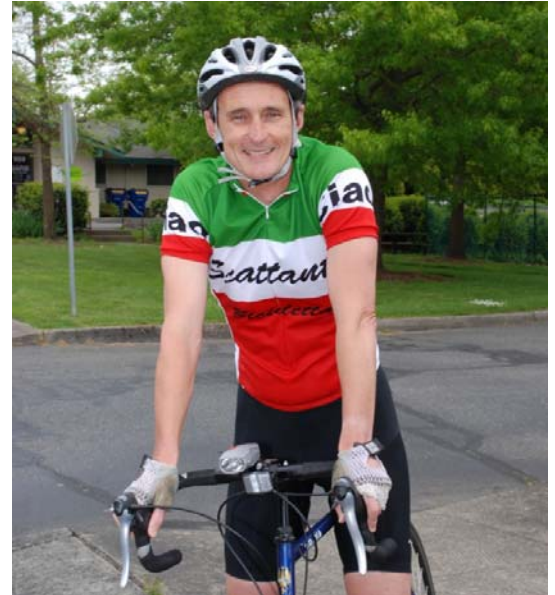
Coordinate construction with other projects: Comp Plan Transportation Goal T 1.17 calls for consideration of sidewalk and bikeway facilities at the time of Arterial and Major Collector overlay and reconstruction projects. Coordination with other street repair or reconstruction work has been the optimal way to construct on-street bike facilities. Integrating the pavement resurfacing schedule with identified bicycle needs will continue to be the approach to cost-effectively construct the on-street bicycle network.

Increase capital funds for bicycle projects: As revenues allow, the City will strive to increase the annual commitment of capital funds in order to proceed with the prioritized list of projects as defined in the Facilities Plan section of this report. Annual funds for the Bicycle Programs should increase with inflation or other indexes, such as the Consumer Price Index. The City should also look at other options for long-term funding.

Fund Education, Encouragement and Enforcement (E3) Programs: E3 program activities help the public make the best use of the bicycle system the City has built. City and grant funds should be potential sources for future E3 programs. The current annual cost to implement the E3 program is approximately \$200,000.

Apply for Grants: Grants contribute a sizable portion of the total funding needed for bicycle facilities. Bicycle facilities funded by grants can be stand-alone bicycle projects or larger transportation projects that contain bicycle elements. Many of the facilities projects identified in this plan, as well as the E3 elements of this plan, are candidates for grant funding.

Consider Other Transportation Funding Needs: This plan recognizes that other transportation funding needs are also important – sidewalks, pedestrian crossings, street repairs, and intersection improvements. Integration of multiple improvements into comprehensive projects may



make a project more eligible for grant funding. By having priorities clearly defined in this plan, and coordinated with planned improvements, the City is better able to apply funds to the most needed projects.

Consider New Funding Sources: The need for retrofitting existing streets with bicycle facilities is a finite need. However, the cost for completing the on-street bicycle network is sizable. In the 6 years from 2010 to 2015, the cost of the highest priority bicycle-facility projects is just over \$13,000,000. Bicycle trails and neighborhood connections have a larger on-going need for funding. E3 work will need an on-going funding source. A range of funding sources is described a little later.

### **Range of Possible Funding Sources**

The range of potential funding sources include some that are used currently, as well as new sources. Some of the current sources could be modified to increase contributions to bicycle programs and projects. The range of sources include:

- Capital Improvement Program (CIP)
- Grants
- Councilmanic Bonds
- Voter-approved Bonds
- Public Works Trust Fund Loan (PWTF)
- Property Tax
- Private Utility Tax
- Business and Occupational Tax
- Commercial Parking Tax
- Year-end Savings
- Local Improvement District (LID)
- Transportation Benefit Districts

These are described in further detail in Appendix B.

### **Funding Recommendations**

Identify and secure additional funding for bicycle projects and programs. The current level of funding is not enough to meet the facilities construction and programmatic activities outlined in this plan. In order to complete the bicycle facility network and to establish an on-going education, encouragement, and enforcement programs, the City will need to secure additional funding.

- Increase annual funding for bicycle projects in the Capital Facilities Plan.
- Continue to combine bicycle projects with other transportation projects for efficiencies of scale in construction.
- Identify funding sources for education, encouragement and enforcement programs.

- Work to advance trail construction.
- Develop priorities and determine funding for public pathways.
- Seek grants for bicycle projects and programs.
- Support adequate levels of operating funds for infrastructure maintenance needs.

## SECTION 7: PERFORMANCE MEASURES

Performance measures can gauge the success and effectiveness of plan implementation. Bicycle usage, collision analysis, network completion, and education, encouragement, and enforcement data will establish a perspective about the overall progress of the program. Targets, goals and benchmarks, referred to as markers, are presented here. Refinements may be necessary or new markers may need to be added. The following areas of measure are recommended:

### Average Daily Bicycle Ridership

This data is based on pneumatic tube counts at nine locations, three times a year (June, October and March). Numbers are average daily bicycles, based on a seven-day count period which includes weekends.

	<b>June 2008</b>	<b>October 2008</b>	<b>March 2009</b>	<b>June 2009</b>	<b>October 2009</b>
4 <sup>th</sup> Avenue Bridge	249	191	114	249	157
5 <sup>th</sup> Avenue Bridge	265	159	95	256	126
East Bay Drive north of Glass	136	90	75	111	83
Boulevard Road south of 22 <sup>nd</sup>	59	79	52	96	50
Cooper Point Road north of 28 <sup>th</sup>	149	142	92	226	196
Decatur Street path south of 15 <sup>th</sup>	30	32	25	50	35
Olympia Woodland Trail east of Eastside Street	84	86	54	190	103
I-5 Bikeway west of Eastside Street	133	59	35	103	53
4 <sup>th</sup> Avenue at Puget /State at Puget	162	140	88	197	131

The rise in bicycle commuting from 1.3% to 2.0% corresponds with the growth in the bicycle network.

### Census Data on Biking to Work

National Average is 0.4% based on 2000 census data. This rise in bicycle use for commuting corresponds with growth in the bike network.

	<b>1990</b>	<b>2000</b>	<b>2010</b>
Olympia Bike Share	1.3%	2.0%	
Washington State Bike Share	0.6%	0.6%	

**Commute Trip Reduction (CTR) Survey Data**

Every two years, employees at CTR-affected worksites in Olympia (generally, worksites with over 100 employees) are surveyed about commute behavior.

**Bicycle Mode Split:** The table shows biking as a portion of total commute trips made by employees worksites affected by the CTR law.

	<b>1993</b>	<b>1995</b>	<b>1997</b>	<b>1999</b>	<b>2001</b>	<b>2003</b>	<b>2005</b>	<b>2007</b>	<b>2009</b>
City of Olympia	1.04	.70	.74	1.36	.97	1.19	1.46	1.42	
Washington State	.99	1.03	1.14	1.17	1.07	1.10	1.33	1.59	

The CTR goal for Olympia's worksites is a 67% single-occupancy vehicle rate.

**Vehicle Miles Travelled (VMT):** The table shows VMT by employees worksites affected by the CTR law. VMT is the sum of miles travelled by motor vehicles divided by the number of employees. The VMT goal for Olympia worksites as defined by the CTR law is 9.8 miles.

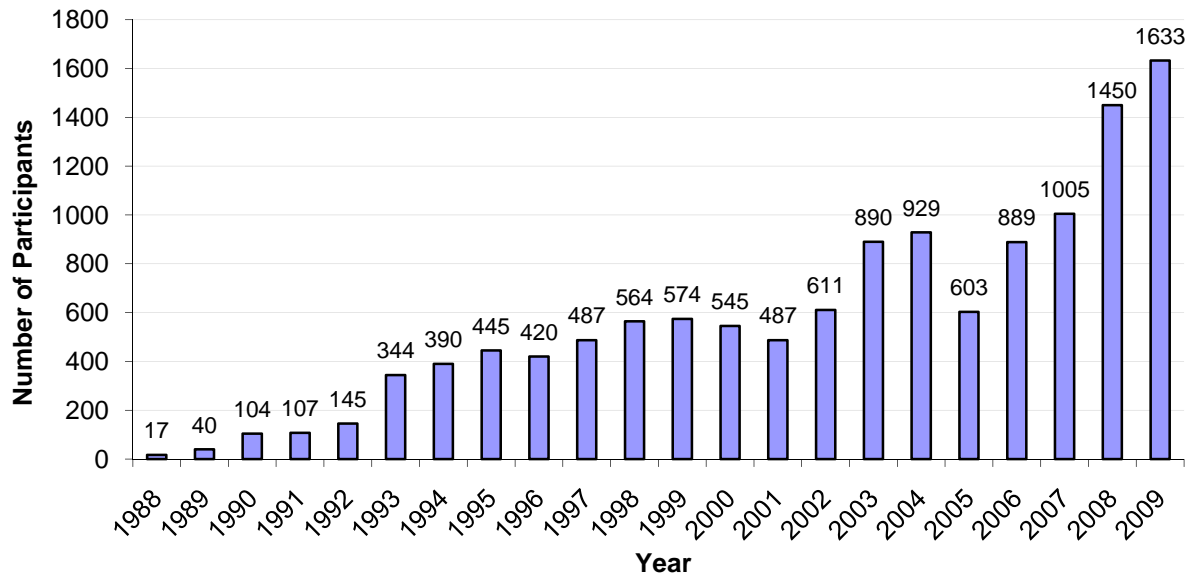
	<b>1993</b>	<b>1995</b>	<b>1997</b>	<b>1999</b>	<b>2001</b>	<b>2003</b>	<b>2005</b>	<b>2007</b>	<b>2009</b>
City of Olympia	11.3	10.9	10.7	10.7	10.9	11.1	11.3	11.1	

**Single-Occupancy Vehicle (SOV) Rate:** This table shows the percentage of people driving alone to work at major worksites in Olympia, based on CTR surveys. The CTR law goal for Olympia's worksites is 67%.

	<b>1993</b>	<b>1995</b>	<b>1997</b>	<b>1999</b>	<b>2001</b>	<b>2003</b>	<b>2005</b>	<b>2007</b>	<b>2009</b>
City of Olympia	78%	72%	71%	72%	73%	74%	74%	73%	

### Bicycle Commuter Contest Participation

This contest has been held each May since 1988 in Thurston County. Anecdotally, participation has been an indicator of the rise in bicycle commuting.



### Bike Network Completion

Bike network completion is dependent on funding levels and availability of grants. Of the 44 miles of Major Collector streets, this plan identifies 38 miles for bike lanes (based on the proposal for streets with no planned bicycle facilities on page 31), and of the 38 miles planned, 18 are complete. Similarly, of the 25 miles of Arterial streets, 18 are proposed for bike lanes and 14 of the 18 miles are complete.

	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Miles of bike lane on Major Collectors (44 total centerline miles as of 2008)	16	18	18	
Miles of bike lane on Arterials (25 total centerline miles as of 2008)	13	13	14	
Miles of trails	9	10	10	
Number of Public Pathways signed or improved by the City	4	4	4	
Number of applications of signal markers	1	1	1	

Education, Encouragement and Enforcement (E3) Activities

This data is influenced by the 2008/2009 E3 grant program. Annual targets are proposed for consideration, should an ongoing E3 program be funded.

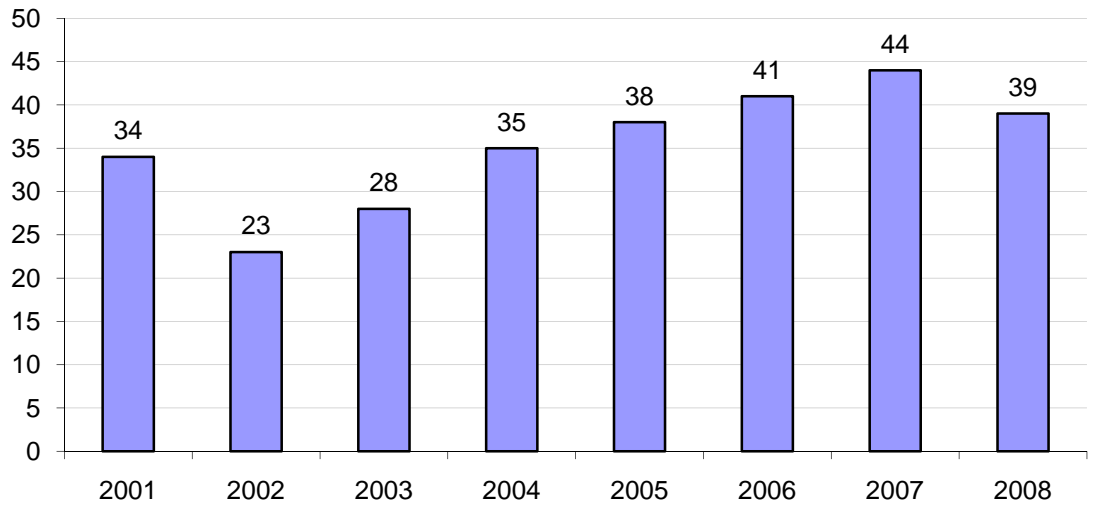
	2008	2009	2010	Annual Target
Number of workshops offered to kids	2	4		4
Number of Urban Cycling workshops	0	12		16-20*
Number of outreach events to Elementary and Middle schools	2	2		1/school
Number of outreach events to SPSCC and TESC (colleges)	1	2		2/school
Number of outreach events to Neighborhood Associations	3	0		1 each
Number of outreach events to worksites and organizations	4	6		12
Number of materials produced (brochures, flyers)	2	1		2
Number of media products developed (radio, TV spots or programs, newspaper ads)	1	1		2
Number of lights given away or sold at a discount	40	50		100
Number of helmets given away to adults and kids	30	15		100
Number of electronic newsletters sent	4	4		4
Number of recipients of electronic newsletter	170	200		20% increase
Number of City bike program-related webpage hits	2268	3339		20% increase

\*with 16 to 20 workshops, 200 to 240 people will be reached.

Bicycle-Related Collisions: Bicycle collisions have trended upwards, likely due to the increased number of bicyclists, as well as the rise in motor vehicle use (vehicle miles travelled) in this community. In this time period, one bicycle-related fatality occurred, in 2002.

Collision Type	Number of Collisions						
	2002	2003	2004	2005	2006	2007	2008
Bicycle and Vehicle	23	28	35	38	41	44	39
Pedestrian and Vehicle	30	23	20	17	24	28	32
Vehicle Only	1008	979	947	1028	1105	1097	982
<b>Total</b>	<b>1061</b>	<b>1030</b>	<b>1002</b>	<b>1083</b>	<b>1170</b>	<b>1169</b>	<b>1053</b>

## Bicycle Related Collisions



*Under 23 United States Code – Section 409, this data cannot be used in discovery or evidence at trial in any action for damages against the City of Olympia or the jurisdictions involved in the data.*

## **Performance Measures Recommendations**

Use data, goals and benchmarks to monitor progress in implementing this plan. Data on bicycle ridership and bicyclist safety is collected annually. Data, goals and benchmarks should be used to guide annual programs.

- Streamline data collection methods where needed.
- Establish goals and benchmarks, such as those proposed here, or others.
- Review data annually, gauge against benchmarks and goals, and refine programs, as needed.



## SECTION 8: CONCLUSION

The Bicycle Master Plan strives to increase the number of people biking for transportation and to improve the safety of bicyclists in Olympia. This plan helps guide the creation of a multimodal transportation system.

This plan is needed to:

- Reduce congestion and pollution associated with motor vehicle use.
- Provide citizens access to bicycling as a mode which is clean, safe, economical and efficient.
- Create a transportation system that supports higher densities, is human-scale, contributes to a sense of place and helps people to interact.

The plan does not make a major shift in focus. It outlines how to continue with bike network construction, and education, enforcement and encouragement (E3) programs to pursue. The plan does not make any immediate budget requests.

The plan is important because it reaffirms the vision for bicycling in Olympia and sets groundwork for the future. Recommendations are based on our success with facilities construction and resulting increases in ridership, and successes in the recent E3 grant work. Recommendations include:

- Implement ongoing education, encouragement, and enforcement to improve the safety of, and encourage bicycling. These programs are needed to create an ethic towards bicycling, heighten awareness of bicyclists' safety, assist and mentor new riders, and communicate to all roadway users their responsibility to safely share the road.
- Continue to build the bicycle network. This network is composed of bike lanes, signed routes, trails, and paths, as well as bike parking and other end-of-trip facilities. Projects should be programmed for funding and construction, as funding resources become available. An effective bike network is supported by maintenance and operations practices. Bicycles should be a consideration in all aspects of the function of the transportation system.
- Identify and secure additional funding for bicycle improvements. Current funding levels are not enough to meet the facilities construction and programmatic activities outlined in this plan. In order to complete the bicycle facility network and to establish an ongoing education, encouragement, and enforcement programs, the City will need to secure additional funding.
- Use data and markers to monitor progress



The plan is important because it reaffirms the vision for bicycling in Olympia and sets groundwork for the future.

in implementing this plan. Data on bicycle ridership and bicyclist safety is collected annually. This data and established markers should be used to guide annual work programs and monitor implementation of this plan.

To complete the highest priority on-street bicycle projects by 2015, an additional \$700,000 is needed, at a minimum. The work will cost over \$13,000,000 of which \$600,000 is currently allocated for these projects. An ongoing E3 program will cost approximately \$200,000 per year.

Olympia has a strong foundation to build from. In addition to policy guidance, the increasing number of people bicycling for transportation shows both the support and the need to continue enhancing bicycling in Olympia.

## APPENDIX A

### **The Benefits of Bicycling**

Bicycling has personal benefits in improved health, as well as money and time saved. Increasing bicycle transportation can benefit Olympia's economy and quality of life through reduced pollution and congestion, and potentially lessen the need for street widening and construction of car parking. Appendix A reviews the range of benefits of bicycling for Olympia.

Reduce Pollution: Autos are the single largest source of air pollution in the United States. Short trips—those that are more easily made by bike—are up to 3 times more polluting per mile than long trips. An average 4-mile, round-trip bike commute prevents nearly 15 pounds of auto air pollution from contaminating the air. Reducing vehicle miles traveled by automobiles is a crucial climate change action Olympia can take.

Save Money: Bicycling, instead of driving, saves fuel and vehicle maintenance costs, and parking fees. Insurance premiums on vehicles can be lower when the vehicle is not being used for commuting to work. In 2008, AAA estimated that the average cost of car ownership when driving 15,000 miles per year is \$8,121.

Other Economical Considerations: Considering the way we pay for transportation, communities that increase bicycling for transportation have the potential for saving public funds. According to BicycleSource.com, if the real taxpayer subsidy of autos was reflected in fuel taxes, a gallon of gasoline might cost as much as \$9.00. This is because our other taxes (sales and property tax) cover the costs of road construction and maintenance, parking spaces, police services, losses from accidents, pollution, and congestion. With more bicycle transportation, these costs would go down, saving taxpayers money.

Helps Build A Sustainable Community: Transportation systems play a large role in influencing how a city grows. A multimodal transportation system allows more dense land uses to work better – more people live, work and play in an area with fewer cars. Well-designed, dense land uses and a multimodal system allow people to bike or walk to work, school, services, have fun and connect with one another.

For Our Health: The Centers for Disease Control has found that obesity and being overweight are linked to the nation's number one cause of death – heart disease. The report states that one reason for Americans' inactive lifestyle, is that walking and bicycling have been replaced by auto travel for all but the shortest distances. The American Medical Association identified that approximately 25% of all trips are less than one mile, and 75% of these are made by car. The journal notes that automobile trips that can be safely replaced by walking or bicycling offer the first target for increased physical activity in communities.

Uses Streets Wisely: Bicycling makes better use of the City’s street system. When bicycles use the street system, we are moving more people in fewer cars, creating less need to widen and repair streets.

Mobility for People Who Do Not Drive: Bicycles allow people who choose not to drive to be mobile. A community that promotes bicycle transportation gives those who do not own a car a choice for cost-effective mobility. Bicycling can also give youth independence and help build responsibility.

Parking: When you bike, you can almost always park closer to your destination than when you drive a car, saving time and frustration. Bicycle parking facilities are compact and save space. Typically, eight bicycles can park in the space required for one car.

Happy Employees: The National Bicycling and Walking Study reports that compared to those who drive, employees who bicycle to work tend to have greater job satisfaction, are more productive, and miss work less often due to illness.

## APPENDIX B

### Range of Possible Funding Sources

#### Capital Improvement Program (CIP)

For more than a decade, the City's Capital Facilities Plan (CFP) has typically allocated \$100,000 annually in CIP funds for bicycle facility construction. CIP funds are derived from taxes and fees the City collects.

##### *Pros*

- This has been the primary source of funds for bicycle improvements.
- CIP dollars are relatively predictable.

##### *Cons*

- Many City programs depend on CIP dollars.
- Not a sizeable funding source.

#### Grants

Local, state, and federal grants for bicycle facilities are usually available on an annual basis. Grants are an ideal element to any funding strategy.

##### *Pros*

- Grants can speed up bicycle facilities and programs.

##### *Cons*

- Grants are not a predictable source of revenue.

#### Councilmanic Bonds

Non-voted, general obligation bonds are backed by the "full faith and credit" of the City. Debt service is paid out of the current taxing authority. The City Council may decide to issue Councilmanic debt.

##### *Pros*

- Voter approval is not needed.

##### *Cons*

- Funds are needed to pay for the annual debt service.

#### Voter-approved Bonds

Voter-approved or unlimited general obligation bonds are backed by the "full faith and credit" of the City but require approval by 60% of the voters with a minimum turnout of 40% of voters from last general election. This type of bond increases property taxes.

*Pros*

- Voter approval is needed.
- Property taxes are deductible for those who itemize federal income tax.

*Cons*

- Projects must appeal to the majority of the public.

Public Works Trust Fund Loan (PWTF)

Low-interest loans to local governments to maintain and improve essential Public Works systems. Projects must be needed to serve the existing population and cannot be growth related.

Construction program loans typically have low interest rates depending on local match. Applications are typically accepted annually. Loan term has been 20 years.

*Pros*

- Low interest loan; lower interest rates than bonds.
- Works well to complete a large number of projects because funds can be provided all at once.
- Can pay back with CIP funds.
- Does not require voter approval.

*Cons*

- Loan does not have level debt service.
- Current revenues would have to pay debt service.

Property Tax

There is a limit to property tax increases to 1% (1% of the total dollars collected of the general levy). The City can increase the rate above 1% with a 50% majority vote of the public, as long as the rate is below \$3.325 (this assumes the library district were to utilize its full \$0.50 levy). The rate is currently at \$1.94.

Any increase requires voter approval.

A \$0.10 increase is a 5.2% increase in the levy rate and would generate \$600,000 per year in 2009 dollars (based on a \$6 billion assessed value).

*Pros*

- Only requires 50% approval from voters.
- Personal property tax is deductible from federal income taxes.

*Cons*

- The property tax continues to be subject to voter referendums.
- Difficult to get necessary votes.
- State government and schools are exempt from the property tax.

Private Utility Tax

This is a private utility tax on phones, electricity and gas. The utility tax is currently at the statutory maximum of 6%. The tax was raised to 9% with voter approval in 2004 for parks and recreational facilities. A 50% voter approval is needed for any increase to the tax. There is no limit to how high the tax can go with voter approval.

*Pros*

- All consumers pay tax.

*Cons*

- May be difficult to get the necessary votes.

Business and Occupational Tax

Currently, this tax is a 1/10<sup>th</sup> of 1% (for everything but service activities, which is 2/10<sup>th</sup> percent). With a simple majority of Council, the tax can be raised to 2/10<sup>th</sup> of 1%. To raise the tax above 2/10<sup>th</sup> of 1%, a 50% voter approval is needed.

*Pros*

- City Council can approve an increase of 2/10<sup>th</sup> of 1%.

*Cons*

- Additional financial burden on businesses in Olympia could be detrimental to business climate.
- Last remaining revenue option available to the Council.

Commercial Parking Tax

The City can decide to use this tax, although it can be repealed by voters through referendum.

Tax may be either on the commercial parking business, based on gross proceeds or on the number of stalls, or on the customer, similar to an admissions tax. Communities that have implemented this tax include Lynden, Bainbridge Island, SeaTac and Douglas County.

*Pros*

- A tax on users of the transportation system.

- A new tax makes more money available in the General Fund.

*Cons*

- Likely to be a minor revenue source.

Year-end Savings

Annually, there are unspent funds or additional revenues. Any Public Works project or program surpluses could be committed to bicycle improvements.

*Pros*

- Use of end-of-year surpluses does not directly affect other programs.

*Cons*

- Unpredictable source of funds.
- In the past, these excess funds have gone to pavement management and projects such as the 4<sup>th</sup> Avenue bridge project.

Local Improvement District (LID)

Property owners fund improvements. A LID is a collaborative process between the City and affected property owners. A LID can be initiated by the City or by a petition of the affected property owners. A LID results in the issuance of debt in order to finance a project. The defeasance occurs through annual payments by property owners. Property owners who benefit from the improvements are assessed at proportionate levels to pay for improvements. There is wide discretion in establishing the boundaries of a LID, but property owners who do not benefit from the project cannot be assessed.

*Pros*

- Conserves City funds.
- Those who benefit most help fund improvements.

*Cons*

- Administratively burdensome.
- Increasingly more difficult legally – must prove benefit to property owners.

Transportation Benefit Districts

Transportation Benefit Districts (TBD) are an option for local governments to fund transportation improvements within a defined district. The proposed improvement must exist in a state or regional plan and must be needed based on current or future congestion.

Olympia's TBDs collect revenues through annual vehicle registration. This fee of \$20 is collected at the time of vehicle license renewal. This revenue has been identified for a specified list of projects.

*Pros*

- Special districts can tailor services to citizen demand and concentrate on efficiently providing limited services.
- Special districts can directly link costs to benefits.
- Generally, only those who benefit from district services pay for them.

*Cons*

- Fewer voters participate in the election of special district officers, making the districts a less representative form of government.
- Citizens may have a hard time determining which government is responsible for providing certain services.