Table of Contents

Executive Summary ....................................................................................................................... ES-1

Chapter 1. City of Olympia Transit Master Plan ................................................................. 1-1
  Background ............................................................................................................................... 1-1
  Transit Master Plan Objectives ............................................................................................... 1-1
  Transit’s Role in Olympia’s Future ....................................................................................... 1-2
  Translating Land Use into Transit Service ............................................................................ 1-3
  Olympia’s Community Transit Network (CTN) ................................................................. 1-5
  Jurisdiction/Partnerships ....................................................................................................... 1-9

Chapter 2. Olympia’s Existing Transit System ................................................................. 2-1
  Jurisdictional Boundaries and Governance ........................................................................ 2-1
  Operations ............................................................................................................................. 2-1
  Key Operating Statistics ....................................................................................................... 2-5
  Summary of Fleet and Facilities ........................................................................................... 2-6
  Current and Projected Funding Growth ............................................................................... 2-6
  Planned Service Expansions ................................................................................................. 2-8
  Public/Stakeholder Perception ............................................................................................. 2-10
  Transit Operating Environment ......................................................................................... 2-11
  Performance Measurements ............................................................................................... 2-15

Chapter 3. Future Policy and Actions .................................................................................. 3-1
  Service Element ...................................................................................................................... 3-1
  Land Use and the CTN .......................................................................................................... 3-7
  Capital Element .................................................................................................................... 3-18
  Policy Element .................................................................................................................... 3-23
  Funding Element .................................................................................................................. 3-35

Chapter 4. Summary of Needs and Recommendations ..................................................... 4-1
  Service Delivery and Monitoring ......................................................................................... 4-1
  Transit Capital and Access ................................................................................................. 4-2
  Transit-Supportive Policies ................................................................................................. 4-3
  Transit Funding .................................................................................................................... 4-5

Chapter 5. Measuring Performance ..................................................................................... 5-1
  Transit Service Quality .......................................................................................................... 5-1
  Stop Amenities and Accessibility ......................................................................................... 5-2
  Supporting Policies .............................................................................................................. 5-2

Appendix A. Literature Review – Land Use and Transit Demand

Appendix B. Implementation of the Olympia Community Transit Network (CTN)
  Key Implementation Objectives within the City’s Control
  Key Implementation Objectives Shared with Other Agencies
  Key Implementation Objectives Led by Intercity Transit

Appendix C. Nominating CTN Corridors
# Table of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure ES-1</td>
<td>Olympia Community Transit Network</td>
<td>ES-3</td>
</tr>
<tr>
<td>Figure ES-2</td>
<td>Policy Recommendations, Timeframe and Responsibilities</td>
<td>ES-5</td>
</tr>
<tr>
<td>Figure 1-1</td>
<td>Community Benefits Diagram</td>
<td>1-4</td>
</tr>
<tr>
<td>Figure 2-1</td>
<td>Intercity Transit Service Boundary (Thurston County PTBA), 2008</td>
<td>2-2</td>
</tr>
<tr>
<td>Figure 2-2</td>
<td>Intercity Transit Service and Dial-A-Lift Service Area</td>
<td>2-3</td>
</tr>
<tr>
<td>Figure 2-3</td>
<td>Intercity Transit Service Frequency</td>
<td>2-4</td>
</tr>
<tr>
<td>Figure 2-4</td>
<td>Service Classifications</td>
<td>2-5</td>
</tr>
<tr>
<td>Figure 2-5</td>
<td>Performance Compared To Washington Peers, 2007</td>
<td>2-5</td>
</tr>
<tr>
<td>Figure 2-6</td>
<td>Sources of Funds and Expenses, 2008</td>
<td>2-7</td>
</tr>
<tr>
<td>Figure 2-7</td>
<td>Intercity Transit Strategic Plan Financial Forecast, 2009-2014</td>
<td>2-8</td>
</tr>
<tr>
<td>Figure 2-8</td>
<td>Targeted Service Expansion Areas</td>
<td>2-9</td>
</tr>
<tr>
<td>Figure 2-9</td>
<td>Duration of Ridership</td>
<td>2-10</td>
</tr>
<tr>
<td>Figure 2-10</td>
<td>Customer Satisfaction</td>
<td>2-11</td>
</tr>
<tr>
<td>Figure 2-11</td>
<td>Washington State Facilities in Olympia</td>
<td>2-13</td>
</tr>
<tr>
<td>Figure 2-12</td>
<td>Regional Transportation Strategy Corridors</td>
<td>2-14</td>
</tr>
<tr>
<td>Figure 3-1</td>
<td>Olympia Community Transit Network</td>
<td>3-2</td>
</tr>
<tr>
<td>Figure 3-2</td>
<td>Headways and Span on Current Intercity Transit Services and Key Corridors in Olympia</td>
<td>3-3</td>
</tr>
<tr>
<td>Figure 3-3</td>
<td>Public Transportation Service Types Provided in Olympia</td>
<td>3-5</td>
</tr>
<tr>
<td>Figure 3-4</td>
<td>Tri-Met Frequent Transit Criteria</td>
<td>3-8</td>
</tr>
<tr>
<td>Figure 3-5</td>
<td>City of Olympia Future Land Use Plan</td>
<td>3-9</td>
</tr>
<tr>
<td>Figure 3-6</td>
<td>2003 and 2005 Residential Density on IT Routes</td>
<td>3-10</td>
</tr>
<tr>
<td>Figure 3-7</td>
<td>2006 Population/Employment Density</td>
<td>3-11</td>
</tr>
<tr>
<td>Figure 3-8</td>
<td>2030 Project Population/Employment Density</td>
<td>3-12</td>
</tr>
<tr>
<td>Figure 4-1</td>
<td>Service and Monitoring Recommendations</td>
<td>4-1</td>
</tr>
<tr>
<td>Figure 4-2</td>
<td>Transit Capital and Access Recommendations</td>
<td>4-3</td>
</tr>
<tr>
<td>Figure 4-3</td>
<td>Transit-Supportive Policy Recommendations</td>
<td>4-4</td>
</tr>
<tr>
<td>Figure 4-4</td>
<td>Transit Funding Recommendations</td>
<td>4-5</td>
</tr>
<tr>
<td>Figure A-1</td>
<td>Average Daily Trips per Household vs. Density</td>
<td></td>
</tr>
<tr>
<td>Figure A-2</td>
<td>Driving vs. Residential Density</td>
<td></td>
</tr>
<tr>
<td>Figure A-3</td>
<td>Average Mode Splits for Residential and Employment Areas Served by Bay Area Transit</td>
<td></td>
</tr>
<tr>
<td>Figure B-1</td>
<td>Relationship between Land use, CTN implementation and CTN service delivery</td>
<td></td>
</tr>
</tbody>
</table>
Executive Summary

Purpose of Transit Master Plan

The purpose of the Olympia Transit Master Plan (the Plan) is to provide a detailed explanation of how the City of Olympia can be more proactive in leveraging transit investments to meet Comprehensive Plan goals, developing land use policies that support transit-oriented corridors and neighborhoods and measuring performance over time. Importantly, it maps out a network of primary transit corridors that should receive land use, transit service and access investments and be the focus of future policy changes. The Plan also recommends a framework for a more active partnership between the City of Olympia and Intercity Transit (IT) including detailed implementation roles.

The Plan supports the Comprehensive Plan’s land use strategy by enhancing the public transportation network, thereby reducing people’s reliance on the single-occupant vehicle. Implementation of this plan, in coordination with other modal plans, will help Olympia meet many of its mobility needs in the future while making the City more economically competitive and minimizing long-term environmental impacts for the City and the region. The Plan seeks to integrate transit service and expansion policy as part of a broader multimodal strategy for mobility in the City of Olympia and neighboring communities. To this end the Plan is being developed in conjunction with the Olympia Mobility Strategy.

Olympia’s Community Transit Network (CTN)

In any growing city, transit quality is a key criterion for land use development, and yet land use is also a key criterion for transit service. This dilemma begs a few key questions: How can the City of Olympia encourage denser, transit-supportive development in areas where transit service is inadequate and/or low quality? How can Intercity Transit justify service to an area based solely on planned development, when it faces many competing demands from people who already live in its service area and already ride? One answer to this “chicken-and-egg” problem is for the two to occur together through policies that ensure quality transit will be available when land use and street design take and use transit-oriented forms. Since the City of Olympia does not operate transit service, its most important role in developing a robust local transit system is to ensure supportive land uses and provide priority for buses operating in city street rights-of-way.

Projected 2025 densities for most of Olympia are still well below the levels that most urban areas would consider supportive of high frequency, high quality bus transit service. The most important actions the City can take to make transit a more relevant mobility option are (1) to update zoning codes in key transit corridors to allow supportive densities and mixes of land uses, (2) to create incentive programs to ensure that it is economically feasible for developers to build mixed-use projects within these zones and (3) to ensure that pedestrian policies and strategies align with transit investments.

This plan sets forth an integrated strategy that is based on the development of a Community Transit Network (CTN). The CTN is a policy network of top-quality transit services that connect key destinations in Olympia and to the region with service that meets basic needs critical to transit passengers. Since the operating and capital resources do not exist to implement the CTN in full today, its purpose is as a policy framework that ensures quality transit will be available when land use and street design have adopted transit-oriented forms. In summary, the CTN policy says:
• If development along a corridor achieves the minimum density required to support “high-quality network” service, and

• If street design and management permits the operation of transit service at a given minimum speed and reliability, and maximizes the pedestrian access to each transit stop on the corridor, and

• If funding sources for high-ridership transit grow at an adequate rate to permit transit growth,

• Then the corridor will be permanently upgraded to high-quality network service levels, along with a corresponding higher priority for passenger amenities, fleet improvements, and other elements of transit quality.

The CTN is designed to guide transit service priorities, transit preferences in street design and signalization, transit passenger facilities, land use planning and development, and siting of future transit-oriented land uses.

**Future Policy and Actions**

This section outlines opportunities for the City of Olympia with respect to improving mobility in the future. Figure ES-1 illustrates the proposed Olympia CTN.
Figure ES-1: Olympia Community Transit Network

Community Transit Network
- Existing CTN
- Definite CTN
- Candidate CTN
- Supporting Network

CTN Characteristics:
- Frequencies: 15 minutes all day
- Span: 16 hours weekdays/14 hours weekends
- Days of Service: 7 per week
- Highest quality vehicles, amenities and information

2030 Pop. / Emp. Density Matrix (By TAZ)

Data Source:
Thurston Regional Planning Council, Population & Employment Forecast Work Program, 2004-2005

GIS Data Source: Thurston Regional Planning Council, ESRI
Policy recommendations

The Plan provides a number of recommendations that suggest policy changes or initiatives that the City of Olympia could take in the areas of transit service, capital, supportive policies and funding. This section highlights policy recommendations that should be considered as top priorities.

- **Draft policy to establish the 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 as described in more detail in Chapter 3 and Appendix B.

- **Revise zoning to increase density to transit-supportive levels along CTN corridors.** Zoning should encourage/require mixed-use buildings and land uses. Therefore, residential densities should be at least 4.5 to 7 units per acre as a minimum threshold for high performing transit. Zoning along CTN corridors should be changed to reflect higher densities; for example, Cooper Point Road could be changed from primarily RL1 to R4-8, R6-12, or higher.

- **Require transit-dependent uses such as institutions locate on the CTN, or in other areas with established service.** Transit-dependent uses should locate on the CTN, or in other areas with established service. Sometimes, an agency will locate a transit-dependent organization (such as a social service office, a disabled workshop, etc.) in a place with no transit, and then demand 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.

- **Revise Olympia’s concurrency program to be more multi-modal and better support transit.** Incorporating transit into Olympia’s concurrency program includes:
  - revising concurrency measurement to count people trips rather than vehicle trips
  - allowing multi-modal infrastructure as concurrency mitigation (transit signal priority and congestion bypass projects, such as queue jump lanes for transit, have a direct link to system capacity as they allow the transit system to provide more service for a fixed cost)
  - allowing transportation demand measures as concurrency mitigation

- **Develop coordinated concurrency measures with neighboring jurisdictions.** It should be stressed that coordination with neighboring jurisdictions is among the most important recommendations, since much of the region’s planned growth is outside City of Olympia boundaries. As a key regional job and commercial center, auto-oriented suburban development in neighboring communities will put pressure on Olympia’s roadway system and devalue investments in public transportation, since it is unlikely to be a convenient option for people traveling to or through Olympia from these new growth areas.
• **Adopt a CTN overlay to the City street classification system.** This 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 described in the next section. This street typology “overlay” could contain provisions for lane widths, intersection design standards, sidewalk standards and bicycle accommodations that limit conflict with transit vehicles.

• **Mandate that pedestrian-oriented design be considered during development review.** This process allows the jurisdiction to ensure that the proper design treatments are applied to individual private development projects.

### Figure ES-2  Policy Recommendations, Timeframe and Responsibilities

<table>
<thead>
<tr>
<th>Policy Recommendations</th>
<th>Timeframe</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draft policy to establish the CTN</td>
<td>1-3 years</td>
<td>COO, IT</td>
</tr>
<tr>
<td>Revise zoning to increase density to transit-supportive</td>
<td>1-5 years</td>
<td>COO</td>
</tr>
<tr>
<td>levels along CTN corridors and to encourage/require mixed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>use buildings and land uses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Require transit-dependent uses such as institutions</td>
<td>1-5 years</td>
<td>COO</td>
</tr>
<tr>
<td>locate on the CTN or in other areas with established service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revise Olympia’s concurrency program to be more multi-modal</td>
<td>1-3 years</td>
<td>COO, TRPC</td>
</tr>
<tr>
<td>and better support transit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop coordinated concurrency measures with neighboring</td>
<td>1-5 years</td>
<td>COO, TRPC, NJ</td>
</tr>
<tr>
<td>jurisdictions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adopt a CTN overlay to the City street classification system</td>
<td>1-3 years</td>
<td>COO, IT</td>
</tr>
<tr>
<td>Mandate pedestrian-oriented design be considered during</td>
<td>1-5 years,</td>
<td>COO, IT</td>
</tr>
<tr>
<td>development review</td>
<td>ongoing</td>
<td></td>
</tr>
</tbody>
</table>

**Responsibilities** (COO = City of Olympia, IT=Intercity Transit, TRPC=Thurston Regional Planning Council, NJ = Neighboring Jurisdictions)

### Action items

The following are additional high priority recommendations that don’t require policy changes, but are nonetheless critical actions or coordination items for forwarding the CTN and improving transit quality in key CTN corridors.

• **Match bicycle and pedestrian plan improvements to the CTN.** It is important to prioritize pedestrian access and streetscape improvements in CTN corridors and particularly designated CTN stops/stations.

• **Develop a joint agreement with Intercity Transit to implement the CTN.** This agreement would state that corridors or corridor segments will be elevated to CTN status once they meet minimum density thresholds and funds are available to support ongoing CTN service levels. A critical element of this agreement is assurance that CTN service levels will be maintained once implemented, hence creating a permanent element of Olympia’s transportation infrastructure. This agreement will allow IT to track land use
changes and plan for future service allocations to the CTN as part of their six-year and long-range planning processes.

- **Work with IT to accommodate necessary transit center growth at or adjacent to the existing Downtown Olympia Transit Center.** This may involve upgrading transit center facilities based on existing and projected ridership patterns. Amenities include expanded shelters, route and schedule information, enhanced lighting, and some place-making elements. The City should work closely with IT to accommodate transit center needs in downtown and at secondary centers such as Briggs Village. The Olympia Transit Center is near bay capacity today. The addition of future service will require expansion by means of on-street bays or further off-street expansion.

- **Partner with neighboring jurisdictions on comprehensive corridor studies for key CTN corridors including Marin Way, Capitol Way and Harrison Ave that examine signal priority and right-of-way treatments to speed and protect transit from delay.** These studies should examine future travel demand and multimodal strategies for accommodating corridor demand and speeding travel times (TRPC is planning corridor studies for Martin Way and Capitol Way). These studies should address future high capacity transit needs to ensure that recommended improvements do not preclude future development of more intensive, protected right-of-way transit service if merited.

### Figure ES-3  Action Items

<table>
<thead>
<tr>
<th>Policy Recommendations</th>
<th>Timeframe</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match bicycle and pedestrian plan improvements to the CTN</td>
<td>Ongoing</td>
<td>COO</td>
</tr>
<tr>
<td>Develop a joint agreement with Intercity Transit to implement the CTN</td>
<td>1-3 years</td>
<td>COO, IT</td>
</tr>
<tr>
<td>Work with IT to accommodate necessary transit center growth at or adjacent to the existing Downtown Olympia Transit Center</td>
<td>As needed</td>
<td>COO, IT</td>
</tr>
<tr>
<td>Partner with neighboring jurisdictions on comprehensive corridor studies for key CTN corridors including Marin Way, Capitol Way and Harrison Ave that examine signal priority and right-of-way treatments to speed and protect transit from delay</td>
<td>1-5 years, ongoing as CTN corridors emerge</td>
<td>COO, IT, TRPC, NJ</td>
</tr>
</tbody>
</table>

**Responsibilities** (COO = City of Olympia, IT=Intercity Transit, TRPC=Thurston Regional Planning Council, NJ = Neighboring Jurisdictions)
Chapter 1. City of Olympia Transit Master Plan

Background

Olympia will need high-quality transit service to provide improved mobility choices over time and to meet its goals for environmental sustainability, livability and human health. It is hoped that the development of a City of Olympia Transit Master Plan in coordination with a comprehensive Transportation Mobility Strategy and Intercity Transit’s short and long range planning efforts will provide direction on how Olympia can achieve the transit system it needs to grow gracefully.

Transit Master Plan Objectives

The purpose of the Olympia Transit Master Plan is to provide a more detailed explanation of how the City can support the Comprehensive Plan’s land use strategy with public transportation, thereby reducing people’s reliance on the single-occupant vehicle. Implementation of this plan, in coordination with other modal plans, should help Olympia meet many of its mobility needs in the future while making the city more economically competitive and minimizing long-term environmental impacts for the city and the region.

A review of existing City and Intercity Transit policies suggest the purposes of the Olympia Transit Master Plan must include:

- To enable the City to be more proactive on the future of transit in Olympia. The plan will speak to how various transit services and programs work together in an integrated transit network.
- To help the City work better with Intercity Transit by identifying Olympia’s key transit corridors and priority needs.
- To link City transit strategies to specific connections or corridors, i.e. making City policies and strategies operational.
- To integrate transit service and expansion policy as part of a broader multimodal strategy for mobility in the City of Olympia and to and from neighboring communities. To this end the Transit Master Plan is being developed in conjunction with the Olympia Mobility Strategy.
- To keep Olympia moving and support economic growth. Olympia needs a transit plan that clearly shows how the City’s Comprehensive Plan land use vision will be supported. It will support updates of other City, Intercity Transit and regional plans: Comprehensive Plan, Regional Transportation Plan, Capital Facilities Plan, Intercity Transit TDP, Transit Strategic Plan and Short- and Long-Range Transit Plan.
- To estimate transit funding needs by more clearly identifying the City transit priorities and corridor needs.

Why Does Olympia Need a Transit Master Plan?

Transit Master Plans are a common planning and budgeting tool for agencies that operate public transit. They typically contain elements related to current and future services offerings, capital facilities and needs, funding opportunities and supportive policies. So why would a city like
Olympia that doesn’t operate transit or construct transit facilities develop a Transit Master Plan? Most importantly because public transit is a key element of the city’s transportation network used by thousands of residents for daily mobility; secondarily because transit operates on City controlled streets, which means city policies have a direct impact on transit effectiveness. The City also controls land use planning, which is the key determinant of transit performance, making coordination between long range land use planning and service delivery vital. A City Transit Master Plan developed in coordination with Intercity Transit offers an opportunity for the City to evaluate its role in transit service provision, prioritize service needs and make clear commitments to partnering with Intercity Transit to meet standards of quality and performance. In recent years, many Washington cities have found value in developing local Transit Master Plans, including: Bellevue, Kent, Redmond and Seattle.

This Master Plan document is organized using major elements common to any transit plan, but recognizes the unique and limited role of the City in implementation:

- **Service Element** – Intercity Transit provides all transit services and it is assumed they will continue to do so in the future, although it is certainly feasible that the City could operate a downtown circulator or specialized service. Future service development will be driven by land use and access, two things that are controlled by the City and are the focus of this plan.

- **Capital Element** – Intercity Transit is responsible for most capital facility requirements for the transit system ranging from rolling stock to major transit centers to stop amenities. This does not preclude the City from participating in capital development, particularly projects related to transit access and streetscape amenities that support walking and biking access to transit and passenger comfort on the curb.

- **Funding Element** – Transit funding in the Olympia area comes primarily through sales tax collected by Intercity Transit through a Public Transit Benefit Area (PTBA) and federal grant funds for operations and capital development. Historically the City of Olympia has had a limited role in financing transit.

- **Policy Element** – In the area of land use, right-of-way management, parking, TDM and pricing policy – which have a tremendous impact on transit ridership and therefore revenue – Intercity Transit has a much more limited role. The City of Olympia, Thurston County Regional Planning Council (TRPC) and other local jurisdictions in the Intercity Transit service area lead land use and growth management policy development and therefore have a significant impact on where transit will operate in the future and how productive and cost effective that service will be.

Given this breakdown of responsibility, this plan seeks to answer the questions: How can the City of Olympia provide assurance to Intercity Transit that it will work to create transit-supportive neighborhoods with high-quality access to transit? What can the City do to ensure transit operates rapidly, saving Intercity Transit operating dollars that can be invested in new service? What assurances can Intercity Transit provide to the City that their efforts to provide transit-supportive density, develop policies that discourage driving alone and manage rights-of-way to maintain or improve transit speeds, will be rewarded with a higher level of service investment?

**Transit’s Role in Olympia’s Future**

This section briefly outlines transit’s role in advancing the City of Olympia’s Comprehensive Plan vision of a compact, sustainable city that remains the economic center of region and manages
mobility in a safe and efficient manner. Its primary focus is the land use and transit system access, two factors critical to transit performance that are largely under City jurisdiction.

Transit – Land Use Relationship

In any growing city, transit quality is a key criterion for land use development, and yet land use is also a key criterion for transit service. This dilemma begs a few key questions: How can the City of Olympia encourage denser, transit-supportive development in areas where transit service is inadequate and/or low quality? How can Intercity Transit justify service to an area based solely on planned development, when it faces many competing demands from people who already live in its service area and already ride? One answer to this “chicken-and-egg” problem is for the two to occur together through policies that ensure quality transit will be available when land use and street design take and use transit-oriented forms. A key objective of this Transit Master Plan will be to define a policy framework that resolves this issue. Since the City of Olympia does not operate transit service, its most important role is in developing a robust local transit system to ensure supportive land uses and provide priority for buses operating in City street rights-of-way.

Transit-oriented development is already the rule in Olympia’s planning, as expressed in the High Density Corridor concept. Intercity Transit has identified “trunk line” corridors where its highest level of service investments, both current and planned, match City growth designations. Clearly the agencies are already working effectively to match land use and transit investments. In many ways, this Transit Master Plan will act to enhance agency partnerships and create a framework that can be formalized (i.e., via a MOU) to ensure minimum levels of transit service are provided given land use density targets are met. Adoption of joint standards, such as operating speed, reliability, and bus stop access and waiting environment, will help Intercity Transit to ensure its investments are matched with supportive operating and access improvements.

Translating Land Use into Transit Service

Planners often talk about “transit-supportive density” or “transportation efficient land uses.” So how exactly should transit service respond to land-use density measures? How does population and employment density help to determine the level and type of service that should be provided on a street or in a specific corridor?

Appendix A provides a detailed literature review that helps to illuminate this question. In brief, there is a strong correlation between land use density and transit demand. This relationship is not linear, and transit demand (and corresponding per capita VMT reduction) tends to increase most dramatically between 10 and 40 households per residential acre. Density in most Olympia neighborhoods outside the downtown are below this range today, but areas designated for transit- supportive growth could reach this threshold quickly with new infill development. This research (detailed in Appendix A) illustrates that efforts to promote infill development, even at modest densities, could have exponential impact in reducing vehicle miles traveled and increasing transit and non-motorized travel.

However, land use is only one determinant of transit quality and the likely demand for service in a given environment. The following graphic, Figure 1-1, illustrates how land use types, intensity of use, built environment and service quality all interact to support environmental, community and economic goals.
Elements of Transit Demand

Clearly, density alone does not determine a service level. The level of service depends on several market factors: density, size, regional location, community design and street design.

- **Density**, for the purpose of this study, is described by the combination of population and employment per acre.

- **Size** must be considered together with density to determine the overall market that has been organized in a transit-oriented way, which in turn will determine the level of service that can be supported. An isolated, 50-unit apartment building surrounded by surface parking and/or open space could have a very high-density rating, but this alone would not mean it deserves the same level of service as The Evergreen State College, because it is a much smaller market. A particular level of service will require a minimum density over a minimum area.

- **Regional location** also affects travel demand as well as transit’s efficiency. Travel demand between two points tends to be inversely related to the distance between them. If there are other transit-oriented places close by, it is more likely that transit will be attractive as a mode. In addition, regional location determines whether a proposed line will have strong anchors to sustain ridership at the ends of the line. Regional location is addressed by ensuring that future transit corridors have major activity centers at their endpoints. These endpoints, called **anchors**, are discussed in detail below.
Community design is another crucial, but often unnoticed, element of transit demand. Community design is especially important as it relates to pedestrian access and safety. Even at high densities, people will not use transit if it is difficult or dangerous to access a bus stop. Many of today’s auto-oriented suburban apartment complexes, while very dense, have extremely poor access to major arterials or viable transit carrying streets. In our work throughout the country we have seen over and over that it is possible to have dense developments that are impossible to serve.

Street design is also an important component of transit access and operational viability. Neighborhoods where all roads are designed to connect to arterials or collector streets allow transit customers to reach bus stops without walking out of direction and provide more efficient routing options that can support high-frequency service.

The clear message for the City of Olympia is that, while it does not control how service is allocated, it does control most of the elements that make transit successful. Since Intercity Transit closely tracks route performance and regularly shifts resources to optimize ridership, City land use policies and ability to attract infill development ultimately drive the demand for transit service and shape a transit-supportive environment. In other words, while the City doesn’t control how limited transit operating dollars are allocated, it does have some control over the development patterns that will drive future service allocation and the demand for service. More than anything, better transit will require dense, mixed-use corridors with pedestrian-friendly access to transit stations.

The Importance of Anchors

A transit line serves two different functions. It covers an area, and it also connects points. In planning transit lines, especially major lines that will serve as the backbone of a primary fixed route network, the ends are especially critical. Along the middle of a line, people from many origins are on the bus, headed for the many destinations that the line serves. As a bus approaches the end of the line, however, it is useful to reach fewer and fewer destinations. Ridership tends to drop off toward the ends of the lines accordingly. If a line were placed on a uniformly developed area, without any special nodes of intense activity, we would expect the number of people on the bus to represent a bell curve, highest at the center of the line and lower toward the ends, until at the end of the line itself the bus is empty.

The amount of service that must be apportioned to a line is determined by the height of the curve at its highest point, called the peak load point. The rest of the area above the curve represents the capacity on the bus that has gone to waste, seats that are traveling empty.

Transit lines are much more efficient if they have anchors, major trip attractors at each end of the line. For example, Route 48 has Downtown Olympia at one end of the line and the Evergreen State College at the other; these major destinations tend to keep ridership high near the ends of the line, where ridership would otherwise fall off. The result is a more even distribution of ridership over the entire line, which means less wasted capacity and a more efficient use of resources.

Olympia’s Community Transit Network (CTN)

Citizens have a broad range of interests and needs when it comes to transit service, but were we to attempt to summarize the desires we most commonly hear from transit user and non-user opinion research into a brief statement, the common request might read:
A set of services that allows me to conveniently complete most of my daily activities without owning a car, or allows my household to save money by getting by with one less car, comfortable access to the system, and a high level of security at the stop and on-board.

A primary intent of this plan is to help the City of Olympia, Intercity Transit and partner jurisdictions accomplish this customer vision, which ultimately supports higher-level city goals relate to reducing harmful emissions, mitigating traffic congestion and creating move vibrant neighborhoods. The establishment of an Olympia Community Transit Network (CTN) policy is a tool toward this end.

**What is the CTN?**

The CTN is a policy network of top-quality transit services that connect key destinations in Olympia and to the region with service that meets basic needs critical to transit passengers:

- **Route structure:** Does the service take you from where you begin your trip to your destination?
- **Hours of service:** Is the service available when you want to take your trip?
- **Frequency:** Is the service convenient so you do not have a long wait for the bus?
- **Speed and Reliability:** Is the service on-time and competitive with the private automobile in connecting key destinations?
- **Vehicles:** Are the vehicles inviting and user friendly?
- **Fares and pass programs:** Does the fare system encourage the efficient use of transit while generating sufficient revenue?

Since the operating and capital resources do not exist to implement the CTN in full today, its purpose is as a policy framework that ensures quality transit will be available when land use and street design take and use good transit-oriented forms. In summary the policy says:

- If development along a corridor achieves the minimum density required to support “high-quality network” service, and
- If street design and management permits the operation of service at a given minimum speed and reliability, and maximizes the pedestrian access to each transit stop on the corridor, and
- If funding sources for high-ridership transit grow at an adequate rate to permit transit growth,
- Then the corridor will be permanently upgraded to high-quality network service levels, along with a corresponding higher priority for passenger amenities, fleet improvements, and other elements of transit quality.

The CTN is designed to guide:

- Transit service priorities
- Transit preferences in street design and signalization
- Transit passenger facilities
- Land use planning and development
• Siting of future transit-oriented land uses

To succeed, the CTN must be a commitment by both the City and Intercity Transit. The City must agree to adopt the CTN as part of an infrastructure plan, not simply a service concept. The key role of the CTN is to reinforce, on the level of policy, that certain bus service corridors are as permanent as any rail corridor, and can therefore also be the foundations of dense, transit-reliant neighborhoods.

Ultimately cities experiencing rapid urbanization realize that continued economic growth requires investment in fast, efficient transit. This is a matter of geometry, not ideology. Volatile fossil fuel prices, energy security concerns and the fall of the suburban housing boom highlight these imperative needs.

**Importance of CTN to Measuring Multimodal Level of Service**

Establishing clear transit service quality standards tied to key corridors or growth centers is integral to a successful multi-modal LOS standard and measurement(s). A key argument against integrating bus service into LOS measurement is its relative impermanence. The argument is often made: how do we know the bus will still be on that street 10 years from now? Typically this is very difficult for policy makers, particularly in cities with exclusively rubber-tired transit operations, to answer with confidence. A policy framework that establishes minimum service quality standards for important corridors provides a clear answer to this question, which in turn:

- Provides a policy basis for measuring transit capacity as part of an integrated LOS standard (since policy guarantees a measurable level of service that can be translated to capacity);
- Provides developers the confidence to develop at higher densities, to make additional investments in transit or pedestrian supportive infrastructure, and/or to construct less off-street parking;
- Provides the City and Intercity Transit justification for investing in high quality transit amenities and pedestrian and bicycle facilities.

A key component in meeting service standards will involve a partnership between Intercity Transit and the City of Olympia, which controls the operating environment for Intercity Transit.

**A Case for Balance**

The Complete Streets model has become a common approach to moving the use of our urban streets away from auto-domination and balancing the need for bicycle and pedestrian movement. The Complete Streets organization defines a complete street as one:

> 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 and across a complete street.

Many cities around the nation have adopted Complete Streets ordinances and are incorporating practices into planning and street design.
Complete Streets are important for transit because:

- The pedestrian network serves as the 'connective tissue' of the transit system. Every trip begins and ends as a pedestrian trip, and poorly planned access to bus stops are a real barrier for disabled travelers as well as a psychological barrier for all travelers. The U.S. Access Board sets minimum requirements for access for people with disabilities, but Complete Streets encourage quality pedestrian design that goes well beyond basic safety requirements.

- They encourage multiple jurisdictions to engage in important discussions about the quality of experience for all street users. A major challenge for pedestrian accessibility is the disconnect between transit operators, who are responsible for transit facilities, and departments of public works, who are generally responsible for the roadway and pedestrian facilities that provide access to transit facilities. It is important that the agencies move past the "not my problem" mentality and coordinate their activities carefully for accessible streets and sidewalks.

- Better street design encourages new and more intensive land uses, which creates more demand for top-quality transit.

Complete Streets policies can challenge transit operators because:

- Complete Streets recognize the need to accommodate transit vehicles, but overall policies are bicycle and pedestrian oriented.

- The reduction of traffic controls in favor of very slow speeds and integration can negatively impact transit operating speed (competitiveness) and reliability. Sometimes segregating transit is the right thing to do, particularly in an urban core where a system converges and small amount of incremental delay can equate to significant operating cost and passenger delay over the course of time.

- Complete Streets advocacy is oriented toward non-motorized travel and may discount the importance of maintaining transit performance. Since a large percentage of regional trips are longer than most people will comfortably walk or bike, transit is critical in reducing use of private automobiles.

This plan addresses this inherent conflict by proposing a basic CTN “overlay” that the City of Olympia can use in conjunction with its existing street classification system. Pedestrian and bicycle system improvements in CTN corridors should be prioritized over secondary transit routes or non-transit carrying streets.

It is also important that pedestrian and bicycle advocates recognize transit’s role in creating walkable, bikeable communities. Planners and advocates should keep in mind that:

- For many people, transit is the most viable alternative for trips over 3 miles, which still comprise a large percentage of trips made all or in part within the City of Olympia.

- Most transit trips start with walk trips (a few start with a bicycle or personal auto), so more people on transit means more pedestrian activity which can in turn help to justify investment.

- People walk most frequently and farthest in places where they rely on transit for mobility. Manhattan has the highest transit mode share of any place in the United States, not coincidently it also has the highest rates of walking and greatest distance walked per capita of any place in the United States.
Olympia doesn’t have the density of Manhattan or even Seattle, nor does it aspire to. Nonetheless, land use policies focused on creating dense corridors and centers with a healthy mix of land uses will ultimately increase transit ridership and help to justify investment in the pedestrian environment. Land use patterns that encourage walking and are supported by transit allow people choices. Someone who wants to give up their car and start cycling to work may be more likely to do so if they know they can easily access transit as an alternative when the weather is poor or they have a heavy load to carry.

Jurisdiction/Partnerships

Jurisdictional authority is a complicating factor in achieving the close coordination between land use and transit system planning needed to develop transit-oriented neighborhoods and make transit a viable alternative to use of a private automobile. In Olympia, as in many communities throughout the nation, transit service is provided by a regional agency that collects tax revenues and provides service to a district comprised of multiple jurisdictions. This governance framework creates natural tensions, which include:

- **Process for allocating limited transit operating funds:** This is typically left to the transit operating agency and its Board of Directors. Decisions may be political or value laden and may or may not match goals of a particular jurisdiction within the District.

- **Limited transit operator control of streets on which it operates:** Transit operators are reliant on streets and signal systems managed by city of county departments.

- **Regional growth allocations:** Accommodating future growth in existing urban neighborhoods where high-quality transit already runs is the most effective strategy for improving transit quality of service, as new funds for operations and capital/access improvements can be put back into existing transit lines. However, market and political forces drive long-term growth strategies and decisions are often made to favor some level of suburban growth. In this environment, incremental growth in transit funding almost always goes to low-productivity service expansions and maintenance of existing service headways to deal with increased traffic congestion. In other words, the best transit can do is keep up.

- **Development review and siting of institutions:** An earlier section of this report talks about the importance of route anchors or major ridership generators – schools, public office complexes, medical facilities, etc. Too often low-cost land acquisitions are allowed to drive siting decision for these types of facilities, without significant consideration of the transportation and facility impacts. The location of future State Capitol facilities in the Olympia region is an excellent example of this tradeoff. The State has clearly considered environmental impacts of dispersing Capitol employment in Capitol Campus Master Plan, which recommends concentrating new development in Olympia and existing state office complexes.

The City of Olympia has a very positive and effective relationship with Intercity Transit and the Thurston Regional Planning Council, the regional land use and transportation planning agency. Collaboration between these entities bodes well for future transit enhancements and should be built on, establishing more formal agreements to guide land use planning, right-of-way management and facility development. Recommendations for jurisdictional implementation responsibilities are covered in Appendix B: Implementation of the CTN.
Chapter 2.  Olympia’s Existing Transit System

Jurisdictional Boundaries and Governance

Intercity Transit, the business name for the Thurston County Public Transportation Benefit Area (PTBA), was established in September 1980 as authorized by Washington State law\(^1\). Intercity Transit’s mission is to enhance the quality of life for people in its community by providing basic mobility and transportation alternatives.

The service area served by Intercity Transit is shown in Figure 2-1 on the next page. It includes the urban areas of Olympia, Lacey, Tumwater, and Yelm.

The Intercity Transit Authority governs the organization. The eight member board consists of five elected officials representing the jurisdictions of Thurston County, Lacey, Olympia, Tumwater, and Yelm, plus three citizen representatives appointed by the Transit Authority. Citizen representatives serve three-year terms and elected officials are appointed by their respective jurisdiction. Intercity Transit is the only transit system in Washington with citizen members serving on its governing board.

Operations

Intercity Transit operates fixed-route bus service on 22 routes on weekdays, 18 routes on Saturdays, and 14 routes on Sundays. Connections are available to Pierce County, Grays Harbor and Mason Transit systems. There are three inter-county routes providing express service between Thurston County and Lakewood and Tacoma in Pierce County, with connections to Sound Transit bus and rail service. Regional connections to Amtrak and Greyhound service are also available within Thurston County, and with two smaller rural service providers serving Southwestern Washington. The entire bus fleet is ADA accessible and all fixed-route coaches are also equipped with two bicycle racks on the front. In addition, “door-to-door” Dial-A-Lift (DAL) paratransit service is provided for qualified ADA recipients not able to use regular bus service. DAL service areas vary from \(\frac{3}{4}\) mile on either side of a fixed route in the urbanized areas to \(1\frac{1}{2}\) miles on either side of routes in the more rural areas of the district.

In addition, Intercity Transit operates a Commute Trip Reduction program in partnership with the TRPC to assist employers with compliance with the State’s Commute Trip Reduction law. Intercity Transit staff markets the vanpool program to employers and individuals, facilitates group formation and provides driver training. Vanpool commuter groups lease the vehicles on a monthly mileage basis.

A map of Intercity Transit services, including the Dial-a-Lift service area, is shown in Figure 2-2. Figure 2-3 illustrates Intercity Transit’s existing service frequencies. Routes are divided into a service hierarchy of trunk, primary, secondary and express routes as defined in Figure 2-4.

---

\(^1\) RCW 36.57A
Figure 2-1: Intercity Transit Service Boundary (Thurston County PTBA), 2008

Source: Intercity Transit
Figure 2-4  Service Classifications

<table>
<thead>
<tr>
<th>Route Type</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trunk route</td>
<td>Urbanized communities along major arterial street. There are the “spine” routes linking major attractions throughout the community. Route deviations, loops, and other delays are generally not acceptable on trunk routes.</td>
</tr>
<tr>
<td>Primary route</td>
<td>Traditional urban neighborhoods. Primary routes have a greater neighborhood orientation than trunk routes. Some deviation from the most direct routing to serve community centers may be acceptable.</td>
</tr>
<tr>
<td>Secondary route</td>
<td>Routes that provide mobility in suburban neighborhoods. Largely suburban in character, secondary routes are designed to meet the specialized needs of the neighborhoods they serve.</td>
</tr>
<tr>
<td>Express route</td>
<td>Long distance (20 miles plus) travel between significant urban centers.</td>
</tr>
<tr>
<td>Commuter route</td>
<td>Express routes that link major trip generators within Thurston County.</td>
</tr>
</tbody>
</table>

Source: Intercity Transit Short Range Service Plan, 2006-2011

An existing conditions report prepared in 2005 found that ridership on the Intercity Transit 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 points².

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%).

Key Operating Statistics

Intercity Transit’s performance is comparable or better than that of peer cities in Washington. Compared to peer systems, Intercity Transit operates at a lower cost per hour and covers a greater percentage of its cost from fares. Figure 2-5 shows how Intercity Transit compares to peers on some key performance measures for 2007. Although the statewide figures are not available yet, the 2008 performance figures from Intercity Transit for 2008 show an increase in operating costs, likely due to high fuel prices and new extended service hours.

Figure 2-5  Performance Compared To Washington Peers, 2007

<table>
<thead>
<tr>
<th>Fixed Route Performance Measure</th>
<th>Intercity Transit</th>
<th>Small City Averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of operating cost covered by fares</td>
<td>9.71%</td>
<td>8.39%</td>
</tr>
<tr>
<td>Operating cost per passenger trip</td>
<td>$4.61</td>
<td>$5.01</td>
</tr>
<tr>
<td>Passenger trips per revenue hour</td>
<td>20.9</td>
<td>21.5</td>
</tr>
<tr>
<td>Passenger trips per capita</td>
<td>25.2</td>
<td>15.7</td>
</tr>
<tr>
<td>Operating costs per capita</td>
<td>$116.20</td>
<td>$78.90</td>
</tr>
</tbody>
</table>


Summary of Fleet and Facilities

In 2008, Intercity Transit’s fleet included 99 service vehicles: 68 coaches for fixed-route service and 31 paratransit vehicles. In addition, Intercity Transit’s vanpool program has 224 vans which are used for leasing to commuter groups and three agency vans used in a Village Vans program to assist low-income families with work-related transportation services.

Administrative, operations, and maintenance services are housed in Olympia in a 66,000 square foot facility with two buildings. There are six transfer centers in service, two of which are off street with public restrooms and bicycle storage. There are currently 938 bus stops maintained and served, of which 202 have shelters. There are also three park-and-ride lots maintained and served within the service area.

The Intercity Transit 2009-2014 Strategic Plan included plans for several capital facilities: new park-and-ride lots in the east Lacey area, Yelm, and Martin Way, expansion of the Olympia Transit Center to include Greyhound service, and development of a new on-street transit center in Tumwater, purchase of new vehicles to replace aging ones over a five-year period, and expansion of the Intercity Transit operating base facility. These projects are currently under review due to the economic conditions facing the region. The plans require additional revenues and the ability to obtain federal grant funds is uncertain. The only facility certain to proceed is the expansion of the Martin Way Park-and-Ride, which is currently under construction and expected to open in Summer 2009. Fleet vehicle replacements include 20 coaches, 21 Paratransit vans, and 157 vanpool vehicles. Fleet expansion may include four new Paratransit and 80 new vanpool vehicles.

Current and Projected Funding Growth

All transit systems in Washington State have access to the following funding sources:

- Farebox revenues
- Advertising revenues
- Local sales tax levy
- Local, state and federal allocated funds
- State grants

2008 saw a rise in fuel costs as well as a 3.1% decrease in sales tax revenue, but Intercity Transit finished the year with expenses lower than revenue, as shown in Figure 2-6.
Figure 2-6  Sources of Funds and Expenses, 2008


The most important source of funding for Intercity Transit is the local sales tax. A transit system may levy up to a 0.9% local sales tax within the Public Transportation Benefit Area (PTBA) boundaries to fund public transportation services in that area. A 0.1% sales tax generates approximately $4,000,000 per year; Intercity Transit currently levies a 0.6% sales tax which generated $23,500,000 in 2007.

Fares also provide a certain amount of revenue. In 2008, farebox revenues accounted for about $2.0 million. Intercity Transit’s 2009-2014 Baseline Financial Forecast includes a fare increase on January 1, 2009, which is projected to generate $500,000 per year or $3,000,000 over the six-year period. Intercity Transit also receives approximately $300,000 per year in advertising revenues. Although it may be possible to increase some additional revenues through advertising sales, it is not likely to become a significant source.

Intercity Transit receives approximately $2.4 million per year in allocated federal funds, and discretionary grants from the Federal Transit Administration for capital projects. The State of Washington provides approximately $350,000 per year in allocated funds. These funds are Paratransit/Special Needs funds which are used to cover Dial-A-Lift service costs. Intercity Transit also receives State competitive grants for its commuter services, including a Regional Mobility Grant for a park-and-ride expansion, and vanpool expansion grants which cover 100% of the capital cost of new vans.
In its 2009-2014 Strategic Plan, Intercity Transit looks to an increase in the local sales tax as the only significant source of new funding from 2009-2014. A ballot proposal will be needed that asks voters to approve up to a .3% sales tax increase, which would be needed to implement and sustain approximately 40,000-120,000 hours of annual service. The funding plan shown in Figure 2-7 includes a successful effort at achieving a 0.2% sales tax increase that would be applied starting in 2010. If a sales tax increase is not successful and local sales tax revenues continue to decline, Intercity Transit will be forced to consider service reductions.

### Figure 2-7  Intercity Transit Strategic Plan Financial Forecast, 2009-2014

<table>
<thead>
<tr>
<th>YEAR</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting Cash</td>
<td>19,807,620</td>
<td>13,704,512</td>
<td>16,686,048</td>
<td>9,131,927</td>
<td>4,008,182</td>
<td>6,908,823</td>
<td>6,156,993</td>
</tr>
<tr>
<td>Capital Revenues</td>
<td>1,926,765</td>
<td>4,467,170</td>
<td>6,334,621</td>
<td>4,495,599</td>
<td>409,445</td>
<td>3,188,590</td>
<td>438,608</td>
</tr>
<tr>
<td>Total Revenues</td>
<td>31,179,510</td>
<td>38,959,712</td>
<td>45,920,728</td>
<td>45,188,905</td>
<td>42,467,482</td>
<td>46,748,978</td>
<td>45,567,484</td>
</tr>
<tr>
<td>Operating Expenses</td>
<td>28,613,986</td>
<td>28,944,106</td>
<td>30,560,249</td>
<td>34,616,028</td>
<td>36,568,908</td>
<td>38,097,110</td>
<td>39,923,634</td>
</tr>
<tr>
<td>Capital Expenses</td>
<td>8,668,632</td>
<td>7,034,070</td>
<td>22,914,601</td>
<td>15,696,622</td>
<td>2,997,934</td>
<td>9,403,698</td>
<td>2,035,768</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>37,282,618</td>
<td>35,978,176</td>
<td>53,474,849</td>
<td>50,312,650</td>
<td>39,566,842</td>
<td>47,500,808</td>
<td>41,959,402</td>
</tr>
<tr>
<td>Revenues Expenses</td>
<td>-6,103,108</td>
<td>2,981,536</td>
<td>-7,544,121</td>
<td>-5,123,745</td>
<td>2,900,640</td>
<td>-751,830</td>
<td>3,608,082</td>
</tr>
<tr>
<td>Ending Cash</td>
<td>13,704,512</td>
<td>16,686,048</td>
<td>9,131,927</td>
<td>4,008,182</td>
<td>6,908,823</td>
<td>6,156,993</td>
<td>9,765,075</td>
</tr>
<tr>
<td>90 Day Reserve</td>
<td>7,153,497</td>
<td>7,236,027</td>
<td>7,640,062</td>
<td>8,654,007</td>
<td>9,142,227</td>
<td>9,524,278</td>
<td>9,980,908</td>
</tr>
<tr>
<td>Hours of Fixed Route Service</td>
<td>176,223</td>
<td>198,836</td>
<td>207,035</td>
<td>231,920</td>
<td>231,920</td>
<td>236,260</td>
<td>236,260</td>
</tr>
<tr>
<td>Hours of DAL Service</td>
<td>45,945</td>
<td>47,602</td>
<td>49,258</td>
<td>50,915</td>
<td>52,571</td>
<td>54,227</td>
<td>56,227</td>
</tr>
</tbody>
</table>

**Source:** Intercity Transit Strategic Plan, 2009-2014

### Planned Service Expansions

Four different areas are experiencing significant growth within the service area and are targeted for new services between 2008 and 2011. Funding for some of these service expansions is now

---

3 Based on an increase in sales tax from .06% to .08%
dependent on increasing the local sales tax. Because the allocation of new transit operating revenues will generally follow areas where significant population and employment growth are projected, particularly where that growth is expected to happen in a dense, mixed-use fashion, current service expansion plans allocate little new service to the City of Olympia. Intercity Transit expansion areas, illustrated in Figure 2-8 below, are:

- **Hawks Prairie North of I-5** – Hundreds of homes, a proposed branch of South Puget Sound Community College (SPSCC), WSDOT offices, and other commercial development have or will be located in this area. Route 62 could be extended from Meridian, and a new route serving the WSDOT offices and the SPSCC campus should be programmed.

- **Horizon Point** – Over one thousand homes are being constructed in the area south of Little Prairie Center, which is now being served by Route 64.

- **Littlerock Road / West Tumwater** – The Littlerock Road corridor is rapidly changing from a rural road to a commercial power center with several big box stores; to its west is slated substantial housing development. Route 12 midday frequencies will increase from hourly to every 30-minutes.

- **Marvin Road / Mullen Road Corridor** – This corridor is experiencing a large amount of residential growth, but the development patterns are unsuitable for fixed route transit. Demand response or deviated fixed route service should be programmed for this corridor.

**Figure 2-8 Targeted Service Expansion Areas**

Source: Intercity Transit Short Range Plan, 2006-2011
Public/Stakeholder Perception

Intercity Transit conducted an on-board and telephone customer service survey in Fall 2008. Preliminary results indicated that ridership levels have increased since 2004, with the majority of riders having used Intercity Transit services for three years or less, as shown in Figure 2-9. Customer satisfaction ratings were higher in general, although varied by specific issue. Ease of getting route and schedule information was the top-rated service feature, while availability of bus shelters and the evening service end time were the lowest, as shown in Figure 2-10.

When asked to rate which service features were the most important to improve, 29% customers rated the evening service end time as “very important”. Other service improvements rated as “very important” were: frequency of service (19%), time buses start running in the morning (19%), buses running on time (17%), availability of bus shelters (16%), and total travel time (16%). The top service features rated as “no need to improve” were: ease of getting route/schedule information (58%), courtesy of drivers (52%), cleanliness inside buses (50%), and safety at transfer centers (49%).

The 2008 survey showed a decrease in transit-dependent riders, with 49% of respondents saying they had a car available, and only 31% transit dependent, compared to 36% in 2004. Respondents were asked whether they would prefer to use the bus even if they could switch to a car. In 2008, 69% of respondents said they would keep using the bus, while only 15% said they would switch to a car; in 2004, 33% would have switched.

Figure 2-9 Duration of Ridership

Duration of Ridership
When rider began using intercity transit (Number of trips per month)

![Duration of Ridership Chart]

Source: 2004 and 2008 Intercity Transit Onboard Surveys
There is no current data available to track opinions of non-users or local stakeholders toward transit. A new survey is planned for completion in 2009, and further outreach as part of this study may help to illuminate the opinions of key local stakeholders and/or the general public.

**Transit Operating Environment**

Thurston County is a dynamic region with a growing economy. Residential growth, in particular, accelerated in the past several years and shows few signs of slowing. Major housing developments are occurring on the edges of the Intercity Transit service area and “infill” development is also occurring inside it. This means increasing service demands upon Intercity Transit. Residents of developing neighborhoods request new bus routes; those in established neighborhoods want existing services to operate more frequently or later at night, and regional commuters increasingly look to Intercity Transit as a way of avoiding the region’s crowded freeways.

A land use analysis conducted for Intercity Transit concluded that in general, densities in the downtown and older neighborhood areas of the PTBA are supportive of transit, although newer residential growth tends to be lower density and more difficult to serve. Lacey, Olympia, Tumwater and Yelm have already incorporated many transit-supportive zoning and design elements into their comprehensive plans, such as encouraging infill and mixed use development, and designating transit oriented development (TOD) and transit strategy corridors.

---

4 Intercity Transit Long- and Short-Range Plan Deliverable #3, Analysis of Land Use
The State of Washington Capitol Campus functions are the major economic driver in Olympia and surrounding communities accounting for over 23,000 jobs in Thurston County. Following the 2001 Nisqually Earthquake, the State moved a significant number of administrative jobs to Lacey and Tumwater. The most recent Master Plan preferred development and leasing option recommends a renewed focus on space planning in and around downtown Olympia. The preferred leasing area in downtown is bounded by Maple Park/16th Ave to the south, the water to the west, Olympia Ave/Market to the north and Eastside Street to the east. The Master Plan also includes additional leasing areas in Olympia within the circumferential Evergreen Park Drive and at Lacey and Tumwater Campuses.

Key goals backing the decision to consolidate facilities in Olympia include support of regional growth management and sprawl reduction strategies, promote consolidation of state functions, and to create transportation choices for employees. Intercity Transit currently runs its specially branded frequent service “DASH” route between the Capitol Campus and downtown Olympia. This route performs well during the Legislative session, but ridership is low during most of the year.

Figure 2-11 on the following page highlights existing State facilities in Olympia and the downtown Olympia preferred leasing area from the Master Plan for the Capitol.

Intercity Transit is actively involved with local governments as land use permitting decisions are made, with the aim of maximizing opportunities for public transit as land use and urban design decisions are made. The agency’s Land Use Review and Support Program allows staff to review development proposals during the permitting process. During 2008, staff reviewed 650 submissions and commented on 14 development applications requesting transit amenities.

The area within the Intercity Transit service district 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. The Intercity Transit Long- and Short Range Plan\(^5\) recommended that Intercity Transit work with the jurisdictions to adopt transit trunk corridors into each comprehensive plan and developing Transit Overlay Zones with density, parking and design standards that support transit and pedestrian activity in these corridors. It concluded that three of the strategy corridors designated in the regional transportation plan would have the greatest potential for development into multi-modal corridors: Martin Way, Pacific Ave., Capitol Way and Harrison Ave. These strategy corridors are illustrated in Figure 2-12.

\(^5\) Intercity Transit Long- and Short-Range Plan Deliverable #3, Analysis of Land Use
Figure 2-11 Washington State Facilities in Olympia
Figure 2-12 Regional Transportation Strategy Corridors

Source: Intercity Transit Long- and Short-Range Plan Deliverable #3, Analysis of Land Use
Performance Measurements

Intercity Transit’s annual update of its Transit Development Plan presents measures of system performance that are based upon Washington State Department of Transportation (WSDOT) reporting requirements and progress meeting state objectives. Intercity Transit also measures its performance by annual customer satisfaction surveys, quarterly and annual statistical documentation required by the Federal Transit Administration’s “National Transit Database”, and ongoing monthly monitoring and reporting of all service components from service to preventative maintenance of equipment.

Like most transit agencies, Intercity Transit’s existing performance measures are largely oriented toward performance (ie, passenger per hour), efficiency (ie, cost per passenger), and safety (ie, accidents per 1000 miles). This focus on data collection to satisfy federal and state reporting requirements pushes Intercity Transit to track performance by comparison to transit agency peers. Any performance measurement toward other local goals such as modal shift is done separately and treated differently under state and local commute trip reduction laws and surveys. For Intercity Transit to become an effective part of state and local growth management and CO2 emissions reduction goals, performance goals must be set that link directly to these goals.
Chapter 3. Future Policy and Actions

This section describes future policy recommendations, actions and implications for the City of Olympia. This section is divided into four elements: service, capital, policies and funding. Key policy considerations or actions are recommended for each element.

Service Element

Transit as City Infrastructure: The Community Transit Network

A fundamental element of this plan is the adoption of a future Community Transit Network, or a network of frequent services that runs every 15 minutes or better all day (16 hours on weekdays and 14 hours on weekend days) seven days per week. This section describes the benefits of identifying a network of primary transit corridors within the City of Olympia (although several will stretch beyond City Boundaries) to guide local land use planning and development. For the purpose of this report, this recommended network is called the Community Transit Network (CTN).

There are three categories of CTN service:

- **Existing** – there are no corridors that currently meet the requirements of a CTN corridor (15-minute service 7 days per week) although there are several corridors that meet weekday requirements for the CTN and would qualify as an Existing CTN corridor with enhancements to weekend headways.

- **Definite** – these are corridors that don’t yet meet all CTN requirements, but are clearly critical components of the City’s transit network. These corridors represent key opportunities for the City of Olympia to promote infill development that will justify more intense service and higher levels of capital investment. Typically, zoning in these corridors is sufficient to accommodate CTN-supportive densities if built to maximum allowable densities, although upzoning in these corridors could improve the market feasibility for dense, mixed-use development.

- **Candidate** – these are corridors that do not have current or zoned densities supportive of CTN service, but could form important future elements of the CTN. Most of these corridors are served by low-frequency collector bus routes and this level of service will continue to be appropriate until land use changes are put in place.

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 is supported by other important transit services that include: lower frequency collector routes, regional express routes that enter Olympia from other parts of the region and non-scheduled transit services, such as IT’s Dial-A-Lift paratransit service.

Figure 3-1 illustrates the proposed Olympia CTN and Figure 3-2 shows the current frequency and span characteristics of Intercity Transit’s current route network.
Figure 3-1: Olympia Community Transit Network

Community Transit Network
- Existing CTN
- Definite CTN
- Candidate CTN
- Supporting Network

2030 Pop. / Emp. Density Matrix (By TAZ)
- Population Density (persons per acre)
- Employment Density (persons per acre)

CTN Characteristics:
- Frequencies: 15 minutes all day
- Span: 16 hours weekdays/14 hours weekends
- Days of Service: 7 per week
- Highest quality vehicles, amenities and information

Data Source:
Thurston Regional Planning Council,
Population & Employment Forecast Work Program,
2004-2005

No Data
Olympia UGA Boundary

GIS Data Source: Thurston Regional Planning Council, ESRI
**Figure 3-2** Headways and Span on Current Intercity Transit Services and Key Corridors in Olympia*

<table>
<thead>
<tr>
<th>Intercity Route #</th>
<th>Route Name</th>
<th>Peak Headway (Weekday)</th>
<th>Midday Headway (Weekday)</th>
<th>Headway (Weekend Days) Sat/Sun</th>
<th>Span of Service in hours (Weekday)</th>
<th>Span of Service in hours (Weekend Days) Sat/Sun</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Olympia Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dash</td>
<td>Downtown Olympia Shuttle</td>
<td>12</td>
<td>12</td>
<td>10 / - (Spring-Fall)</td>
<td>12</td>
<td>8/-</td>
</tr>
<tr>
<td><strong>Olympia-Tumwater Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>L&amp;I, West Tumwater, Downtown Olympia</td>
<td>30</td>
<td>60</td>
<td>60/60</td>
<td>17</td>
<td>15/11</td>
</tr>
<tr>
<td>13</td>
<td>L&amp;I, East Tumwater, Downtown Olympia</td>
<td>15</td>
<td>15</td>
<td>60/60</td>
<td>16</td>
<td>15/11</td>
</tr>
<tr>
<td><strong>East Olympia Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Bethel Street, North Central Street, Downtown Olympia</td>
<td>30</td>
<td>60</td>
<td>60/60</td>
<td>14</td>
<td>11/11</td>
</tr>
<tr>
<td><strong>West Olympia Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>The Evergreen State College, Downtown Olympia</td>
<td>30</td>
<td>30</td>
<td>30/30</td>
<td>18</td>
<td>15/12</td>
</tr>
<tr>
<td>42</td>
<td>Family Court, South Puget Sound Community College (SPSCC)</td>
<td>25</td>
<td>- / 25 / -</td>
<td>-</td>
<td>11</td>
<td>-</td>
</tr>
<tr>
<td>43</td>
<td>Thurston County Courthouse, SPSCC, Tumwater Square, Downtown Olympia</td>
<td>30</td>
<td>30</td>
<td>-</td>
<td>13</td>
<td>-</td>
</tr>
<tr>
<td>44</td>
<td>Westfield Mall, South Puget Sound Community College, Downtown Olympia</td>
<td>30</td>
<td>30</td>
<td>30/60</td>
<td>16</td>
<td>14/12</td>
</tr>
<tr>
<td>45</td>
<td>Westfield Mall, Conger, Downtown Olympia</td>
<td>30</td>
<td>60</td>
<td>60/-</td>
<td>13</td>
<td>11/-</td>
</tr>
<tr>
<td>47</td>
<td>Capital Medical Center, Westfield Mall, Downtown Olympia</td>
<td>30</td>
<td>30</td>
<td>60/60</td>
<td>13</td>
<td>11/11</td>
</tr>
<tr>
<td>48</td>
<td>The Evergreen State College, Westfield Mall, Downtown Olympia</td>
<td>30</td>
<td>30</td>
<td>-</td>
<td>14</td>
<td>-</td>
</tr>
<tr>
<td>49</td>
<td>Westfield Mall, Downtown Olympia, evenings and weekends</td>
<td>-</td>
<td>30</td>
<td>30/30</td>
<td>2</td>
<td>13/12</td>
</tr>
<tr>
<td><strong>Olympia-Lacey Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>Group Health, Panorama City, Downtown Olympia</td>
<td>30</td>
<td>60</td>
<td>60/60</td>
<td>13</td>
<td>12/12</td>
</tr>
<tr>
<td>62A</td>
<td>Lacey, Meridian, Downtown Olympia</td>
<td>30</td>
<td>30</td>
<td>60/60</td>
<td>15</td>
<td>13/12</td>
</tr>
<tr>
<td>62B</td>
<td>Lacey, The Meadows, Downtown Olympia</td>
<td>30</td>
<td>30</td>
<td>60/60</td>
<td>18</td>
<td>16/12</td>
</tr>
<tr>
<td>64</td>
<td>Lacey, Amtrak, College Street, Downtown Olympia</td>
<td>30</td>
<td>60</td>
<td>60/60</td>
<td>15</td>
<td>13/12</td>
</tr>
<tr>
<td>66</td>
<td>Lacey, Ruddell Road, Downtown Olympia</td>
<td>30</td>
<td>30</td>
<td>30/30</td>
<td>17</td>
<td>15/12</td>
</tr>
<tr>
<td>68</td>
<td>Lacey, Tumwater Square, Downtown Olympia</td>
<td>30</td>
<td>60</td>
<td>60/-</td>
<td>15</td>
<td>13/-</td>
</tr>
<tr>
<td>94</td>
<td>Lacey Corporate Center, Yelm, Downtown Olympia</td>
<td>30</td>
<td>30</td>
<td>60-75 / 135</td>
<td>15</td>
<td>13/13</td>
</tr>
</tbody>
</table>
### Transiit Modal Report

**CITY OF OLYMPIA**

<table>
<thead>
<tr>
<th>Intercity Route #</th>
<th>Route Name</th>
<th>Peak Headway (Weekday)</th>
<th>Midday Headway (Weekday)</th>
<th>Headway (Weekend Days)</th>
<th>Span of Service in hours (Weekday)</th>
<th>Span of Service in hours (Weekend Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>603</td>
<td>Lakewood, Tacoma, Downtown Olympia</td>
<td>30</td>
<td>90</td>
<td>-</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>620</td>
<td>Lakewood, Tacoma, Downtown Olympia</td>
<td>-</td>
<td>-</td>
<td>60-90 / 135</td>
<td>-</td>
<td>12/12</td>
</tr>
</tbody>
</table>

**The Evergreen State College**

| Nightline (a) | Late night service to and from The Evergreen State College | 30-60 (late night) | - | 60 | 4 | 4/3 |

**Corridors**

<table>
<thead>
<tr>
<th>Corridors</th>
<th>Corridors</th>
<th>Martin Way Corridor (Olympia-Lacey)</th>
<th>12-18</th>
<th>12-18</th>
<th>30/30 (60 offpeak)</th>
<th>18 (11 wfreq svc)</th>
<th>16/12 (12/12 w/30 min headways)</th>
</tr>
</thead>
<tbody>
<tr>
<td>62A/62B</td>
<td>(b)</td>
<td>Capitol Way Corridor (Olympia-Tumwater)</td>
<td>2-15</td>
<td>2-15</td>
<td>12-30 / 30 (60 offpeak)</td>
<td>17 (12 wfreq svc)</td>
<td>15 / 11 (13/12 w/30 min headways)</td>
</tr>
<tr>
<td>12/13/68</td>
<td></td>
<td>Harrison Ave Corridor (Downtown to West Olympia)</td>
<td>15</td>
<td>15</td>
<td>15-30/ 15-30 (60 offpeak)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>47/48/49</td>
<td>(c,b)</td>
<td>Deschutes Parkway Corridor (OTC - SPSCC)</td>
<td>15</td>
<td>15</td>
<td>30/60</td>
<td>16 (12 wfreq svc)</td>
<td>14/12</td>
</tr>
</tbody>
</table>

(a) Service operates from 12:00 AM to 3:15 AM on Saturday and Sunday and from 9:00 PM to 12:00 AM on Sunday.
(b) Not labeled on schedules as a frequent service corridor.
(c) Note that 48 runs on weekdays and 49 runs on weekends.
(d) 43 runs only on weekdays

* Pierce Transit, Mason Transit, and Gray Harbor Transit also operate service in Olympia, with transfer connections at the Olympia Transit Center.

Whether formed by bus or other modes (future) the CTN is a foundational element of the city’s infrastructure. For the high-density portions of the city, it is as essential as providing streets and sidewalks. Because it is designed to serve a large share of the city’s population with a minimum of line miles, it can offer not just the best frequencies and spans of service, but also many other premium features, including:

- Priority for low-floor, high-capacity coaches and any new coach technologies that expedite comfort or operations.
- Premium shelters with many of the amenities associated with rail stations.
- Information features, including real-time information in shelters (the number of minutes until the next bus comes) and informational displays within buses (such as the time and the next stop.)
- A distinct image that sets the CTN apart from the less-frequent supporting services.
- Reinforced street pavement for smooth travel and fewer maintenance interruptions.

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. It also provides assurance to Intercity Transit that the City will manage street rights-of-way to maintain minimum levels of operating speed and reliability. This means new transit resources can be spent to improve service, rather than simply maintain.
Finally, the CTN should provide not just for intensification of land use around existing CTN services. It should also promote the development of new CTN corridors contingent on land use plans that will provide the ridership needed to support primary service. This element of the CTN strategy is critical for dealing with corridors that are not currently built to the necessary densities, but might be.

The CTN would become an organizing tool for both transit planning and land use, ensuring that each takes into account the intrinsic economics and logic of the other in the areas where the stakes are highest. It has other uses as well. For example, if a planned land use is known to require transit, as social service offices and senior facilities do, then the CTN is the best place to locate this use and be assured of transit service; conversely, if an entity needing transit chooses not to locate on the CTN, they do so with the knowledge that they may not get the best transit service, or any at all.

This highlights the important role that CTN policies have in reducing growth in Dial-A-Lift usage. CTN policies would accomplish this by discouraging poor land use siting decisions, such as locating in low-density locations, that lead to less efficient paratransit operations. When social service organizations locate at the urban periphery, where land is typically cheaper, it can lead to expensive operations for transit agencies when they are asked to operate in these lower-density areas. By preventing poor land uses decisions, CTN policies may help IT curb the growth of Dial-A-Lift service.

Relationship to Intercity Transit Service Classifications

This document will focus primarily on the development and policy relationships of the Community Transit Network. However, there are range of public transportation services provided by Intercity Transit that are critical to personal mobility in the City of Olympia and surrounding communities. Intercity Transit has a distinct service hierarchy for these services, as described in Figure 3-3. This hierarchy is not directly influenced by the adoption of the CTN, as the CTN is a policy network of critical corridors designed to influence land use and other policy initiatives. The CTN is not a system in the same right as Intercity Transit’s existing or planned transit network.

**Figure 3-3 Public Transportation Service Types Provided in Olympia**

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Definition*</th>
<th>Relationship to CTN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trunk Route</td>
<td>Urbanized communities along major arterials street. These are the “spine” routes linking major attractions throughout the community. Route deviations, loops, and other delays are generally not acceptable on trunk routes.</td>
<td>Existing and Definite CTN segments typically match Trunk Route designations.</td>
</tr>
<tr>
<td>Primary Route</td>
<td>Traditional urban neighborhoods. Primary routes have a greater neighborhood orientation than trunk routes. Some deviation from the most direct routing to serve community centers may be acceptable.</td>
<td>Significant segments of Primary Routes are categorized as Definite Candidate of CTN corridors.</td>
</tr>
<tr>
<td>Secondary Route</td>
<td>Routes that provide mobility in suburban neighborhoods. Largely suburban in character, secondary routes are designed to meet the specialized needs of the neighborhoods they serve.</td>
<td>May share segments with the CTN, but are typically not part of the CTN.</td>
</tr>
<tr>
<td>Express Route</td>
<td>Long distance (20 miles plus) travel between significant urban centers.</td>
<td>May run on CTN corridors, but there is no relationship as these routes don’t.</td>
</tr>
</tbody>
</table>
## Role of the Community Transit Network

Given available operating resources, short-term alternatives for the Intercity Transit fixed-route network will likely include only a minimum amount of service operating at 15-minute frequencies or better; much of that service concentrated in two main corridors, Capitol Way and Martin Way, both of which terminate at Olympia’s Downtown Transit Center. Long-range plans will, however, include a substantial network of services that that run every 15 minutes or better all day. Other commute or peak-oriented services may run at comparable high frequencies only during peak hours. The development of the Community Transit Network will lay the groundwork for a future public transportation system designed to provide highly attractive alternatives to the private automobile and other single-occupancy modes. The CTN Network has several key features which distinguish it from other local and regional services and help to establish its role as a long-term foundation for the system:

- **Ridership and Productivity Potential:** The 15-minute headway represents the point at which you no longer need to consult a schedule to use transit service. It also permits transfers to be made rapidly even without timing of connections. For these reasons, lines operating at this frequency or greater have the highest ridership potential.

- **Magnified Effects of Small Changes:** On the CTN, Intercity Transit is likely to make its most concentrated investment in new service and facilities. Because of this, any changes that affect transit operations or attractiveness will be magnified. An amenity – such as a shelter – placed on the CTN will probably be used by more people, and will therefore have a greater positive impact, than the same shelter placed elsewhere. On the other hand, a delay imposed on a CTN line will cost more, in terms of both running time and ridership, than the same delay imposed on a less frequent service.6

- **Permanence:** Along the same lines, CTN routes should be based on future land-use projections and established in coordination with the City of Olympia (and other land-use policy making bodies such as TRPC). Before Intercity Transit can justify the investment in future CTN corridors that will attract new riders and development, there need to be

---

6 One key exception is any line that makes timed-transfer connections. If running times on these routes deteriorate to the point that they can no longer cycle, a major increment in cost and inconvenience must be incurred to retain the timed connections on which much of the system relies.

---

Nelson\Nygaard Consulting Associates Inc.

---
established local and regional land use policies that support the densification of these corridors. CTN candidate corridors will be among the densest corridors in the service area now, but it is more important that these corridors are zoned for high-density commercial, residential and/or institutional land uses. For example, the development of an auto-mall on an established CTN corridor would decrease the value of Intercity Transit’s investment there by eliminating potential for ridership growth. It is the City’s role to ensure that zoning along these primary corridors allows for transit-supportive density and a mix of uses. Land use coordination with neighboring jurisdictions that control land use on CTN corridors that extend beyond City boundaries is also critical.

- **Potential Synergy with Land Use:** The CTN should provide a level of service that makes it possible, even convenient to live without a car, to have fewer cars than adults in a household, or for businesses to require fewer parking spaces. The CTN also establishes a land-use-transportation nexus, identifying corridors where it is most cost-effective place to site any new transit-dependent development, in terms of transit costs, because a high level of service is already there. In general, the CTN requires density to support the high level of service, and it also provides the opportunity for further densification.

**Land Use and the CTN**

The City of Olympia Comprehensive Plan projects that the City of Olympia will grow from 55,000 in 2005 to 79,000 people in 2025. The Comprehensive Plan has three designations for areas where the majority of population and employment growth is expected. These High Density Residential Corridors, City Center and Core Areas are illustrated in Figure 3-5 (following page).

The Urban Growth Management and Annexation chapter of the Comprehensive Plan discusses alternative futures for accommodating growth. Given the City’s large reserve of residential land supply, one option would be to relax density requirements allowing for the 20-25 year land supply to be fully consumed. The Plan recognizes that this option would be detrimental to the City’s goal of achieving transit-compatible densities. The preferred approach is to set transit-compatible urban densities with both maximum and minimum requirements, such that much new development fills in already-developed areas, and at the end of 20 years only half of the undeveloped residential land supply would be used up. The Plan recommends setting overall urban density of approximately 8 units per acre (equivalent to roughly 16 to 20 persons per acre) and maintain land supply for growth beyond the 20-year horizon.

Transit performance is directly related to population density. Appendix A provides a detailed review of literature that attempts to quantify the relationship between population and employment density and transit performance. Overall, industry experience suggests that residential densities in the range of 4.5 to 7 units per acre represent a minimum threshold for high performing transit and also represent a point at which overall mode shift away from driving begins to increase exponentially.

TriMet, the transit provider in the Portland, Oregon metropolitan area, has a number of criteria it uses to determine whether a corridor merits “High Frequency” service, which means route service operates 15 minutes or better all day and seven days per week. Two of the residential density criteria applied by TriMet in prioritizing Frequent Service corridors are shown in Figure 3-4. There are a total of ten or so criteria, but these are perhaps the most fundamental.
### Figure 3-4 Tri-Met Frequent Transit Criteria

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Rating</th>
<th>Residents Per Acre</th>
<th>Dwelling Units Per Acre (@ 2.5 persons per unit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Residents Per Acre within ¼ Mile of Frequent Service</td>
<td>10 (Highest)</td>
<td>15+</td>
<td>6+</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>12-14</td>
<td>4.8-5.6</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>9-11</td>
<td>3.6-4.4</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>6-8</td>
<td>2.4-3.2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3-5</td>
<td>1.2-2</td>
</tr>
<tr>
<td></td>
<td>0 (Lowest)</td>
<td>&lt;3</td>
<td>&lt;1.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Rating</th>
<th>Employees Per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Employees Per Acre within ¼ Mile of Frequent Service</td>
<td>10 (Highest)</td>
<td>15+</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>12-14</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>9-11</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>6-8</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3-5</td>
</tr>
<tr>
<td></td>
<td>0 (Lowest)</td>
<td>&lt;3</td>
</tr>
</tbody>
</table>
Figure 3-5  City of Olympia Future Land Use Plan
The following table shows both 2003 and projected 2025 residential densities along existing Intercity Transit routes. When compared to thresholds from national research, discussed above and in detail in Appendix A, and with TriMet’s frequent service density criterion, it is clear that current and planned densities in Olympia (and the broader IT service area) are low by national standards used for qualifying high-quality/high-frequency transit corridors. It is notable that few Intercity Transit route catchments have significant projected increases in residential density over the next 20 years.

**Figure 3-6  2003 and 2005 Residential Density on IT Routes**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>7,394</td>
<td>3.1</td>
<td>9,881</td>
<td>4.1</td>
<td>34%</td>
</tr>
<tr>
<td>13</td>
<td>7,098</td>
<td>3.5</td>
<td>8,118</td>
<td>4.0</td>
<td>14%</td>
</tr>
<tr>
<td>15</td>
<td>10,611</td>
<td>4.3</td>
<td>13,054</td>
<td>5.3</td>
<td>23%</td>
</tr>
<tr>
<td>21</td>
<td>7,309</td>
<td>5.0</td>
<td>7,364</td>
<td>5.0</td>
<td>1%</td>
</tr>
<tr>
<td>24</td>
<td>9,680</td>
<td>5.8</td>
<td>9,815</td>
<td>5.9</td>
<td>1%</td>
</tr>
<tr>
<td>41</td>
<td>7,870</td>
<td>3.6</td>
<td>9,138</td>
<td>4.2</td>
<td>16%</td>
</tr>
<tr>
<td>42</td>
<td>7,717</td>
<td>4.0</td>
<td>7,684</td>
<td>4.0</td>
<td>0%</td>
</tr>
<tr>
<td>43</td>
<td>7,416</td>
<td>3.9</td>
<td>9,038</td>
<td>4.8</td>
<td>22%</td>
</tr>
<tr>
<td>44</td>
<td>8,214</td>
<td>4.6</td>
<td>8,011</td>
<td>4.4</td>
<td>-2%</td>
</tr>
<tr>
<td>45</td>
<td>7,110</td>
<td>5.4</td>
<td>7,069</td>
<td>5.3</td>
<td>-1%</td>
</tr>
<tr>
<td>47</td>
<td>7,426</td>
<td>5.0</td>
<td>8,612</td>
<td>5.8</td>
<td>16%</td>
</tr>
<tr>
<td>48</td>
<td>7,161</td>
<td>3.3</td>
<td>8,482</td>
<td>4.0</td>
<td>18%</td>
</tr>
<tr>
<td>50</td>
<td>4,297</td>
<td>2.7</td>
<td>5,087</td>
<td>3.6</td>
<td>35%</td>
</tr>
<tr>
<td>60</td>
<td>9,281</td>
<td>5.1</td>
<td>9,737</td>
<td>5.4</td>
<td>5%</td>
</tr>
<tr>
<td>62a</td>
<td>12,828</td>
<td>4.2</td>
<td>14,611</td>
<td>4.7</td>
<td>14%</td>
</tr>
<tr>
<td>62b</td>
<td>16,394</td>
<td>4.4</td>
<td>18,810</td>
<td>5.0</td>
<td>15%</td>
</tr>
<tr>
<td>64</td>
<td>13,312</td>
<td>6.3</td>
<td>14,915</td>
<td>7.0</td>
<td>12%</td>
</tr>
<tr>
<td>66</td>
<td>18,511</td>
<td>5.9</td>
<td>18,497</td>
<td>5.9</td>
<td>0%</td>
</tr>
<tr>
<td>67</td>
<td>8,978</td>
<td>3.6</td>
<td>11,552</td>
<td>4.6</td>
<td>29%</td>
</tr>
<tr>
<td>68</td>
<td>14,129</td>
<td>5.0</td>
<td>16,519</td>
<td>5.9</td>
<td>17%</td>
</tr>
<tr>
<td>93</td>
<td>3,805</td>
<td>2.2</td>
<td>4,547</td>
<td>2.6</td>
<td>20%</td>
</tr>
<tr>
<td>94</td>
<td>16,830</td>
<td>2.4</td>
<td>20,075</td>
<td>2.8</td>
<td>19%</td>
</tr>
</tbody>
</table>

*Source: IT Long Range Plan, 2006. Pg. 6.*

The following maps illustrate combined population and employment density by Transportation Analysis Zone in the City of Olympia and neighboring jurisdictions that lie within the Urbanized Area (UZA). Population and employment density are mapped together using a nine color chromatic scale where yellows represent population density and blues represent employment density. Green shades represent areas where land uses are mixed. Figure 3-7 shows combined 2006 population and employment density and Figure 3-8 shows projected 2030 density. Appendix C provides additional detail from a CTN corridor analysis of population and employment density within ¼ mile of identified corridors.
Figure 3-7: 2006 Population / Employment Density

**INTERcity Transit Service Frequency**

<table>
<thead>
<tr>
<th>Base Headway</th>
<th>Peak Hour Headway</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 min or Less</td>
<td>15 min or Less</td>
</tr>
<tr>
<td>16 - 30 min</td>
<td>16 - 30 min</td>
</tr>
<tr>
<td>31 - 60 min</td>
<td>16 - 30 min</td>
</tr>
<tr>
<td>1 hr or More</td>
<td>16 - 30 min</td>
</tr>
<tr>
<td>1-5 Express routes</td>
<td></td>
</tr>
</tbody>
</table>

**2006 Pop. / Emp. Density Matrix** (By TAZ)

- **Population Density**
  - Persons per acre
- **Employment Density**
  - Persons per acre

**Data Source:**
Thurston Regional Planning Council, Population & Employment Forecast Work Program, 2004-2005

**GIS Data Source:** Thurston Regional Planning Council, ESRI
Figure 3-8: 2030 Projected Population / Employment Density

INTERcity Transit Service Frequency

<table>
<thead>
<tr>
<th></th>
<th>Base Headway</th>
<th>Peak Hour Headway</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 min or Less</td>
<td>15 min or Less</td>
<td></td>
</tr>
<tr>
<td>16 - 30 min</td>
<td>16 - 30 min</td>
<td></td>
</tr>
<tr>
<td>31 - 60 min</td>
<td>16 - 30 min</td>
<td></td>
</tr>
<tr>
<td>61 - 120 min</td>
<td>16 - 30 min</td>
<td></td>
</tr>
<tr>
<td>1 hr or More</td>
<td>16 - 30 min</td>
<td></td>
</tr>
</tbody>
</table>

I-5 Express routes

2030 Pop. / Emp. Density Matrix (By TAZ)

Data Source:
Thurston Regional Planning Council, Population & Employment Forecast Work Program, 2004-2005

GIS Data Source: Thurston Regional Planning Council, ESRI
The most striking conclusion in reviewing projected change in land use density over the 20 year period is that a very limited amount of infill densification is projected in Olympia.

- Certain areas in and around downtown are expected to increase job density, but limited residential development is expected in downtown.
- Other than the area of St. Peter’s Hospital and surrounding medical facilities on Lilly Road, there is very little projected increase in density in the Martin Way Corridor.
- The Capitol Way and Harrison Ave corridors are among the densest in the City today, but limited densification is expected in the next two decades.

If the City of Olympia hopes to shift a significant number of automobile trips to transit (and to non-motorized modes) it will need to:

- Consider zoning changes and density incentives for land in CTN corridors.
- Consider reallocating regional growth to transit supportive corridors, particularly those close to job centers in Olympia and Lacey.
- Provide zoning in centers and corridors that encourage minimum densities of 5-6 households and or 8-10 jobs per acre.

Implementing the CTN

The actual implementation of the CTN is more challenging than the adoption of the concept. Some specific issues are discussed in Appendix B, Implementation of the Olympia Community Transit Network.

Intercity Transit already has detailed criteria to screen and prioritize potential transit improvements. These would not be affected; rather, an additional criterion would be added: whether the improvements are on the CTN. This should not make any difference to the outcome of the prioritization exercise, since the CTN will carry the highest volumes of passengers and buses, and the Intercity Transit Six-Year Plan will be reconciled with the CTN process. All other things being equal, though, the proposed “CTN factor” would tilt the balance in favor of the corridors to which the City has made a long-term commitment in land use policy, as opposed to those where a short-term need may exist but no long-term commitment has been made.

We recommend that the City take the following actions in implementing the CTN:

- Adopt a CTN overlay to the City street classification system. This would act much like a zoning overlay for a special use and would serve as an assurance that any street design or changes would allow transit to continue to meet basic CTN performance criteria described in the next section.
- Develop a joint agreement with Intercity Transit to implement the CTN. This agreement would state that corridors or corridor segments will be elevated to CTN status once they meet minimum density thresholds and funds are available to support ongoing CTN service levels (see Appendix C, Nominating CTN Corridors). A critical element of this agreement is assurance that CTN service levels will be maintained once implemented, hence creating a permanent element of Olympia’s transportation infrastructure. This agreement will allow IT to track land use changes and plan for future service allocations to the CTN as part of their six-year and long-range planning processes.
Develop a joint plan with IT to monitor performance on the CTN (performance criteria are only valuable if measured regularly, which is one reason to focus on a few critical measures) using criteria listed in the next section.

Match bicycle and pedestrian plan improvements to the CTN, prioritizing pedestrian access and streetscape improvements in CTN corridors and particularly designated CTN stops/stations.

City of Olympia Commitment to CTN

This section describes areas of policy that apply particularly to the Community Transit Network, though they are also relevant to less frequent lines, and are largely controlled by the City.

- Protecting the CTN's Speed and Reliability
- Providing Curb Access for Efficient Station Spacing
- Enhancing Ridership through Land Use Synergies

Protecting Speed and Reliability

Most transit systems in growing communities are very gradually slowing down. Many 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.

Traditionally, transit agencies have set aside a portion of their expansion resources for “headway maintenance,” which means adding buses to a line so that it has more time to complete its cycle. This may be the only solution to a running time problem in the short term, but it does nothing to arrest the downward slide in operating speeds. Instead, the transit agency simply pays more drivers to endure ever-increasing delays, and tolerates the gradual deterioration in the speed of the service.

When talking about transit speed, we are referring to travel time. The buses do not have to travel at faster maximum speeds. The system must eliminate as much delay as possible.

Transit operating speed is a crucial consideration for two reasons. First, time is money; the longer it takes to complete the cycle of a line, the more it will cost to operate at a given frequency. Second, the discretionary transit rider is very sensitive to speed. Because transit must stop to pick up passengers, it will usually be slower than cars driving on the same street. If it is too much slower, it will lose passengers to the automobile.

For these reasons, every major transit agency needs 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. The policy speed, of course, would vary with the line, but the slowest services – urban locals – are also the most crowded, so even the loss of 1 mph in speed can have cost and ridership impacts. 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 visible as a problem just as deteriorations in traffic Level of Service do. Ultimately, the City and IT may want to encourage all jurisdictions in the transit district to adopt similar standards.
Protecting a policy operating speed requires joint action between the transit agency and the local jurisdiction that manages the roadway in question. In the City of Olympia this will most likely require a City lead, although these improvements may be best accomplished through multi-jurisdictional efforts that improve a full corridor. Virtually all of these measures, however, require cooperation between the City of Olympia and Intercity Transit. Most operating speed enhancements are capital development projects and are described in the capital section; these include signal technology enhancements and right-of-way improvements such as queue bypass lanes. However, a seemingly mundane element of service design, stop spacing, is an important consideration in keeping transit moving.

We recommend that:

- The City adopt (jointly with IT) recommended transit travel speed and reliability measures with an agreement to actively maintain minimum standards (See Chapter 5).
- The City coordinate with IT, TRPC and other jurisdictions to study transit signal and operating improvements in CTN corridors. Capitol Way, Martin Way and Harrison Ave corridors should be given top priority.

Providing Curb Access for Efficient Station Spacing

Spacing of transit stops strikes many people as so mundane that it is often treated as a detail to be left to the operational department that installs bus stops. In fact, though, stop spacing requires a carefully thought-out policy that is then implemented consistently throughout the system. Running -time savings due to respacing of stops can be substantial on the busiest routes in the system, where operating speed issues are likely to be most costly. Ideal stop spacing is close enough that everyone in the surrounding area can walk to a bus stop, but no closer. Two blocks, typically about 600 feet, is a common spacing standard in the industry; the maximum tolerable spacing for local lines is usually in the range of 800-1,000 feet, or about three city blocks. Stop spacing in the Intercity Transit system is not highly regularized, due to a number of intersecting grids and varying levels of development and pedestrian facilities along key routes. Stop spacing in Olympia is typically every two to three blocks, consistent with industry standards.

There is some debate in the industry about two-block vs. three-block spacing. Where the surrounding street pattern is a grid, the case for three-block spacing goes like this: Most passengers using the service arrive on the bus line on one of the intersecting streets. With two-block stop spacing, they are then at most one block from the stop – in fact, they are one block from two stops, one in each direction. But of course, a passenger doesn’t need two stops. With three block spacing, everyone arriving on an intersecting street is still at most one block from one bus stop. Since three-block spacing requires 1/3 fewer stops per mile than two-block spacing, the resulting time savings can be substantial. Exceptions may need to be made in dense business districts where many trips are originating along the arterial itself, but even there, stops should never be less than 600 feet apart.

While stop spacing policy and implementation is an Intercity Transit function, the active compliance and accommodation of curb-space requests by the City of Olympia is critical to effective implementation.
We recommend that the City work with IT to develop a CTN stop/station location plan that optimizes stop placement on the CTN and creates a phased implementation strategy. This could include:

- Working with IT to maximize stop spacing on CTN routes and new route segments in the City. Maximum stop spacing encourages passengers to gather in larger numbers at fewer stops. A bus stopping for two able-bodied passengers takes very little longer than stopping for one, so stops with more passengers mean a faster operation for everyone.

- Coordinating with Intercity Transit on stop placement to ensure that pedestrian and bicycle system improvement priorities match CTN stop and station locations.

Enhancing Ridership through Land Use Synergies

The successful development of a CTN network will represent a profound investment in specific streets, expressed in both fixed capital costs and ongoing operating costs. As Intercity Transit improves service in CTN corridors, the City of Olympia must make a commitment to maximize the value of this investment.

There are two aspects to the City’s land use policy commitment:

- Maximize ridership potential of the catchment area of CTN stops. CTN corridors should be selected, in part, for the presence of high-density development and other transit-oriented uses, such as commercial. Future development on these corridors should also be high density and transit oriented, so as to maximize the value of the CTN investment. This requires the City to examine and modify long-term land use plans and zoning policies.

- Avoid creating new transit demand away from the CTN. Like the transit network as a whole, the CTN’s quality will always be inversely related to its size, so it is important to have the minimum necessary network mileage, but no more.

We recommend that CTN investments be protected by synergistic land use policy in these ways:

- Locate transit-friendly land uses on CTNs. Transit-dependent uses should locate on the CTN, or in other areas with established 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 demand 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.

- Avoid locating transit-friendly land uses off of CTNs. 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.

Future High-Capacity Transit and Rail Service

In 1995 Intercity Transit conducted a High Capacity Transit Study to analyze the potential for High-Capacity Transit (HCT) projects in Thurston County. The study had a 20 year horizon and evaluated project feasibility using 2015 demographic and traffic projections. HCT consists of
transit services that provide high-speed and high-frequency service along urban corridors, including light rail, bus rapid transit and commuter rail modes. HCT projects typically use dedicated rights-of-way along all or some of their length to bypass traffic congestion, and in order to maintain high speeds, they generally use wider station spacing when compared with local transit routes.

In 2006 a working group was convened by the Thurston Regional Planning Council to fulfill a work priority set in the 2025 Regional Transportation Plan of analyzing opportunities for passenger rail in the region. This document presents the results of this group, which included policy makers, community representatives, and staff from local, regional and state agencies. The workgroup concluded that the Thurston County region would benefit from a short-range planning emphasis on commuter services, especially connections to job center in greater Puget Sound, and from long-range planning emphasis on intra-urban services.

The two studies focused primarily on two possible corridors:

1. **Olympia to Lacey** – the study estimated that an HCT project operating in dedicated rights-of-way could reduce travel time between the two downtowns from 35 minutes to as little as 7 to 12 minutes. The study concluded that busway options would cost one-third to one-half as much as light rail and would offer the same travel time benefits and sufficient capacity. Three busway alternatives were examined in the study using the following corridors: Martin Way, I-5 and Wheeler Ave and the Burning Northern railway corridor.

2. **Olympia to Tacoma/Seattle** - Both studies pointed to future HCT service between Olympia and the major cities to the north – Tacoma and Seattle – as a priority. TRPC projects that daily outbound commute trips to Pierce and King Counties will grow to over 46,000 by 2025, up from about 19,000 in 2000. No plan is very specific with regard to alignment or mode, although commuter rail is clearly an option and would most likely require use of the Burlington Northern Santa Fe right-of-way in Olympia.

Intercity Transit’s most recent Long Range Transit Plan (2025), completed in 2006, reports on a series of workshops held in the service area around future transit needs. Specific transit service components are discussed individually, many of which are common components of HCT services such as enhanced vehicles, enhanced station stops, intersection priority and speed enhancements, real-time information and seamless fare collection technology. The study does not make specific recommendations about HCT services, but does recommend that a Thurston County to Pierce County Commuter Rail option be studied further and that a Bus Rapid Transit study be conducted in the Martin Way Corridor.

All potential HCT services are regional in nature in that they connect multiple communities. Downtown Olympia is the natural hub of all regional transit service (intra- and inter-county) and therefore the City should take a keen interest in future development of HCT services. Given that these projects are long-range and will require extensive study and process prior to implementation, the most important actions the City can take at this point are to:

- Designate corridors that might best accommodate HCT services and coordinate growth management and zoning to ensure these corridors (and potential station area nodes) are developed to support future HCT or at least very quality urban bus service. The CTN essentially serves this function.
Partner with Sound Transit and Intercity Transit to make connections to the Sound Transit regional rail and express bus network, particularly with planned future southward expansion as part of Sound Transit 2 (Pierce County).

Protect existing rail rights-of-way with potential for future commuter rail. The City should work with TRPC and Intercity Transit to monitor the use of the Burlington Northern Railroad right-of-way in downtown Olympia for possible future service from Seattle/Tacoma or connecting to Sound Transit in Pierce County.7

Capital Element
This section highlights capital elements of Olympia’s transit system and provides recommendations for the City’s role in implementation.

Amenity and Image Improvements for the Primary Network
The Community Transit Network is designed to carry the heaviest passenger loads at the greatest level of convenience. This convenience should be marketed. The CTN will be designed to make the accommodation of new ridership much easier in designated corridors than new demands for service in low-density areas.

Primary services should have a different “look and feel” than the rest of the system. While the buses may or may not be the same, many physical features of the bus stop can also help make the Primary network stand out and advertise its exceptional usefulness. These can include:

- Distinctive design for Community Transit Network shelters, including fully enclosed shelters with heating and air conditioning where demand warrants. Signs on shelters identifying their location can also help passengers to orient themselves, and give the shelters more of a “station like” feel.

- Amenities at or near shelters that give value to waiting time, including information signs, newsracks, and other fast vending opportunities.

- Introduction of real-time passenger information via dynamic displays or PDA/phone accessible information.

- Distinctive signage for CTN lines, providing much more information than the current generic bus stop and advertising “15-minute service” or “the bus will be here soon!”

- Distinctive look for schedule information on high-frequency lines.

- System mapping and information that emphasizes frequency and quality of service (Intercity Transit already employs this technique!).

Recommendations:
The City’s role in marketing the Intercity Transit system is limited, but it should assist by:

---
7 Sound Transit’s Long Range Plan calls for an extension of Sounder Commuter Rail to Dupont in South Pierce County. However, this improvement was not included in the recent Sound Transit initiative that passed in November 2008. The extension of Sounder to Dupont and related track improvements could help to increase the viability of a Thurston County to Tacoma/Seattle Commuter rail service, by reducing the total miles of track improvements required. Given projected high passenger volumes on Sounder services, the opportunity for a cross-platform transfer at Dupont Station is likely to be limited meaning a Thurston to Tacoma/Seattle service would need to negotiate time slots with freight operators.
- Review City codes to ensure policies promote, require and/or create incentives to provide stop amenity, marketing or information features discussed above.

- Consider developing a “Super Stop” designation emulating the Boulder program described below. This would allow the City and Intercity Transit to identify pilot stops where a higher level of amenity and information could be provided; success could lead to broader implementation.

- Work with businesses to evaluate feasibility of district funding mechanisms, such as a Business Improvement District, that can help to fund transit information and marketing programs and make streetscape and transit stop improvements.

---

**Case Study:**

In Boulder, CO, the City has designated transit “Super Stops”. These are locations where multiple transit services meet that provide for a pleasant and convenient transfer between transit services and that connect passengers with community activity centers. These key locations are designated for more amenities than a normal bus stops, but do not require the level of investment of a BRT or light rail station. Super stops include amenities for transferring transit customers (such as shelter, seating, schedule information, fare payment systems, supporting retail, etc.) and quality connections to important community destinations (such as improved roadway crossings, multi-paths, pedestrian connections, signage and wayfinding systems).

---

**Protections from Traffic Delay**

A wide variety of tools are available to protect transit from traffic delay. The following tools are the most common, listed in order from lowest cost and benefit to highest cost and benefit: Cost in this case is not necessarily money; often, the cost takes the form of a negative impact on single-occupant traffic that must be tolerated to optimize transit speed.

- **Tools to eliminate merging delay from stops.** Transit often loses significant time yielding to traffic as it exits bus zones. For this reason, many agencies discourage bus pullouts, preferring bulbs that extend the sidewalk out to the traffic lane. This permits transit to stop in the traffic lane, and eliminates the need to merge out of the stop. Many states, including Washington, also have traffic laws requiring traffic to yield to a bus exiting a zone. Intercity Transit buses have large “yield to bus” decals on the left-rear to alert drivers of this requirement.

- **Minor signal pre-emption.** Many of the signals along major arterials are not linked to the signal progressions of intersecting streets. These minor signals typically occur at intersections with minor collectors and pedestrian-activated crosswalks. While these signals are important to local mobility, the green-time offered to the intersecting street is typically a policy minimum, and there are few side effects from delaying it to prevent minor signals from delaying a bus.

Minor signal pre-emption can be implemented with the same technology as a garage-door opener, where a driver simply presses a button to alert the signal of the bus’s presence. Alternatively, it can use more sophisticated sensing devices based on Automatic Vehicle
Location systems. In either case, the purpose is simply to pre-empt the green-time of the intersecting street or crosswalk just long enough for the bus to get through. The result does not disrupt the signal progression of the main arterial, because it simply extends the green-time of a minor signal; the minor signal would still be red for the arterial only when the progression dictates. Of course, the pre-emption should not interrupt pedestrian-activated crosswalks once the pedestrian has been given a WALK signal, but it can delay the WALK signal until the next logical point in the arterial's signal progression. While this may sometimes cause running passengers to miss a bus, this tool is for use only on high-frequency lines where the next bus will be coming soon. It can also be de-activated in the evenings when frequencies are poorer and rapid pedestrian access is a higher priority relative to operating speed.

- **Queue bypasses at major signals.** It is often not practical for transit to preempt signals at the intersection of two arterials, because the intersecting arterial may have its own signal progression that cannot be disrupted without unacceptable traffic impacts. At these intersections, a common tool is the queue bypass. In this arrangement, the right lane approaching the intersection is reserved for buses and right-turning traffic. A special brief signal phase gives a green light to this right lane only, while also giving a red light to the crosswalk to which right-turning traffic would otherwise yield. This permits the right lane to clear out and for the bus to cross the intersection prior to the parallel queued traffic on the arterial. Queue bypasses require careful study, but are often an effective solution to moving transit through major intersections where delays can otherwise be severe.

- **Bus-only lanes and HOV lanes.** The highest-benefit and highest-impact solution to bus operating speed problems is the bus-only lane. Freeway HOV lanes are an excellent example of this tool in an express mode, but there are also arterial applications. While there are currently no corridors in Olympia where bus throughput supports the elimination of auto capacity for bus only-lanes (at least not for significant segment), this will be an important consideration for long-range service options. (It should be noted that there are corridors in Olympia where dedicated transit lanes may be merited in coordination with land use or station area plans that promote higher density, mixed-use infill).

Many cities eliminate parking during high-demand hours to create a bus/HOV lane, though not all of these are properly enforced. Full bus/HOV lanes on arterials can be appropriate especially in very high-frequency corridors. Of course, these lanes dramatically impact the capacity of the street for traffic and parking, and typically require a well-established sense of urgency about the transit speed problem – another reason for policy operating speeds on the Community Transit Network.

Again, most of these require leadership from the jurisdiction that controls the roadway. For this reason, policy operating speed standards, as discussed above, are especially relevant for identifying the need for these protections.

It is notable that a number of recent rapid bus projects in Washington and around the United States have shown that signal improvements focused on transit priority have succeeded in improving or at least maintaining general traffic levels of service, while reducing overall corridor delay. More importantly, higher transit speeds lead to mode shift which can dramatically increase the capacity of the facility (arterial) to move people at peak times and reduce delay measured on person, rather than vehicle, basis. In other words, the political kick-back such projects can create is often unmerited and can be addressed effectively with good modeling and peer case studies.
Recommendations

Most of the traffic delay reduction strategies highlighted in this section will require further study and community process. We recommend that the City of Olympia continue to consider options for enhancing transit speed in partnership with IT, TRPC and neighboring jurisdictions. Specifically, the City should:

- Build curb bulbs at intersections with transit stops, particularly where lane widths allow cars to pass buses stopped at the curb.
- Work with IT to monitor transit travel speed on the CTN and study signal and right-of-way enhancements to improve transit speed when travel speeds or reliability drop below minimum standards.
- Conduct comprehensive corridor studies for key CTN corridors including Martin Way, Capitol Way and Harrison Ave. These studies should examine future travel demand and multimodal strategies for accommodating corridor demand and speeding travel times (TRPC is planning corridor studies for Martin Way and Capitol Way). These studies should address future high capacity transit needs to ensure that recommended improvements do not preclude future development of more intensive, protected right-of-way transit service if merited.

Other Capital Elements

There are a number of other capital elements that are important in developing a top-quality transit system.

- **Bus stop amenities:** The comfort of transit passenger access and waiting environment is a critical element of the overall user experience and one that the City has a key role in improving. While IT is primarily responsible for providing shelters, benches and amenities at stops, the City can provide further improvements by adding better lighting, landscaping, and art work to improve public spaces around transit facilities.

- **Improved bicycle parking:** Intercity Transit vehicles all accommodate up to two bikes on a front-end bicycle rack. Intercity Transit is interested in moving to three bike racks, but short turn radii on certain City intersections don’t allow this. Olympia has an excellent bicycle network and given its compact size allows City residents travelling to destinations in the City to ride most or all of their trips. However, city residents travelling outside City boundaries or on cross-town routes may face much more challenging conditions for cycling. For these people, bike to high-quality transit could provide a good alternative to driving. Since IT is not able to accommodate a large number of bicycles on its bus racks, providing bicycle parking at CTN stops becomes a critical aspect to increasing bike and transit use.
The city of Portland, Oregon has begun to remove on-street parking in strategic locations to provide higher-capacity bicycle parking opportunities that provide good access to local businesses and, in some cases, are located at high-frequency bus stops.

- **Pedestrian access improvements:** Most transit trips start or end with a walking trip. Improving/installing sidewalks, ensuring curbs and stops are ADA accessible, and enhancing the walking environment along key transit streets improves the attractiveness of transit. Quality pedestrian accessibility typically includes the following characteristics:
  - Continuous and connected network of sidewalks
  - Barrier free routes, crosswalks, and ramps
  - Good lighting
  - Seating and shelter from wind and rain at stops
  - Interesting visual environment and good line of sight (studies have shown that people are willing to walk farther on streets that have active street facing buildings and vital street life).

Pedestrian access needs are addressed in more detail in the Pedestrian Modal Report, which prioritizes pedestrian improvements on key transit corridors.

- **Pavement overlay:** A number of cities budget for broader pavement depth along streets that are subject to higher transit traffic volumes. This tends to reduce maintenance costs and required frequency of repaving over the long term.

- **Transit centers:** Upgrading transit center facilities based on existing and projected ridership patterns. Amenities include expanded shelters, route and schedule information, enhanced lighting, and some place-making elements. The City should work closely with IT to accommodate transit center needs in downtown and at secondary centers such as Briggs Village. The Olympia Transit Center is near bay capacity today. The addition of future service will require expansion by means of on-street bays or further off-street expansion.

**Recommendations**

While the issues discussed in this section are broad, we recommend that the City consider the following actions:

- Consider City or business community programs that help to enhance bus stop facilities and environment through concurrent streetscape improvements or direct provision of basic stop features or amenities.

- City bicycle and pedestrian plans use the CTN as a tool for prioritizing system improvements, specifically the CTN corridors identified as Definite.

- Consider a city program to expanded bike parking and high-quality bike parking facilities at or near major CTN stops.

- Implement changes to the municipal code to require more bicycle parking for new development, which could also help to increase overall supply. In Bend and Ashland, Oregon new development is required to provide bicycle parking that is no less than 20% of auto parking. Minimum bicycle parking ratios could be implemented in downtown and other areas that do not have minimum auto parking requirements.
Work closely with IT to accommodate needed expansions to the downtown Olympia Transit Center. This is a well-functioning and ideally located facility and the City should work to accommodate future system growth in a way that maintains a single downtown transit center and promoted efficient passenger transfers.

Policy Element

The Policy Element articulates the City’s position that it takes its partnership with Intercity Transit seriously and has already undertaken a number of strategic transit initiatives to improve the environment within which transit operates in the City of Olympia. The City of Olympia already has a number of aggressive policies and programs in place to support the use of transit and alternative modes. The Policy Element explores a number of best practice examples for transit-supportive policies related to TDM, parking, pricing and access. Policy support for this partnership is reflected in the City’s Comprehensive Plan.

This section also reviews Washington State Growth Management Act Concurrency Policy and makes recommendations for incorporating transit into Olympia’s concurrency review process.

Transportation Demand Management

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

Transit Pass Programs

Universal or broad-based transit pass programs have proven to be among the most effective policy tools for increasing transit ridership. Programs are often established with major employers, universities, and other large institutions, as well as business improvement districts. Due to the large enrollment of these programs, transit agencies can provide the transit passes at a deep bulk discount. However, pass programs are also viable for business or commercial districts.

A good example is the Central Area General Improvement District in downtown Boulder, which provides fully subsidized transit passes (the Eco-Pass program) on Denver’s Regional Transportation District (RTD) light rail and buses to more than 8,300 people employed by 1,200 different businesses in downtown. The district pays a flat fee for each employee who is enrolled in the program, regardless of whether the employee actually rides transit. In Portland, OR, the Lloyd Transportation Management Association (TMA), a non-profit business association, offers the Passport Transit Pass Program. This program gives every employee in the Lloyd District TMA unrestricted access to all Portland buses and light rail, at no cost to the employee. Both programs have led to double digit increases in transit mode share.

Many municipalities require that all new developments in station areas fund universal transit pass programs for project residents and employees in perpetuity. Some, like Boulder, CO, extend such programs to cover most existing residents and employees. Municipalities can implement such programs in all station areas or in districts or corridors with high-quality transit.

Commute Trip Reduction

Commute trip reduction programs provide encouragement, incentives and support for commuters to use alternative transportation modes (such as walking, cycling, ridesharing, public transit and
telework), alternative work hours, and other efficient transportation options. The State of Washington has a Commute Trip Reduction program that applies to all large employers; in addition, cities can develop their own local programs with more aggressive targets or requirements for employers that don’t fall under the State’s program.

In 1993, Bellevue, Washington passed an ordinance (14.40) that established municipal Commute Trip Reduction program goals and requirements. It requires certain employers to develop a commute trip reduction program, and establishes the single-occupant automobile commute reduction goals by 15% after two years, 20% after four years, 25% after six years, and 35% after 12 years.

A city program complemented by supporting services could encourage private employers to adopt more aggressive TDM measures, including:

- **Alternative work schedules**: Flextime, Compressed Work Week, staggered shifts.
- **Telework**: Using telecommunications instead of traveling to work, including telecommuting, teleshopping, distance-learning, electronic government, video conferencing, etc.
- **Bicycle parking**: Bicycle parking, storage, and changing facilities.
- **Guaranteed Ride Home**: Commuting insurance gives a sense of security.
- **Carsharing**: Rental services that substitute for private vehicle ownership, such as Zipcar.
- **Clustered land use**: Increased density and clustering of work facilities tends to reduce travel distances and improve travel options.
- **Commuter financial incentives**: Parking cash out, travel allowance, transit benefits and rideshare benefits.
- **Parking management and pricing**: Sharing, regulating and pricing of parking facilities.

**TDM marketing**

TDM marketing refers to a variety of programs and strategies that seek to encourage the use of alternative modes by promoting transportation options. These programs have become increasingly popular and have been very effective in changing travel habits, including shifting people to transit. Effective TDM marketing programs involve a range of partners within a community, including public officials, community organizations and individuals who support transportation alternatives. TDM marketing activities include:

- Surveying users and potential users to determine preferences, barriers and opportunities for changing travel behavior.
- Educating public officials and businesses about TDM strategies.
- Targeting the most likely consumers who would be willing to change their travel patterns.
Promoting benefits of changing attitudes about alternative modes, such as being healthy, productive, and cost-effective.

Encouraging transit ridership by making transit service more convenient and easy to use.

Case Study: Portland, OR TravelSmart Program

Beginning in 2002, the City of Portland and TriMet partnered to test a marketing program to encourage alternative mode usage. The TravelSmart program, which has proven to be effective in many cities in Europe, Australia, and North America, identifies individuals who want to change the way they travel, motivates them to think about their travel options and provides them with information about how to use transit, bike, walk or carpool for some of their trips. The program was particularly successful with discretionary, off-peak trips. TravelSmart led to a 9% reduction in car travel, 12% reduction in vehicle miles traveled, and an 8% increase in walking, cycling, and public transit. Residents’ changes in travel behavior have been shown to be sustained one year after the initial marketing efforts. Importantly, the data indicated that these results were achieved without affecting people’s activities outside the home, travel time and number of trips per day.

TDM ordinance

Cambridge, MA’s Travel Demand Management Ordinance requires that developers reduce the drive alone rate for their development to 10% below the average rate for the census tract in which their development sits. The ordinance applies only to new development and building expansions, by two years after the adoption of the ordinance, citywide drive alone rates had declined, even as the statewide drive alone rates increased.

Recommendations

The following policies and programs should be considered by the City of Olympia to support its TDM efforts. All recommendations in this category are low priority and would require significant study and community process.

- Conduct a study to evaluate options for developing a 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 both Thurston County employees and Washington state employees working in agencies located in Thurston County. This includes faculty and staff at the South Puget Sound Community College and The Evergreen State College. In addition, a separate transit pass program exists for students attending either college.

- 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 should 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 marketing program. This could begin with a small pilot program. The City could partner with IT to create an integrated and effective approach to winning new transit riders.
Parking Strategies and Policies

Parking management and pricing policies are among the most effective means that cities have to influence travel behavior and support a mode shift towards transit. Olympia’s efforts to boost multi-modal transportation options may be supported by implementing additional parking controls and programs.

The City of Olympia has a well developed parking plan developed through extensive discussions and process with community stakeholders. This element is not intended to modify that plan; rather it is a discussion of how parking management can improve transit viability.

Parking Pricing

As the cost of driving increases, transit services become more attractive. To ensure high transit ridership, most public parking should be priced, and most employee parking should be either priced or cashed-out (explained more fully below). Revealing the true cost of parking to those who drive typically decreases driving by 20-25% and increases transit ridership accordingly. A number of larger cities including San Francisco and Seattle as well as some smaller communities like Redwood City, CA have moved to demand-based pricing of on-street (and in some cases off-street) parking. This is accomplished by occasionally shifting meter prices to ensure that roughly 15% of parking is available at all times. This is beneficial for businesses as it promotes turnover; but is also good for the environment in congested areas as it reduces miles driven searching for parking.

Parking Cash Out

Parking cash out programs allow employees the opportunity to receive cash in lieu of free parking. In 1993, the State of California enacted legislation requiring certain employers who provide subsidized parking for their employees to offer a cash allowance instead of a parking space. Studies showed that given the opportunity to cash out employees look for alternate means of commuting to work, such as public transit, carpooling, vanpooling, biking and walking. Olympia could enact policies that require employer parking cash-out (like Bellevue, WA). In greater Seattle, the federal government is supporting efforts by local governments to encourage businesses to offer parking cash out.

Minimum Parking Requirements

Minimum parking requirements, which are commonplace throughout the country, have been found to worsen traffic congestion. Many cities are deciding that minimum parking requirements are no longer needed and that developers do a better job of anticipating the parking market at their developments than zoning codes can. Residential permit programs, already in place in Olympia, can prevent spillover of proposed development projects.

- **Residential parking ratios:** Families living near high capacity transit (HCT) demand less parking than those in auto-dependent neighborhoods. Many cities are moving to eliminate or lower minimum parking requirements where there is high-quality transit, typically no more than 1.5 spaces per unit, and often less (San Francisco, CA, sets residential parking maximums in transit-oriented neighborhoods at 0.25-0.75 space per unit). Olympia’s residential parking requirement is currently one space per unit.

- **Commercial parking ratios:** Similarly commercial parking ratios can be eliminated in corridors or centers that have excellent transit service. This will help to ensure that development is truly transit-oriented and not just transit-adjacent. (San Mateo, CA, allows...
up to 2.0 spaces per 1,000 square feet of TOD development) As stated above, many now believe that developers are better able to determine the demand for parking and that there should be no minimum parking requirements. Olympia’s Municipal code stipulates that parking requirements be reduced by 10% for uses in the High Density Corridor 1, 2, 3, and 4 Districts, Neighborhood and Urban Villages, and within the Downtown (18.38.160). The City may want to consider a similar provision for CTN overlay districts.

Parking Maximums
Parking maximums restrict the total number of spaces that can be constructed. They can be introduced anywhere where there are or could be measures in place to combat overspill. Parking maximums have been adopted in Portland, OR; San Francisco, CA; Seattle, WA; Gresham, OR; Helena, MT; Redmond, WA; and San Antonio, TX.

Shared Parking
Shared parking can be encouraged or required. For example, Arlington County’s Columbia Pike District Parking Strategy encourages sharing spaces by setting a limit on the number of reserved parking spaces allowed, while placing no limit on the amount of shared parking allowed on-site. The strategy also requires sharing spaces for sites over 20,000 square feet in land area.

Olympia’s Municipal code (18.38.180) requires that an applicant provide proof that shared parking is feasible when adjacent land uses have different hours of operation. Mixed use and shopping center developments with similar operating hours may also be required to submit a parking demand study to determine if parking can be combined. When two or more land uses, or uses within a building, have distinctly different hours of operation, such uses may qualify for a shared parking credit.

Residential Parking Unbundling
Most housing arrangements provide parking as part of the lease or purchase cost. Unbundling this relationship by requiring that parking be purchased or leased separately may lead to reduced housing costs and makes clearer the cost of owning and storing a car. Households looking for a transit-oriented lifestyle are more likely to self-select into dense, mixed-use districts or on transit corridors when they do not have to buy more parking than they need. This strategy is also effective in providing developers with added financial incentive not to build parking for which there is not a paying market. Municipalities should require that developers “unbundle” the cost of parking from the cost of housing, particularly in rental units and multifamily condos (like San Francisco, CA).

Policy Recommendations
- **Increase parking fines.** Overtime fines may not be high enough to deter parking violations since meter overtime fines are relatively low at $15 for the first violation with no additional penalty for a second violation.
- **Eliminate the free parking zone in downtown Olympia** between and including Legion Way and 4th Avenue from Franklin Street west to Water Street. Offering free parking downtown provides an incentive for employees and visitors to drive into the downtown.
- **Conduct a parking study** which includes an analysis of demand-based pricing and parking benefit district implementation. This could provide a forum to begin a
conversation with business leaders about the tradeoffs of parking pricing and the benefits of a PBD.

- **Eliminate minimum parking requirements and implement parking maximums.** Consider removing minimum requirements in CTN corridors and creating maximum requirements downtown and in CTN corridors.

- **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.

### Pedestrian and Bicycle Access

The amenity and safety of access to transit lines has a strong influence on mode choice. Almost all transit trips start and end with a walk or bicycle trip. The pedestrian environment is critical for transit access and efforts should be made to ensure that the entire transit trip, including the walking portion, is safe, convenient, and comfortable. It is important to ensure that pedestrian improvements support existing or future transit systems and provide safe and direct connections between transit stops or stations and destinations in the neighborhood. Less people access transit on bicycles, but integrating bicycles with transit will help to increase use of both modes.

The following bullets briefly describe some policies that could be considered for CTN zones. These have been implemented effectively in other communities and some are already in Olympia:

- Require parking lot design standards which shield the pedestrian from parked cars with exterior landscaping/buffers (Eugene, OR).

- Restrict parking between building entrances and the street (Portland, OR).

- Include ground floor commercial requirements to ensure pedestrian environment is interesting and active (Vancouver, WA; Portland, OR; Seattle, WA).

- Mandate design requirements to reduce setbacks to bring buildings closer to streets (Portland, OR).

- Include pedestrian-supportive zoning strategies that allowfor mixed use, higher densities and smaller residential lots (Olympia already does this in some zones).

- Allowances for sidewalk cafes and activities to increase vitality of pedestrian environment (Portland, OR, Vancouver, WA).

- Bicycle parking location requirements which mandate parking be located in proximity to building entrances and with good visual access for security (Eugene, OR).

- Require weather protection for bicycle parking (King County, WA; Portland, OR).

- Minimum bicycle parking requirements tied to square footage of a new building or to the amount of auto parking provides. Many cities have adopted ratios of bike accommodation tied to square footage of uses or residential units. Some communities such as Bend and Ashland, Oregon require automobile parking be matched with bike parking that is at least 20% of auto spaces. These requirements help support bicycle mobility and boost bike mode shares for local trips. Expanding this range can be very effective in filling in transit service gaps, and reducing parking demand tied to short- and medium range trips. Olympia has already adopted minimum required long-term and short-term bicycle spaces in its Municipal Zoning Code (18.38.100); however, some of the minimum requirements may not be sufficient.
Recommendations

- **Consider developing a CTN overlay zone.** This would supplement City of Olympia Municipal Zoning Code to require or to provide incentives for developers to deliver high-quality pedestrian and bicycle facilities in exchange for permission to develop denser, mixed-use buildings. One way to avoid having to rewrite zoning code is to create a new overlay zone that supersedes existing zoning. Pedestrian-supportive overlay zones have been created in San Jose and Mountain View, California.

- **Areas around transit stops and all CTN corridors should also be priority targets for pedestrian improvements.** Key transit routes and stations should be prioritized along with schools and other high traffic institutions for limited pedestrian improvement funds.

- **Ensure that pedestrian-oriented design is considered during development review.** This process allows the jurisdiction to ensure that the proper design treatments are applied to individual private development projects.

**Transit-Oriented Development, Zoning and Land-Use Planning**

Transit-oriented development (TOD) refers to the integration of transportation and land use so that they are mutually reinforcing. Denser and more diverse land use is critical for supporting high-quality transit service. Transit-oriented development promotes communities with mixed land uses, compact built environments, multi-modal and pedestrian-friendly streets.

Increasing densities in Olympia beyond what is projected will be critical to realizing the benefits of the CTN. Dense, pedestrian accessible land uses have several benefits to transit:

- High-quality service to a relatively large number of points and destinations can be offered.
- The cost per rider of operating transit is reduced when transit is more fully utilized. Reaching CTN level densities of an average of eight or more dwelling units per acre in full corridors (or comparable job density) will allow for a new level of investment in transit quality.
- More frequent service can be provided. Again, studies show that average densities comparable to 10 to 15 units per gross acre are required to support all-day 15 minute service.

It is important to note that a critical role of the CTN is to provide developers confidence to invest in transit-oriented development forms. While rail tend to be more effective in this regard due to perceived permanence, rubber-tired transit can have the same effect. In the Puget Sound, development patterns over the last decade suggest a strong relationship between frequent bus service and medium density mixed-use development patterns. For example, mixed-use development and multi-family housing characterize development surrounding the Renton Transit Center in South King County. In the City of Seattle, significant new residential and commercial development has sprung up in key trolleybus corridors in south Lake Union, Eastlake, the University District, Uptown Queen Anne, First Hill and Capitol Hill. It is clear that the bus network is related to the concentration of development along these lines.

An effective way for municipalities to promote transit-supportive land use is to update zoning code and existing municipal plans and design guidelines. This can be done by designating areas...
where there will be minimum average densities, mixed-use buildings and land use, and property tax exemptions for new transit supportive residential or mixed use.

- **Minimum average densities**: Minimum average densities should be highest around transit nodes and corridors. This promotes higher transit ridership and allows for convenient pedestrian access.

- **Mixed-use buildings**: Mixed-use buildings contain a mix or uses within one building, including residential, retail, office, etc. Office and residential uses should be located on the ground level, with retail on the ground floor. These buildings tend to be significant generators of pedestrian activity.

- **Mixed land use**: Mixed use generates significant transit usage and pedestrian activity.

In Portland, Oregon, a property tax exemption for new transit-supportive residential or mixed-use development was incorporated into its city code. The purpose of the property tax exemption is to encourage the development of high-density housing and mixed use projects affordable to a broad range of the general public on vacant or underutilized sites within walking distance to transit service.

Olympia’s Comprehensive Plan supports high-density development, infill development, especially in areas where development will facilitate efficient, effective mass transit service. For example, Policy LU 3.1 states “Establish High Density Corridors with sufficient residential and employment density to support frequent transit service, encourage pedestrian traffic between businesses, provide a larger customer base for corridor transit services and businesses, and diminish the reliance upon automobiles for local trips”. Olympia’s zoning code identifies High Density Corridors (centered along Martin Way) and a downtown designation where increased densities are encouraged.

**Recommendations**

- **Revise zoning to increase density along CTN corridors.** Residential densities should be at least 4.5 to 7 units per acre as a minimum threshold for high performing transit. Zoning along CTN corridors should be changed to reflect higher densities; for example, Cooper Point Road could be changed from primarily RL1 to R4-8, R6-12, or higher.

- **Expand High Density Corridors** where there is expected growth, need for transit, and compatibility with Comprehensive Plan.

- **Encourage mixed use** within buildings and within land use zones by updating and clarifying City code.

- **Provide incentives to local developers** to build high density mixed use buildings within convenient walking distance to transit corridors.

**Transportation Concurrency**

The City of Olympia has not taken full advantage of opportunities to support transit through Washington’s Transportation Concurrency law. Other cities in the state may serve as models for best practices in this regard.
What is Concurrency?

Washington’s Growth Management Act (GMA) introduced the idea of “concurrency” in 1990 to address the problem of land use development outpacing transportation system capacity. The GMA seeks to make land use and transportation more efficient by focusing new development in urbanized areas, discouraging urban sprawl, and conserving rural land. To that end, the goal of the concurrency provision is to ensure that transportation infrastructure or service improvements that are needed to serve new development are either in place before the new development occurs, or that a financial commitment has been made to complete the improvements or strategies within six years. Concurrency ensures that new growth in already developed areas does not overburden the transportation system used by the people already living and working there. When housing and commercial growth occurs in less developed areas, it ensures that the transportation system is funded and built to serve those changing land uses.

Local governments, which are in charge of land use plans, regulations, and permit systems within their jurisdictions, are likewise empowered to decide how to apply transportation concurrency. The GMA requires local jurisdictions to develop comprehensive land use plans. One element of these plans is to establish level of service (LOS) standards for arterial roads, transit service, and other transportation facilities. This LOS standard is then used to assess the impacts of a proposed development on the existing transportation system. New development proposals are assessed to determine whether projected trips can be accommodated by existing capacity, or whether mitigation actions are required.

Transportation concurrency arises as an issue when proposed new development within a local jurisdiction will exceed the transportation level of services standards adopted by that jurisdiction. When that is the case, the jurisdiction has three potential courses of action:

- To deny the new development
- To dedicate funding toward the new transportation facilities and/or services needed to serve the new development and maintain LOS standards; the funding may be shared between the development (i.e. impact fees) and public sources
- To revise the LOS standard to accept a lower level of transportation system performance

A local jurisdiction must deny proposed new development that would cause the LOS standards to be exceeded, unless it is demonstrated that transportation improvements and strategies are in place or funded to boost the capacity of the transportation system within six years. Such actions are known as “concurrency mitigation.”

Olympia’s Approach to Transportation Concurrency

Olympia adopted its Transportation Concurrency Ordinance (No. 5540) in 1995. The City is divided into four concurrency analysis zones, and the performance of the transportation system within each is measured in an annual report. The basic methodology has two stages:

1. The first stage of the measurement system is to compare actual average PM peak traffic growth for the previous year (based on residential and commercial permits issued) against the modeled traffic growth forecast for the same year. There are two LOS standards which are used to assess deficiencies. More congestion is acceptable in downtown

---

8 The most recent is the City of Olympia 2007 Annual Concurrency Report, which contains maps of the concurrency analysis zones, along with a detailed explanation of the methodology.
Olympia and along high-density corridors, and so lower LOS standards are used in these areas than in the rest of the City and Urban Growth Area (UGA).

2. The second stage involves a detailed analysis of intersection LOS for key intersections.

This system, while intended to be easy to understand and administer, has not resulted in better linking of transportation and land use goals. It is exclusively focused on automobile trips, and measures system performance strictly as vehicle through-put during peak hours. 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. Worse, new development along transit strategy corridors would incur transportation impact fees used to increase roadway capacity for private vehicles. To correct for this, and to lower the barriers for transit-friendly development, Olympia has exempted development in transit strategy corridors from concurrency requirements.

Issues Arising from Local Approaches to Concurrency State-wide

The intent of transportation concurrency is to better link local land use and transportation system goals, however studies have shown that this is not necessarily happening in practice. In 2002, the Washington legislature directed the Puget Sound Regional Council (PSRC) to conduct a study assessing the efficacy of local approaches transportation concurrency in their region. While local governments are largely responsible for implementing transportation concurrency, the GMA requires Regional Transportation Planning Organizations (RTPOs) to review the LOS standards and concurrency mitigation procedures developed by local jurisdictions in their service area, with the aim of regional consistency. RTPOs are also responsible for developing LOS standards or alternative transportation performance measures for regionally significant state highways.

The Thurston Regional Planning Council (TRPC) determined that the findings of the PSRC study provide an accurate picture of the state of transportation concurrency among the eight local jurisdictions in Thurston County. PSRC’s study included a survey of the eighty-six local jurisdictions in the Puget Sound region and resulted in a report on comparing their LOS standards and growth management outcomes. PSRC’s major findings were as follows:

- No two transportation concurrency programs are the same
- The transportation concurrency tool is being used cautiously
- Innovations are occurring
- The choice of a measurement system is key
- Multimodal approaches are limited
- Limited coordination is occurring
- State facilities are generally not addressed

Importantly, the study found that concurrency was applied almost exclusively to automobiles, with very few examples of multi-modal LOS standards or allowances for mitigation actions to non-automobile elements of the transportation system. This focus on automobiles was mainly realized through the choice of measurement system for LOS. The report stated:

---

“The choice of a measurement method has wide reaching implications that can affect how much growth can be accommodated, which mitigations are found necessary, how one jurisdiction might coordinate with their neighbors, and which modes of transportation are promoted. Similarly, jurisdictions facing concurrency challenges have many options on how to change the technical components of the system...to alter capacity calculations and allow either more or less development. Examples of such changes include lessening the amount of time mitigations are given for completion..., using generic or specific pass-through traffic inflation rates..., or changing the number of hours in the peak movement period.”  

The local jurisdictions that were considering other modes of transportation besides automobiles were found to have fragmented approaches that failed to address multi-modal issues throughout their measurement and mitigation processes. The report stated:

“While jurisdictions sometimes include multi-modal components in the programs, they are usually in the form of a minor trip reduction credit, or a partial mitigation option... One reason for this may be that jurisdictions almost exclusively use volume-to-capacity ratios as the basis of their measurement system. This can strongly influence the mitigations [toward] projects that increase the capacity side of the equation. A second reason may be that most [transportation impact] fees do not allow for collecting ongoing operational funding.”

The Final Report of the PSRC study made recommendations on how transportation concurrency could serve to better link land use and transportation goals, all of which apply to Olympia:

- Concurrency should focus on multi-modal transportation
- Concurrency programs need to be coordinated among jurisdictions
- Address the variety of concurrency methodologies being practiced
- Tailor concurrency in planning subareas
- Develop common concurrency objectives
- Linking interagency planning and improvements
- Raise more revenues for facility improvements through concurrency
- Authorize concurrency exemptions through transit

Making Transportation Concurrency More Multi-modal

A major finding of the PSRC report was that a lack of multi-modal approaches to transportation concurrency is undermining the goals of the GMA. Therefore in 2005 the Washington legislature directed further study to determine why multi-modal approaches to transportation concurrency are lacking, and to make recommendations. That study, “Options for Making Concurrency More Multi-Modal”, was published in December of 2006 and has proven a valuable resource to TRPC and other RTPOs in the state. It presented strategies for including multi-modal transportation measures in the transportation/land use concurrency equation, as well as methods of

---

10 Assessing the Effectiveness of Concurrency: Phase 2 Report, page 47.
11 Assessing the Effectiveness of Concurrency: Phase 2 Report, page 52.
measurement and implementation. Five strategies were presented, in the final study report, each a mix of policies, institutional arrangements, plans, and program measures to achieve local growth management goals.13

Two of the strategies in the “Options for Making Concurrency More Multi-Modal” final report are specifically focused on improving transit capacity and performance:

- **Provide physical infrastructure capacity to accommodate transit, high occupancy vehicles and non-motorized ways to get around.** Transportation concurrency funds can be used to pay for multi-modal physical infrastructure, such as sidewalks, bicycle lanes, on-street parking and dedicated transit or non-motorized lanes, re-striping roadway lanes, bus pull-outs, and signalization.

- **Provide and fund transit and other HOV services.** Transportation concurrency funds can be used to pay for transit services and demand management programs. Funding such services and programs can be considered concurrency mitigation, on par with funding infrastructure improvements.

These strategies would be appropriate steps for Olympia to better support transit strategy corridors and transit service performance.

In addition, previous efforts by TRPC to assist in making Olympia’s concurrency requirements more multi-modal led to several observations:14

- **Zoning for higher density and a mix of uses is in place along transit strategy corridors and downtowns in the PBTA, but developers have been slow to propose development in these areas, in part because they didn’t “pencil out” due to the presence of brownfields and aging infrastructure, and lack of market demand. Recent shifts in market forces may make these corridors more viable, as increasing land values and generational shifts are increasing demand for housing in high density, mixed-use areas.**

- **Pass through trips from source areas outside of a local jurisdiction are not captured by impact fees. More unified analysis of trip generation is needed, along with more cooperation and coordination between neighboring jurisdictions.**

- **There is uncertainty of how to apply nexus requirements to multi-modal measures.**

Multi-modalism is lacking from Olympia’s transportation concurrency practice in two main ways. First, Olympia’s LOS standard and method of measurement are limited to one mode, automobiles. This means that only LOS for automobiles is measured, like the old saying, ‘what you measure is what you get’. For instance, while transit services may be increased on a particular arterial road, the resulting transportation system performance enhancements such as increased people through-put will not be reflected in transportation concurrency calculations that are focused on automobile counts. Secondly, in Olympia concurrency mitigations have largely been limited to roadway and intersection infrastructure improvements to increase capacity. Some local jurisdictions do allow for multi-modal infrastructure investments and TDM measures to qualify as concurrency mitigation; Olympia typically has not.

---

14 Interview with Thera Black, Transportation Program Manager for Thurston Regional Planning Council
Best Practices

Transportation concurrency can be made more multi-modal by addressing transit at all phases: in the comprehensive plan, in setting LOS standards, in the measurement system, in the creation of smaller planning subareas/corridors/zones, and in the provision of transit facilities or services as concurrency mitigation.

The PSRC report documented the approaches of several Puget Sound local jurisdictions that were successfully supporting transit through their concurrency program, such as:  

- Kent requires that new development proposals conduct a traffic impact analysis which accounts for impacts on transit and non-motorized facilities, in addition to arterials and intersections. The City has 22 concurrency analysis zones, which allows for highly tailored mitigation solutions.
- Renton explicitly prioritizes mitigations that improve transit service over those for single-occupant vehicles.
- Snohomish County requires all new major developments to provide TDM measures sufficient to reduce PM Peak trips by 5%, which can include site design measures, off-site mitigations, or voluntary “in-lieu-of” payments.
- Redmond developed a list of mitigation projects for each concurrency mitigation zone, so that new development could simply fund these projects rather than conduct a site-specific traffic analysis.

Recommendations

Transit should be better supported by Olympia’s concurrency program. It should be stressed that coordination with neighboring jurisdictions is among the most important recommendations, since much of the region’s planned growth is outside City of Olympia boundaries. As a key regional job and commercial center, auto-oriented suburban development in neighboring communities will put pressure on Olympia’s roadway system and devalue investments in public transportation, since it is unlikely to be a convenient option for people traveling to or through Olympia from these new growth areas.

Recommendations for incorporating transit into Olympia’s concurrency program include:

- Revise concurrency measurement to count people trips rather than vehicle trips
- Allow multi-modal infrastructure as concurrency mitigation (transit signal priority and congestion bypass projects, such as queue jump lanes for transit, have a direct link to system capacity as they allow the transit system to provide more service for a fixed cost)
- Allow transportation demand measures as concurrency mitigation
- Develop coordinated concurrency measures with neighboring jurisdictions

Funding Element

In Washington State, the Public Transportation Benefit Area (PTBA) is a common mechanism for collecting funds for and delivering public transportation services. Intercity Transit uses a PTBA structure to collect sales tax dollars which are the primary local funding source for transit in the district, which now includes Olympia, Lacey, Tumwater, Yelm and small portions of

15 Assessing the Effectiveness of Concurrency: Phase 2 Report, page 53.
unincorporated Thurston County. Traditionally the City of Olympia has had a limited role in funding transit operations or facilities. Since the City’s general funds are typically committed, it is unlikely that this will change in the near future. This section discusses some funding mechanisms that can be used to supplement transit operating or capital revenues at the local or district level. Typically these would only be implemented for a special, distinct service. For example, the State of Washington previously contributed to the operation of the DASH shuttle, which serves its campus.

The following special district funding options are used in isolated cases around the nation to support local transit services:

- **Business Improvement Districts:** Business Improvement Districts (BID)s, also known as Public Improvement Districts, are created by local governments to finance and manage public improvements that benefit a specific area in the government’s jurisdiction, including acquisition or construction of off-street parking and other transportation infrastructure and services within a specified area. A special parking assessment can be levied on businesses to fund parking facilities in their area, as an alternative to each business supplying its own facilities. These assessments may include additional property taxes, ad valorem taxes, and/or sales and use taxes.

- **Local Improvement Districts:** A Local Improvement District (LID) is a method by which a group of property owners can share in the cost of transportation infrastructure improvements or other types of public improvements such as installing water and sanitary sewer lines. Most LIDs involve improving a street, building sidewalks, and installing a stormwater management system. LIDs have been used to help build streetcar circulators in Seattle and Portland in recent years. An LID can typically be used for major capital improvements only.

- **Parking Benefit District:** A Parking Benefit District (PBD) institutes a system where fees collected for parking, less any City expenses for operations, maintenance and enforcement, are used to the benefit of the business district or residential district in which the parking is located. A governing body for the district decides how the collected fees are spent. Most often these funds are used for street furniture and cleaning, plantings, bus shelters, and other amenities, which enhance the pedestrian experience in the immediate area. PBDs also reduce traffic by increasing parking fees. Neighborhood Permit Parking initiatives have been introduced to prevent overspill in neighboring communities from commuters trying to avoid parking restrictions and charges. Old Town Pasadena is a well-known example of a Parking Benefit District that makes a significant difference in the livability and economic vitality of a community. In this case, the District has applied funds to develop a park-once program, to improve the public realm and implement better security.

- **Transit Benefit District:** Transit Benefit Districts (TBD) refer to PBDs that charge fees to be used to increase transit service, thereby further reducing traffic by providing a wider range of transit choices for employees and visitors to the district.

In the future the City may want to work with local business groups in existing or emerging centers or corridors to consider district options that could enhance transit capital facilities, transit service or aid in the implementation of pedestrian realm improvements. These strategies should be considered as part of a larger corridor or area strategy and would need to be supported by local business groups.
Case Study:
Boulder, Colorado has an exemplary local transit program, elements of which could be emulated successfully in Olympia, particularly as the City grows and more aggressive parking pricing is implemented in the downtown. In Boulder, on-street meter revenue is used to provide all employees with benefits such as a free universal transit pass (Eco-Pass), a Guaranteed Ride Home program; ride-matching services; bicycle parking; and a number of other benefits. Boulder’s Central Area General Improvement District (CAGID), which is a hybrid of a BID and TBD, the scenarios described above, manages this program. Shared public parking facilities are constructed and operated by CAGID and funded through CAGID’s general obligation bonds. The debt is supported primarily by revenue from parking chargers (including meters) and by property and other taxes paid by property owners. Compared to many downtowns, where parking is heavily subsidized by public contributions of both dollars and land, much of the cost of the parking system paid for by those who park, resulting in lower drive alone rates.

As a result of this program and other aggressive multimodal transportation programs and improvements, Boulder has among the highest non-auto mode shares among small to mid-sized US cities. Since downtown Boulder baseline mode splits were established in 1995, the drive-alone rate has fallen almost 36% from 56% to 36% in 2005, while the transit rate has more than doubled from 15% to 34%. According to the City of Boulder, the drive alone rate dropped dramatically after 1999 because of an increase in transit service (17 different routes at 15 minute headways) and the emergence of an Eco-Pass “culture”.

---

![Image of buses and pedestrians in Boulder, Colorado]
As discussed above, impact fees collected from new development in compliance with transportation concurrency present another potential source of support for transit facilities. Concurrency mitigation funds may be used for transit infrastructure and services. Olympia and the other four local jurisdictions in the PTBA are not currently using the transportation concurrency tool to support transit, meaning that it is an underutilized source of funds. Should the recommendations presented in the Transportation Concurrency section be adopted by Olympia, Yelm, Tumwater, and Lacey, transit-supporting concurrency mitigation funds could be collected and applied in a coordinated fashion.

The Parking and Business Improvement Area (PBIA), which was created to improve downtown Olympia, assesses a special annual fee for businesses located in downtown (non-profits and residents are exempt). The PBIA’s funds can be spent exclusively for improving the downtown in the areas of:

- Downtown Parking Improvements - to address the concern for downtown Olympia businesses and property owners, as well as patrons and employees.
- Clean and Safe Program - making downtown cleaner, more welcoming and improve the public’s perception of safety.
- Civic Beautification and Sign Program - an overall beautification program.
- Business Recruitment and Retention Program
- Commercial Marketing Program

Recommendations

It is unlikely that the City of Olympia will enter the transit funding arena in the short term; however, as the City reviews parking management and pricing in its downtown and evolving corridors, it should consider opportunities to fund transit-supportive amenities, improve the pedestrian realm around transit station, improve wayfinding and possibly even subsidize services. City may generate money for multi-modal transportation improvements by:

- Evaluate benefits of parking benefit districts in downtown or in emerging corridors. PBD funds can help to fund streetscape and transit amenity improvements. Additionally, by increasing parking charges to match market rates, people will be encouraged to use transit or other alternative modes. At the discretion of local businesses and the City, PBD funds could be spent on TDM programs, transit passes, public space improvements, pedestrian and bicycle amenities, and creative parking management strategies that utilize existing parking spaces effectively. Perhaps the most effective use of funds in changing mode split would be the implementation of a district-wide transit pass, similar to the Boulder Eco-Pass.
- Revise the transportation concurrency calculation to assess transit impacts, and allow for concurrency mitigation funds to be spent on multi-modal transportation infrastructure and services.
Chapter 4. Summary of Needs and Recommendations

This section provides a brief summary of identified needs and issues in each of the major plan elements and summarizes key recommendations.

Service Delivery and Monitoring

Key issues and needs related to service delivery and monitoring generally related to the long-term redevelopment of coordinated land-use and transit service allocation policies. These include:

- Need for better policy linkage between land use and transit quality
- Need to promote higher intensity, mixed-use land development in downtown and on CTN corridors (current regional land use allocations do not promote an environment where people can live without a car)
- Need to match bicycle and pedestrian plan priorities with transit corridors and access
- Policies to ensure future transit-dependent developments or transit intensive uses, such as major institutions are required to locate where there are existing frequent transit lines
- Active regional partnership to optimize corridor operations in a way that provides high-occupancy modes an advantage over SOVs (consider person delay, not vehicle delay)

Specific recommendations are summarized in Figure 4-1.

Figure 4-1 Policy and Monitoring Recommendations

<table>
<thead>
<tr>
<th>Policy Recommendations</th>
<th>Priority</th>
<th>Timeframe</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adopt a CTN overlay to the city street classification system</td>
<td>H</td>
<td>1-3 years</td>
<td>COO, IT</td>
</tr>
<tr>
<td>Develop a joint agreement with Intercity Transit to implement the CTN</td>
<td>H</td>
<td>1-3 years</td>
<td>COO, IT</td>
</tr>
<tr>
<td>Develop a joint plan with IT to monitor performance on the CTN</td>
<td>M</td>
<td>1-3 years</td>
<td>COO, IT</td>
</tr>
<tr>
<td>Match bicycle and pedestrian plan improvements to the CTN</td>
<td>H</td>
<td>ongoing</td>
<td>COO</td>
</tr>
<tr>
<td>The City coordinates with IT, TRPC and other jurisdictions to study transit signal and operating improvements in CTN corridors</td>
<td>H</td>
<td>1-5 years, ongoing as CTN corridors develop</td>
<td>COO, IT, TRPC, NJ</td>
</tr>
<tr>
<td>The City works with IT to develop a CTN stop/station location plan that optimizes stop placement on the CTN and creates a phased implementation strategy</td>
<td>M</td>
<td>1-5 years, ongoing as CTN corridors develop</td>
<td>COO, IT</td>
</tr>
<tr>
<td>Require transit-dependent uses such as institutions locate on the CTN, or in other areas with established service</td>
<td>H</td>
<td>1-3 years to adopt policy, ongoing implementation</td>
<td>COO</td>
</tr>
<tr>
<td>Policy Recommendations</td>
<td>Priority</td>
<td>Timeframe</td>
<td>Responsibilities</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------</td>
<td>----------</td>
<td>--------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Partner with Sound Transit and Intercity Transit to make connections to the Sound Transit regional rail and express bus network</td>
<td>L</td>
<td>10-20 years</td>
<td>COO, IT, TRPC, NJ</td>
</tr>
<tr>
<td>Protect rail corridors that provide future opportunity for Commuter Rail connections to the Puget Sound (i.e. Sounder Commuter Rail)</td>
<td>L</td>
<td>ongoing</td>
<td>COO, TRPC, NJ</td>
</tr>
</tbody>
</table>

Priority (H=High, M=Medium, L=Low)  
Timeframe (Years)  
Responsibilities (COO = City of Olympia, IT=Intercity Transit, TRPC=Thurston Regional Planning Council, NJ = Neighboring Jurisdictions)

**Transit Capital and Access**

Transit capital facilities in Olympia are of high quality and well maintained when compared to peer communities in the United States. However, there is much that the City and Intercity Transit could do to invest in capital improvements that would improve passenger experience on and off vehicle. Key issues and opportunities for capital investment include:

- Growth in transit service projected by Intercity Transit will require expansion of transit center facilities, most notably the Downtown Olympia Transit Center. This facility is the hub for the regional system and is well located.
- Intercity Transit spreads limited available funding for stop amenities (shelters, benches, garbage cans, etc) across the district, with priority for high boarding stops. There is an opportunity for Olympia to ensure transit stops/stations are developed at a higher level of design quality.
- There are a number of gaps in the sidewalk network along and leading to transit routes, particularly in lower density residential neighborhoods. These gaps can impair basic access to the system.
- Sidewalk enhancements, such as bulb-outs, are needed in many transit corridors to increase ease of boarding and speed operations.
- There is opportunity to employ advanced signal system technology to enhance transit operations in congested corridors such as Martin Way, Capital Way and Harrison Ave.
- Bicycle parking proximate to transit stops is deficient outside of downtown; sufficient, secure, weather-protected bicycle parking would extend the range from which residents could access transit routes.
- Certain key intersections in the City of Olympia are striped such that turn-radii are too short to allow IT buses to operate with three bicycle capacity racks. This prevents IT from expanding bicycle carrying capacity on its buses.

Specific recommendations for addressing these and other capital- and access-related issues are summarized in Figure 4-2.
Figure 4-2  Transit Capital and Access Recommendations

<table>
<thead>
<tr>
<th>Capital Recommendations</th>
<th>Priority</th>
<th>Timeframe</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review City codes to ensure policies promote, require and/or create incentives for developers to provide key stop amenity, marketing or information features</td>
<td>M</td>
<td>1-3 years</td>
<td>COO</td>
</tr>
<tr>
<td>Consider developing a “Super Stop” designation</td>
<td>M-L</td>
<td>1-3 years</td>
<td>COO, IT</td>
</tr>
<tr>
<td>Work with businesses to evaluate feasibility of district funding mechanisms, such as a Business Improvement District, that can help to fund transit information and marketing programs and make streetscape and transit stop improvements</td>
<td>L</td>
<td>As relevant</td>
<td>COO, Businesses</td>
</tr>
<tr>
<td>Build curb bulbs at intersections with transit stops, particularly where lane widths allow cars to pass buses stopped at the curb</td>
<td>M</td>
<td>ongoing</td>
<td>COO</td>
</tr>
<tr>
<td>Create policy framework that triggers review of signal and right-of-way enhancements in CTN corridors when transit travel speeds or reliability drop below minimum standards</td>
<td>M</td>
<td>1-3 years, ongoing as CTN corridors emerge</td>
<td>COO, IT</td>
</tr>
<tr>
<td>Partner with neighboring jurisdictions on comprehensive corridor studies for key CTN corridors including Marin Way, Capitol Way and Harrison Ave that examine signal priority and right-of-way treatments to speed and protect transit from delay</td>
<td>H</td>
<td>1-5 years, ongoing as CTN corridors emerge</td>
<td>COO, IT, TRPC, NJ</td>
</tr>
<tr>
<td>Work with IT to accommodate necessary transit center growth at or adjacent to the existing Downtown Olympia Transit Center</td>
<td>H</td>
<td>As needed</td>
<td>COO, IT</td>
</tr>
</tbody>
</table>

**Priority** (H=High, M=Medium, L=Low)  **Responsibilities** (COO = City of Olympia, IT=Intercity Transit, TRPC= Thurston Regional Planning Council, NJ = Neighboring Jurisdictions)

**Transit-Supportive Policies**

The most important actions that the City of Olympia can take toward developing a top-quality transit system include the development of supportive land-use, parking and access policies. Key issues and gaps identified during this study include:

- The State of Washington and the City of Olympia have an exemplary TDM program; however, there are opportunities for the City to be more aggressive about mandating TDM programs in downtown and to aid neighborhood districts in developing mechanism for broader distribution of transit pass or TDM benefits.

- Olympia’s older neighborhoods that are well-served by transit today would be excellent candidates for a Community Based Marketing Program designed to change travel behaviors through active delivery of information and travel training.
- Zoned maximum densities along key transit corridors (identified as CTN corridors in this plan) are not consistently adequate to support frequent service that operates seven days per week.

- In most parts of the City, Olympia has minimum parking requirements (downtown excepted) and does not cap the amount of parking developers can construct. Parking minimums perpetuate auto-oriented land uses and the area required for surface parking makes it difficult to create walkable, transit-oriented neighborhoods.

- Outside Olympia’s historic downtown, there are few examples of new development that act as models for future developers to emulate in terms of density, mix of uses, building orientation and parking (supply and location relative to street). There is an opportunity for the City to take an active role, partnering or working with developers, in delivering a model transit-oriented development.

This study did not include a comprehensive review of the City’s code, although most key policy documents were reviewed. Some issues or recommendations identified may already be under consideration or in adopted policy.

**Figure 4-3 Transit-Supportive Policy Recommendations**

<table>
<thead>
<tr>
<th>Policy Recommendations</th>
<th>Priority</th>
<th>Timeframe</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct a study to evaluate options for developing a Downtown transit pass program</td>
<td>M</td>
<td>1-5 years</td>
<td>COO, IT</td>
</tr>
<tr>
<td>Evaluate the viability of a local Commute Trip Reduction ordinance that would impose more stringent requirements than the State’s Commute Trip Reduction law</td>
<td>L</td>
<td>5-10 years</td>
<td>COO, TRPC</td>
</tr>
<tr>
<td>Develop a City of Olympia Community Based Marketing program</td>
<td>M</td>
<td>1-5 years</td>
<td>COO</td>
</tr>
<tr>
<td>Increase fines for parking violations</td>
<td>L</td>
<td>1-5 years</td>
<td>COO</td>
</tr>
<tr>
<td>Eliminate the free parking zone in downtown</td>
<td>M</td>
<td>1-5 years (study/outreach)</td>
<td>COO</td>
</tr>
<tr>
<td>Conduct a parking study which includes an analysis of demand based pricing and parking benefit district implementation</td>
<td>L</td>
<td>5-10 years</td>
<td>COO</td>
</tr>
<tr>
<td>Eliminate minimum parking requirements and implement parking maximums</td>
<td>M</td>
<td>1-10 years</td>
<td>COO</td>
</tr>
<tr>
<td>Require builders to unbundle the cost of parking from residential units</td>
<td>M</td>
<td>1-5 years</td>
<td>COO</td>
</tr>
<tr>
<td>Revise zoning to increase density to transit-supportive levels along CTN corridors and to encourage/require mixed use buildings and land uses</td>
<td>H</td>
<td>1-5 years</td>
<td>COO</td>
</tr>
<tr>
<td>Consider developing a CTN overlay zone (1/4 to 1/2 miles on either side of CTN corridors) that would include incentives or exceptions which would encourage developers to deliver denser, mixed use buildings and high quality pedestrian and bicycle facilities in exchange for incentives to develop</td>
<td>M</td>
<td>1-5 years (develop CTN overlay zone)</td>
<td>COO</td>
</tr>
</tbody>
</table>
Policy Recommendations | Priority | Timeframe       | Responsibilities |
---                        |         |                |                  |
Mandate pedestrian-oriented design is considered during development review | H       | 1-5 years, ongoing | COO, IT          |
Provide incentives to developers to build high-density mixed-use buildings within convenient walking distance to transit corridors; focus on incentives that improve market viability | M       | 1-10 years       | COO              |

Priority (H=High, M=Medium, L=Low)  Responsibilities (COO = City of Olympia, IT=Intercity Transit, TRPC= Thurston Regional Planning Council, NJ = Neighboring Jurisdictions)

Transit Funding

As discussed in the previous chapter, Intercity Transit funds and will continue to fund transit operations and capital development in Olympia. As Olympia grows and its urban neighborhoods mature, there will be a need for a high level of transit operations and facilities. Since City General Funds are competitive and not likely to be available to subsidize premium transit services, the most critical actions the City can take are those aimed at increasing density and walkability. Creating better transit markets and encouraging growth in the City rather than at the edges of the region, will allow Intercity Transit to focus more of its resources on high-productivity services.

This report suggests two ways that the City could facilitate the creation of new funding streams for transit operations or facilities. While there are other options available to raise transit revenue locally, such as car license tax, new tax measures within the Intercity Transit PTBA would prove controversial.

Figure 4-4 Transit Funding Recommendations

| Funding Recommendations | Priority | Timeframe | Responsibilities |
---                      |         |          |                  |
Evaluate benefits of parking benefit districts in downtown or in emerging commercial corridors | L       | 1-20 years | COO              |
Revise the transportation concurrency calculation to assess transit impacts, and allow for concurrency mitigation funds to be spent on transit infrastructure and services | L       | 1-5 years  | COO, TRPC        |

Priority (H=High, M=Medium, L=Low)  Responsibilities (COO = City of Olympia, IT=Intercity Transit, TRPC= Thurston Regional Planning Council, NJ = Neighboring Jurisdictions)
Chapter 5. Measuring Performance

This section provides a brief summary of recommendations for measuring and monitoring performance of transit in Olympia. The primary focus is on measurement of transit service quality on the CTN.

The Non-Motorized Modal Report and Addendum A to that report discuss the latest research on development of methods for measuring multimodal LOS and concludes that attempts to create a single set of measure inclusive of all modes is often counterproductive. Our experience supports this and suggests that from a transit quality and operations perspective, closely linked policies that support and monitor performance in a few areas are most important:

- **Land use density in key transit corridors.** In Olympia’s case we have identified these corridors through the proposed CTN and recommended actions for achieving transit supportive densities in these corridors.
- **Access to transit for pedestrians.** This emphasizes the linkage between the CTN and pedestrian and bicycle plan priorities established in this and the non-motorized report.
- **Delivery of high-quality transit service.** This is described in more detailed in the section immediately below.

Transit Service Quality

Measuring Performance on the CTN

Establishing clear transit service quality standards tied to key corridors or growth centers is integral to a useful set of multi-modal LOS standards and measurements. A key argument against integrating transit into a city’s LOS measurement is its relative impermanence. The argument can be made: how do we know the bus will still be on that street 10 years from now? Adoption of a CTN allows the City and IT to establish minimum service quality standards, which in turn:

- Provides a policy basis for measuring transit capacity as part of an integrated LOS standard (since policy guarantees a measurable level of service that can be translated to capacity);
- Provides developers the confidence to develop at higher densities, to make additional investments in transit or pedestrian supportive infrastructure, and/or to construct less off-street parking;
- Provides the City and Intercity Transit justification for investing in high quality transit amenities and pedestrian and bicycle facilities.

Performance criteria for the CTN can be narrowed to a few key dimensions of transit quality that are both definitional and dynamic:

- **Frequency.** The CTN runs every 15 minutes
- **Span.** The CTN runs at the above frequency for at least 16 hours on weekdays and 14 hours per day on weekends
- **Speed.** CTN services have an average operating speed, including stops, of no less than 30% of the speed limit.
Reliability. Actual headways between consecutive buses will exceed scheduled headways by a coefficient of variation not to exceed 0.30.

Loading. Standing loads but not crush loads are acceptable.

Successful adoption of the CTN will require an agreement between the City of Olympia and Intercity Transit to adopt and manage to these basic performance criteria on CTN corridors.

Customer Satisfaction

Intercity Transit conducts passenger surveys on an occasional basis (this typically occurs at least once every six years). The City should consider coordinating with IT to use feedback from this survey to influence their capital programs. This might involve adding a few strategic questions to their survey instrument focused on items such as pedestrian access and bicycle parking.

Stop Amenities and Accessibility

It is challenging to effectively measure and monitor change in the quality of the transit passenger waiting environment without a comprehensive survey of each stop that includes a site visit. In the absence of a detailed survey, there are a few simple measures of available stop amenities:

- Percent of bus stops with shelters
- Percent of bus stops with benches

If a detailed stop inventory was completed, additional measures could be tracked, including:

- ADA accessibility
- Completion of the sidewalk network leading to the stop
- Quality of waiting environment (sidewalk space available, conflicts with other users, other amenities or services)
- Presence of transit information such as schedules and route maps

Measures of pedestrian access and quality of service for transit corridors or stop/station areas can be adapted from those recommended in the Pedestrian and Bicycle Technical Appendices to the Olympia Mobility Study.

Supporting Policies

This plan identifies a number of areas where the City of Olympia could consider new or revised policies to support transit. The City should consider an annual progress report to monitor progress on action items that are retained in the final plan.
Appendix A. Literature Review – Land Use and Transit Demand

To inform this study, a brief literature review was undertaken of existing research and work that illustrated a connection between land use/development factors and transit ridership.

Although there is no single, simple correlation, appropriate findings are outlined below.

Please note that for the purpose of comparison, the following conversions and assumptions are used:

- 1 dwelling unit /acre = 640 dwelling units/square mile
- 1 dwelling unit/acre = 2.5 persons/acre = 1600 persons/square mile

Density

Several studies point to a strong connection between density and transit ridership. In Transit Metropolis, Robert Cervero states, “It is widely agreed that higher urban densities will do more than any single change to our cityscapes in attracting people to trains and buses.”

Some key sources, and their conclusions, are as follows:

- Every 10 percent increase in population and employment densities yields anywhere between a 5 and 8 percent increase in transit ridership, controlling for other factors (such as lower incomes, restricted parking, and better transit services generally associated with more compact settings). Note that this is an aggregate of studies of many densities, and is refined by other studies listed below.

- In a 1984 study in New York City, results showed that neighborhoods with densities of 8,000 people/sq mile (5 dwelling units/acre) averaged 0.2 daily transit trips per resident, while otherwise comparable neighborhoods (in income) with 24,000 people/sq mile (15 dwelling units/acre) averaged 0.7 daily transit trips per capita.16

Two studies cited a level of residential density at which point transit ridership per person or household levels out (at about 1.5 transit trips per household per day):

- A study by Spillar and Rutherford (1998) states, “Transit use per person grows with increasing density up to a ceiling at somewhere between 20 and 30 people per acre (about 19,000 people per square mile or 12 dwelling units/acre). In terms of income, in higher income neighborhoods (those with less than 18 percent low-income families) density has less of an effect on transit use than in low-income areas, but this could be due to the relatively small number of samples available.”17

- Similarly, the San Francisco Bay Area region’s Metropolitan Transportation Commission surveyed over 10,000 households throughout the metropolitan region in its 1990 Household Travel Survey, and showed that transit trip ridership per household flattens out at a density of about 30 households per acre, or roughly 48,000 people per square mile. (See Figure D-1, below). The study also shows that transit need a base of at least 5

---

households per acre (8,000 people/sq mile) before ridership will grow, increasing noticeably at about 10 households per acre (16,000 people per sq. mile) and up.

**Figure A-1  Average Daily Trips per Household vs. Density**

![Figure A-1](image)

Figure A-1 shows that when neighborhoods are more compact, trip lengths are shorter. Many destinations are close at hand. As a result, auto trips fall sharply, while more trips are taken by walking and transit.

A crucial point from Figure A-1 is that up to about 12 households/acre, the relationship between density and transit use is parabolic – transit ridership/household rises faster than density. Transit ridership/acre (the real determinant of the market for a given transit service) thus rises extremely steeply against density up to this threshold, then gradually falls back to a linear relationship in which every new increment in population (and hence density) added to a fixed area generates new ridership at the same rate.

- Newman and Kenworthy (1989) found that at densities below 12 persons per acre (7,500 persons per square mile) the bus service becomes poor. They therefore recommend densities above 5 to 6.5 dwelling units/acre (7,500 to 10,000 persons per square mile) for public transit-oriented urban areas.\(^{18}\)
- Levinson and Kumar (1994) conclude that relationships between density and mode choice "are found only in densities greater than 10,000 persons per square mile," (6 dwelling units/acre) using data from the 1990/91 Nationwide Personal Transportation Survey (NPTS). The lower limit of 7,500 persons per square mile (4.5 dwelling units/acre) is also used in other sections of the paper.\(^{19}\)

---


For employment density, a study of travel behavior in the Seattle metropolitan area, Frank and Pivo (1994) concluded that a threshold exists at which transit work trips showed a significant increase, of 50 to 75 employees per acre, and nine to 13 persons per gross acre (5500 to 8500 persons per square mile). They found that there are thresholds of 75 employees per acre and over 18 persons per gross acre (11,500 persons per square mile) for the same phenomenon to occur for shopping trips.20

The 1996 TCRP paper, Transit and Urban Form, reviewed several studies that all pointed to a correlation between density and transit trip generation.21 The paper’s findings are listed below:

- Part II of the same TCRP study evaluating relationships between transit and urban form found that, for a 25-mile light rail line surrounded by low-density residences, increasing downtown employment from 50,000 to 300,000 for a 3-square mile CBD (to a density of 100,000 people per square mile) could increase ridership along that corridor from 18,000 to 85,000 daily boardings. This translates to slightly more than 1 daily boarding per 4 new downtown employees.22

- In an analysis of transit demand in Portland, Oregon, NelsonNygaard (1995) found that “of 40 land use and demographic variables studied, the most significant for determining transit demand are the overall housing density per acre and the overall employment density per acre. These two variables alone predict 93 percent of the variance in transit demand among different parts of the region.”23

- An unpublished TCRP analysis of travel behavior in 11 metropolitan areas surveyed in the 1985 Housing Survey suggests that both land use mix and residential densities contribute to transit mode choice decisions. It determines that the probability of choosing transit is better explained by the overall levels of density rather than by measures of land use.24

Research conducted to establish the Location Efficient Mortgage program shows an indirect correlation between density and transit ridership, by illustrating an inverse impact on vehicle trips and miles traveled. The research included every neighborhood in the Los Angeles, San Francisco and Chicago metropolitan areas, and controlled for other potential explanatory variables such as household income and household size. As shown in Figure A-2, in each of the three metropolitan areas, the compactness of the neighborhood was found to be the most important explanatory variable. As residential density in a neighborhood rises, the number of nearby destinations (such as shops, restaurants and other services) increases, and as a result, driving rapidly decreases.

Figure A-2 shows the reduction in vehicle miles traveled per household as residential density increases. In Los Angeles neighborhoods with a density of two households per acre, the average household drives nearly 25,000 miles per year. At 40 households per acre (the density of the Mission Meridian Station project), the average Los Angeles household drives approximately 8,000 miles per year. Note that the parabolic part of the transit ridership curve in Figure A-1 corresponds to the steepest part of the curve in this figure, beginning to flatten at about 12 du/acre.

Proximity to Transit (Transit Oriented Development)

Another angle on the relationship between development patterns and transit is the idea of proximity to transit. This is really the same issue as density, but viewed from the passenger’s point of view.

Cervero’s findings in his paper “Ridership Impacts of Transit Focused Development” (1993) are summarized below. Essentially, he finds that:

- Residents living near rail stations are 5 times more likely to commute by rail
- Employees working near rail stations are 2.7 times more likely to commute by rail.

Figure A-3 below shows the average mode split for the Bay Area’s rapid transit system, BART, and its busiest commuter rail line, Caltrain. It also shows Caltrain and BART shares of mode splits for people who live and work in the station area. For all resident trips, transit shares of mode splits were high – between 10% and 33%. Compared with 3% of residents county-wide,
who took transit to work, 26% of residents living in station areas (TODs) used transit for their work commute.

While this analysis is focused exclusively on rail, other analyses show similar results from rubber-tired transit services with comparable frequency, travel time and amenities as rail.\(^{25}\)

**Figure A-3  Average Mode Splits for Residential and Employment Areas Served by Bay Area Transit**

<table>
<thead>
<tr>
<th></th>
<th>TOD Residents</th>
<th>Station Area Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Trips</td>
<td>Work Trips</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>15%</td>
<td>19%</td>
</tr>
<tr>
<td><strong>Caltrain</strong></td>
<td>10%</td>
<td>17%</td>
</tr>
<tr>
<td><strong>BART</strong></td>
<td>27%</td>
<td>33%</td>
</tr>
<tr>
<td><strong>San Mateo City Average</strong></td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td><strong>Station Area Residents in San Mateo County</strong></td>
<td>26%</td>
<td></td>
</tr>
</tbody>
</table>

\(^{25}\) Nelson\Nygaard Consulting Associates with Fehr & Peers Associates. *BART I-580 Corridor Study*. 2003. The analysis found that transit frequency and travel time were the primary determinants of ridership and mode split, regardless of technology.
Appendix B. Implementation of the Olympia Community Transit Network (CTN)

The key aim of the CTN is to provide an integrated network of regular, reliable and rapid transit services.

The City of Olympia has limited control over the integration of the land use and transit provision process. Their influence extends to:

- Control of the land use process, which can locate density and transit-supportive design along transit corridors, dictating future transit ridership.
- Control over most of the streets on which the CTN services will run. On streets it manages, the City controls many major factors governing transit operating speeds and reliability. The city should use these powers in its partnership with Intercity Transit to achieve the goals of the CTN.

This section provides the structural framework for developing an operating agreement between the City of Olympia, Intercity Transit and partner jurisdictions. Detail on the City’s and other agencies role in implementation is provided below.

Key Implementation Objectives within the City’s Control

The objectives under City control that should be pursued are outlined below.

Provide the Necessary Levels of Priority to Protect and Enhance Transit Speed and Reliability

The City needs to make a strong commitment to provide the necessary levels of priority to ensure transit speed and reliability. Among the factors within this City’s control, this one is by far the most important.

A key complaint of transit patrons is that transit is “too slow.” It may be surprising to transit riders that operating agencies also feel the pain of slow operations, particularly in the form of the higher operating cost. As transit operations on a route slow down, more vehicles, operators and fuel are needed to provide the same level of service. The combination of rising patronage (which increases boarding times) and increased traffic congestion can increase operating cost for an agency trying to maintain existing levels of service. Many agencies across the country are losing 1% or more per year in average operating speed. This problem may not be acute in Olympia today, but significant suburban growth combined with a continued focus on downtown employment will exacerbate congestion.

Improved speeds are important for two reasons. Firstly, the discretionary transit rider is very sensitive to speed. The faster the operating speed, the greater the ability of transit to capture new riders. Secondly, time is money – the longer it takes to complete the cycle of a line, the more it will cost to operate a given frequency. As travel speeds slow, Intercity Transit has to set aside new service hours for schedule maintenance. This time is added to individual trips in a route’s
schedule, to ensure that each bus begins its next trip at the scheduled time. To the extent that speed and reliability improvements make these schedule maintenance hours unnecessary, the service hours can be reinvested in enhanced frequencies, yielding a larger and more robust CTN.

Improved reliability is also critical to the CTN. Transit riders are generally more sensitive to variations in travel time than to travel time itself. Variation in travel time actually impacts on scheduled travel times, as operators need to load contingency into their timetables to take account of such variations. This has the effect of unnecessarily lengthening trip times and bringing the associated impacts on patronage, operating cost etc. Variability of trip time also affects the potential to integrate transit services. The CTN will generally be running at sufficiently high frequencies to avoid lengthy waits at transfer points, but good reliability will be essential when integrating with less-frequent local and regional services.

Policy speeds and reliability measures are proposed in Chapter 4 of this report. They will almost certainly vary by context – policy speeds will be significantly lower in a neighborhood commercial district, for example.

The concern over transit speed should not raise fears of buses speeding. Speed improvements refer to reducing sources of delay, such as boardings and waiting to pull out from a stop. Buses do not have to travel at faster maximum speeds than they do now. Typical improvements the City can implement include:

- **Curb Lane Improvements.** These might include bus bulbs, parking restrictions or extended bus stops to reduce delays encountered when entering and leaving bus stops.
- **Transit Signal Priority.** These measures can consist of corridor-wide transit signal priority or preemption, or more limited treatments at specific intersections.
- **Right-of-Way Reallocation.** These treatments allow buses to bypass congestion, by providing dedicated or semi-dedicated right of way. Specific measures include transit-only, high occupancy vehicle (HOV) or business access and transit (BAT) lanes, and queue jumps at intersections.

### Preserve Easements and Rights-of-way Required for the CTN

Based on the planned CTN, the City should (in the cases where streets fall within their jurisdiction) make the necessary arrangements to ensure that CTN corridors can be developed with the necessary levels of transit priority and travel time.

Actions could include:

- Incorporation of CTN streets into planning tools such as the comprehensive plan, parking policies, street hierarchy, urban design, pedestrian and bicycle plans, etc.
- Zoning and urban design controls at key stations, stops or transfer points.
- Establishment of setbacks or easements along rights of way that might need future expansion to accommodate the CTN.
Parking controls

Parking controls, including parking regulations, on- and off-street parking management and parking pricing, are among the most potent tools that the City has to bring about a mode shift towards transit, as well as to create additional movement space in a constrained right of way through peak-hour or 24-hour parking restrictions.

Pedestrian and cyclist access

The amenity and safety of access to transit lines has a strong influence on mode choice. By providing pedestrian- and cyclist-friendly urban environments, the City will better achieve their transportation goals.

Key Implementation Objectives

Shared with Other Agencies

Objectives that the City should promote when partnering with other agencies, primarily Intercity Transit, are outlined below.

Proactive rather than reactive transit provision

While the CTN network does not need to be established all at once, its usefulness and developer confidence will depend on its ability to stay ‘one step ahead’ of land use and travel demand.

In locations where large-scale redevelopment is planned, service quality, reliability and speed should ideally be in place before significant redevelopment commences.

The following table provides an indication of the ideal relationship between land use development / redevelopment, degree of CTN infrastructure implementation and CTN level of service delivery.

Figure B-1 Relationship between Land use, CTN implementation and CTN service delivery

<table>
<thead>
<tr>
<th>Stage of CTN Development</th>
<th>Stage of land use development/ redevelopment to level required by CTN</th>
<th>CTN infrastructure – Degree of implementation/ level of commitment</th>
<th>CTN - level of service delivery at CTN levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating</td>
<td>Complete and fully occupied.</td>
<td>In place</td>
<td>Running</td>
</tr>
<tr>
<td>In Implementation</td>
<td>Partially Complete</td>
<td>Under construction or in place when development densities reach CTN threshold requirements.</td>
<td>Funded, running when development densities reach CTN threshold requirements.</td>
</tr>
<tr>
<td>Definite</td>
<td>Zoned to exceed CTN threshold requirements and buildable given existing uses.</td>
<td>Funded, planned, designed.</td>
<td>Committed. (Funding may be contingent on a degree of buildout).</td>
</tr>
<tr>
<td>Stage of CTN Development</td>
<td>Stage of land use development/ redevelopment to level required by CTN</td>
<td>CTN infrastructure – Degree of implementation/ level of commitment</td>
<td>CTN - level of service delivery at CTN levels</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Candidate</td>
<td>In study for rezoning or barrier-removal so as to exceed CTN threshold requirements, OR just below a CTN threshold that may be refined downward based on further study.</td>
<td>Possibility of future CTN service is incorporated in street planning.</td>
<td>Possibility of future CTN service is incorporated in financial planning.</td>
</tr>
<tr>
<td>Possible</td>
<td>Theoretically capable of being rezoned to CTN-supportive levels, but not yet zoned.</td>
<td>None, other secondary transit facilities provided.</td>
<td>None, other secondary transit service provided.</td>
</tr>
<tr>
<td>Non-CTN</td>
<td>Unlikely to ever constitute CTN supportive land use</td>
<td>None, other secondary transit facilities provided.</td>
<td>None, other secondary transit service provided.</td>
</tr>
</tbody>
</table>

Explore benefit sharing between transit operators and land developers

There are significant broader economic benefits derived from the provision of an attractive and valued transit network. One of the clearest benefits comes from land value increases. The city should investigate scope for harnessing some of this ‘value-added’ that could be redirected to urban improvement programs or transit service subsidies.

**Key Implementation Objectives**

**Led by Intercity Transit**

Intercity Transit is largely or solely responsible for the following actions:

**Ensure adequate transit speed and reliability**

While the City controls the streets that Intercity Transit operates on, IT also has considerable responsibility in ensuring adequate travel speed and reliability. Influential factors it controls include:

- **Bus Stop Consolidation.** As discussed in a previous section, ideal stop spacing is close enough that everyone in the surrounding area can walk to a bus stop, but no closer. Increased stop spacing encourages passengers to gather in larger numbers at fewer stops. A bus stopping for two able-bodied passengers takes little longer than stopping for one, so stops with more passengers mean a faster operation for everyone. Intercity Transit and the City of Olympia should consider developing joint policies to optimize CTN stop spacing; IT should leading the implementation of this policy. Stop spacing on the CTN should be in the range of 800-1320 feet (1/4 mile).

  On secondary or feeder routes, where coverage rather than speed is the goal, spacing as close as 600 feet can be acceptable, or closer when the line is climbing a steep grade or where transit dependent uses are more than 200 but less than 600 feet apart.

- **Low Floor Vehicles.** Boarding is much faster on low floor vehicles. The difference is huge for wheelchairs but significant for many other patrons. The tradeoff of low-floor vehicles is reduced seating capacity, but this tradeoff should be made in favor of reducing
delay, since the inconvenience of being a standee is itself related to the time the trip takes. The vertical space in a low-floor vehicle also makes these vehicles feel less cramped even when crush-loaded.

- **Fare Collection Changes.** Proof-of-payment and prepaid fares can reduce boarding times considerably. While it is likely years away, IT may decide to implement proof-of-payment fare collection systems on certain routes in the future, the greatest benefits would be yielded on the CTN. Use of proof-of-payment on the less-frequent, lower-ridership routes has proven to be difficult and costly. It is impossible to provide a credible threat of enforcement on these scattered services, and the time savings achieved by eliminating fare collection by drivers is much less. The CTN, by contrast, can be covered more efficiently by fare inspectors and is also the network where the benefits of proof-of-payment are greatest. Changes to fare collection would be most appropriate with the implementation of route branding, new technology and station upgrades in a specific corridor.

**Service Provision**

The CTN concept is utterly dependent upon transit service that is fast, frequent and reliable. In the case of bus service, which is the most vulnerable to disruption, Intercity Transit is responsible for the actual delivery of service, though the City determines its operating environment. Intercity Transit is also responsible for the allocation of its service hours and its routing structure. Changes must be approved by the Intercity Transit’s eight member Board of Directors, and the Board would need clear justification for taking service away from lower performing routes to add it to the CTN. Intercity Transit should be working actively with the City to increase its services honoring the constraints of its policies.
Appendix C. Nominating CTN Corridors

For a corridor to become a permanent part of the CTN, it should meet certain thresholds and receive mutual agreement by the City and Intercity Transit. The following are the three primary factors that we offer as the necessary conditions for a corridor to be nominated to the CTN:

- Along a given corridor, aggregate average density within a quarter mile radius of each stop should average at minimum a total of either:
  - 18 residents (~7 dwelling units) per acre,
  - 25 jobs per acre, or
  - 22 persons (combination of residents + jobs) per gross acre.
- The corridor must be part of a logical route that allows the transit operator to link logical destinations.
- Anchors for each CTN line – the start point and end point – should be either downtown Olympia or a major transit generator (in the City or in neighboring jurisdiction).

Figure C-1 shows the average residential and employment densities on Definite CTN corridor segments.

**Figure C-1: Population and Employment Per Acre within ¼ Mile of Definite CTN Corridors**

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Corridor Description</th>
<th>Population Density</th>
<th>Employment Density</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2006</td>
<td>2030</td>
</tr>
<tr>
<td>Capitol Way</td>
<td>Custer to N. of State</td>
<td>15.19</td>
<td>23.26</td>
</tr>
<tr>
<td>Martin Way</td>
<td>Capitol to College</td>
<td>9.84</td>
<td>15.09</td>
</tr>
<tr>
<td>Pacific Ave</td>
<td>Capitol to Sleater Kinney Rd.</td>
<td>10.54</td>
<td>16.10</td>
</tr>
<tr>
<td>Harrison Ave</td>
<td>West of Capitol, continues to Mud Bay Rd</td>
<td>8.56</td>
<td>12.30</td>
</tr>
<tr>
<td>Deschutes Pkwy</td>
<td>West of Capitol to Harrison</td>
<td>7.90</td>
<td>11.79</td>
</tr>
</tbody>
</table>

All densities are person per gross acre. These are being refined to account for missing data.

Note that all of these factors will change over time. The relationship between land use and ridership will also be the subject of more research that may cause refinements in the CTN thresholds. While change is inevitable, an overriding goal of the CTN is permanence – the same permanence that developers currently recognize as represented only by rail. Once a corridor is built and served to CTN levels, it should not drop below those levels. For this reason, the City should err on the side of setting high thresholds for the CTN, while maintaining a broad category of Candidate corridors.

In the case of corridors where a new development plan will allow the area to cross a key density threshold, the CTN should be expanded at the same time – or just in advance of – the density increase.

In addition, the CTN should be adjusted to account for a variety of influential factors, including:
• **Barriers.** Bridges, steep slopes, water bodies, freeways and other barriers will strongly influence the shape of the CTN, forcing service in some corridors over others and overriding the standard of 1/2 mile line spacing.

• **Line Spacing.** In general, parallel CTN routes should be a minimum of a half mile apart from one another, but exceptions should be made where barriers prevent a given line from serving a key area near it. In general, Olympia’s geography and street pattern don’t allow for grid style route spacing and a number of major corridors have no parallel through route. This places higher importance on these corridors for all modes and limits opportunity to balance modal needs using parallel streets.

• **High Ridership Areas.** Locations with atypically high transit ridership, such as places with high concentrations of students or transit-dependent residents may merit CTN-level service even if they miss the appropriate density threshold.

• **Achievability of Multimodal Level/Quality of Service Standards.** An effort to refine transportation performance measurement in Olympia is being undertaken simultaneously to the development of this document. A set of quality of service measures including frequency, speed, reliability, loading and hours of service has been developed. If these standards cannot be met in aggregate over a route segment, then the line does not qualify for CTN service regardless of density.