Transportation Mobility Strategy for the City of Olympia

Evaluation of Options and Recommendations from the Ad Hoc Transportation Advisory Committee to the Olympia City Council

Prepared by ECONorthwest, with Transpo Group and Nelson\Nygaard

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Preface

This report defines, evaluates, and recommends options for a *Transportation Mobility Strategy* for the City of Olympia. The strategy is for consideration by the Olympia City Council, which may decide to amend it and, ultimately, to adopt the strategy as City policy. This report and its supporting appendices would become background documentation for that final strategy.

This report was prepared by ECONorthwest (Terry Moore, project director; Susan Davis, project manager) and its subcontractors Transpo Group (Andy Mortensen) and Nelson\Nygaard (Tom Brennan). ECONorthwest gratefully acknowledges the substantial assistance provided by a Steering Committee, an Ad Hoc Technical Advisory Committee (ATAC), a Resource Group, and many other people who commented on aspects of this report at various points during the course of its development, including at a public workshop held in April 2009. [1]

ATAC Member	Affiliation
Joan Cullen	State Government
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Rob Honan	ADA interests
Jack Horton	Citizen at Large
John Koch	Bike/Pedestrian Advisory Committee
Sam Merrill	Environmental Interests
Karen Messmer, Chair	Olympia City Council
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Resource Team	Affiliation
Thera Black	Thurston Regional Planning Council
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[1] This report identifies sources of information and assumptions used in its analysis. Within the limitations imposed by uncertainty and the project budget, every effort was made to check the reasonableness of the data and assumptions. But any forecast of the future is uncertain. Evaluating those assumptions as reasonable does not guarantee they will prevail. ECONorthwest prepared this report based on its general knowledge of policy evaluation and transportation planning, and on information from government agencies, the reports of others, interviews, or other sources believed to be reliable. ECO cannot verify the accuracy of all data sources used in this report and makes no representation regarding their accuracy or completeness. Any statements nonfactual in nature constitute the authors' current opinions, which may change as more information becomes available.

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What is a Transportation Mobility Strategy?

A Transportation Mobility Strategy (TMS), if accepted by the Olympia City Council, suggests specific actions for a multi-modal approach to transportation planning and development in the City of Olympia. The strategy recommended in this report draws from the City's existing plans and from new analysis to suggest ways the City might prioritize or change some of its policies. In some cases, the strategy recommends new policies. The recommended strategy, and the analysis supporting it, are contained in this TMS report: *Transportation Mobility Strategy for the City of Olympia; Evaluation of Options and Recommendation from the Ad Hoc Transportation Advisory Committee to the Olympia City Council* (May 2009). The report is accompanied by eight technical appendices, which include the technical analysis for each individual mode of travel, funding, performance measures, and other relevant policy issues.

Purpose of the Transportation Mobility Strategy

The purpose of the TMS report is to recommend options for a multi-modal transportation strategy that is consistent with, and helps achieve, the City's vision and policies in the Comprehensive Plan. The City seeks to develop a transportation system with a balanced approach to all people and all modes of travel. This goal is articulated through the City's Comprehensive Plan transportation policies, which direct the City to reduce dependence on motor-vehicle use and support bicycle, pedestrian, and transit use.

The work plan for this project states that a key outcome is *to have a transportation system that better balances its support for all modes of travel and for the vision for future development expressed in its Comprehensive Plan*. To that end, the recommendations in this report for a Transportation Mobility Strategy (TMS) address ways for the City to continue a shift in emphasis about how the transportation system gets developed to give more attention to (1) alternative modes of travel, and (2) development patterns that support more efficient and less disruptive travel.

How the strategy was developed

The City of Olympia contracted with the consulting team of ECONorthwest, Transpo Group, and Nelson\Nygaard to define, evaluate, and recommend options for a strategy for developing an integrated, multi-modal transportation system for the City. The team worked with the Ad Hoc Transportation Advisory Committee (ATAC) and local planners (the Resource Group) to prepare and document the strategy for consideration

by City Council. In addition, the City hosted the second annual Mobility Workshop in April 2009 to seek feedback on the recommended strategies.

Among the tasks completed by the team to develop the recommendations in this report were to (1) identify, assemble, review, and summarize recent and key reports or memoranda on transportation in Olympia, (2) evaluate Olympia's transportation system by travel mode (motorized, non-motorized, and transit), (3) evaluate funding sources, (4) meet regularly with the ATAC and Resource Group, and occasionally with local experts, stakeholders, City Council and the public.

Evaluation framework

The City, the ATAC, and the consultant team developed an evaluation framework to describe how the mobility strategy should be developed so that it considers (1) all modes of transportation, and (2) the effects of transportation on quality of life. The framework is described in detail in Appendix A, *Evaluation Framework*. Some key points:

- **Address multiple objectives** (e.g. all modes and their effects on quality of life)
- **Use descriptive methods rather than formal weighting**
- **Emphasize data interpretation, policy, and implementation** (not data collection, modeling, and analysis)
- **Evaluate across multiple criteria to find balance among objectives**

TMS policy themes and key recommendations

Transportation plans, policies, and strategies are often organized by transportation mode (e.g. motor vehicle, bicycle, pedestrian, transit). There are good reasons for such an organization: it can make responsibilities, funding, and implementation more straightforward for single-mode institutions (e.g., transit agencies) or municipal departments. But the City of Olympia seeks more balance in its transportation system, and a key strategy for doing that is to integrate planning *across modes*. That strategy suggests organizing City policy and actions around multi-modal themes: ultimately that is the tack taken by the ATAC and reflected in this report, which has six policy themes, as listed below.

Chapter 3.3 of this report includes a detailed discussion of the elements of each policy theme, along with a description of targeted Outcomes, Outputs, and Actions that make up a preliminary work plan for the City. Below is a summary of the key recommendations for each of the key policy themes:

- **Community Transit Network (CTN).** While the City does not operate the transit system in Olympia, it can expand its role in supporting transit by adopting a Community Transit Network (CTN). The CTN will enhance opportunities for transit by targeting transportation improvements along corridors that are designated for the most intensive transit use and ensuring that transit investment is coordinated with land use policy.
- **Complete Streets. The City has many policies in place that adhere to Complete Street principles** (streets that are designed and operated to enable safe access for all users). The strategy proposes developing and adopting a formalized, comprehensive "complete streets" policy and tracking land use policy regulations/incentives that align with complete streets principles.
- **Connectivity. Similar to complete streets, the City has policies in place that encourage** a well connected street network for motorized and non-motorized modes of transportation**, but no formal policy framework or methods for tracking progress. The strategy recommends** enhancing connectivity for all modes of transportation by (1) creating new connections as development occurs, (2) improving street and pathway connections within the existing transportation network, and (3) establishing a connectivity index to help target investment and track progress.
- **Transportation Demand Management.** The City currently supports a variety of strategies aimed at reducing demand for drive-alone trips. The TMS recommends that the City build from prior success (such as the "Walk and Roll" school program) and focus on parking policy, existing and new school programs, telework, and community-based marketing for commute-trip reduction and transit use.
- **Funding.** The TMS recommends that the City develop a clear description of current and potential funding so that allocation of spending can be tracked by mode and expenditure type over time. The TMS also recommends that the City consider opportunities to leverage funds raised by community and neighborhood organizations.
- **Concurrency, Transportation Impact Fees (TIF), and State Environmental Policy Act (SEPA)**. Concurrency is a state requirement that local governments make sure public infrastructure is provided at the same time as development. The TMS report recommends that the City consider refining its concurrency program to focus on measuring *person trips* instead of vehicle trips.

Transportation Impact Fees are fees local governments may collect to pay for the cost of providing infrastructure that serves new development. The TMS report recommends that the City consider adding transit and non-motorized infrastructure improvements to the list of projects eligible for Transportation Impact Fee funding.

SEPA establishes requirements for local governments to use in evaluating potential environmental impacts of development. This report recommends that the City consider adopting SEPA Planned Actions to fund non-motorized infrastructure mitigation projects in targeted areas.

Next steps

The implementation steps recommended in Chapter 3 of this report address all aspects of multi-modal transportation in Olympia and, thus, everything that a Transportation Mobility Strategy would comprise. But this is report is not the TMS itself; it is a precursor to the TMS. City Council will ultimately accept the City's final Transportation Mobility Strategy. This report is intended to facilitate discussion among City Council, its partner organizations, and the community. In that sense, this report is a decision-aiding tool, not a decision-making tool.

Chapter 3 describes actions that the City and its partners could take during several different periods (years) in the future. The report concludes with three actions that are probably the immediate next steps for City staff:

- **Create the final TMS**. After the City Council reviews, discusses, and amends this document, City staff will have most of the information it needs to write the final TMS document.

- **Refine the TMS Work Plan**. Identify appropriate staff to lead the effort of working with City Council, IT, and TRPC to refine and clarify the TMS work plan presented in Exhibit 3-6. This process should include verifying the assumptions in this report about the priority level of each action, the year(s) in which it should occur, the lead agency, and the relative planning cost of the action. Establish a clear timeline to complete the work plan.

- **Clarify Transportation staff involvement in the 2011 Comprehensive Plan update process**. Transportation Planning and Engineering Staff are currently involved in the Comprehensive Plan update process. We recommend that staff members continue to work with Community Planning and Development staff to integrate land use and transportation policies and goals. Key pieces of the TMS will be integrated into the Comprehensive Plan update.

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Chapter 1 Introduction

This report defines, evaluates, and recommends options for what is intended to later become a *Transportation Mobility Strategy* for the City of Olympia. This chapter orients readers to the purpose and organization of this report. It describes what Olympia means by a Transportation Mobility Strategy, the assumptions about transportation that influence the actions it recommends, how it got developed, and how it is organized.

The Transportation Mobility Strategy, as eventually amended and accept by the City Council, would not be a full transportation plan and would not replace elements of the City's Comprehensive Plan. Rather, it would provide a list of general and specific actions that would give clearer direction to City staff and policy makers as they prioritize City planning, funding, investment, and regulation for transportation in Olympia.

The Strategy recommended in this report was developed by assessing extensive and recent local studies that address all aspects of travel in Olympia. That assessment identified places where system and policy gaps existed, and where changes might better achieve the City's expressed goals for an efficient and fair transportation system that addresses and properly balances all modes of travel.

1.1 What is a Transportation Mobility Strategy?

Olympia's Comprehensive Plan provides a vision for what should be done to maintain and enhance quality of life, and to accommodate development. Achieving that vision requires supporting analysis and policy relating to many aspects of urban development, including the provision of infrastructure, and especially of transportation facilities and services. Many transportation studies describe the current, desired, and likely future conditions for all modes of travel in the City of Olympia.

The City wants to continue to move its transportation planning toward a greater consideration of how all modes of travel fit with each other and within broader City goals for quality of life and development. To that end, it contracted with ECONorthwest, Transpo Group, and Nelson\Nygaard to prepare what this report refers to as a *Transportation Mobility Strategy*.

The strategy does not focus on changing to the Comprehensive Plan (though it may lead to recommendations for some changes). It is not written as the "transportation element" of the Comprehensive Plan, and certainly not as a complete, stand-alone transportation plan. Rather the strategy is based on a higher-level evaluation of existing plans and policies to see how well they support the vision in the Comprehensive Plan and each other. It recommends ways the City might change some of its adopted transportation policies to better achieve goals contained in its policy documents and expressed by the Ad Hoc Transportation Advisory Committee (ATAC) that is recommending these strategies.

The strategy does not address air, water, and rail travel. Thus, it also does not address long-distance freight issues. It references but does not focus on the larger regional transportation system: other agencies have planning responsibility for that system.[2] Rather, it focuses on urban streets and arterials: on how people and goods get around once they are in Olympia. Its focus on streets, however, does not mean an exclusive focus on motorized vehicles—it uses the term "complete streets" to emphasize that streets are used not just by cars and trucks, but by other types of vehicles and travelers as well.

1.2 HOW TRANSPORTATION FITS IN A CITY'S VISION OF ITS FUTURE

There are many ways that a community can define itself and try to understand and influence its future. Appendix A provides principles and examples. Among its conclusions:

- It is typical for cities the size of Olympia to have a Comprehensive Plan. In the state of Washington, it is required.
- A Comprehensive Plan is a document that citizens and state laws expect will best describe multiple aspects of a community's identity, its aspirations for what it wants to be like in the future, and policies and actions that it will take to get there.
- A Comprehensive Plan has a strong spatial orientation: it focuses on places, building, development, and natural areas. That orientation derives in part because "place" is among the most important ways that people define their community.
- There are other ways to define a community and its aspirations (e.g., socially or economically), and these aspects of community are usually addressed in a Comprehensive Plan.
- For these and other reasons, the Comprehensive Plan and the vision of place it provides should be the basis for a transportation plan, not the reverse. A community's primary interest is in creating a transportation system that supports the place it wants to be, not in creating places to make certain types of transportation work best.

An implication of those conclusions is that (1) Olympia's Transportation Mobility Strategy should tie to the vision, aspirations, goals, and policies of its Comprehensive Plan and supporting documents, and (2) the

[2] Primarily, the Washington State Department of Transportation, the Thurston Regional Planning Council, and Intercity Transit.

development of the Transportation Mobility Strategy should start with a thorough review of existing plans and policies.

A community vision is always about improving aspects of the quality of life of its citizens. Such improvements require tradeoffs: funds are limited; not all objectives can be pursued at the level desired; objectives may conflict. Thus, whether a community is planning for transportation, land use, economic development, environmental quality, natural resources, or some other aspect of development or conservation, it is unlikely to get to an agreeable and sustainable plan unless it address all those aspects.

Different people in a community will have different ideas about the relative importance of different objectives and outcomes: both for transportation relative to other aspects of quality of live, and within transportation. The hope is that a discussion of differences will lead to some agreement about the current realities for urban transportation.

In urban, metropolitan areas in the U.S., trips by people of greater than a few hundred meters are made primarily by automobile. Even if a community wants to lower that percentage, it must start by understanding why it is that high and acknowledging that the tremendous amount of investment in streets, motorized vehicles, and real estate development has created travel patterns that cannot change quickly without substantial effort.

The streets carrying all these trips are getting more congested. That congestion leads people of all types to support the construction of new street capacity to reduce congestion. But funding has proved inadequate to do proper maintenance of existing capacity, much less build all the new capacity various advocates would like. This can be a challenging environment in which to introduce a shift in priorities that benefits bus riders, bike riders, and pedestrians.

An underlying objective of this project—supported by City planning documents, the work plan for this project, and the members of the ATAC—is that (1) Olympia's transportation policy and funding should shift toward modes other than the automobile, and that (2) Olympia should have a transportation system that better balances its support for all modes of travel and for the vision for future development expressed in its Comprehensive Plan. The next section discusses the reasons that support that objective.

1.3 WHAT ASSUMPTIONS ABOUT DIRECTION FOR TRANSPORTATION POLICY IN OLYMPIA UNDERLIE THE STRATEGY?

Fundamental to the Transportation Mobility Strategy—both to the reason it was developed and the recommendations it contains—are several assumptions that can be found in City policy documents and are supported by the ATAC:

- Providing streets for automobiles has become increasingly difficult in urban areas:
  - Urban growth leads to congestion even if more streets (capacity) could be added.
  - The obvious and easy streets have been built. Expansions and new streets are increasingly expensive because of increased costs of material, labor, right-of-way, neighborhood opposition, and mitigation.
  - There is a tradeoff between increasing travel speeds for cars and making streets safe for other travel modes and conducive to other economic and social activities.
  - The long-term trend toward increasing vehicle-miles traveled per person has begun to change and will continue to do so because of increasing fuel prices, actions that will be taken to reduce greenhouse gas emissions, the increasing per unit cost of adding vehicle capacity to the road system, and (for these reasons and others) increases in the real price of travel.
- Reducing the amount of automobile travel is likely to improve quality of life, such as:[3]
  - Environmental quality, including air quality, reduction of greenhouse gases, and mitigation of climate change.
  - Health, because some people will get more exercise from biking and walking, and because of reduced air quality problems.
  - Sense of community, because people will have more opportunity to interact
  - Energy security, because less fuel will be used than otherwise would have, and less imported fuel will be required.

[3] Clearly the relationships are complicated and the future is uncertain. What is listed here are potential benefits, not *net* benefits. The presumption is that there would be net benefits (i.e., that the benefits listed would outweigh the costs (e.g., of greater travel time), but analysis and modeling to support that presumption is beyond the scope of this study.

- More transportation planning and investment should be directed at non-automobile modes of travel—transit, bicycling, and walking—and at cost effective maintenance of the facilities in the existing transportation system.

Though there are arguments to support all these assumptions, there are certainly counterarguments and alternatives. Every jurisdiction must make its own decisions about how to proceed in the face of substantial uncertainty. Changes in policy rarely happen quickly, and changes in the built environment in response to any policy change happen slower still. The recommendations in Olympia's Transportation Mobility Strategy do not ignore the importance of maintaining capacity for travel by motorized vehicles; nor do they immediately or substantially reduce investment in the road system. Rather, the recommendations suggest ways to give more attention to (1) alternative modes of travel, and (2) development patterns that support more efficient and less disruptive travel.

1.4 How were the components of the Strategy defined and evaluated?

1.4.1 Description of terms and concepts

Defining a strategy starts with defining the transportation modes it would address:

- A transportation system consists of pathways (streets, sidewalks, trails, bike lanes), vehicles (cars, trucks, buses, bikes, strollers), and travelers (people using the pathways).
- Travelers make choices of pathways or vehicles based on many factors. Fundamentally, however, they are looking for the best value given their needs. Value is related to, but not the same as, least cost, and cost means more than out-of-pocket costs. Time, in particular, is an important cost. Safety, convenience, flexibility, and reliability all matter. How people evaluate those attributes depends on their characteristics (age, income, physical condition, values), the type of trip they need to make (origin and destination, length, number of travelers, subsequent trips), and other factors (weather).
- How a "trip" is defined is important to measurement and policy. A trip takes a traveler from an origin to a destination. But what origin-destination pairs count? Certainly traveling in an automobile from home to a job two miles away is a trip. Equally certain, at least for transportation planners, is that traveling from one's bedroom to the kitchen is not a trip, or even from the kitchen to the backyard. But

walking next door to borrow your neighbor's leaf blower? And what if you drove instead? What about walking from one office to a different one in the same building, or downstairs to the coffee cart?

The consensus among transportation planners is that (1) travel on streets in motorized vehicles (cars, buses, trucks) are trips that can be (approximately) counted and modeled, (2) bike travel is not as well counted or modeled, but bike travel from an origin to a destination should be classified as a trip, (3) trips by walking are the hardest to define, count, and model, but many of them—especially in denser areas—substitute for trips that would otherwise be taken by vehicle, and (4) combining all those different types of trips into a total could be done, but it might do more to confuse planning than to help it.

- Due to the way our communities are built, travel by automobile is the predominant form of travel for trips of distances greater than a few hundred yards. Given that predominance, much of the literature in transportation planning refers to transit, bikes, and walking as "alternative modes" (alternatives to the automobile). We recognize that the term is viewed by some advocates of these other modes as somewhat dismissive, but it is nonetheless a widely used and understood term to describe transit, bikes, and walking. We therefore use the term in this strategy report.

There is no perfect definition of the term "trip" or "travel mode": definitions have fuzzy edges. This report uses the term "travel mode" (or just "mode") and organizes its presentation (and the research supporting it) around the four principal means of propulsion for surface travel in urban area: (1) cars and trucks; (2) transit (in Olympia, primarily buses); (3) bicycles; and (3) pedestrian movement (including wheelchairs).

When we discuss **level of service** (LOS) we refer to a method of measuring how well a particular mode operates within the system. LOS standards have traditionally been used to measure automobile flow. One example of a method for measuring level of service is the *volume-to-capacity ratio* (V/C), which measures the volume of automobile traffic on a street compared to that street's designed capacity during a peak commute time. LOS measurements for automobiles use a grading system to represent the spectrum of service. Generally stated, free-flowing traffic would be given an LOS "A" while stop-and-go congestion would get an "F." LOS standards for transit systems are typically a mix of quantitative (hours of operation, travel time) and qualitative (rider comfort, appearance) measures. In that sense the level of service measurement for transit factors in quantifiable measurements and also measures the **quality of service.**

The two bicycle measures most commonly used nationally both reflect *quality of service*, and account for various street design (posted speed,

number of travel lanes, presence of bicycle lane) and motor vehicle traffic operations (speed, volume, percentage heavy trucks). Bicycle quality of service results are expressed on a scale of A through F, A being the best condition for bicyclists. These measures do not, however, consider direct bicycle operations in terms of either bicycle speed (free-flow vs. congested) or capacity.

There are also two recognized performance measures for pedestrian systems. The pedestrian *level of service* measure described in the current Highway Capacity Manual focuses exclusively on the capacity of sidewalks in terms of pedestrian volume-to-capacity. The second is quite similar to bicycle *quality of service* measures, by accounting for street and pedestrian design features (presence and width of sidewalk, number and width of travel lanes, presence of bike lane or on-street parking as buffer) and motor vehicle operations (volume, speed, number of travel lanes). The *pedestrian quality of service* results are expressed on a scale of A through F, A being the best condition for pedestrians.

Another term that needs defining is "strategy." Appendix A makes the distinction between terms that describe what a city might want to achieve (e.g., goals, objectives, outcomes) and what actions it will take to achieve those its expressed desires (e.g., plans, strategies, policies, actions). In that context, the term strategy is commonly used to mean a high-level, long-run plan, while tactics are the shorter-run and more specific actions that are deemed consistent with and contributing to the strategy. This report uses strategy in that sense, but includes within the strategy some recommendations for specific policies or actions.

1.4.2 EVALUATION METHODS AND PROCESS

The fundamental method used to create the strategy presented in Chapter 3 of this document was the review of recent studies related to all aspects of transportation in Olympia. Much work has been done already on transportation in Olympia, primarily by the City, Intercity Transit, and the Thurston Regional Planning Council. Early in this project City staff and consultants concluded that the City already had most of the data, analysis, and policies that it needed for an integrated and multi-modal Transportation Mobility Strategy. The steps of this study derived from that conclusion:

1. Identify, assemble, review, and summarize recent and key reports or memoranda on transportation in Olympia. City staff and members of the Ad Hoc Transportation Advisory Committee (TAC) and the Resource Group[4] helped the consultants identify all the documents.

[4] See *Preface* for a list of the members.

This effort was Task 2 of the scope of work (presented to the ATAC in December 2008); Appendix G contains the consultants' summary evaluation of all the documents; Chapters references that summary.

2. Describe and get agreement on what a Transportation Mobility Strategy should contain, and on the transportation concepts, principles, and evaluation methods that it will incorporate. This effort was Task 3 of the scope of work; Appendix A describes the results. The ATAC approved the framework in December 2008.
3. Using the information from the first two steps, do an evaluation of Olympia's transportation system by travel mode (as defined above). Identify areas for policy improvement, and specify the potential improvements. Conduct a separate analysis of transportation funding sources. These efforts were Tasks 4, 5, 6, and 7 of the scope of work; Chapter 2 summarizes from the details in Appendices B, C, D, and E to create that evaluation.
4. Based on the evaluation in the third step, recommend a strategy and actions for the City that addresses all the study objectives. This effort was covered by Tasks 8 and 9 of the scope of work and is reported in Chapter 3 of this report.
5. In parallel with the steps above, consult with local experts, stakeholders, the City Council, and the public. This effort was Task 11 of the scope of work; Appendix I, *Outreach Activities* summarizes the project's program for involving these groups.
6. Summarize all the findings into a document suitable for public discussion and City Council deliberation. Tasks 8, 9, and 10 of the scope of work created various draft and final products, including material for the City's Mobility Workshop 30 March 2009. All comments received were evaluated and incorporated as deemed appropriate into this Transportation Mobility Strategy.

1.5 How is this document organized, and how will it be used?

This report includes recommendations for a Transportation Mobility Strategy, but is not the strategy itself. City Council will ultimately accept the City's final Transportation Mobility Strategy. The term strategy is commonly used to mean a high-level, long-run plan, which is distinct from the specific actions would contribute to the overarching strategy. This report uses strategy in that sense, but includes within the strategy some recommendations for specific policies or actions.

This report is not the strategy itself, but it is a set of recommendations with the relevant technical background that will facilitate discussion among City Council and the community. In that sense, this report is a decision-aiding tool, not a decision-making tool. It has two chapters in addition to this *Introduction* and is supported by eight appendices:

Chapter 2, *Existing Conditions and Policy Options*, summarizes the facts and expectations about Olympia's transportation system. It describes (1) the current state of the system, and (2) the likely future state of the system. Chapter 2 summarizes specific policy issues related to each travel mode and describes *potential* policy solutions across all modes and for funding.

Chapter 3, *Recommended Strategy*, draws from the previous chapters and appendices and includes policy solutions selected from the larger group of options described in Chapter 3. Chapter 3 is essentially a draft of the Transportation Mobility Strategy that is being forwarded to the City Council for its consideration.

Appendix A, *Evaluation Framework*, describes what an evaluation of transportation modes should aspire to, the realities of data and analytical techniques that constrain those aspirations, and techniques used in this evaluation. A key point of Appendix A is not just that such an evaluation is complex and requires many assumptions, but that the results the evaluation cannot be correctly interpreted without understanding its complexity, assumptions, and limitations.

Appendix B, *Motorized Travel*, evaluates Olympia's motorized system (motor-vehicle) and presents potential policy recommendations.

Appendix C, *Transit Evaluation and Master Plan*, incorporates a Transit Master Plan into the evaluation, which includes potential policy recommendations and actions for the City of Olympia.

Appendix D, *Non-Motorized Travel*, evaluates Olympia's non-motorized system (bicycle and pedestrian) and presents potential policy recommendations. Appendix D includes two technical attachments: (1) *Multimodal Level of Service and Concurrency*, which includes a technical analysis of potential multimodal level of service policy options; and (2) *Street and Non-motorized Connectivity,* which describes the importance of connectivity and includes potential options for implementation.

Appendix E, *Transportation Funding*, describes and evaluates existing and potential funding sources for transportation projects in Olympia for motorized and non-motorized travel modes

Appendix F, *Performance Measures*, discusses various ways transportation performance can be measured or estimated, and implications for selecting projects and programs.

Appendix G, *Washington GMA, Concurrency, and SEPA,* provides background on state requirements related to transportation planning.

Appendix H, *Connectivity,* provides more detail about one of the key recommendations of this report: adding measures of "transportation connectivity" to the criteria used for prioritizing transportation investments.

Appendix I, *Outreach Activities,* briefly describes the public outreach process for this project, including regular committee meetings, City Council meetings, and a community-wide Mobility Workshop.

Appendix J, *Documents Reviewed,* provides a list of Olympia's documents reviewed.

This report documents the process by which the consultants identified areas for policy improvement and evaluated options for strategies and actions that might be included in a final Transportation Mobility Strategy. That evaluation led to the strategy recommended in Chapter 3. Ultimately, however, it is the City Council that will decide on whether such a strategy is necessary and what it should contain. It may make changes to the strategy proposed in Chapter 3.

Thus, *this document is not the final strategy, but an interim document that provides most of the information the consultants, City staff, and the ATAC believe is needed to have an informed public discussion about the strategy*. If the City Council accepts a final strategy, it would probably be memorialized as a shorter document that describes the strategy (i.e., a revised version of just Chapter 3). Then this document would be a supporting reference for how and why that final strategy was chosen.

Chapter 2 Existing Conditions and Policy Options

This chapter summarizes facts and expectations about Olympia's transportation system. One cannot identify policy deficiencies without some description of (1) the current state of the system, (2) the likely future state of the system, and (3) policy options.

This chapter also describes a broad range of policies (i.e., public actions) that could be part of Transportation Mobility Strategy. Those policy options make up the basis for the recommended strategy in Chapter 3. This chapter is a summary: for more detail, see Appendices B, C, D, and E.

2.1 OVERVIEW

The decision to develop a comprehensive Transportation Mobility Strategy for Olympia was motivated by the City's desire for a sustainable transportation system with a balanced approach to all modes. The City's Comprehensive Plan has specific policies directing the City to reduce dependence on auto use and to support bicycle, pedestrian, and transit use. To recommend ways the City can best achieve its transportation goals, it is necessary to understand how existing transportation policy does or does not achieve the City's goals. One can then identify policies that could increase the probability of achieving those goals.

Task 2 of the Scope of Work was to review and evaluate Olympia's existing plans for consistency with the Comprehensive Plan policies, look for relationships between plans and identify missing elements in the current approach to establishing transportation priorities. Olympia's existing (de facto) mobility plan comprises over 60 separate plans and documents. The full list of documents reviewed is contained in Appendix J, *Documents Reviewed*. This chapter describes (1) the current state of the system, (2) the likely future state of the system, and (3) policy options. This chapter provides context for the recommendations in Chapter 3.

The City of Olympia, Thurston Regional Planning Council, and Intercity Transit have developed a diverse and comprehensive body of relatively recent plans and documents that provide transportation policy direction and prescribe non-transportation policies that directly impact the transportation system (e.g., ones relating to land use). The policies contained in existing plans and documents can be divided into five categories: those dealing with (1) motor vehicles, (2) pedestrians, (3) bicycles, (4) transit, and (5) funding.

The many existing plans and policy documents are generally consistent in the Comprehensive plan's underlying policy goals to reduce dependence on the automobile and shift towards a more balanced, multi-modal transportation system. They are a solid policy foundation the City can build on to achieve its transportation goals. The weaknesses (or gaps) identified include the need to define level of service and quality of service policies, refine performance measures, and identify additional steps to strengthen the relationship between transportation and land use.

The following sections address each mode and funding separately.

2.2 MOTORIZED TRAVEL

Motorized travel means travel by automobile and trucks, and the physical system (streets) they use. This section refers to streets in the context of motorized travel, recognizing that streets are used by all modes, including pedestrians, bikes, and transit.

2.2.1 EXISTING AND LIKELY FUTURE CONDITIONS

As in most US cities, land use patterns in Olympia make motor-vehicle travel the most prevalent mode. It is the most well-defined, measured, planned for, and funded. "Existing conditions" of the motorized system covers not only the physical condition of the system (e.g., of the streets, traffic lights, etc), but also how well the system performs for users (e.g., how much congestion is there?).

The presence of congestion is a common indicator of the existing condition (or performance) of the motor-vehicle system. In Washington performance is measured using vehicle level-of-service (LOS) standards. In addition to travel-time performance, other factors describe the existing condition of the motor vehicle system, including (1) how much the motor-vehicle system is used (e.g. vehicle-miles-traveled per capita), (2) street design (e.g. the number of lanes, lane width, bike and pedestrian standards), (3) safety (measures by crashes and fatalities), and (4) pavement condition. A related measure of existing conditions is mode-share: the share of all transportation trips taken in motor vehicles (and particularly as drive-alone trips). Mode-share implicitly incorporates multi-modes and is a key factor in understanding how the interaction among modes can improve the way the system works for motor vehicles. That is, a reduction in the share of trips taken by motor vehicles (i.e., a mode-share shift) may improve the system for motor vehicles.

The factors describe in the paragraph above are addressed in more detail below:

- **Level of service (LOS).** Level of service standards for motor vehicles in Olympia are established to be consistent with concurrency requirements:[5] "Concurrency " is a requirement of state law. Local governments subject to the requirement (including Olympia) must insure that they make transportation improvements to accommodate growth in a timely manner. Olympia's concurrency ordinance prohibits development approval if the development causes the level of service on a transportation facility to decline below the standards adopted in the Comprehensive Plan and there is no accompanying plan to retain. The question for existing condition: has the City maintained these adopted standards for level of service?

  Olympia's concurrency measure is focused exclusively on motor vehicle performance over a peak two-hour period and has two key standards:

  - LOS E for downtown and high density corridors
  - LOS D for remainder of the city and urban growth areas, some intersections at LOS F ("exception sites")

  According to the City's *2007 Concurrency Report*, the City is on track to maintain motor vehicle level of service requirements for the next six years as long as the projects identified in the Capital Facilities Plan to meet concurrency are funded and completed in that timeframe.

- **Vehicle miles traveled per capita (VMT).** The Regional Transportation Plan evaluates regional travel characteristics and compares current and future VMT estimates based on several long-range land use and growth scenarios.

- **Mode-share**. Olympia's Comprehensive Plan identifies a future target mode share of 60% drive alone. The Olympia Commute Trip Reduction Plan (citywide) is being prepared and will be presented to Council in mid-2009. The CTR law specifies that all jurisdictions now have a goal of a 10% reduction in the drive alone rate by 2011. For Olympia, the 2007 (last survey) drive alone rate was 74.4% so the citywide goal is a 67% drive alone rate.

- **Street design.** The City's standards for street design for arterials, collectors, and local streets were updated in 2006 to focus on sustainable and human scale design, emphasizing reduced lane

[5] Olympia's concurrency ordinance states that: "(1) development is not allowed unless (or until) transportation improvements or strategies to provide for the impacts of the development are in place at the time of development or within six years of the time the project comes on line and (2) annual review of the concurrency management system is required along with the annual review and update of the *Capital Facilities Plan* (CFP) and transportation element of the Comp Plan.

widths, speed limits and curb intersection radii. Arterial streets are limited to four travel lanes for through movement, have maximum design speeds of 35 mph, and must have bicycle, pedestrian, and transit-access facilities. These recently adopted street design standards will ultimately help the City realize its multi-modal goals.

- **Street pavement standards** in Olympia target having 100% of the City's street lane miles in good or fair condition. Through its Street Repair Program, the City has recently made significant progress toward improving the quality of its current street pavement. In 1999, 57% of Olympia's street lane miles were in good or fair condition. By 2006, approximately 82% of the City's streets were in good or fair condition. While this does not achieve the goal of 100% benchmark set by the Street Repair Program, it represents a significant improvement from 1999 levels, when the goals were first established. This improvement required significant local investment. Similar funding levels will be required to sustain the quality of the City's existing street system.

2.2.2 ISSUES / GAPS

The City has established a goal to reduce reliance on automobile trips and has implemented some policies that will both move it toward that goal and improve the motorized system. Rather than widening multi-lane arterials, the City is moving towards accommodating the impacts of growth by adding capacity through system management techniques like "Smart Corridors" and completing its streets with bicycle and pedestrian facilities. The City looks to concentrate future growth into these corridors and other close-in areas where transit, biking and walking are viable alternatives to driving.

The key issue (or challenge) is how the City can reduce reliance on motor-vehicle travel without either reducing or failing to improve the level-of-service in ways that are unacceptable to users of motorized vehicles or in conflict with state requirements for transportation improvements concurrent with growth. Construction of new motor-vehicle capacity, along with maintenance of existing motor-vehicle facilities, will continue to require significant local investment. The City's general revenue program will be less able to maintain support of the Concurrency Program over the next 20-25 years, as it is reliant on less predictable grant funds to match transportation impact fees for street capacity improvements. Olympia has a transportation impact fee that is based on a six-year Capital Facilities Plan that is updated annually. Using a six-year project list may miss the benefits of developing a new corridor or widening other corridors to serve traffic generated in the near term, which underestimates the actual impacts of growth and the need for transportation improvements. Additionally,

transportation impact fees (both the rate charged and the revenue generated) can vary widely from year to year. For instance, if an expensive improvement is added to the six-year list in one year, the impact fees would increase. Similarly, the impact fee would decrease if the costs of a more expensive project were removed after completion. It is not equitable to have similar developments pay significantly different transportation impact fees from year to year. Further, completed projects and their costs are removed from the list even though future growth will benefit from improvements. The Growth Management Act allows transportation impact fees to include previously completed improvements to the extent that they serve future growth.

2.2.3 POLICY OPTIONS AND PRELIMINARY RECOMMENDATIONS

Olympia's transportation plans are of high quality, but some refinement is needed in the areas of street connectivity, concurrency (level of service standards and transportation impact fees), street typology, and smart corridors.

- **Street connectivity and Complete Streets**. Higher levels of street and non-motorized connectivity can reduce motor vehicle travel per capita and increase safety for all modes of travel. Mode-share shift and safety improvements are most pronounced when higher levels of street and sidewalk connectivity on a system-wide basis occur in conjunction with higher density and mixed-use land uses. Much of Olympia's current policies already reflect the concept of "Complete Streets." The City can formalize this concept through Complete Streets policies. Example policies are provided in Appendix B, *Motorized Travel.*
- **Street typology overlay.** Street typology overlays can help guide land and street network redevelopment where current right-of-way is limited and/or the street system is already established. Street typologies help define more unique street use and design features (e.g. intersections, sidewalks, bus stops etc) that support adjacent land uses. Land under redevelopment or anticipated for future redevelopment with increased density and areas where frequency of transit is expected to increase also benefit from street typologies. A street typology applied to Olympia's arterial street classification would identify special design features that provide greater space for pedestrians, bicycle facilities, or operational (special traffic signals) or right-of-way enhancements (transit bypass lanes).
- **Concurrency/level of service policy refinement.** Some regions in the northwest have concluded that it is too expensive and also undesirable to build their way out of congestion. Policies and plans

were tested to apply less rigid performance measures, recognizing that building additional capacity (e.g. more lanes) is not only expensive, but can also have significant adverse environmental and land use impacts. The intent of refining LOS standards is to balance the needs for motor-vehicle traffic flow with other needs, such as the streetscape quality, livability, and affordability. For example, a level of service "F" could be deemed tolerable during the evening commuter peak area in the downtown or high-activity area as long as (1) off peak conditions are better than LOS "F" and (2) there are system facilities in place, or plans for, streetscape designs that expand pedestrian, bicycle and transit access in the immediate area.

- **A 20-year Transportation Impact Fee**. Olympia currently employs a 6-year Capital Facilities Plan-based transportation impact fee that is updated annually. If an agency develops a 20-year transportation element that is consistent with the land use plan, the 20-year horizon will identify all growth related improvements that are needed to serve that growth. This would require modifications to the Comprehensive plan to include new land use forecasts or modified transportation project lists. A 20-year horizon would provide a consistent basis for identifying growth-related improvements and allocating costs to development.
- **Multi-modal level of service.** Olympia's Comprehensive Plan includes a policy to consider multi-modal level of service measurements. Appendix F, *Performance Measures* includes a detailed analysis of research and implementation of multi-modal LOS standards around the country. The key conclusion is that there are inherent limitations in multi-modal LOS measurements: no single and comprehensive multi-modal LOS measurement tool is easily defined or applied. Multi-modal evaluation requires practical data and resources and must be transparent, replicable, and consistently applied. Some measures may be difficult to integrate into concurrency programs. *Appendix F, Performance Measures* describes the challenges of a multi-modal level of service in more detail.

Appendix B, *Motorized Travel* includes a detailed analysis of the existing conditions, gaps, and policy options briefly described in this section.

2.3 TRANSIT

2.3.1 EXISTING AND LIKELY FUTURE CONDITIONS

The transit system in Olympia is operated not by the City but by Intercity Transit (IT), a regional agency established in 1980.[6] Intercity Transit's service area includes the urban areas of Olympia, Lacey, Tumwater, and Yelm. IT is governed by an eight-member board consisting of elected officials from the jurisdictions in its service area (including Thurston County) and three citizen representatives.

In summary, the existing conditions of the transit system are:

- The transit system has fixed-route bus service: 22 routes on weekdays, 18 routes on Saturdays, and 14 routes on Sundays. IT runs a specially branded frequent service route between the Capitol Campus and downtown Olympia called "DASH."
- The entire bus fleet is ADA accessible and all fixed-route coaches are also equipped with bicycle racks on the front. Dial-A-Lift paratransit service is provided for qualified ADA recipients not able to use regular bus service.
- An existing conditions report prepared in 2005 found that ridership on the IT system was 11,027 per weekday, Saturday ridership averaged 5,445 per day, or 40% of the weekday average daily ridership, and Sunday averaged 2,652 boardings, or 24% of weekday ridership. A high percentage of transferring passengers was attributed to the system design, which emphasized timed transfers at the major system transfer points[7].In 2008, total boardings for IT totaled 5,141,958. Fixed-route service accounted for 4,318,859 boardings (84%), Dial-A-Lift service 133,847 (3%), and vanpools 689,232 (13%).
- Customer satisfaction ratings have improved since 2004. Intercity Transit measures performance based on Washington State Department of Transportation reporting requirements and by annual customer satisfaction surveys. The most recent customer satisfaction survey was conducted in 2008.
- Intercity Transit plans to expand service in targeted areas between 2009 and 2011: Hawks Prairie north of I-5, Horizon Point, Littlerock Road/West Tumwater, and Marvin/Mullen Corridor.

[6] Intercity Transit is the business name for the Thurston County public Transportation Benefit Area (PTBA).

[7] 2005-2011 Intercity Transit Short-Range Service Plan, prepared by Perteet, published August 2005.

- Like most transit agencies, Intercity Transit's existing performance measures are largely oriented toward usage (passenger trips per hour of revenue service), efficiency (cost per passenger trip), and safety (accidents per 1,000 miles).
- Intercity Transit is involved with land-use permitting decisions with the goal of increasing opportunities for public transit as land use and urban design decisions are made. The agency's Land Use Review and Support program allows IT staff to review development proposals during the permitting process and request transit support facilities if necessary.
- Intercity Transit is funded primarily through local sales tax revenues, followed by federal funds, fares, state funds, and advertising funds. A voter-approved 0.1%-0.3% increase in local sales tax would be the only significant source of new funds from 2009-2014.

2.3.2 ISSUES / GAPS

The key issues for transit are how to better integrate land use policy with future transit service allocation and capital investments and better match pedestrian and bicycle priorities and key transit corridors:

- Residential growth at the edges of the service area and infill create increased service demands that do not always match. Residents of developing neighborhoods request new bus routes while those in established neighborhoods want existing services to operate more frequently or later at night.
- Zoned maximum densities along key transit corridors are not consistently adequate to support frequent service (every 15-minutes or better) that run for long hours and on weekends.
- A land use analysis conducted for Intercity Transit (IT) concluded that in general, densities in the downtown and established areas, arterial corridors (e.g. Capitol Way) are supportive of transit, although newer residential growth tends to be lower density and more difficult to serve. Regional growth projections show little increase in overall population and employment density citywide.
- The area within IT's service boundary is expected to remain primarily suburban with the exception of downtown Olympia, the Martin Way and Capitol Way corridors, and parts of Lacey. Most residential areas are expected to remain low density and there will be large areas with no mixed-use centers.
- IT's performance measures are focused on data collection to satisfy state reporting requirements and result in tracking performance by comparing to transit agency peers, rather than focusing on how

transit is supporting local growth management and modal shift goals.

- Olympia's concurrency system focuses exclusively on motor-vehicle trips. Impacts on the public transportation system are invisible in the current measurement system, with no way to distinguish between land use development in transit strategy corridors with beneficial impacts for transit, from those in low density areas with detrimental impacts.
- There are gaps in the sidewalk network along and leading to transit routes, particularly in lower density neighborhoods. Sidewalk enhancements to increase the speed of operation, such as transit stop bulb-outs do not exist in many transit corridors.
- Bicycle parking near transit stops is deficient outside of downtown.
- While the City of Olympia and Intercity Transit work cooperatively on short-term issues such as development review, there is less coordination of long-term planning and land use development. This reduces the viability of meeting long-term planning goals to create dense, walkable neighborhoods that are supportive of a level of transit service people can organize their lives around.

2.3.3 POLICY OPTIONS

This section describes the policy options, changes, or initiatives the City of Olympia can take to support transit priorities. The options below are described in detail in Appendix C, *Transit Evaluation and Master Plan.*

- **Develop and approve a Community Transit Network (CTN).** Establishing a City of Olympia CTN helps the City to focus land use planning and zoning changes along identified corridors where future transit service capacity and quality is guaranteed. The CTN is not intended to be a separate route system; rather it focuses on key corridor segments and connections that, no matter how they are served, will form a high-quality network of transit services in Olympia. The CTN should be established and formalized through a joint agreement between IT and the City of Olympia, with efforts to include Lacey and Tumwater.
- **Encourage transit-supportive density and land-use patterns along CTN corridors.** Zoning should encourage or require a mix of uses (e.g., housing, office, retail) and denser buildings and land uses in these corridors. Residential densities should be at least 4.5 to 7 units per net acre (a minimum threshold for adequate transit performance). Zoning along CTN corridors should be changed to reflect higher densities.

- **Locate transit-dependent uses on the CTN.** Transit-dependent uses should locate on the CTN, or in other areas with established service. The best way to ensure quality transit service must be to locate on the CTN. The next best way is to locate on another existing transit route.
- **Consider refinements to Olympia's concurrency program**. The concurrency program could be refined to be more multi-modal and better support transit by revising concurrency measurement to count people trips rather than vehicle trips, allowing multi-modal infrastructure as concurrency mitigation, and allowing transportation demand measures as concurrency mitigation.
- **Consider refinements to Olympia's transportation impact fee program to** revise and adopt plans to add CTN capital improvements as Transportation Impact Fees eligible projects.
- **Coordinate with neighboring jurisdictions.** Much of the region's planned growth is outside City of Olympia boundaries. Auto-oriented suburban development in neighboring communities will put pressure on Olympia's roadway system and devalue investments in public transportation because transit is unlikely to be the mode of choice for most people traveling to or through Olympia from these new growth areas. An obvious starting place for the boundaries relevant to such a coordination effort are those of the Thurston Regional Planning Council (TPRC), which include not only Tumwater and Lacey, but growing areas in the County.
- **Adopt street typologies**. A street typology overlay would act much like a zoning overlay for a special use and would serve as assurance that any street design or changes would allow transit to continue to meet basic CTN performance criteria. The street typology overlay could contain provisions for lane widths, intersection design standards, sidewalk standards, and bicycle accommodations that limit conflict with transit vehicles. The typology overlay would be applied to existing streets where physical limitations (such as limited right-of-way) require special planning to assure support for all users as redevelopment occurs.
- **Check pedestrian-oriented design** during development review. This process allows the City to ensure that the proper design treatments are applied to individual private development projects.
- **Consider requiring bicycle racks at bus stops.** Bicycle racks are an important at bus stops because they help to provide a supportive environment for bicycling and transit use. For those traveling outside of the City or across town, biking to high-quality transit could provide a good alternative to driving. Since Intercity Transit is

not able to accommodate a large number of bicycles on its bus racks, providing bicycle parking at CTN stops is a critical aspect to increasing bicycle and transit use.

- **Implement TRPC Smart Corridors**. Smart Corridors is a traffic signal timing and transit signal priority program that improves traffic flow. TRPC is currently evaluating the program in two corridors: Martin Way/State Avenue/4th Avenue, from Marvin Road to the Olympia Transit Center and Capitol Way, from State Avenue to Tumwater Boulevard. The Smart Corridor concept will be important for the City and Intercity Transit to consider within Primary Transit routes.

These policies are described in detail in Appendix C, *Transit Evaluation and Master Plan*

2.4 NON-MOTORIZED TRAVEL

In 2007, approximately 74% of trips in Olympia were taken as drive-alone trips. The City's goal is to reduce the share of drive-alone trips to 60% (67% to meet Commute Trip Reduction goals). This is what the Comprehensive Plan policies refer to as multi-modal balance. Non-motorized travel is a key element in achieving this balance.

Travel behavior is sometimes simplified incorrectly by assuming that trips by different modes are a uniform commodity and, by implication, that if people cannot take one mode they will take another. That assumption leads to a conclusion that a shift in mode does not change the total number of trips. Real behavior, however, is more complicated than that for many reasons. What happens in the short run may not be the equilibrium in the long run: in the long run people can more easily change origins, destinations, time of travel, and modes. Moreover, if some people switch from driving to alternative modes, for whatever reasons, travel times by driving are modestly improved, and that improvement may attract new trips. How any specific policy to increase travel by alternative modes might affect total driving trips, time, and congestion depends very much on the details of the policy and often requires the use of travel demand models to sort out the resulting new travel patterns. Such modeling is beyond the scope of this report.

The evaluation of non-motorized travel, Appendix D, *Non-motorized Travel, c*onsiders bicycles and pedestrians as well as the physical system that supports non-motorized travel. In addition to bicyclists and pedestrians, the four major components of the non-motorized system are

(1) bicycle lanes, (2) sidewalks, (3) crossings, and (4) trails. All of these include the provision of accessible infrastructure.

2.4.1 EXISTING AND LIKELY FUTURE CONDITIONS

Olympia has completed high quality non-motorized planning efforts which are based directly on the Comprehensive Plan vision. The bicycle and pedestrian systems are generally well-defined, measured, and planned for as a result of extensive planning efforts completed by the City.

- Olympia's Comprehensive Plan calls for bicycle lanes on all arterials and major collectors (and some neighborhood collectors). Approximately 56% of Olympia's arterial streets (14 miles) and 42% of major collector streets have bicycle lanes (18 miles), for a total of 32 miles of bicycle lanes. The Bicycle Master Plan, updated in 2008, calls for an expanded network on major streets.
- The City's Sidewalk Program is consistent with the Comprehensive Plan by identifying projects and priorities to complete sidewalks on arterials and collectors. There are approximately 72 miles of sidewalks along arterials and collectors, leaving 84 miles of missing sidewalks on those street classifications (local access streets, which make up 57% of the total street system, are not included, except for certain priority routes).
- The City's Pedestrian Crossing Improvement program promotes walking in the City by improving street crossings at specific locations.
- The Comprehensive Plan prioritizes trails that provide a direct connection to downtown and high-density corridors, thus allowing bicyclists to avoid difficult intersections and corridors.
- The City's Neighborhood Connections Study recommends prioritized short-cut paths for bicyclists and pedestrians that can reduce route distances. In addition, these connections have been mapped.

2.4.2 ISSUES / GAPS

The key issues for non-motorized modes are (1) improving connections to help achieve the mode-share goal, (2) better integrating land-use policy with future non-motorized priorities, and (3) finding a way to fund the system. The overarching need is for greater pedestrian and bicycle connectivity to help the City reach its transportation and vision and goals. Land-use policy can help achieve that connectivity and accessibility by getting more trip origins and destinations closer together. The larger issue for non-motorized planning and policy is not the lack of system performance measures or benchmarks, but the lack of sufficient funding

and funding mechanisms to manage growth while programmatically completing its plans.

2.4.3 POLICY OPTIONS AND PRELIMINARY RECOMMENDATIONS

Although Olympia's non-motorized plans collectively define well-connected pedestrian and bicycle networks within the urban area, supplemental policies are needed to ensure critical non-motorized connectors are completed as development occurs. This section includes a broad list of policy options and brief summary of recommendations for policy and program refinement in the following areas: connectivity, street typology, and a modified multi-modal level of service measurement.

Chapter 1 notes the potential, if not likely, tradeoffs between increasing travel speeds for cars and making streets safe and efficient for other travel modes and conducive to other economic and social activities. Those tradeoffs are there because motorized and non-motorized travel and policy interact. Thus, it is not surprising that the policies in this section have many similarities to those in the earlier section on motorized travel: trying to reduce motorized travel means, in part, having policies that encourage non-motorized travel:

- **Adopt complete streets policies**. Complete streets are designed and operated to enable safe and efficient access for all users: pedestrians, bicyclists, motorized and transit riders of all ages and abilities. Creating Complete Streets means transportation agencies must shift some of the emphasis away from motor-vehicles. Many of Olympia's current policies and programs already reflect the Complete Streets concept. The City can formalize this concept through Complete Streets policies. Example policies are provided in Appendix D, *Evaluation of Non-motorized Travel.*
- **Enhance connectivity.** Olympia should consider connectivity policies that emphasize connections from the street system to activity centers, new developments with adjoining land, and between existing trails and sidewalks. In addition, policies should help implement maximum block length standards, required public access way requirements, and maximum street-width requirements. The City should consider using connectivity measurements to help prioritize non-motorized and trail network improvements. These policies are explained in detail in Appendix D, *Non-motorized Travel.*
- **Complete a full pedestrian system plan.** Olympia currently has plans for different components of the pedestrian system. Olympia should consider preparing a pedestrian system plan (similar to the Bicycle Master Plan) that identifies system-wide pedestrian

crossings, prioritized improvements (with mapping), and planning-level cost estimates for improvements.

- **Refine concurrency/level of service policy.** Communities in the Thurston region and around the northwest have concluded that it is too expensive and also undesirable to build their way out of congestion. Policies and plans were tested to apply less rigid performance measures, recognizing that building additional capacity (e.g. more lanes) is not only expensive, but can also have significant adverse environmental and land use impacts. The intent of refining LOS standards is to balance the needs for motor-vehicle traffic flow with other needs, such as the streetscape quality, livability, and affordability. For example, a level of service "F" could be deemed tolerable during the evening commuter peak area in the downtown or high-activity area as long as (1) off peak conditions are better than LOS "F" and (2) there are system facilities in place, or plans for, streetscape designs that expand pedestrian, bicycle and transit access in the immediate area.
- **Use a street typology overlay.** Street typology overlays can help guide land and street network redevelopment where current right-of-way is limited and/or the street system is already established. Street typologies help define more unique street use and design features (e.g. intersections, sidewalks, bus stops, etc.) that support adjacent land uses. Land under redevelopment or anticipated for future redevelopment with increased density and areas where frequency of transit is expected to increase also benefit from street typologies. A street typology applied to Olympia's arterial street classification would identify special design features that provide greater space for pedestrian and transit access within certain areas (such as transit station areas). (The street plan for West BayDrive is an example of this type of planning work.)
- **Employ a multi-modal level of service.** Olympia's Comprehensive Plan includes a policy to consider multi-modal level of service measurements. Appendix F, *Performance Measures* includes a detailed analysis of research and implementation of multi-modal LOS standards around the country. The key conclusion is that there are inherent limitations in multi-modal LOS measurements: no single and comprehensive multi-modal LOS measurement tool is easily defined or applied. Multi-modal evaluation requires practical data and resources and must be transparent, replicable, and consistently applied. Some measures may be difficult to integrate into concurrency programs.
- **Consider development mitigation to enhance the non-motorized system.** Olympia could consider increasing non-motorized system

improvements through development mitigation—e.g. through the Transportation Impact Fee program, Concurrency, or SEPA regulations. Appendix G, *Washington GMA, Concurrency, and SEPA,* describes these options in more detail.

Appendix D, Non-motorized Travel describes these policy options in more detail.

2.5 TRANSPORTATION FUNDING

2.5.1 EXISTING AND LIKELY FUTURE CONDITIONS

Funding for transportation in Olympia comes from a mix of federal, state, and local revenue sources that go into accounts used to pay for capital and operating expenditures for the motor-vehicle, bicycle, and pedestrian systems. Appendix E, *Funding*, describes how transportation funding works in Olympia and evaluates funding sources for motorized and non-motorized travel modes. Its main points:

- The City's efforts to plan for and fund transportation programs and projects are summarized in two documents: the Operating Budget for the Transportation Line of Business, and the Capital Facilities Plan (CFP). The CFP is split into two categories: (1) projects that can be funded with transportation impact fees, and (2) projects that cannot be funded with transportation impact fees.
- Expenditures for non-impact-fee-based projects and programs are funded through a variety of funding sources. The Capital Improvement Program (CIP) fund (funded by a tax on property *sales* (the Real Estate Excise Tax, or REET) and utility tax revenues) makes up the largest share of funding, followed by a voter-approved utility tax and gas tax revenues.
- Expenditures for impact-fee-based projects are funded primarily through the City's Transportation Impact Fee (TIF, which is charged to new developments as a condition of getting a permit to build), state and federal grants, and SEPA mitigation fees. There is variation in expenditures across years for impact-fee-based project expenditures, due mainly to fluctuations in grant funding and transportation impact fee revenues.
- The City spends about $4—$6 million per year for operations and another $5—$13 million on programs and new construction projects (both impact fee and non-impact fee based projects).
- As a broad summary, the Capital Facilities Plan for 2009-2014 shows about $140 million of desired expenditures over six years, about $23

million per year. It shows funding of about $95 million, about $16 million per year. Over the six-year period, the average difference between desired expenditures and identified funding is about $7 million per year.

2.5.2 ISSUES / GAPS

Olympia, TPRC, and IT have a good grasp of state and federal revenue sources and are probably getting about what they can. Olympia requested funds and received funds through the economic stimulus program for approximately $1.2 million to fund a pavement preservation project. Additional funds from the economic stimulus package may become available to Olympia, but such funds will likely go to transportation projects already in plans of the state, TRPC, and IT. Thus, most of the gap between the cost of desired projects / programs and the revenue to pay for them will have to be filled from local sources:

- About two-thirds of local transportation spending is funded by local revenue sources.
- Olympia has been proactive in looking for ways to get dedicated (local) funding for transportation from users of the street system. It recently increased its Traffic Impact Fee and adopted a new Transportation Benefit District. The good news is that Olympia has probably been able to do a better job than many other jurisdictions of maintaining its level of service (i.e., keeping up with growth, as required by state policies on "concurrency") and of doing cost effective system maintenance (e.g., sealing cracks, resurfacing). The bad news is that it probably has more and higher local transportation fees than some other cities in the state, so it may have more limited headroom for increasing fees or adding new ones.
- Total known sources of funding are less than what is needed to fund desirable improvements and levels of maintenance. Almost every city in the country of over 50,000 people has the same problem, and it can probably never be eliminated: desirable projects may be forecasted out for 10 or 20 years, but most known revenues extend out less than half that period.

2.5.3 POLICY OPTIONS AND PRELIMINARY RECOMMENDATIONS

The policy options for matching expected funding to expected expenditures fall into four broad categories:

- **Increase fees for existing funding sources.** Some existing local funding sources can more easily be increased than others. Appendix E, *Funding*, suggests that Parking Fees, Stormwater Utility Rates, and

Transportation Impact Fees are more flexible relative to other revenue sources: the City is legally allowed to increase these sources. This does not necessarily mean, however, that increases to these revenue sources will generate every dollar required to fund desired future projects and programs, that such increases will not have other undesirable or unintended consequences, or that increasing these sources will be politically acceptable.

- **Add new funding sources.** There are new sources of revenue the City can legally implement that it currently does not use. These include a Commercial Parking Tax, Local Improvement Districts (LIDs), and a Motor Fuel Tax-Local Option for Counties. The City recently established a Transportation Benefit District, which is included in the "new" category because the administrative procedures for implementation have recently been finalized. New revenue sources, if they were all adopted and implemented at the rates simulated in Appendix E, could generate approximately $1.7 million per year for transportation projects (not including LIDs, which can generate as much as benefited properties are willing to pay). The City could also consider opportunities for leveraging community organizations. Coordination with community, neighborhood, and volunteer organizations can represent an opportunity for the City to leverage volunteer work and/or donations to help fund and complete priority community projects, particularly bicycle and pedestrian connections.
- **Reallocate existing funding.** Funding for transportation in Olympia comes from a variety of revenue sources that filter through different accounts. Some funds are more flexible than others. For instance, transportation impact fees can only be used to fund projects in the Impact-Fee-Project list of the Capital Facilities Plan. Gas Tax revenues cannot be used for stand-alone bicycle, pedestrian, and transit projects. SEPA mitigation funds can only be spent on the specific project or development that triggered the fee. Alternately, stormwater utility rates, the utility tax, parking fees, (the Real Estate Excise Tax to a lesser extent) are more flexible funds, in that the City has relatively more local discretion over how the funds are used.
- **Scale back new projects and maintenance**. Depending on the type and scale of projects that would be eliminated or reduced, scaling back on new projects could have a variety of impacts on the system. Reducing or limiting new capacity projects for motor-vehicles could have a short-run impact on the performance of the system for motor vehicles and transit (e.g. safety and congestion), but also for bicycles and pedestrians, as many motor-vehicle capacity projects include bicycle and pedestrian improvements also. Scaling back on maintenance can impact the quality of the system for all users and

may ultimately increase the long-run costs of repairing or replacing facilities. The obvious drawback of this option is that the City has to forego the development of many desirable projects, many of which could be ones that may further the City's objective of improving facilities for alternative modes of travel.

There are no painless solutions to the funding gap. Resources (monies) are needed to run programs and to build and maintain facilities; federal and state sources have been decreasing as a percent of total; local governments will have to find ways to raise the revenues or cut back on desired expenditures. The citizens and City Council of Olympia have to evaluate the tradeoffs.

Not building all the desired projects does not mean that more funding for alternative modes is not possible. Appendix E suggests that there are ample opportunities to shift how funds get allocated. But such shifts will inevitably raise difficult questions about tradeoffs: between programs (e.g., ones that reduce transportation demand) and projects (e.g., new facilities); between maintenance and new facilities; between facilities for motorized travel and those for alternative modes. Some of those issues are addressed in the next chapter.

Chapter 3 Recommended Strategy

This chapter draws from concepts, data, and analysis in the previous chapter and in appendices to describe the recommendations for Transportation Mobility Strategy being forwarded to the City Council for its consideration. The recommendations are from the consultant team, but have been generally accepted by the Ad Hoc Transportation Advisory Committee that reviewed and commented on the consultants' work throughout the project.

3.1 INTRODUCTION

If Olympia's Transportation Mobility Strategy (TMS) is ultimately going to make any difference to mobility, it will be by changing the actions that the City takes regarding mobility and many related topics. In concept, any specific action the City might propose can be fit into one of the following general categories of actions:

- **Coordination**: getting everyone to cooperate, and to do so efficiently.
- **Planning**: identifying efficient opportunities for collective action
- **Funding**: rethinking existing funding priorities and potentially finding new sources
- **Investment**: building public facilities; providing public programs
- **Incentives**: giving financial incentives (direct or in-kind) to the private sector to provide the desired public facilities or programs
- **Regulation**: requiring the private sector, as a condition of development or other economic or social activity, to preserve or provide certain public facilities, amenities, or services, or to pay certain fees.

These categories of actions apply equally well to all fields and topics of interest or action. In the case of Olympia's TMS, the main fields for action (which correspond to some degree to different departments and divisions of City government) that will affect mobility are:

- Transportation (most obviously)
- Land Use
- Other Public Facilities and Services

Embedded in these categories are many other considerations discussed in the previous chapter: about cost and funding; and about tradeoffs between programs and facilities, maintenance and modernization, and auto and alternative modes.

These ideas suggest one way the policies recommended in the TMS can be organized: for each mode of travel, describe what potential actions are recommended in three different areas: actions that are primarily about (1) transportation, (2) land use, or (3) public facilities (other than transportation).

There are several options for grouping policies, and it is easy to get lost in the details of specific policies. The section that follows skips higher level groupings and simply discusses policies under headings that comprise related policies. But all of the recommendations in Section 3.2 can be fit into one of six key policy themes that are fundamental to the Transportation Mobility Strategy:

- Community Transit Network (CTN): Prioritize key transit corridors that link important activities
- Complete Streets: Make streets work for all modes
- Connectivity: Enhance connections for all modes
- Transportation Demand Management: Manage demand
- Funding: Find fair methods for adequately funding desired projects and improvements.
- Concurrency, Transportation Impact Fees, and SEPA: Integrate multi-modal solutions into Olympia's concurrency, TIF, and SEPA programs

Note the focus on policies related to demand management and alternative modes. The six policies above do not address one very important area for action: providing cost-effective, lifecycle maintenance for all City transportation facilities. Most planers, decisionmakers, and citizens accept the logic that preserving existing capacity should be a top priority, and that building new capacity should not be funded by skimping on cost-effective maintenance. In the context of this TMS, we assume that cost-effective maintenance is a City priority and that engineers in the Public Works Department have a program in place for dealing efficiently with facility maintenance.

3.2 ELEMENTS OF THE STRATEGY

3.2.1 MULTI-MODAL CORRIDORS (COMMUNITY TRANSIT NETWORK)[8]

This report identifies areas where the City can make strategic investments in the transportation system in order to improve multi-modal transportation options efficiently and effectively. To this end, we recommend targeting transportation improvements on key transportation corridors in Olympia. Today these corridors are major arterial streets that carry much of the motorized travel made in the City, link important activities and provide access to regional highways. The intent of designating these corridors is to focus on creating a balanced system of facilities that efficiently move people and not just motor-vehicles. In most of the designated corridors there is limited or no opportunity to expand the right-of-way to add vehicle travel capacity; furthermore, comprehensive plan goals to create more walkable communities and reduce carbon emissions suggest another approach. In order for Olympia to continue to grow and prosper economically, it must move in the direction of accommodating more high occupancy travel in these corridors and providing the quality walking experience needed to get people onto transit. That also means getting more high-density mixed-use development located along these corridors.

The proposed multi-modal corridor designation represents the primary transportation infrastructure for travel throughout the city. Not only will these continue to be primary auto- carrying arterials, but they must perform better at accommodating pedestrian, bicycle, and transit trips.

The Complete Streets model philosophy (described in Section 3.2.2) should be applied to multi-modal corridors. The approach has become a common way of moving the use of our urban streets away from auto-domination and balancing the need for bicycle, pedestrian, and transit movement. Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities are able to safely move along a complete street.[9] Complete streets are important for transit because the pedestrian network serves as the connective tissue of the transit system. Poorly planned access to bus

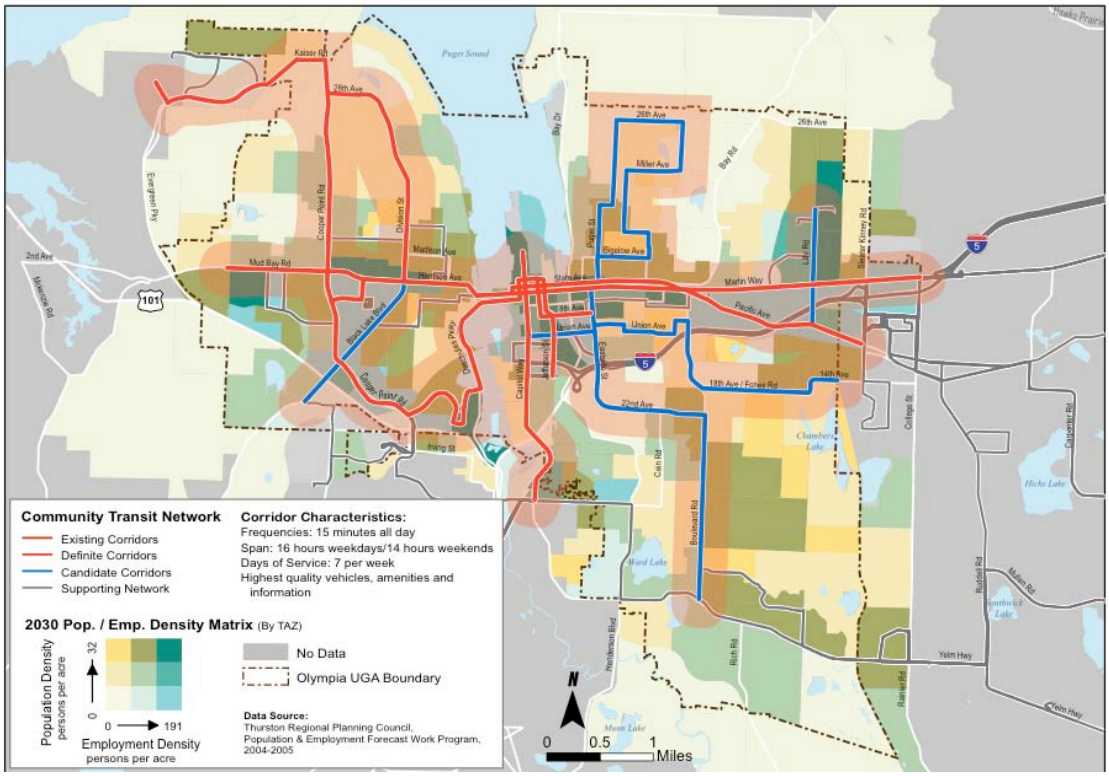
[8] In Appendix C and in other material presented to and discussion among the ATAC, the term "Community Transit Network" (CTN) was used. All that has changed here is the term "Multi-Modal Corridors" because it better describes the policies it comprises: those policies remain the same.

[9] Complete Streets , www.completestreets.org

stops can be a real barrier for disabled travelers as well as a psychological barrier for other travelers.

Exhibit 3-1 illustrates the identified corridors, which will be priority recipients of multi-modal transportation improvements and the focus for transit-supportive land use policies in the City of Olympia.

Exhibit 3-1. Multi-Modal Corridors (Community Transit Network)



Source: Appendix C, *Transit Evaluation and Master Plan*

The adoption of a multi-modal corridor strategy would require the City to carefully examine all modal elements when making changes to a designated corridor and encourage more detailed corridor studies that help to balance priorities and reevaluate the balance of modal investments in each corridor. Realistically, funding availability may dictate when improvements are made and for what mode. However, the multi-modal designation should help policymakers, planners and designers ensure that development and system changes do not exclude future improvements to other systems or degrade level of service or quality of service for other modes to an unacceptable level.

The City should consider refining its current street design planning and project priorities to prioritize improvements in multi-modal corridors. As an overarching strategy, the following elements should be considered for all multi-modal corridors. Some of these elements may already be in place,

and some may be mutually exclusive because of limitations in right-of-way width of existing street design.

- **Motorized Facilities.** Streets in multi-modal corridors should be configured to reduce congestion, support efficient bus boarding and travel, and accommodate safe pedestrian and bicycle trips. Improvements to motorized facilities should include those that increase efficiency within the existing right-of-way. Key strategy elements include:
    - Reconstructing roadways to reduce long-term maintenance and support multi-occupant vehicle use
    - Optimizing signal coordination and addressing intersection bottlenecks to reduce congestion
    - Implementing efficiency and safety improvements in the roadways
    - Designing roadways that accommodate safe bicycle and pedestrian travel in dedicated lanes and mixed-traffic.
- **Pedestrian Environment.** A safe and inviting pedestrian environment is critical for supporting not only walking, but also transit usage: almost all bus passengers begin and end their trip as pedestrians. Multi-modal corridors should provide a high-quality pedestrian experience, which means complete sidewalk networks, pathway connectivity, useful signage, and safe intersections and crossings. Key strategy elements include:
    - Identifying missing, damaged or otherwise substandard sidewalks along the corridors
    - Amending or installing sidewalks and ADA compliant curb cuts to ensure a continuous pedestrian connection throughout the corridors
    - Installing and upgrading wayfinding to support multi-modal transportation connections
    - Adding enhanced pedestrian crossings, which may include signals (and enhanced auditory signals for the visually impaired), where there is a need for safety improvements
    - Improving lighting along stretches of the corridor where its absence or low level reduces pedestrians' sense of safety
    - Installing buffers between pedestrians and traffic; planter strips, parking lanes, and wider sidewalks for an improved pedestrian experience

- Prioritizing areas around key transit stops and along corridors for pedestrian improvements, including handrails for sloped connections.
- Requiring that pedestrian-oriented design be considered during development review.

- **Bicycle Infrastructure.** Bicycles are a critical component of multi-modal corridors and must be accommodated with well-designed bike facilities. Bicycling can be an important way to link to transit service, especially for commuters, with the option of parking a bike for the day or using bus racks. Key strategy elements include:
  - Identifying and completing missing segments of bicycle lanes to provide a continuous connection throughout the corridor and to important transit linkages and points of interest
  - Ensuring that bicycle lanes are sufficiently wide and differentiated from neighboring traffic or bus lanes (colored pavement and symbols) to protect cyclists and promote a sense of safety. (In some cases where traffic speeds are slow – 11 to 14 mph – cyclists may prefer to mix with traffic rather than use dedicated bicycle lanes.)
  - Constructing underpasses or overpasses at high volume locations where needed to promote safety and connectivity (Martin way trail crossing is an example)
  - Installing sufficient bicycle parking at transit facilities and other activity centers.
- **Transit Service and Infrastructure.** Transit is an essential part of a multi-modal corridor and a high level of service and frequency is required to support it. Key strategy elements include:
  - Implementing high-frequency service along all multi-modal corridors (15-minutes or better all day).
  - Constructing enhancements at important high-frequency transit stops with connecting service. These "super stops" should include transit signs and schedules, wayfinding, platforms, lighting, shelters, benches, trash bins, etc.[10]
  - Improving efficiency of bus operations by implementing such methods as bus bypass lanes and signal prioritization for buses

[10] Wayfinding is the ability of a person to find his or her way to a given destination. While the words and graphics on signs are important to the process, wayfinding also depends on the information inherent in the environment's design (in this case a street's design).

- Creating policy framework that triggers review of signal and right-of-way enhancements in corridors when transit travel speeds or reliability drops below minimum standards
- Designing a plan for optimizing stop placement on the multi-modal corridors
- Reviewing City codes to ensure policies promote, require, and/or create incentives for developers to provide key stop amenities
- Building pedestrian curb bulb-outs at intersections with transit stops, particularly where lane widths allow cars to pass buses stopped at the curb.

- **Land Use.** Multi-modal corridor improvements should incorporate land use policies that support transit usage, biking, and walking. Increasing densities in Olympia beyond what is projected will be critical to realizing the benefits of the multi-modal corridors. Key elements of the strategy include:
  - Promoting land use developments that maximize opportunities for multi-modal integration and connection
  - Revising zoning to increase density to transit-supportive levels along the multi-modal corridors
  - Encouraging mixed use within buildings and within land use zones by updating and clarifying City code
  - Requiring transit-dependent uses such as state and local services facilities to locate along the multi-modal corridors
  - Providing incentives for developers to build high-density mixed-use buildings within convenient walking distance to transit corridors
  - Identifying and removing barriers that impede development of compact or transit-oriented development.
  - Pursuing public-private partnerships to stimulate redevelopment within existing corridors
  - Expediting development review and permitting of transportation-efficient development proposals as a market incentive

Exhibit 3-2: Summary of Multi-Modal Corridor Strategies

Motorized	Pedestrian	Bicycle	Transit	Land Use
• Reconstruct roadways to support multi-occupant vehicle use • Optimize signal coordination and address intersection bottlenecks • Implement efficiency and safety improvements • Design roadways that accommodate safe bike and pedestrian travel	• Identify missing and damaged sidewalks in corridors • Ensure a continuous pedestrian connection in corridors • Install or upgrade wayfinding • Add enhanced pedestrian crossings and signals • Improve lighting where necessary • Make pedestrian improvements at key transit stops and prioritized areas • Require that pedestrian-oriented design be considered in development review	• Identify missing segments of bicycle lanes in corridors • Ensure that bicycle lanes are designed to be wide enough and differentiated from neighboring lanes • Construct overpass or underpass at high volume locations • Install sufficient bike parking at transit facilities • Add “sharrows” (shared lane marking system) or bike guidance at intersections, wayfinding signage, and markings for signal detection • Connect and expand the trail network • Provide more connections to neighborhoods from arterials and major collectors	• Implement high-frequency service in corridors • Construct enhancements at super stops • Improve efficiency of bus operations • Create traffic policy framework to ensure minimum travel speeds • Optimize stop placement • Create incentives for developers to provide key stop amenities • Build curb bulbouts at intersections with transit stops	• Promote land use that maximizes opportunities for multi-modal integration • Revise zoning to increase density to transit-supportive levels in corridors • Encourage mixed uses within buildings and within land use zones by clarifying code • Require transit-dependent uses to locate along multi-modal corridors • Provide incentives for developers to build high-density mixed-use near corridors • Pursue public/private partnerships • Expedite development review

Source: Appendix C of this report, and subsequent additions by ATAC and consulting team

3.2.2 COMPLETE STREETS

Through its existing plans, policies and urban street design standards Olympia has already employed the foundational elements of Complete Streets. Olympia can formalize the concepts of Complete Streets through a simple and succinct policy declaration, such as:

> "*Olympia designs and operates its transportation system to enable safe access for all users: pedestrians, bicyclists, motorists and transit riders of all ages and abilities*."

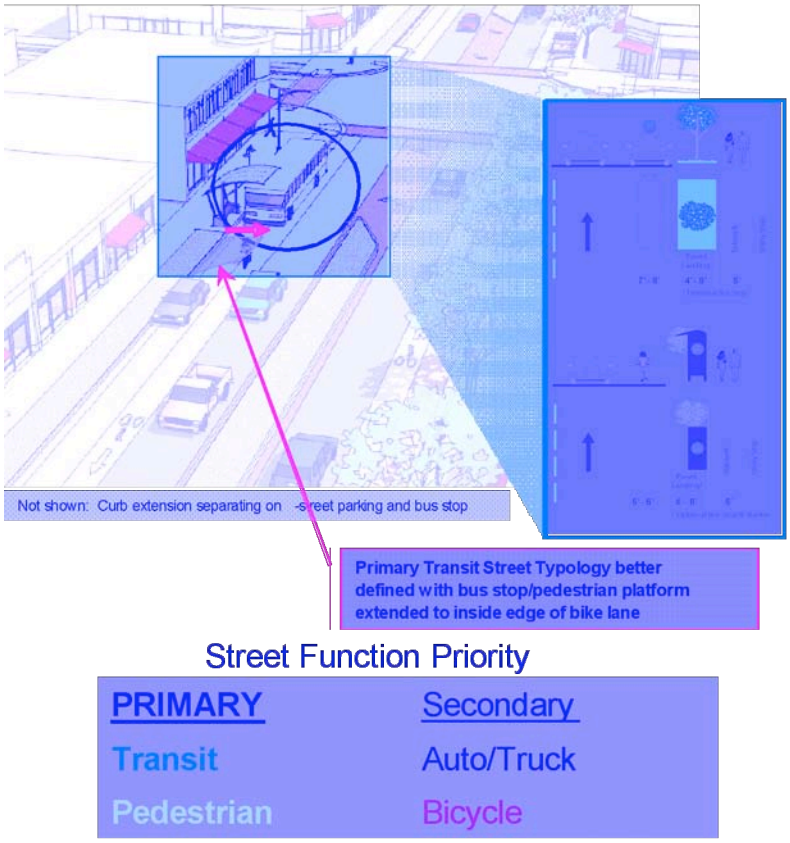
Adopting a new Complete Street policy is relatively straight-forward, it is consistent with Olympia's Comprehensive Plan Vision and new street design standards, and it may well help better position the City for highly competitive federal and state transportation funding. See Appendix D, *Non-motorized Travel*, for a more detailed summary of Complete Streets.

Olympia's street design standards define multi-modal components and are generally suited to help fit important transit, bike, and pedestrian facilities with adjacent land use. A minor enhancement to these standards through a *street typology overlay* will help Olympia implement the future Community Transit Network (see Appendix C, *Transit*) and supporting pedestrian features.

We use the term "street typologies" to distinguish the concept from street "functional classification." Functional classification focuses on a roadways use for motorized travel, is highly generalized, and does not deal in any detail with the context of the adjacent land use. A street is an "arterial" or a "collector" based on the volume of motorized traffic it carries. By "street typology" we mean an overlay on the functional classification system that allows one to distinguish among, for example, different types of arterials: those that are heavily used by transit or bikes, those that are not, and so on.

Similar to the principles embodied within several corridor studies commissioned and completed by City staff in recent years, the use of street typologies can clarify street use and design features (e.g. intersections, sidewalks, bus stops) that support transit and adjacent land uses. This is particularly true in areas where the street system and rights-of-way have already been established and the City's ability to ultimately fit all modal features is constrained. Street typologies are also helpful in areas where land is subject to re-development with increased land density and mix of uses.

Exhibit 3-3: Example Street Typology



Source: Transpo Group, Appendix D, *Non-motorized Travel*

The development of street typologies requires some careful consideration of *land use context* (type, mix and density) and the trade-off decision-making necessary to accomplish the desired modal priority and mix within limited and oftentimes highly constrained right-of-way. Appendix D, *Non-motorized Travel*, illustrates an of example street typology applications.

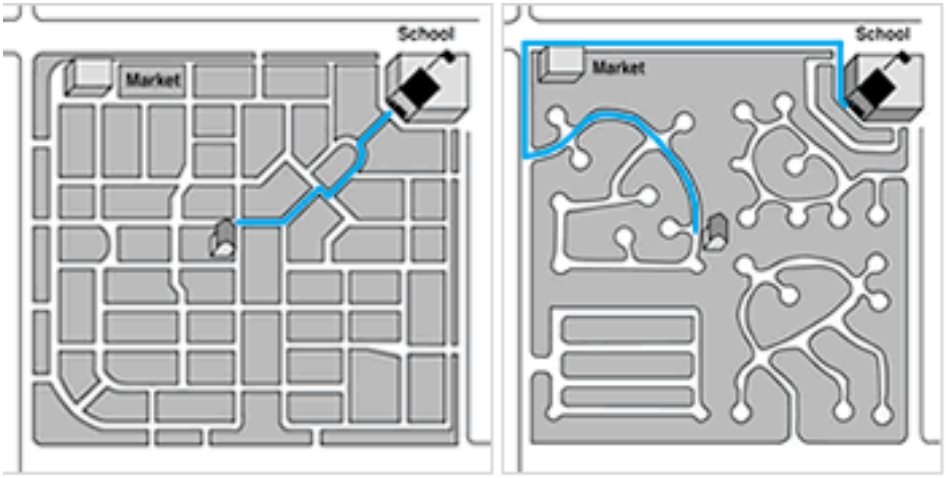
3.2.3 CONNECTIVITY

Demonstrated by dozens of studies in cities across the US, increased street connectivity can reduce vehicle travel by reducing travel distances between destinations and by supporting alternative modes. Increased connectivity tends to improve bicycling and walking conditions where paths provide shortcuts, so that walking and cycling are relatively faster than driving. This also supports transit use. Research concludes that well-connected street and non-motorized transportation networks in urban

neighborhoods result in increased walking and bicycling and fewer auto trips.[11] [12]

Exhibit 3-4 shows an example of street connectivity: left side shows many travel options, right side shows lack of connectivity.

Exhibit 3-4. Street connectivity (many options vs. lack of connectivity)



Source: Transpo Group, Appendix H, *Connectivity*

Olympia can enhance its transportation connectivity in the following ways:

- Develop street and non-motorized pathway projects
- Prioritize trails and key trail connections
- Adopt new subdivision design regulations (or refine existing regulations)
- Adopt street connectivity standards or goals
- Require alleyways and mid-block pedestrian shortcuts
- Construct new roads and paths that connect destinations
- Use shorter streets and smaller blocks
- Apply traffic calming rather than closing off streets to control excessive vehicle traffic
- Discouraging/avoiding the vacation of alleys.

[11] Rutherford, McCormack, Rutherford, G. Scott, Wilkinson, Martina G., Travel Impacts of Urban Form: Implications from An Analysis of Two Seattle Area Travel Diaries, 1997.

[12] Greenwald, Michael J., Boarnet, Marion G., Built Environment as Determinant of Walking Behavior. Transportation Research Record 1780, Paper No. 01-2792.

- Build connector trails to schools to provide direct walking and cycling routes

We recognize that local policy refinement is needed to help Olympia implement street and non-motorized connectivity improvements. Olympia should consider the following five policy or program recommendations to implement improved network connectivity:

- **Adopt a Complete Streets policy.** As noted above, instituting a Complete Streets policy ensures that transportation agencies routinely design and operate the entire rights-of-way to enable safe access for all users.
- **Continue mapping street connections of arterial and collector streets; develop new *local* street connections map.** Like most cities, Olympia maps new (future) arterial and collector street connections as a guide for new development to complete important street connections. These maps are adopted as part of the City's Comprehensive Plan. For the same reason, mapping important *local* street connections in areas of future development helps ensure important connections are built between new development and the existing street and pathway networks. In the past, absent of policy and plan guidance, several opportunities to encourage and require local street connections have been lost in Olympia. These local street plans can be used in the development review and permitting process to ensure the construction of those local street connections to adjacent areas that promote a logical, direct and connected local street system. This map or set of maps should be adopted as part of the Olympia's Comprehensive Plan and relevant land development regulations.
- **Enhance street connectivity policies, focus on local streets.** Olympia should enhance existing policies and adopt new policies that require a local street circulation pattern which provides access to: (1) properties and (2) connections (sometimes exclusive bicycle and pedestrian connectors) to collector and arterial streets, neighborhood activity centers, and (3) emergency access. Policies should consider the challenges of retrofitting existing streets. In addition, the City should consider the role of public participation in identifying and maintaining connections. Detailed policy examples are provided in Appendix H, *Connectivity*. These policies will require maximum block-length standards (to increase connectivity), public accessways linking cul-de-sac streets, minimum street widths (consistent with Olympia's new street design standards) and applied traffic calming measures to discourage neighborhood cut-through traffic.

- **Revise development code.** The City currently has street spacing standards and they should be supplemented with block length standards to avoid long blocks along arterials and collectors that inhibit pedestrian access and connectivity. Olympia's development code for residential and mixed-use areas should require a simple set of grid-based standards to enhance connectivity. These grid standards will help ensure that street and non-motorized grid network are optimized for pedestrian and bicycle access, while discouraging long blocks or large block areas that impede non-motorized travel. Development codes should also be revised to limit cul-de-sacs unless extreme barriers prevent a connected street network (such as topography). If cul-de-sacs are allowed, they should be limited to no more than 200 feet in length, with no more than 25 residential units and/or should allow for pedestrian/bicycle connections. In addition, development codes should to continue to encourage pedestrian connections in multi-family/mixed-use developments.
- **Develop connectivity measurements for City-wide plan evaluation, site plan review, and concurrency program**. Olympia should develop street and non-motorized connectivity measurements to establish new baselines by which the City's motorized and non-motorized plan elements are evaluated and monitored. Connectivity measures like intersection density and the percentage of four-way intersections (measured within small geographic subareas) are recommended; steps to test and develop these measures are outlined in Appendix H, *Connectivity*.

  Application of connectivity measures can help Olympia quantify, map and re-prioritize important, non-motorized connectors, the need for new pedestrian crossings along arterials and collectors (improved access, especially to transit), and, in combination with measures of greater land use density and mix, demonstrate the progress towards meeting policy goals to reduce vehicle miles traveled per capita.

Connectivity applies to a key element of Olympia's transportation system: trails. There are over 50 miles of trail in the Olympia region. Some provide essential access and circulation for Olympia's pedestrians and bicyclists for work and recreational travel. The Regional Trails Plan identifies critical cross-regional and intra-city connectors, linking important Olympia neighborhoods; it has been instrumental in securing plan commitment and funding to complete what have become popular facilities. Olympia's Comprehensive Plan currently includes several of the Regional Trail Plan recommendations for new trail routes. Central Olympia trails linking to the regional trails include the West Bay, Percival Canyon, and the

Olympia Woodland Trail. New trails can be expensive if rights-of-way are difficult to obtain. While the region and Olympia have been successful in obtaining federal and state grants to help fund key trail improvements; there is no certainty of future funding support. Trail connections are an important piece of the non-motorized system element, particularly in the new measures of connectivity and new concurrency policy.

3.2.4 TRANSPORTATION DEMAND MANAGEMENT (TDM)

Transportation Demand Management (TDM) refers to a variety of strategies aimed at reducing the demand for drive-alone trips and thereby using transportation resources more efficiently.

3.2.4.1 Pricing

Pricing is at the heart of all TDM policy. One can appeal to people's sensibilities about health, pollution, the environment, and community, and get genuine concern and promises of changed behavior in response. But if one wants change, and quickly, change the prices. "Changing the prices" can be literal changes (e.g., higher parking fees or transit fares), or it can be a shorthand for a broader policy agenda of trying to ensure that people pay for the benefits they receive or the costs they impose.

Pricing should not mean arbitrarily increasing the costs of auto travel so that people travel less. Rather, it should mean making sure that the full cost of travel is perceived by the people traveling. Advocates for alternative modes believe that if those full costs were charged (including the costs of pollution, climate change, and—most importantly—the costs of time delay that one person's peak-period traveler imposes on many others), auto travel would be less advantageous relative to travel by alternative modes. A change in relative prices would lead people who are close to indifferent between modes (people "at the margin") to shift from the mode that becomes relatively more expensive to others.

A mistake sometimes made in evaluating mode choice is to assume that prices are all about operating cost: clearly it costs less to ride a bike or walk than to operate a car (costs of amortized vehicle depreciation and maintenance, insurance, fuel, parking, and more), so many more people should choose alternative modes. Left out of that calculation, among other things, is (1) the value of travel time, (2) the value of convenience, and (3) the fact that the marginal value of another vehicle mile is smaller if one does not consider (as most travelers do not) all of the start-up costs of owning an automobile (e.g., vehicle purchase, insurance).

There is substantial theoretical and empirical evidence that increasing the price of auto travel (typically via tolls) will change travel behavior: travelers will switch routes, times, modes, and (ultimately) origins and

destinations to find their best travel options. Tolling has been implemented in the U.S. on tollways (primarily east coast) and bridges. It has been implemented in large international cities (e.g., London, Stockholm, Singapore) in a variety of ways. ECONorthwest, the lead consultant on this project, has done substantial work on that kind of tolling: we think it is safe to conclude that the possibilities for Olympia to impose tolls on its street system in the next 10 years are very small.

But there are other ways to consider pricing. Policy can try to increase any component of the full cost of travel. Some examples:

- Vehicle registration fees. But not very useful, because they do not affect the cost of the marginal trip.
- Gas taxes.
- Parking fees.
- Vehicle-mile tax.
- Pollution or carbon fee.

Another policy that stops short of actual pricing is to evaluate transportation projects with models that incorporate greater prices. The result should be less demand, which means that decreases in level of service and the need for new or expanded road facilities will happen slower. As a variation on that point, consider what might happen if this question were asked and evaluated: if we were to cover the costs of this improvement by charging a toll of $X per trip (even though we can't and won't), would travelers get enough benefit that they would be willing to pay the toll? If not, then why are we building the facility?

3.2.4.2 Parking

Parking management and pricing policies are among the most effective means that cities have to influence travel behavior and support a mode shift towards alternative modes for regular commuters. Olympia's efforts to boost multi-modal transportation options would be supported by implementing additional parking controls and programs that target employees, especially in downtown and along the suggested multi-modal corridors and locations where there are concentrations of employment

Short-term parkers traveling to businesses in downtown or in denser commercial districts have different needs. Their primary interest is accessible parking in proximity to their final destination. Poor management of on-street parking often leads to employees "poaching" or "shifting" vehicles during the day to elude enforcement. Pricing, management, and enforcement of on-street parking should be aligned to ensure that about least 15% of on-street stalls are available at any time. This improves the

customer experience and reduces search time for parking (and in doing so can reduce congestion and emissions). The City adopted a Parking Strategic Business Plan in 2009 that guides the parking program and differentiates employee and customer parking needs. Transportation demand management strategies are integrated into that plan.

Strategy elements that might be employed to better manage parking resources include:

- **Conduct a parking study that includes an analysis of demand-based pricing and elimination of free parking**. The City established a Parking and Business Improvement Area (PBIA) that is funded through assessments on businesses in the area. The City could collaborate with the PBIA board to conduct the study. The study should evaluate eliminating free parking in the downtown and along proposed corridors as part of a larger strategy to meet Commute Trip Reduction goals by managing parking downtown and the Capitol campus. Offering free parking downtown provides an incentive for employees and visitors to drive into the downtown. The City is currently considering removing free parking from the downtown core.
- **Move towards employing clear parking maximums and reducing effective minimum parking requirements, especially downtown and along CTN corridors.** This recommendation is now relatively well accepted among transportation planners and parking experts. It should be linked to recommended policies about parking pricing. Consider removing minimum requirements in selected multi-modal corridors and creating maximum requirements downtown and in multi-modal corridors (the City currently has exempt areas downtown). This helps create a financial incentive for developers to introduce denser, mixed-use building types that have been slow in coming to the Olympia area.
- **Require builders to unbundle the cost of parking from residential units** so that people have a choice to not purchase parking when buying a condominium or renting an apartment. This strategy can help to improve housing affordability and improve financial pro forma for developers.
- **Increase parking fines.** Overtime fines may not be high enough to deter parking violations since meter overtime fines are low ($15) for the first violation with no additional penalty for a second violation.

3.2.4.3 Schools

Forty years ago, half of all students walked or bicycled to school. Today, fewer than 15 percent travel this way. One-quarter take buses, and about 60

percent are transported in private automobiles, usually driven by a parent or guardian[13]. Improvements to the pedestrian environment, bicycle network, and transit system can help to address the need for viable alternatives to the automobile for access to schools. By promoting multi-modal transportation options for home-to-school travel, children can travel more safely while parents make fewer trips via automobile.

A recent grant-funded schools program called "Walk and Roll" was implemented at two elementary schools in Olympia 2008 and 2009. The program encouraged students to walk and bike to school. On event days, there was an average increase of 180% in walking and biking trips made by students and a 56% reduction in students being dropped off by parents.

In addition to programs that have already achieved success (such as the "Walk and Roll" pilot program and guard crossing programs), effective programs include:

- Infrastructure improvements: including sidewalks, signals, new street connections, etc.
- Programmatic support: volunteer and paid programs can be effective in helping children and parents change travel to school behaviors. Some of these programs are described below.

Safe Routes to School programs have been effective nationwide in encouraging children to walk and bike to school. In 2005, the Governor and the Washington State Legislature began funding pedestrian and bicycle safety as well as Safe Routes to School projects. Under SAFETEA-LU, the federal government also provides funding for Safe Routes to School.

It is recommended that the City of Olympia establish a citywide Safe Routes to School program in conjunction with the Olympia School District, thereby playing a central role in promoting these programs throughout the City. One of its primary functions would be to coordinate efforts among the school district, the community, and local government. The City of Olympia could be instrumental in developing strategic partnerships, canvassing for additional funding, and developing creative implementation strategies for Safe Routes to School programs. Alternately the City could spearhead a new non-profit organization with a mission of supporting and expanding Safe Routes to School programs.

Building on the success of the Walk and Roll program, the City could coordinate with the Olympia School District and Intercity Transit to initiate

[13] "Turning the Ride to School Into a Walk", Jane Brody, New York Times, September 11, 2007.

a number of Safe Routes to School programs that could take on initiatives that have proven effective elsewhere:

- **Walking school bus**: A walking school bus is a group of children walking to school with one or more adults. The City could establish a Walking School Bus program that educates parents, schools, and children about the benefits of starting a walking school bus.
- **Bicycle trains**: A bicycle train is a variation on the walking school bus. It consists of groups of students accompanied by adults that walk or bicycle a pre-planned route to school.
- **Volunteer corps**: The City can assist Safe Routes to School programs by soliciting, educating, and organizing volunteers, who are a valuable resource in making these programs successful. In turn, volunteers can assist with outreach efforts, walking school buses or bicycle trains, as well as safety education and speed watch programs.
- **Bicycle and pedestrian safety education:** Safety education programs are a critical component to Safe Route to School programs and can be conducted on-site at local schools by school staff, volunteers, or parents.
- **Speed watch program:** The currently has this program in place. The program seeks to educate drivers to slow down and exercise caution when using streets near schools. Radar units are used to monitor traffic speeds.
- **Crossing guard program:** The school district has this program in place. Adult school crossing guards play an important role in Safe Routes to School. The City could play a key role in this program by bringing together community partners, including law enforcement agencies, traffic engineering or planning departments and schools.
- **Traffic complaint hotline:** A traffic complaint hotline could be established, as was done in Phoenix, Arizona, in which police officers monitor complaints and deploy enforcement to problem areas.
- **Focus on sidewalk and trail connections to schools.** Safe and convenient pedestrian and bicycle connections specifically to and around schools can play an important role in encouraging students to walk or ride a bicycle. Connectivity is discussed in more detail in Section 3.2.3.
- **School crossing audit procedure:** An audit procedure evaluates individual school crossings to identify if any improvements can be made at the crossing and to identify locations where extra attention is needed. The audit procedure normally is conducted by a traffic engineer, a police representative and representatives from the school

and school district. The City can play a role in spearheading this effort and coordinating various participants.

3.2.4.4 Telework

Telework is a general term for the use of telecommunication—such as telephone, fax, email, video conferencing, and the Internet—to be able to work and attend other meetings and events effectively without physically traveling to the location. Telework, though not always directly related to employment, is usually implemented in response to employee demand or as part of a Commute Trip Reduction (CTR) program. Other types of telework include distance learning, video-conferencing, as well as internet business-to-business and electronic government. Given developments in telecommunications, more and more individuals are well-suited to conduct business from home.

Teleworking can have a significant effect in reducing employees' commute travel. Telework is particularly effective in reducing vehicle miles traveled for longer-distance commuters. The City can promote teleworking as a means of reducing VMT by:

- Creating incentives for telework, such as a parking cash-out, which offers employees who receive subsidized parking its cash equivalent if they telework.
- Performing outreach to employers to encourage them to establish telework programs and/or compressed work weeks as well as establishing benchmarks to measure success in reducing VMT.
- Informing individuals and businesses about telework practices and benefits as part of an integrated community marketing and communication program.

3.2.4.5 General TDM Programs

The following policies and programs should be considered by the City of Olympia to support TDM programs already in place:

- **Conduct a study to evaluate options for expanding downtown transit pass program**. Along with parking pricing, this may have the greatest potential to boost transit ridership in the City particularly amongst downtown employees. There are existing Intercity Transit pass programs for all State employees, and many other local government agencies offer free passes. Students, faculty and staff at the South Puget Sound Community College and The Evergreen State College also have pass programs. Through a grant-funded Downtown Commuter Program implemented in 2008 and 2009, free transit passes were provided to any employee working downtown.

- **Evaluate the viability of a local Commute Trip Reduction ordinance that would impose more stringent requirements than the State's Commute Trip Reduction law**. The City can also support the State's efforts by providing technical assistance and financial support to local employers working to implement CTR strategies.
- **Develop a City of Olympia community-based marketing and communication program**. The City could use a community-based marketing and communication program, an approach that applies marketing approaches to achieve specific behavior goals for a public good to promote multi-modal transportation. This could begin with a small pilot program and the City could partner with IT to enhance its existing approach to winning new transit riders and continue to seek funding for that effort.

3.2.5 CONCURRENCY, TRANSPORTATION IMPACT FEES, AND SEPA

There are four primary tools that agencies in Washington use for reviewing and mitigating the impacts of new development on transportation: (1) concurrency, (2) State Environmental Policy Act (SEPA), (3) Transportation Impact Fees, and (4) development regulation. This section addresses our recommendations for concurrency, transportation impact fees, and SEPA.

Although those four tools are related, they are distinct. For example, the physical mitigation improvements to fulfill concurrency requirements are separate from physical mitigation improvements to fulfill SEPA requirements. Another example: though transportation impact fees can be used to address impacts that result from growth and that are subject to concurrency requirements, they are collected independently of concurrency mitigation and SEPA. A proposed development may build both a traffic signal and pay impact fees. The traffic signal is a concurrency mitigation improvement; the impact fees are just impact fees, though related to concurrency.

3.2.5.1 Concurrency

The state of Washington introduced the idea of "concurrency" in the 1990s to address the problem of land use development outpacing the capacity of transportation systems. Concurrency requires local governments to make sure that either (1) transportation infrastructure and services to maintain an adopted level of transportation service in place before new development can occur, or (2) that a financial commitment has been made to complete the improvements within six years. Each local government adopts its own level of service standards that determine the capacity of the arterial streets, transit service, and other transportation

facilities. Those service standards are then used to assess whether new development can be accommodated—e.g. will a new development cause the level of service standards to be exceeded? If the answer is yes, then the local government must deny the development or demonstrate that improvements or strategies are in place to increase the capacity of the system within six years.

Many cities in Washington, including Olympia, use level of service standards that exclusively measure motor-vehicle through-put during peak hours. Only a few Washington cities have examined, developed, and adopted revisions to their concurrency programs to addressed alternative modes. Both Redmond and Bellingham have developed plan-based concurrency programs. These programs are highly technical and are described in more detail in Appendix G, *Washington GMA, Concurrency, and SEPA*. The two programs are similar in that they are based on *person trips* rather than *auto trips*, with policy emphasis on consistency with larger comprehensive plan policies and Growth Management Act goals.

Given the strong emphasis by the ATAC on alternative modes in general and on changing concurrency to address non-auto modes, we recommend that Olympia pursue Bellingham's model for person-trip concurrency option. Olympia will need to conduct more detailed assessment of key concurrency program elements prior to adoption of revised concurrency policy. The steps for assessing and refining Olympia's concurrency program are:[14]

1. **Continue to monitor and report information required by the existing concurrency program.** Until the City has completed developing a new person-trip Concurrency Program, (and for one year following), the City should continue to track and monitor its current motor-vehicle, capacity-based program and measures. This step provides the City with a side-by-side comparison of the motor-vehicle and person-trip capacity measures for a one-year transition period, after which it can make policy adjustments before formally adopting and implementing its new Concurrency Program.
2. **Evaluate and refine Concurrency Service Area (CSA) boundaries.** CSAs provide the underlying structure for the City's Concurrency Program. The CSAs are used to define geographic areas within Olympia that have similar land use and transportation characteristics. They help link the concurrency program to the land use vision in the Olympia Comprehensive Plan.

[14] See to Appendix G, *Washington GMA, Concurrency and SEPA* for a more detailed description.

The City is currently divided into four CSAs that are too large to develop a new concurrency program based on person-trip capacity measures. The City should evaluate and designate additional CSA areas that have unique and distinguishing land use and transportation characteristics.

The City should consider the following criteria when selecting new CSAs:

- *Land use* (e.g. downtown core and areas around CTN corridors, transition areas near transit, and lower- to medium-density areas)
- *Growth estimates* for both residential and non-residential lands in the City and the region
- *Underlying street and non-motorized network* (e.g. existing and planned street, bicycle, and pedestrian systems). As a subset of this criterion, the relative connectivity of the underlying street and non-motorized network, as measured by a route directness index, should be considered.
- *Number of CSA concurrency gauging stations* at which volume data are regularly counted and summarized for motor-vehicles, transit passengers, bicycles and pedestrians. As a practical consideration, we note that the volume of concurrency measurements and reporting increases by the number of CSAs.
- *Regional context (*e.g. related Growth Management Act planning and concurrency policies administered by adjacent cities and Thurston County, as coordinated through TRPC).

3. **Determine location of CSA gauging stations within CSA boundaries.** Concurrency gauging stations are key street locations within each CSA where all modes of traffic are counted and summarized. One gauging station should be identified for each CSA, ideally located in conjunction with the following:
    - Existing and planned traffic signal technology to record vehicular traffic.
    - Existing and planned major transit stops where bus passenger data is recorded and reported.
    - Existing and planned pedestrian and bicycle traffic counters.
4. **Establish motorized (auto and transit) person-trip capacity measures and thresholds.** At each gauging station the current (baseline) volume-to-capacity ratio for both the auto and transit modes are estimated to establish person-trip capacity and baseline

use. The available capacity for each auto and transit vehicle is converted to person trip capacity and added together to calculate Total Person-Trip Capacity. Similar calculations are used to establish Person-Trip Use. Person-Trip Capacity minus Person-Trip Use results in unused person-trip capacity available to new development within the respective CSAs.[15]

5. **Evaluate development potential within CSAs.** Conduct a growth analysis of 20-year land development potential within each of the CSAs. This is a key step because it sets up the City to identify concurrency mitigation measures. Steps include:
    - Categorize TRPC regional residential and non-residential growth estimates by CSA.
    - Estimate new person-trip generation per CSA.
    - Evaluate whether new person-trip capacity thresholds will be exceeded by growth.
6. **Identify potential non-motorized, transit, and TDM concurrency mitigation measures.** Olympia may establish a new concurrency policy whereby a developer can volunteer to construct non-motorized and transit system improvements (e.g. arterial pedestrian crossings, neighborhood connectors, priority sidewalk connections to transit) and TDM program measures as concurrency mitigation. Use of these mitigation measures can help raise the person-trip capacity threshold within individual CSAs. Enabling use of voluntary concurrency mitigation measures should be defined by policy, separate from other transportation mitigation measures required either by SEPA or the City's Transportation Impact Fee policies and programs.[16]

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[15] General steps taken to estimate Auto Person-Trip capacity and use are: (1) Count and assemble P.M. peak hour, two-way vehicle traffic volume data at each CSA gauging station. (2) Establish capacity the threshold (by policy) for the gauging station (probably two-way street arterial or major collector street) (3) Develop and apply a two-way (auto) directional factor, derived from existing traffic count data, to reflect the relative utilization of the off-peak directional street capacity. (4) Apply an average auto occupancy factor to convert auto trips into person trips.

General steps taken to estimate Transit Person-Trip capacity and use are: (1) Count and assemble current, P.M. peak hour, two-way transit ridership and two-way seated capacity. Data are collected from Intercity Transit for each transit line passing through the concurrency gauging station. (2) Develop and apply a two-way (transit) directional factor, derived from existing counts, to reflect transit two-way seated capacity. (3) Consider timing and adjustments of transit person-trip capacities based on future Community Transit Network Plan.

[16] General steps to identify non-motorized, transit and TDM concurrency mitigation measures include: (1) Evaluate City's pedestrian and bicycle plans and programs and identify priority non-motorized and transit capital improvements and TDM program measures within each CSA as eligible for voluntary concurrency mitigation. (2) Summarize costs of improvements to non-motorized, transit and TDM mitigation. (3) Conduct a cost sensitivity analysis comparing

7. **Establish non-motorized and transit / TDM concurrency mitigation.** With the completion of Steps 4, 5, and 6 above, non-motorized and transit/TDM person-trip adjustment factors can de defined to amend the person-Trip capacities for each CSA. The general steps taken to amend person trip capacity measures include:
    - Conduct a policy evaluation to determine whether concurrency mitigation should be included, and if so, in which CSAs and what level of additional mitigation costs are to be included (may vary by land use type – see Step 2).
    - Establish potential, non-motorized person-trip capacity adjustments per CSA, to be exercised by developer on a voluntary basis.
8. **Establish new concurrency tracking tools.** Two new tools will be needed to calculate, track, and evaluate Olympia's new Concurrency Program. A Concurrency Evaluation Tracking Tool (CETT) should be used to calculate person trips available for each CSA and track development person trips that have a Temporary or Final Certificate of Concurrency. A Person-Trip Calculator (PTC) provides the City with a streamlined method to calculate person trips from development concurrency applications, helping to ensure that the methodology for calculating person trips is consistent throughout the Concurrency Program. Both tools are likely best developed using spreadsheets.
9. **Define and implement a community involvement program.** A sufficient community involvement program should be defined and implemented to fully communicate the policy and technical changes to Olympia's Concurrency Program with key stakeholders, community organizations and citizen groups, the business community, and interested citizens.
10. **Conduct additional technical and policy assessment or refinement (as needed)**
11. **Draft and adopt an ordinance implementing new concurrency program.**

3.2.5.2 Transportation Impact Fees

Under the State Growth Management Act, new development may be required to pay for the costs of the expansions to facilities that it requires.

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development and re-development potential within each CSA, the amount of new development exceeding original person-trip capacity (Step 4), and the costs of mitigation (4) Revise concurrency mitigation measure list for each CSA accordingly.

The City of Olympia charges impact fees against newly-developing property with the intent of covering a portion of the costs of providing public infrastructure to serve that development.

To establish the transportation impact fee rate, the City creates a six-year street facility list, oriented to future growth. Projects on the list are necessary to meet adopted level of service standards for the next six years. Future trips are allocated to areas inside and outside the City limits using a traffic forecasting model.

The total amount that can be collected in transportation impact fees is calculated by dividing the total cost of projects needed to accommodate new growth over the six-year period by the total number of new vehicle trips expected to be generated by development in the City. Not all growth-related costs calculated for the six-year period can be attributed to growth *within* the City. Therefore, the total cost of growth-related projects is multiplied by a percentage to derive the costs that can be attributed to growth in the City of Olympia.[17] That is the total amount the City is allowed to collect in transportation impact fees. The total amount is then divided by the total number of new PM, peak-hour, vehicle trips resulting from growth in the City and urban growth area, over the same time period, to derive a "cost per trip." The City then calculates a fee for new types of development based on adjustments to the "cost per trip" amount to account for trip rate and length. [18]

Olympia adopted changes to the impact fee calculation in December 2008 and July 2009. The City will assess a "cost per trip" fee of $2,559 as of August 1, 2009.

We recommend the following evaluation and potential refinement to the City's transportation impact fee policy (TIF):

1. **Consider adding the Community Transit Network (CTN) capital improvements to the TIF-eligibility list.** This step requires revising and adopting plans to add CTN transit capital improvements as TIF-eligible projects. Possible transit capital improvements to include

[17] The City currently multiplies the total costs attributed to growth by 44.51% to derive the percentage of costs that can be attributed to "city growth." After July 2009, the total costs will be multiplied by 64%, thus increasing the total amount that can be collected in impact fees as well as individual impact fees charged for development.

[18] The City developed an impact fee schedule that adjusts the "cost per trip" to reflect differences in trip making characteristics for a variety of land use types. For example, a single-family dwelling generates 1.01 PM peak trips. The City adjusted for the rate and length of the trip and derived an adjustment factor of 1.17. This means the City would charge an impact fee for a single-family dwelling that is slightly more than the "cost per trip."

Intelligent Transportation Systems / transit signal systems and transit queue jump lanes (see TRPC Smart Corridor study). This step is consistent with traditional TIF rational nexus and GMA and is tied directly to arterial street enhancements. This step should be accompanied by the application of new transit quality of service (QOS) measures to validate needed capital improvements as part of CTN, planning-level costs, and a refined 20-year TIF assessment.

2. **Consider adding CTN sidewalk connections to TIF-eligibility list.** This step requires revising and adopting plans that prioritize pedestrian connections to CTN as TIF-eligible projects. It should be considered in conjunction with prioritizing pedestrian plan measures that target connectivity to the CTN. It requires additional prioritization of pedestrian plan elements with measures targeting connectivity to CTN, refining and updating priority planning-level costs, and coordinating findings with 20-year TIF assessment.

3. **Consider adding general non-motorized improvements to TIF-eligibility list.** This step requires revising and adopting plans that prioritize and define general pedestrian and bicycle connections as TIF-eligible projects. This step requires additional prioritization of pedestrian and bicycle plan elements with measures targeting non-motorized system connectivity, refining and updating planning-level costs, and coordination of findings with 20-year TIF assessment.[19]

3.2.5.3 SEPA

Washington's State Environmental Policy Act (SEPA), adopted in 1971[20], directs state and local decision-makers to consider the environmental consequences of their actions. Implementing regulations, in the form of the SEPA Rules[21] establish uniform requirements for agencies to use in evaluating the potential environmental impacts of a proposal. The process also allows review of possible project alternatives or mitigation measures that will reduce the environmental impact of a project. SEPA is typically used to review impacts within the immediate and nearby vicinity, such as vehicular access points, frontage right-of-way improvements and nearby intersections or roadways. SEPA uses the "significant adverse environmental impact" standard as the threshold for triggering mitigation. The intention of SEPA, as applied to transportation, is to mitigate a development's significant adverse impact on the transportation system in

[19] We recommend that the City's legal counsel review TIF policy changes and provide guidance.

[20] RCW 43.21C

[21] Washington Administrative Code (WAC), Section 197-11

terms of capacity and/or operations. The SEPA review also addresses safety, site access points, circulation needs, and impacts on neighborhoods, pedestrians, and transit facilities.[22]

Under SEPA, Olympia could develop and adopt Planned Actions. Planned Actions target specified public infrastructure mitigation (on-site and off-site projects) to address environmental impacts acknowledged in a formal environmental impact statement; generally recommended for a localized geography.

In our search of relevant examples of recently adopted Planned Actions by Washington municipalities we found two notable cases: the City of Everett's Planned Action for its downtown area and the City of Montlake Terrace's Planned Action for a Town Center area. Both Planned Actions accounted for specified transportation system improvements as SEPA mitigation, but neither Planned Action included specified funding mechanisms for SEPA transportation mitigation measures.

We investigated going a step further and thought about it in these terms. The legislation appears to allow that SEPA Planned Action mitigation can take the form of constructing transportation improvements or payment towards them. A transportation benefit district can be formed, containing methodology and a mitigation fee structure for the proportionate share of transportation improvement costs. It should also be noted, however, that transportation benefit districts require their own public hearing, voter approval and adoption process.[23]

We recommend the following evaluation and possible refinement of the City's SEPA policy:

1. **Consider defining short-term, non-motorized transportation system measures for SEPA mitigation.**

2. **Clarify and distinguish SEPA requirements from current TIF credits** (for non-motorized and TDM improvements). This step will help remove ambiguity between GMA/TIF and SEPA regulations and may help ensure that full TIF revenue and TIF credits are applied to voluntary non-motorized and TDM improvements, in addition to (rather than in lieu of) SEPA mitigation requirements.

[22] Washington State Department of Ecology, SEPA Handbook, 2003.

[23] The transportation benefit district mentioned here would be separate from the district the City has already established. It is allowed by RCW 36.73.

3. **Consider implementing specific SEPA Planned Actions.** Planned Actions are usually defined for a localized geography (usually the size of a downtown or similar size geography), rather than city-wide application. A Planned Action may identify priority pedestrian and bicycle system improvements as required by SEPA mitigation within unique and specified areas. Either site or off-site mitigation improvements may be defined for the Planned Action.[24]

3.2.6 FUNDING

The City is doing most of the things it should be to deal with the inevitable and intractable problem of revenue shortfalls. As Appendix E, *Funding* makes clear, it is not the place of this report to make recommendations about whether to adopt new local revenue sources (fees or taxes) and, if so, which ones. Questions about funding cannot be answered independently of questions about a desirable and efficient package of programs and projects. If the programs and projects are deemed by citizens and the City Council to be very desirable—and enough so to raise local revenue—there are many ways local revenue can be increased. If, in contrast, the political assessment is that operation and construction activities must work within a budget that is less than what would fund all desirable projects, then program and project evaluation can help.

Here is an outline of things the City could do to improve the way project selection and funding occur:

- **Clear description of current and potential funding**. Appendix E is a start and an improvement, but it can be improved further. Some commingled funds can probably be tracked separately. Appendix E and Section 2.5 above give some estimates of baseline budget numbers. The City's Capital Facilities Plan gives more detail. The point we are trying to make is a simple one: City staff should have budget information in a format that is a simple explanation and summary of transportation funding in Olympia. Appendix E and Section 2.5 also give a preliminary example of how to discuss and summarize options for new local funding.

[24] This step requires the following technical steps: (1) establish a "significant adverse impact" standard (not necessarily LOS/QOS), (2) identify potential eligible non-motorized projects, (3) refine and update planning-level costs, (4) refine the Transportation Element of the Comprehensive Plan to clearly state the type of pedestrian and bicycle system improvements will be covered by SEPA and SEPA Planned Actions. re-packaging of the Transportation Element so that Olympia clearly states the type of pedestrian and possible bicycle system improvements to be covered by SEPA / Planned Actions, (5) determine and develop appropriate environmental documentation (EIS or EA) for the revised Transportation Element, and (6) develop and adopt a Planned Action ordinance, (7) develop and seek voter approval to adopt a transportation benefit district for the Planned Action areas.

- **Allocation of spending to mode and expenditure type.** Given the City's interest in alternative modes, it would make sense to be able to report expenditures by mode. The City and TPRC probably already do this to some degree. What we are suggesting is that the City spend a little time (with TPRC and IT, if possible, for consistency) to develop some simple, standard protocols for allocating lump-sum project costs to mode, by type of expenditure. For example, if an arterial is widen at a cost of $20 million, and that is all that is reported, it appears that motorized travel received $20 million of funding. But some, perhaps much, of that money might have gone to sidewalks, bike lanes, transit pullouts and shelters, drainage (environmental quality), and land use. The numbers need not be precise: they just need to be agreed to. Over time, annual reports will be able to answer these types of questions more easily and accurately: How much money is going to different modes? To programs versus projects? To maintenance versus modernization?
- **Principles for budget allocation.** Appendix E describes several principles for evaluating funding sources. In addition, one needs principles for project selection: Appendix A gives a framework. In theory and in simple terms, projects should be evaluated based on their efficiency (performance relative to cost; in other words, bang for the buck) and fairness. In practice, there are myriad, overlapping, and sometimes conflicting criteria for evaluating public investments in transportation. A city like Olympia would be doing well just to have clear and consistent information about budget alternatives to improve the quality and efficiency of the necessary public debates about policy and expenditures.
- **Consider opportunities for leveraging community organizations.** Coordination with community, neighborhood, and volunteer organizations can represent an opportunity for the City to leverage volunteer work and/or donations to help fund and complete priority community projects, particularly trails and bicycle and pedestrian connections.

3.3 IMPLEMENTATION

The City has broad transportation goals described in its comprehensive plan. Those goals are the basis for the overarching goal of the transportation mobility strategy:

> *To shift the City towards a transportation system with a different balance among modes--one that moves in the direction of less reliance on the automobile by providing more options for other modes.*

The discussion by the Steering Committee and ATAC suggested that this goal be achieved by having more focus on integrating modes.

This implementation section builds on the City's broad transportation goals and the components of the strategy described in the previous section to describe outcomes and outputs the City could use to implement the strategy over a six- to ten-year period. Any strategy to achieve desired outcomes must define three separate components of the strategy: (1) specific things the strategy is supposed to achieve (the City generally defines these as *outcomes*), (2) work performed to achieve the outcome (the City generally defines these as *outputs*), and (3) specific tasks or actions that staff can do to achieve the outcomes and outputs (*actions*).[25] More specifically:

- **Outcomes** are what the City wants to achieve. They may be broadly described in text as a vision or they may be more specifically described as measurable targets or benchmarks.

  Example: "A Community Transit Network (CTN) is adopted and maintained along 100% of designated corridors in Olympia within 15 years."

- **Outputs** describe work performed and tasks that are presumed to influence the ability to meet desired outcomes.

  Example: "Number of designated corridors that have been adopted as part of the CTN."

- **Actions** are specific things that City staff can do to help achieve the outcomes and outputs.

  Example: "Develop joint agreement with Intercity Transit to implement Community Transit Network (CTN)."

Transportation plans, policies, and strategies are often organized by transportation mode (e.g. motor vehicle, bicycle, pedestrian, transit). There are good reasons for such an organization: it can make responsibilities, funding, and implementation more straightforward for single-mode institutions (e.g., transit agencies) or municipal departments. But the City of Olympia seeks more balance in its transportation system, and a key strategy for doing that is to integrate planning *across modes*. That strategy

[25] During the course of this project the ATAC, City staff, and consultants spent considerable time on definitions. It is the City's desire to frame all its policy work (not just work on transportation) in terms of *outcomes* and *outputs*. Outputs as defined by the City include both an idea of *measurement* (e.g., percent of street miles that are in good or fair condition, in that are "complete streets") and *action* ("We said we were going to do x, and here's what we actually did."). This report addresses the *measurement* component of outputs in Appendix F, Performance Measures, which provides several examples of ways that the achievement of broader statements of desired outcomes might be measured.

suggests organizing City policy and actions around multi-modal themes: ultimately that was the tack taken by the ATAC and reflected in this report.

There is, however, a tradeoff, whichever organization is selected. The organization in this report tries to get most of the advantages of both organizations. Section 3.3.1 organizes the outcomes by mode. Section 3.3.2 then reorganizes a discussion of outcomes and outputs by policy theme (described in Section 3.2 above as Elements of the Strategy).

3.3.1 OUTCOMES BY MODE

3.3.1.1 Motor-vehicles

The City's goal, as described in the Comprehensive Plan, is to focus on moving people rather than moving vehicles, and to reduce overall dependence on drive-alone vehicle use. The City wants the motor-vehicle system to continue to meet its level-of-service standards (performance levels acceptable to drivers), but also wants effective and safe options for drive-alone travel. Outcomes the City wants to achieve are:

- **Key intersections meet level of service standards.** Measures of performance relative to level-of-service measures at many of the City's key intersections are indicators of traffic congestion. Maintaining system capacity to reduce traffic delay helps reduce harmful vehicle emissions.
- **Pavement is in good or fair condition**. It is the City's goal to have 100% of its street pavement in either good or fair condition within the next 20 years.
- **City-wide drive-alone trips are reduced (absolutely if possible, but at least in relative terms).** The Comprehensive Plan calls for a future target mode-share of no more than 60% drive-alone trips. Our research and work in other similar cities on the west coast suggests that 60% is among the more aggressive mode-share targets.
- **Vehicle miles traveled (VMT) per capita are reduced**. Areas with lower VMT per capita typically have higher-density land use, more frequent transit service, and greater walking and bicycling connectivity. When combined, these land use and transportation conditions enable people to drive less to engage in daily activities. Areas of higher VMT per capita are associated with air pollution and higher accident and injury accident rates.

3.3.1.2 Transit

The City would like to support and enhance opportunities for transit use and ultimately increase the share of person-trips that are taken via

transit. Intercity Transit operates the transit system (not the City). Thus, the City seeks to find ways it can support the transit system through coordination with Intercity Transit, integrating its land use policy with existing and future transit service, and managing right-of-way to optimize transit speed. Because most transit users begin or end their trips as pedestrians or bicyclists, the City also seeks to improve the pedestrian/bicycle environment along key corridors and improve connections between activity centers. Outcomes the City wants to achieve are:

- **There is increased density and mix of uses in the downtown core and along multi-modal corridors.** High-quality, high-performing transit services have a common feature: they are supported by dense, mixed-use urban form. To achieve suggested minimum requirements for Community Transit Network (CTN) service, zoning in these multi-modal corridors should encourage or require mixed-use buildings and land uses. Residential densities of at least 4.5 to 7 units per acre are typically required to support transit service that operates at high frequencies all day, seven days per week. The recommended threshold for implementation of CTN level service is a minimum, aggregate, average density within a quarter mile radius of each stop of:
  - 18 residents (~7 dwelling units) per gross acre,
  - 25 jobs per gross acre, or
  - 22 persons (combination of residents + jobs) per gross acre.
- **Drive-alone trips on CTN corridors are reduced.** That reduction might be defined as an absolute reduction (fewer such trips later than now), a reduction in the otherwise predicted rate of growth of such trips, or a reduction in such trips as a percent of total trips.
- **Corridors accommodate safe pedestrian, bicycle, and transit travel.** Since every transit trip starts or ends as a pedestrian or bicycle trip, safe and convenient access to transit stops is fundamental to a quality transit system. City bicycle and pedestrian plans should use the CTN as a tool for prioritizing system improvements. Expanded bike parking and high-quality bike parking facilities at or near major CTN stops can increase the range of access to the core transit system. Minimum on- or off-street bicycle parking ratios could be implemented in downtown and along multimodal corridors. For example, in Bend and Ashland, Oregon, new development is required to provide bicycle parking that is no less than 20% of motor vehicle parking.
- **Transit service is frequent and reliable**. A fundamental element of this plan is the adoption of a future Community Transit Network: a

network of quality transit service that Olympia residents will be able to structure their lives around. To meet this goal the CTN calls for frequent services that operate every 15 minutes or better all day (16 hours on weekdays and 14 hours on weekend days) and that operate seven days per week. Furthermore, transit must operate *reliably*, a challenge when operating in mixed traffic. Many transit agencies lose 1% or more per year in average operating speed, due to a combination of rising patronage (which increases boarding times) and increased traffic congestion. Intercity Transit and City of Olympia will need to work together to protect reliability through a comprehensive speed-protection strategy. The goal of such a strategy should be to set and maintain an average service speed policy on every line even as congestion, ridership, and other factors increase. Average transit operating speeds (including stops) of 30% of the posted speed limit is a common standard for providers in large urban areas; however, a minimum average operating speed should be set based on the measured current relationship between transit operating speeds and posted speed limits. Ultimately, the policy speed should be included in Olympia's street classification system (i.e., as an overlay), so that a deficiency in transit speed becomes a visible problem much like deteriorations in traffic Level of Service.

- **Transit service is comfortable and user friendly.** Transit stops located along multimodal corridors will have the highest patronage in the system. It is important to ensure a high-quality waiting experience at these locations. Some potential minimum design requirements could include: a free-standing route sign with visible route shields for all routes serving the stop, a posted system map including schedules for all routes serving the stops, a covered shelter with a wind-guard, a bench, trash receptacle and ADA accessible sidewalks and curb-ramps.
- **Transit dependent uses are located along multi-modal corridors**. Transit-dependent uses should locate on the CTN, or in other areas with established transit service. Sometimes, an agency will locate a transit-dependent function (such as a social service office, a disabled workshop, etc.) in a place with no transit, and then request that transit go there. There should be no such guarantee by the City of Olympia or Intercity Transit. The best way to ensure quality transit service must be to locate on the CTN. The next best way is to locate on another existing transit route. New transit-oriented development, and high-density development in general, will not reach its potential if it is not on the CTN. If the market needs more such development than the CTN can support, then plans should be made to expand the CTN into new areas, but with the commitment to developing a CTN corridor in all its aspects.

3.3.1.3 Bicycles and Pedestrians

The City seeks to support bicyclists and pedestrians by providing safe and convenient bicycle lanes, sidewalks, pathways, and trails. The City recognizes that supporting bicyclists and pedestrians is closely linked to its goals for reducing the drive-alone mode share and increasing transit ridership. Outcomes the City wants to achieve are:

- **Priority bicycle system improvements are completed.** These would include new bicycle lanes, shared-lane, and shared- use path improvements along multi-modal corridors, connections within neighborhoods, and access to multi-modal corridors. Before more specific outputs for this outcome get developed, the City would have to identify and prioritize the system improvements.
- **Bicycle lanes and sidewalks are maintained and repaired.** Properly maintained sidewalks and bicycle facilities improve user safety and encourage non-motorized travel.
- **Priority pedestrian system improvements are completed.** New sidewalks, neighborhood connections and shared-use path improvements along multi-modal corridors, connections within neighborhoods, and access to transit and schools.
- **Increased pedestrian crossings along multi-modal corridors.** These projects promote walking by removing barriers along the important pedestrian routes, and improve access to transit.

3.3.1.4 Transportation Demand Management

The City seeks generally to use transportation resources more efficiently and reduce demand for drive-alone trips. Outcomes the City wants to achieve are:

- **Businesses in downtown and multimodal corridors achieve a lower drive-alone rate than the rest of the City.** The City Comprehensive Plan calls for a future target mode share of 60% drive-alone trips. To meet this goal citywide, a much lower drive-alone mode split will need to be achieved downtown and in multimodal corridors. A target for downtown of 40% drive-alone and for multimodal corridors of 50% drive alone could be supported assuming these areas have the best transit service, highest parking charges, are priorities for bicycle and pedestrian improvements, and are most likely to provide employee support through Transportation Management Associations or other business groups.
- **Reduced demand for parking in the downtown core and along multi-modal corridors.** To achieve the Comprehensive Plan drive-alone goals (stated in previous bullet), the City will need to be

aggressive about charging for the full cost of parking or limiting additions to parking supply, either of which will make auto use more expensive. A very aggressive goal would be to accommodate all new downtown development without increasing parking supply. In multimodal corridors, where new development is likely to rely more heavily on auto access, a reduction in parking for new construction of 50% over current requirements would be aggressive. (possibly accomplished by setting parking maximums for new development that are half the current minimum parking requirements). How this particular outcome gets operationalized so that it can be measured and monitored is important: does the City want to achieve an absolute reduction in vehicles parked, a reduction in the rate of construction of new parking, an increase in the price of parking, a decrease the percent of person trips by car, or any of many other measures? Here, as elsewhere, there are clearly tradeoffs: for example, decreases in parking supply or increases in parking charges in the downtown may have the effect of reducing economic activity in the downtown unless other policies to support downtown travel and retail are adopted.

- **An increased percentage of school children walk or bike to school.** A change in how families transport their children to school requires a change in the physical environment to make biking and walking feel safer, and education or programs that improve actual and perceived safety. No change in behavior should be expected until programs or infrastructure improvements are implemented. Comprehensive Safe Routes to School programs in places such as Marin County, California have achieved measure reductions of 30% of peak period traffic volume in school zones**.**
- **An increased percentage of employees who telework instead of commuting by motor-vehicle.** Increasing employee telework by 5% for large employers that fall under the State Commute Trip reduction law would be a reasonable target given the administrative complexities of implementing telework programs.

3.3.2 OUTCOMES AND OUTPUTS BY TMS POLICY THEME

This section reorganizes the discussion in Section 3.3.1 of outcome by mode to a discussion of outcomes *and* outputs by *policy theme*. There are six policy themes (described in Section 3.1), most of which cut across all travel modes: (1) community transit network, (2) complete streets, (3) connectivity, (4) transportation demand management, (5) funding, and (6) concurrency, TIF, and SEPA. Exhibit 3-5 summarizes the outcomes and outputs by policy theme.

Exhibit 3-5. Outcomes and Outputs by Policy Theme

Policy Theme 1: Community Transit Network (CTN)

Outcomes

A CTN is adopted and maintained along 100% of designated corridors in Olympia within 15 years.

There is increased density and mixed uses along CTN corridors (recommended land use benchmarks for CTN corridors are described in detail in Section 3.3.1.2)

Drive-alone trips along CTN corridors are reduced to 60% (within ten years)

Outputs

Number of designated corridors that have been adopted as part of the CTN

Number of CTN intersections examined for signal priority and right-of-way treatments

Miles of CTN corridors improved to meet Complete Streets definition

Feet of new sidewalk constructed along CTN corridors

Effective Comprehensive Plan land use policies and Olympia development code amendments have been made to enhance streetscape and building design along the CTN

Number of bus stops enhanced along CTN corridors

Number of designated CTN intersections that meet the City's LOS standards. Also see Concurrency outputs.

Policy Theme 2: Complete Streets

Outcome

100% of Arterials and Major Collectors are Complete Streets

Outputs

Miles of new sidewalk along Arterials and Major Collectors

Miles of new bicycle lanes along Arterials and Major Collectors

Number of pedestrian crossing improvements constructed (or rehabilitated) along Arterials or Major Collectors

Number of CTN corridors to which CTN typology overlays applied to designated Arterials and Collectors

Number of bus stops refurbished with pedestrian amenities along Arterials and Major Collectors

Policy Theme 3: Connectivity

Outcomes

The street and pathway system is well-connected with short lengths between intersections, and minimal dead-ends

Route options are increased and travel distances decreased

Outputs

Effective connectivity index measurements (e.g. intersection density and route directness) are evaluated and adopted

An effective GIS mapping tool was developed to measure intersection density and route directness

Number of effective new policy or code provisions addressing connectivity (e.g. mapping required connections, requiring connections from new to existing developments, requiring street stubs, minimum block length, mid-block path requirements, maximum cul-de-sac length, and preferences for non-motorized connections)

Number of new bicycle and pedestrian connections constructed

Number of new trail connections and access points constructed

Number of new street connections constructed

Number of new four-way stop intersections constructed

Policy Theme 4: Transportation Demand Management

Outcomes

Drive-alone rate is reduced to 60% along CTN corridors downtown

Vehicle miles traveled (VMT) per capita are reduced

Increased percentage of school children walk or bike to school

Outputs

Number of employees contacted through commute trip reduction outreach programs

Number of commute trip reduction outreach activities held at employer work locations

Number of new private and public bicycle parking spaces constructed

Household travel survey conducted prior to Comprehensive Plan revision

Number of school Safe Routes to School initiatives established city-wide

Number of downtown transit passes provided to employees through their employer or as part of a community CTR program

Number of carpool parking permits issued

Policy Theme 5: Funding

Outcome

Transportation funding priorities ensure transportation system users have safe and inviting mode choices.

Output

New protocols are developed to allocate and track transportation expenditures by transportation mode or policy theme

Policy Theme 6: Concurrency

Outcome

100% of needed capacity projects are funded or built within six years of identifying the need

Outputs

Concurrency review is conducted every year

3.3.3 WORK PLAN (ACTIONS)

Exhibit 3-6 presents specific actions the City can take to help achieve the outcomes and outputs presented in the previous section. The recommended actions for a TMS implementation plan are less about a multitude of new policies than about more modest steps to integrate Olympia's existing policies while taking advantage of strategic opportunities to add new policies where appropriate.

For each theme Exhibit 3-6 shows recommended actions, which are classified by priority—High ("H), Medium ("M") or Low ("L")—timeframe (shown in years) for the action[26] and by relative cost of staff time (for planning level actions).

To implement change, actions usually occur in the following order: (1) Planning typically needs to occur before (2) policies can be adopted and (3) funding allocated; (4) then project can be built and (5) programs started; (6) then the results should be measured to determine if the project or program is successful.

If the City were starting from scratch on all issues, our recommendations in Exhibit 3-6 would probably occur in that order. In reality, however, the City has been working to improve its transportation system for many years, making incremental changes over time. As a result, the City is at different stages of implementation on many categories of action. The recommendations in this report, therefore, span the continuum depending on whether the City has previously defined a particular goal, planned for implementation, built a project or started a program, or measured success of a project or program.

In some policy areas (such as complete streets and connectivity) the City has already started the sequence of implementation and our recommendations are designed to help the City take the next steps. In other areas (e.g., the CTN), the City is at the beginning stages of implementation and our recommendations provide more detail on those beginning stages.

[26] We use both because there is not necessarily a direct connection between high priority implementation measures and sequence /timing. An implementation measure may be a high priority even though it cannot be implemented until a series of other steps or measures are taken first. Likewise, a relatively low priority implementation measure may be easily implemented during year one because it is a simple action or because it is not dependent on other implementation measures.

Exhibit 3-6. Preliminary Work Plan

Policy Theme	Action	Priority	Year	Agency	Relative planning cost
Work Program	Refine and clarify TMS work program	H	1	CO	L
	Involve Transportation Department personnel in City's Comprehensive Plan update process	H	1-2	CO	L
Policy Theme	**Action**	**Priority**	**Year**	**Agency**	**Relative planning cost**
Multi-modal corridors (Community Transit Network)	Develop joint agreement with Intercity Transit to implement CTN	H	1-3	CO, IT	L
	Develop a joint agreement with IT, TRPC, Lacey, and Tumwater to monitor performance of the CTN	H	1-3	CO, IT	L
	Adopt a CTN overlay typology to the City street classification system	H	1-3	CO, IT	L
	Consider a policy to require transit dependent uses to locate on the CTN (or in other areas with established service)	M	1-3	CO	M
	Develop a CTN policy framework (based on recommended strategies in TMS report Exhibit 3-2)	H	1-6, ongoing	CO	M
	Study transit signal and operating improvements in CTN corridors	H	1-6, ongoing	CO, IT, TRPC	M
	Develop stop/station location plan that optimizes stop placement	M	1-5	CO, IT	M
	Examine signal priority and right-of-way treatments to protect transit from delay (Martin Way, Capitol Way, Harrison Ave)	H	3-6	CO, IT, TRPC	H
	Address transit center growth at or adjacent to Downtown Olympia Transit Center	H	3-6	CO, IT	M
	Consider developing a "super stop" designation	M-L	3-6	CO, IT	M
	Adopt policy to review signal and right-of-way enhancements to the CTN when transit speeds drop below standards	M	3-6	CO, IT	M
	Implement TRPC Smart Corridors project	H	3-6	CO, TRPC, IT	M
	Consider developing a CTN overlay zone along CTN corridors that includes incentives to encourage denser, mixed-use development	H	3-6	CO	H
	Improve inter-county connection with IT to make connections to the Sound Transit rail and express bus network	L	1-10	CO, IT, TRPC	M
	Protect rail corridors that provide future opportunity for commuter rail connections to the Puget Sound	L	1-10 ongoing	CO, TRPC	M

	Address zoning and achieved densities along CTN corridors	H	1-10, ongoing	CO, TRPC	H
Policy Theme	**Action**	**Priority**	**Year**	**Agency**	**Relative planning cost**
Complete streets	Compile list of existing policies that are consistent with complete streets goals	H	1-2	CO	L
	Conduct inventory of complete streets	H	1-2		
	Adopt a formal complete streets policy	H	1-3	CO	L
	Complete the pedestrian system plan	H	1-3	CO	M
	Adopt a street typology overlay policy	M	3-6	CO, TRPC	M
	Revise development code to include enhanced pedestrian-oriented design criteria as part of development review, particularly for pedestrian connections between multi-family and commercial developments	L	1-10	CO	M
Policy Theme	**Action**	**Priority**	**Year**	**Agency**	**Relative planning cost**
Connectivity	Identify and map missing connections	H	1-3	CO	L
	Compile list of existing policies and development regulations that are consistent with connectivity principles and goals	H	1-3	CO	L
	Adopt a formal connectivity policy	H	1-3	CO	L
	Choose connectivity measurement methodology and integrate into GIS	M	1-5	CO	H
	Revise development code block standards and cul-de-sac requirements	M	1-5	CO	M
	Continue to map future required connections	H	1-10, ongoing	CO	L
	Connect and expand the non-motorized trail network	M	1-10, ongoing	COO, TRPC	H
Policy Theme	**Action**	**Priority**	**Year**	**Agency**	**Relative planning cost**
Transportation Demand Management	Conduct a parking study that analyzes demand based pricing	H	1-3	CO	H
	Evaluate options to expand the downtown transit pass program	M	1-3	CO, IT	L
	Consider and study eliminating free parking in downtown	H	1-3	CO	M
	Increase fines for parking violations	L	1-5	CO	L

	Evaluate viability of local Commute Trip Reduction ordinance that would impose more stringent requirements than the state's Commute Trip Reduction Law	L	1-6, ongoing	CO, TRPC	H
	Implement clear parking maximums	M	3-6	CO	L
	Develop a City of Olympia Community Based Marketing and Communication Program	M	3-10	CO	H
	Consider developing a comprehensive home-to-school travel strategy	H	1-10, ongoing	COO, TRPC, school districts	H
	Consider additional Telework strategies	L	1-6, ongoing	CO, TRPC	M
	Consider requiring builders to un-bundle the cost of parking from residential and commercial units	L	6-10	CO	M
Policy Theme	**Action**	**Priority**	**Year**	**Agency**	**Relative planning cost**
Funding	Develop a clear description of current and potential transportation funding	H	1-2	CO	L
	Develop system for reporting expenditures by category: mode, programs vs. projects, maintenance vs. capacity	H	1-6	CO	H
Policy Theme	**Action**	**Priority**	**Year**	**Agency**	**Relative planning cost**
Concurrency, Transportation Impact Fees, and SEPA	Revise and adopt plans to add transit and bicycle capital improvements and sidewalk connections to transit facilities as projects eligible for Transportation Impact Fee funding	H	1-6	CO, TRPC, IT	H
	Revise concurrency policy to be based on person trips (detailed steps in TMS report Chapter 3)	H	1-6	CO	H
	Refine SEPA policy to define "Planned Actions" for priority pedestrian and bicycle system improvements within a localized geography	L	3-10	CO	M
	Refine SEPA policy to distinguish SEPA requirements from credits toward transportation impact fees for non-motorized and TDM measures	M	1-5	CO	M

Source: ECONorthwest, Transpo Group, Nelson Nygaard

Notes: CO: City of Olympia, TRPC:Thurston Regional Planning Council, IT: Intercity Transit

The actions recommended above are introduced and explained further in this report and technical appendices B, C, D, E, and F

Relative cost refers to an estimate of how much staff time at 40 hours per week will be required to carry out an action. Low cost is anything less than 3 months of staff time. Medium cost is 3 months to a year of staff time. High cost is more than a year's worth of staff time

3.4 NEXT STEPS

The implementation steps recommended in this chapter address all aspects of multi-modal transportation in Olympia and, thus, everything that a Transportation Mobility Strategy would comprise. But this is report is not the TMS itself; it is a precursor to the TMS. City Council will ultimately adopt the City's final Transportation Mobility Strategy. This report is intended to facilitate discussion among City Council, its partner organizations, and the community. In that sense, this report is a decision-aiding tool, not a decision-making tool.

The previous section describes actions that the City and its partners could take during several different periods (years) in the future. We conclude this report with two actions that are probably the immediate next steps for City staff:

- **Create the final TMS**. After the City Council reviews, discusses, and amends this document, City staff will have most of the information it needs to write the final TMS document.

- **Refine the TMS Work Plan**. Identify appropriate staff to lead the effort of working with City Council, IT, and TRPC to refine and clarify the TMS work plan presented in Exhibit 3-6. This process should include verifying the assumptions in this report about the priority level of each action, the year(s) in which it should occur, the lead agency, and the relative planning cost of the action. Establish a clear timeline to complete the work plan.

- **Clarify Transportation staff involvement in the 2011 Comprehensive Plan update process**. Identify appropriate staff to be actively involved in the Comprehensive Plan update process to provide input on the Transportation and the Land Use and Urban Design sections (possibly as a formal liaison to the Community Development Department).