APPENDIX 6A: TRANSPORTATION POLICY BACKGROUND

THE FORM AND FUNCTION OF OLYMPIA STREETS

"If Olympia could do only one thing to improve its livability it would be to change its street standards"

- Olympia Urban Design Strategy.

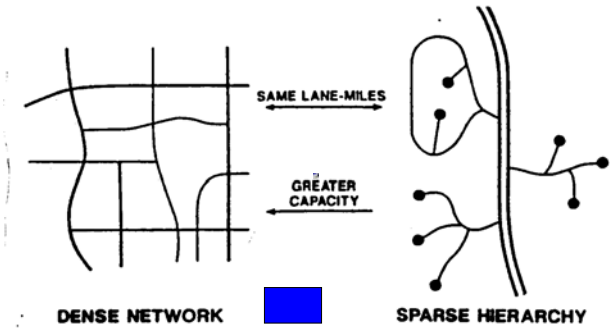
With this Comprehensive Plan, a new awareness of the importance of streets to the quality of life in Olympia is acknowledged and acted upon. As a result of the Urban Design Strategy and the Regional Transportation Plan, our ideas about streets have changed. Streets can no longer be considered a backdrop on the city stage but must be considered the central character. The form that the streets take and the newly-defined functions they serve will determine how quickly city visions are achieved, or whether those visions can be achieved at all.

The Vision

To become a less car-dependent community, there must be more opportunities to live closer to work, in livable, walkable neighborhoods. In addition, streets must be well-connected to make travel from one place to another as straightforward as possible. The key to achieving this vision is to redefine streets as a network that will serve the pedestrians, bike riders, transit riders and vehicles that will use them. In areas where we want to increase density and where we want more people to live and work, existing streets need to be retrofitted with sidewalks and street trees. These improvements will help to attract people back to the streets and investors to redevelop and infill in these areas.

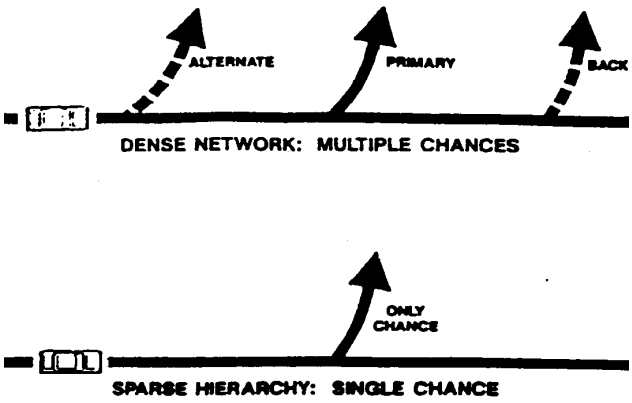
Making Connections - Why a two-lane street system works better than a four-lane road system.

Streets become less efficient as their size (number of lanes) increases. Building new two-lane streets, versus widening existing two-lane streets to four lanes, is more cost effective, yields greater capacity, and will have a lesser impact on existing neighborhoods.



A highly-connected street system provides numerous opportunities to make a left turn. Additionally, the drivers (auto, car/vanpool, bus, or bike) can choose from the many routes available on the basis of what they see out on the street. In a repetitive network of streets, the driver can make turns in advance or after their primary choice of turn location. This contrasts with the pattern under conventional widened-street systems, where left turns are gathered up from multiple locations and focused at a single location.

LEFT TURN OPPORTUNITIES



Existing streets also lack sufficient public right-of-way needed to widen them. As a result, the City must pay to acquire private lands to widen existing streets. Right-of-way for new two-lane streets can be required as new development occurs, and will have a lesser impact on existing neighborhoods.

How Our Existing Street Network Evolved

Over the past 30 years or so, streets have been built solely to move traffic safely and efficiently. The fact that our dependence on cars has grown tremendously and our urban form has been shaped to accommodate travel by car is a testament to our success in achieving that car-oriented vision.

As the problems of a car-oriented community began to emerge, we attempted to build our way out of at least the immediate problem of too much traffic by adding more lanes on existing streets. This short-term solution only built more car dependence and made other problems worse. Sometimes additional connections were proposed but never built due to public opposition. In order to maintain traffic congestion within established community standards, the only solution was to widen existing streets. As streets were widened, cities and neighborhoods were fractured and their character degraded. Air pollution got worse as sprawl development encouraged more people to live farther from work. Shopping areas were designed only to accommodate customers in cars.

The desire to make streets as safe as possible led us to develop street standards that called for wider rights-of-way. As the streets got wider, people drove faster in some areas, despite speed limits. In addition, buildings got shorter, taking advantage of readily- available land, inexpensive or simple building forms and people's ability to drive everywhere. Wide streets and short buildings also left us with a street "scale" that isn't inviting to people.

Why We Need To Reexamine Street Widths

Where new streets are built, new street standards need to make rights-of-way as narrow as possible while still accommodating a variety of users safely. The amount of traffic allowed on streets (level of service) is partly driven by a concern for safety. According to conventional wisdom, adding lanes automatically decreases congestion and improves safety. Unfortunately, as lanes are added, vehicle movement gets more complicated, sometimes at higher speeds, causing serious accidents.

This Plan accepts the fact that there will be more traffic, especially downtown and along High Density Residential Corridors. While concern for safety will continue, and accidents will still happen, they are likely to be less serious at slower speeds.

On arterials and major collectors that will move more traffic than today, increasing width and adding lanes for vehicles must be done as a last resort while support for bicycle riders, pedestrians, and transit riders becomes a high priority. This is especially important in the downtown and on the High Density Residential Corridors where public and private investment will encourage these areas to evolve into people-friendly places. Support for alternatives to driving alone is essential in order to reduce dependence on cars and meet Regional Transportation Plan goals. Creation of additional two-lane road connections will help relieve the need to widen existing arterials and major collectors and is also essential to reaching the Regional Transportation Plan goals.

STREET NETWORK PLAN

Transportation Computer Model

Since adoption of the Regional Transportation Plan (RTP) in March of 1993, staff have refined the Thurston Regional Planning Council's (TRPC) regional traffic model to include all streets within the City of Olympia. The model is capable of estimating the amount of future traffic on city streets. The model considers where additional people will live and work, and the number of vehicles that can be accommodated on the city street system. The model can also be adjusted for the number of trips that are generated on streets when people use alternatives instead of driving alone to work.

The entire city was divided into approximately 200 Traffic Analysis Zones (TAZs). These TAZs contain the population and employment (land use) which influences how much traffic will be generated on the street. The model also includes information about the road network: travel speeds and estimated capacity for vehicles. The street network model includes all arterials, collectors, and some local streets.

The traffic modeling work performed for the Olympia Comprehensive Plan is consistent with the Regional Transportation Plan. The model assumes the same increase in population and employment for the City, an existing mode split of 85 percent drive-alone commuters for existing conditions, and the same reduction in percentage of drive-alone commuters from 85 percent to 60 percent (70 percent used for right-of-way needs) for the 2015 forecast year.

In 1992, the traffic model was built to obtain the closest possible match between actual traffic counts and the traffic volumes produced by the model. Differences between the model estimates and actual existing traffic volume were within acceptable standards.

TRPC's medium growth forecast for population and employment was used to predict traffic for 2015. This forecast includes assumptions for increased residential density of 15 units/acre and higher, and 25 employees/acre or higher in the Olympia core area, and an average residential density of 15 units/acre in the High Density Residential Corridors (see TRPC's Regional Transportation Plan, Making Connections, March, 1993). The growth forecast accommodates the 30,000 increase from the population planning target for Olympia and its Growth Area. This figure was approved by Thurston County pursuant to the County-Wide Planning Policies. The Growth Management Act requires the County to accommodate the State-estimated 20-year population growth.

Street Network Transportation Scenarios

Three transportation scenarios were developed and tested using the traffic model. Each assumes the same growth and distribution of population and employment, and the aggressive goal of reducing drive-alone commuters in the afternoon peak period of the day from 85 percent to 60 percent.

These three scenarios were developed to reflect the widest possible range of policy options available. The major policy options we have considered are: will we maintain our transportation level of service standards within

the city; will we make arterial street connectivity decisions which are compatible with our current policy on connecting local access streets; and will we commit to programs necessary to reduce our dependence on the auto for commuting purposes?

1. NO BUILD - the City must change the current amount of traffic congestion allowed (level of service standard) allowing for greater congestion. No new roads will be built or existing streets widened. This scenario assumes an increase in traffic congestion and an increase in overall travel time for trips within and through the city. This scenario is inconsistent with the RTP.

2. ARTERIAL BUILD - the City will meet the current traffic congestion (level of service standard) by widening existing roads. No new roads will be built. This scenario is also inconsistent with the RTP and therefore projects that vary from the RTP should be evaluated and the impacts on the transportation system mitigated through the regional process.

3. FULL CONNECTIONS (recommended option) - the City will meet the current level of service standard by building all the connections developed in the Regional Transportation Plan, and a few new arterial connections which were not defined as regional in nature. Some streets must be widened.

Each scenario creates policy trade-offs. For example, scenario NO BUILD will not provide the arterial street system necessary to keep arterial traffic off of connected neighborhood streets. Therefore the amount of traffic on neighborhood streets will increase, putting greater pressure on traffic calming strategies.

Table 6A-1 illustrates some of the key policy trade-offs among the three scenarios. This analysis is not exhaustive but provides a glimpse into how consistent each scenario is with the recommended transportation policies.

THE NON-MOTORIZED TRANSPORTATION NETWORK

Less auto dependence will require a good network of sidewalks and bike routes so that pedestrians, transit riders and bike riders can be encouraged. Supporting these travelers will be important if transportation goals are to be met. In addition, under the new street standards, streetscape improvements (street trees, sidewalks, lighting) will become an integral part of the street cross section. This will help support the goals of attracting pedestrians and using streetscape features to influence driver behavior. The goals and policies of this Plan make it clear that building a non-motorized system should be a high priority. A portion of the non-motorized improvements will be paid for as new development and redevelopment occurs. Other improvements will be included in the Capital Facilities Plan and built as funds become available. (Ordinance #6073, 12/12/00)

Non Motorized Improvements

Bike Lanes

The street improvements listed in this Plan and shown on Map 6-2 will include bike lanes on all arterials and major collectors. These will be built as new roads are built or as existing roads are widened and are noted in the explanation of planned street improvements. In addition, special projects may be funded to connect bike lanes on existing streets where other road widening projects aren't needed. This will be important on routes that connect major employment and shopping areas with residential areas so that bicycle commuters can be encouraged. These additional bike lane improvements are shown on the map and the cost for them are included in the Capital Facilities Plan. Support services such as bike racks, storage lockers, and showers at work sites for bicycle riders will also be encouraged as development occurs and as funding becomes available.