

Transportation System Plan

Dundee Transportation System Plan

Dundee, Oregon

City of Dundee, Yamhill County, and Oregon Department of Transportation financial participation in project implementation as identified in this plan will depend upon available funding. City of Dundee adoption of this plan does not guarantee adequate state or local financial resources to implement the identified projects.

October 2003

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Dundee, Oregon

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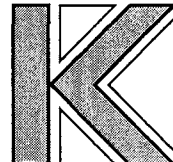


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Preface

This project was conducted under funding from the Oregon Department of Transportation (ODOT), and in close coordination with the URS Corporation, prime contractor for the Newberg-Dundee Transportation Improvement Project (NDTIP).

The progress of this plan was guided by the Dundee TSP Resource Team, City of Dundee Transportation Advisory Committee (DTAC), and the Consultant Team. Members of each of these groups is identified below.

Dundee Resource Team

Dan Fricke <i>ODOT Planning</i>	George Lewis <i>Dundee City Admin</i>	Eve Foote <i>Dundee City Admin</i>	Bill Gille <i>Yamhill County</i>
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Dundee Transportation Advisory Committee (DTAC)

Don Sundeen <i>City Councilor</i>	Eugene Gilden <i>Planning Comm.</i>	Ivon Miller <i>City Council</i>	Terry Light <i>Citizen</i>
Mike Sherwood <i>Citizen</i>	Jon Anderson <i>Citizen</i>	Anne Koch <i>Citizen</i>	Hugh Cleary <i>Planning Comm.</i>
Mike Ragsdale <i>Citizen (Chair)</i>	Pancho Hernandez <i>Citizen</i>	Steve Mikami <i>Citizen</i>	

The Resource Team and Transportation Advisory Committee members devoted a substantial amount of time and effort to the development of the Dundee Transportation System Plan (TSP), and their participation was instrumental in the development of the recommendations that are presented in this report. The Consultant Team and City staff believes that the City of Dundee's future transportation system will be better because of their commitment.

Consultant Team:

<i>Kittelson & Associates, Inc.</i>	<i>Cogan Owens Cogan</i>	<i>URS Corporation</i>
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Executive Summary

Executive Summary

OVERVIEW

The City of Dundee, in conjunction with the Oregon Department of Transportation (ODOT), initiated a study of the City's transportation system in 2000. This transportation system plan (TSP) will guide the management and development of appropriate transportation facilities within Dundee, incorporating the community's vision, while remaining consistent with state, regional, and other local plans. This report provides the City of Dundee with the necessary elements to be adopted as the transportation element of the City's comprehensive plan. In addition, this report provides ODOT and Yamhill County with recommendations that can be incorporated into their respective planning efforts.

The contents of this TSP are guided by Oregon Revised Statute (ORS) 197.712 and the Department of Land Conservation and Development (DLCD) administrative rule known as the Transportation Planning Rule (TPR). These laws and rules require that jurisdictions develop the following:

- a road plan for a network of arterial and collector streets;
- a public transit plan;
- a bicycle and pedestrian plan;
- an air, rail, water, and pipeline plan;
- a transportation financing plan; and
- policies and ordinances for implementing the transportation system plan.

The TPR requires that alternative travel modes be given equal consideration with the automobile, and that reasonable effort be applied to the development and enhancement of the alternative modes in providing the future transportation system. In addition, the TPR requires that local jurisdictions adopt land use and subdivision ordinance amendments to protect transportation facilities and to provide bicycle and pedestrian facilities between residential, commercial, and employment/institutional areas. It is further required that local communities coordinate their respective plans with the applicable county, regional, and state transportation plans.

TSP PROCESS

The Dundee TSP was developed through a process that, first, identified transportation needs, second, developed and analyzed potential projects addressing those needs and, third, developed a fundable plan that includes the projects that best address Dundee's needs within the funding expected to be available during the next 20-25 years. The following steps were involved in this process:

- Reviewing state, regional, county, and local transportation plans and policies that the Dundee TSP must either comply with or be consistent with.
- Providing public open houses to provide project information to, and gather feedback from, the public at key points during the TSP development process, establishing project advisory committees, and developing transportation plan goals and objectives.
- Evaluating existing transportation needs.

- Evaluating transportation needs in the year 2025, if growth occurs as expected, but no transportation improvements are made, other than those already funded.
- Developing, modeling, and analyzing several alternatives providing transportation improvement packages intended to address Dundee's future transportation needs.
- Estimating the revenue available for transportation capital projects through the year 2025, assuming no increase in transportation funding.
- Developing a prioritized, financially constrained, consultant-recommended alternative that includes projects that meet the project's goals and objectives, and that best address future transportation needs within the funding available.
- Modifying the consultant-recommended alternative, based on public, and advisory committee input, to develop the preferred alternative that forms the heart of this TSP.
- Developing a list of unfunded priority projects, in the event that additional transportation funding becomes available in the future.
- Developing alternative local funding strategies to augment expected revenues, so as to provide a funding base for those unfunded projects.
- Compiling the results of this work into this TSP document, for review, amendment and adoption by the Dundee City Council.

The remainder of this summary describes this process in more detail.

PUBLIC INVOLVEMENT

An aggressive Public and Agency Involvement Process was executed to involve members of affected agencies, citizen representatives and the general public in providing guidance to the development of viable solutions for the City's transportation system plan. Interested individuals and groups were included on the project's mailing list and notified of meetings and events. A project Resource Team, comprised on affected agency staff, and a Transportation Advisory Committee, comprised of local representatives and interested citizens, met regularly to give input and guidance to the process. Four public meetings and at least two planning commission and two city council hearings were held to gain valuable input from the community at key points in the process.

PLAN AND POLICY REVIEW

The TSP is required to be consistent with state, regional, county, and local plans. Three jurisdictions own the public roadways serving Dundee: the City of Dundee, Yamhill County, and the Oregon Department of Transportation (ODOT). In order to identify applicable standards and policies, as well as potential inconsistencies, the Dundee Development Code and Comprehensive Plan, were reviewed for compliance and consistency with the following plans and policies:

State/ODOT	Transportation Planning Rule 1999 Oregon Highway Plan ODOT Division 51 Rules, 2000 Oregon Transportation Plan, 1999
Yamhill County	Yamhill County Transportation System Plan, 1996 Yamhill County Public Transportation Needs Assessment, 2000 Yamhill County Capital Improvement Program, 2000

Neighboring Cities Newberg Transportation System Plan, 1994

Areas where the Dundee Development Code and Comprehensive Plan are currently not consistent with portions of these plans are identified in Section 2 of the TSP. The Transportation System Plan Policies section (Section 8) of this TSP document, identifies areas of these documents that will be amended to maintain consistency with the recommendations of this plan.

EXISTING CONDITIONS

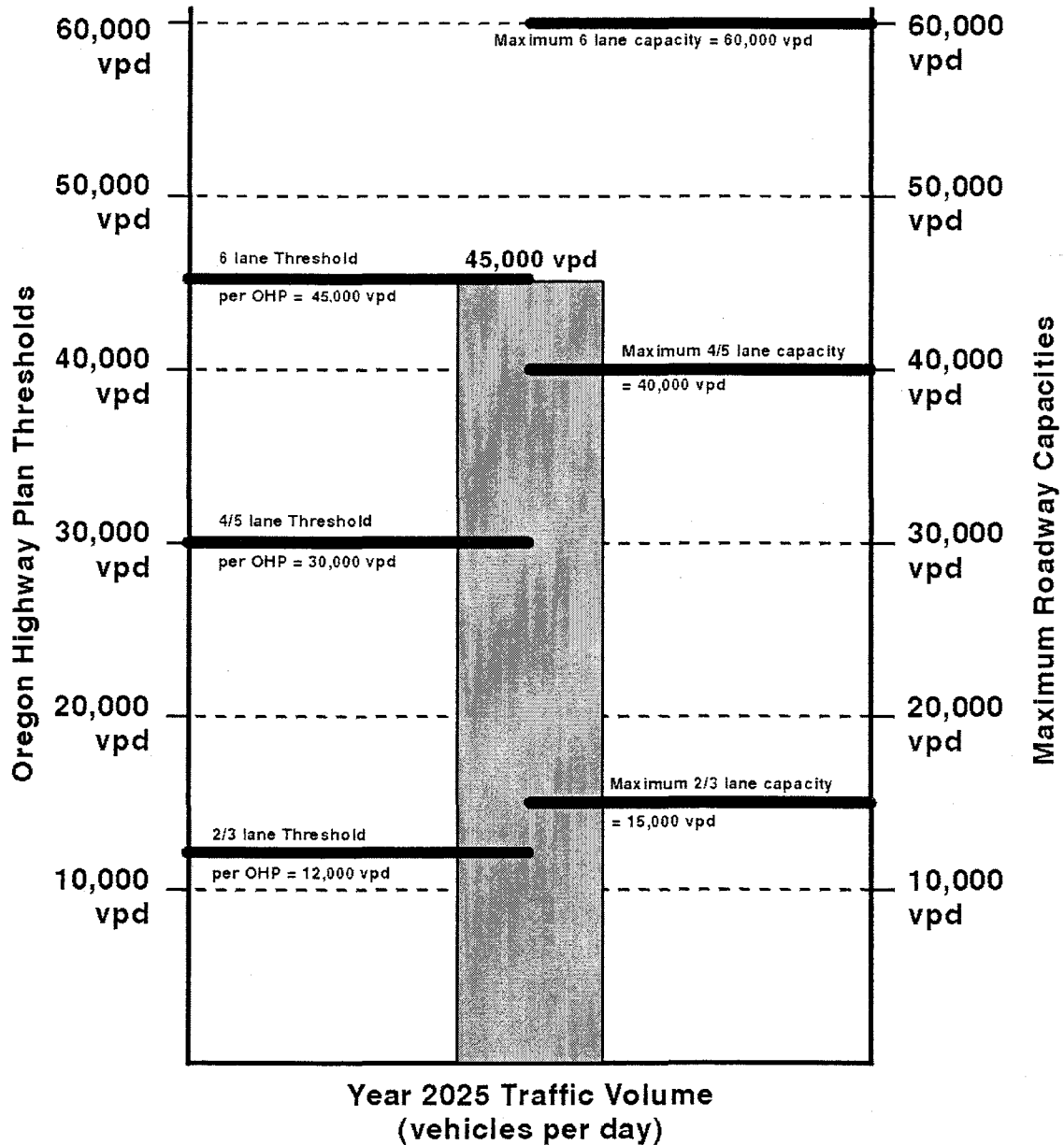
The following is a summary of the current condition of the transportation modes serving Dundee:

- **Pedestrian:** Ore 99W through central Dundee is generally well-covered by a sidewalk network, although north of 5th Street sidewalks are only present along the west side of the highway. The Dundee Elementary School also has good sidewalk coverage in the immediate vicinity, but no connectivity with neighborhoods to the west. Newer residential and commercial areas also have good pedestrian facilities, reflecting city policies that require new development to provide adequate sidewalk facilities. Crosswalks across Ore 99W are provided north of 7th, 8th and 10th Streets, as well as at the signalized 5th Street/Ore 99W intersection. Nevertheless, many residents have pointed out difficulty in crossing Ore 99W due to high through traffic volumes.
- **Bicycle:** Bike lanes/striped shoulders are provided along both sides of Ore 99W throughout Dundee although no pavement markings delineate this area specifically for bicycle travel. The only other place where bike lanes are provided is along the north side of 5th Street from City Hall to the Dogwood Drive-Upland Drive intersection. Apart from Ore 99W, all roadways within Dundee carry less than 3,000 ADT and therefore do not require bike lanes according to the criteria set forth in the *Oregon Bicycle and Pedestrian Plan*.
- **Public Transportation:** Several public transportation services are provided within the City of Dundee. The Newberg School District operates school buses within Dundee and nearby areas, taking children to and from the Dundee Elementary School and schools located in Newberg. Greyhound Bus Lines makes limited daily stops in Dundee, providing intercity service throughout the country via the major cities of Oregon. The Chehalem Valley Senior Citizens Council (CVSCC) operates LINKS, a commuter service that connects McMinnville with Meridian Park Hospital in Tualatin and makes scheduled stops in Dundee. CVSCC also operates a dial-a-ride service for elderly and disabled citizens of Newberg and Dundee. In addition, Dundee residents can take advantage of carpooling resources provided by Mid-Valley Rideshare.
- **Pipelines and Transmission Systems:** Electric transmission lines, natural gas distribution lines, and water lines serve the City. No issues have been identified with any of these facilities.
- **Rail:** The Willamette & Pacific Railroad (WPRR) operates one line through the City of Dundee for the movement of freight. Track conditions meet state guidelines. Industrial-zoned land abuts the rail lines, providing opportunities for potential customers to locate next to rail service. The closest AMTRAK passenger rail stations are located in Portland and Salem.
- **Air:** No public airports are located within the City of Dundee. The closest public general aviation airports are the Sportsman Airpark in Newberg and the Hillsboro Airport. The nearest airport with scheduled passenger service is the Portland International Airport, located approximately 30 miles northeast of Dundee.

- **Marine:** The Willamette River is located east of Dundee and provides potential opportunities for recreational boating. However, no river access or marine facilities are currently provided within the city. The closest marine access is located approximately 4 miles to the north at the Rogers Landing County Park in southern Newberg.
- **Roadway Operations:** Ore 99W through Dundee operates at capacity during the weekday p.m. peak hour, due to high volumes of southbound traffic and the narrowing of the roadway's cross-section from two lanes to one lane in the southbound direction near the north city limits. Capacity deficiencies are also experienced in the northbound direction on Ore 99W, again due to the single lane capacity through town. All other roadways within the City operate under capacity during the weekday p.m. peak hour. Turning movements from the Dayton Avenue approach to the Fox Farm Road-Dayton Avenue/Ore 99W intersection currently experience delays corresponding to LOS "F" (volume/capacity of 0.83)¹ during the weekday p.m. peak hour and signal warrants are met at the intersection. The signalized 5th Street/Ore 99W intersection operates at an acceptable LOS "B", but the v/c ratio of 0.81 is below ODOT's volume-to-capacity performance standard of 0.75. Motorists turning left onto Ore 99W from all unsignalized driveways and public street approaches currently experience long delays during peak time periods, due to the high volumes of northbound and southbound traffic along Ore 99W and the lack of acceptable gaps in traffic. Drivers who choose to wait for a single gap in traffic in both directions experience delays corresponding to an unacceptable LOS "F" during the weekday p.m. peak hour. However, drivers that choose to accept gaps in traffic in two stages (using the center median as an intermediate stopping point) experience LOS "D" conditions during the weekday p.m. peak hour, assuming they are not behind someone waiting for a single gap.
- **Roadway Safety:** None of the study intersections has a crash rate in excess of one crash per million entering vehicles. However, the signalized 5th Street/Ore 99W intersection experienced a large proportion of rear-end crashes on the southbound approach to the signal during the three-year study period, most of which resulted in occupant injuries. This trend suggests that drivers may not be aware of, or alerted to, the presence of the signal. The Ore 99W corridor was found to have a crash rate exceeding the statewide average rate for similar roadways. The majority of the accidents along the Highway were rear-end accidents and many resulted in occupant injuries.
- **Truck Freight Movement:** Traffic congestion on Ore 99W slows freight movements to and through Dundee.

¹ Level of service and volume-to-capacity (v/c) are two different, yet related, performance measures used for evaluating roadway and intersection operations. Both measures have been reported, in recognition that level-of-service (as described in Appendix "A") is the traditional measure that many jurisdictions, including the City of Dundee, use as their measure of traffic operation and v/c is the measure used by ODOT for evaluation of their state highways. Level-of-service is directly related to the amount of average delay a motorist experiences in traversing an intersection – the higher the average delay the poorer the level of service on a scale of A (excellent) to F (unacceptable). ODOT uses a slightly different standard to evaluate operations of their state highways – volume-to-capacity (v/c). This measure takes into account the total volume at an intersection or roadway, and relates this volume to the capacity of the facility. Accordingly, a roadway or intersection will operate with a v/c of from 0.00 (empty) to 1.00 (at full capacity). ODOT's minimum performance standard is defined in the Oregon Highway Plan, and varies depending on the function and location of a facility.

Figure ES-1: 2025 Traffic Volume Compared to Capacity for ORE 99W in Dundee



Note: For purposes of illustration in Figure ES-1, daily volumes and capacities were derived as a product of peak hour values times ten. This approach reflects the fact that operational performance standards (which establish maximum desirable traffic volumes) are based on peak hour traffic volumes. It should be noted that in a situation where peak hour travel demand exceeds available capacity (as is the case on Ore 99W in Dundee), demand may exceed capacity for a longer time (currently 3 or more hours in Dundee). This results in actual daily traffic volumes that are much higher than those shown in the figure above.

FUTURE TRANSPORTATION CONDITIONS

The following is a summary of the future condition of the transportation system in Dundee, considering a future transportation network that includes only committed and funded transportation projects. In the City of Dundee, there are no transportation projects that are currently funded for implementation. The figure below shows the projected 2025 daily traffic on Ore 99W in Dundee.

- **Roadway Operations:** Ore 99W through Dundee will operate far beyond capacity in both directions during 9-12 hours of a typical weekday, and during many hours of the weekend. Additional capacity will be needed in the Ore 99W corridor, either in terms of a new roadway in the form of a bypass or in terms of a substantially wider existing highway (six through lanes). All other roadways within the City will operate under capacity during all hours of the week. In addition to the current traffic signal at 5th Street, traffic signals will be needed at three new locations along Ore 99W: Fox Farm Road-Dayton Avenue, 10th Street and Niederberger Road-Parks Road. These three intersections will operate at level-of-service "F" in absence of new traffic signals, and will warrant traffic signals during the planning horizon.
- **Roadway Safety:** As traffic volumes grow in the Ore 99W corridor, driver exposure to accidents grows, and it can be expected that the number of crashes will grow proportionately.
- **Truck Freight Movement:** Traffic congestion on Ore 99W will slows freight movements to and through Dundee substantially more in the future than today, thereby causing freight movers to seriously consider alternative routes or schedules.
- **Pedestrian:** No new pedestrian facilities are planned in the City. Pedestrian movements along and across Ore 99W will become increasingly more difficult as traffic on this main arterial grows to levels nearly double today's volumes.
- **Bicycle:** No new bicycle facilities are planned in the City. Apart from Ore 99W, all roadways within Dundee will carry less than 3,000 ADT and therefore will not require bike lanes according to the criteria set forth in the *Oregon Bicycle and Pedestrian Plan*.
- **Public Transportation:** No new transit services are planned in the City.

ALTERNATIVES ANALYSIS

Alternatives Analysis, were developed and evaluated to address the transportation needs identified in the existing and future conditions and deficiencies analyses. Selections were made from the alternatives presented in this analysis for incorporation into the City's TSP.

Newberg-Dundee Bypass Alternative Selection

The City of Dundee sponsored two public open houses in which an open discussion occurred about the City's position on bypass alternatives being analyzed through the Newberg Dundee Transportation Improvement Project (NDTIP). There were over two hundred Dundee residents in attendance, and many members of the Dundee Transportation Advisory Committee (DTAC), Planning Commission, and City Council were in attendance. Subsequent to these meetings, the DTAC forwarded its recommendation to the Planning Commission and City Council, and these bodies formally adopted a position on the bypass to the NDTIP process. This position was to endorse a Southern Bypass, with a desire for its location to be as far east as possible to minimize impacts on existing Dundee neighborhoods.

At the time of these discussions, the Southern Bypass included an interchange between Newberg and Dundee. The analysis performed for the NDTIP shows that with this interchange traffic volumes within Dundee will be reduced to the point that Ore 99W can remain as a three-lane cross-section throughout the 2025-planning horizon. Without this interchange, the analysis shows that, while traffic will initially be reduced, 2025 traffic volumes on Ore 99W in Dundee will be as high as they are today. Under this approach, Ore 99W would need to be reconstructed to a five-lane cross section (four travel lanes and left turn pockets) in Dundee in conjunction with the construction of the bypass. While the City has not yet taken a position about the interchange between Newberg and Dundee, they are opposed to construction of a five-lane cross section on Ore 99W or a couplet with two travel lanes in each direction within Dundee. The City believes that this kind of capacity expansion on Ore 99W in Dundee would not support their livability or community development objectives.

The LDEIS will be completed in Summer 2002 and a selection of a preferred alternative is scheduled for Winter 2003, at which time local planning actions to support the preferred alternative will be initiated. It is expected that a Location Final Environmental Impact Statement (LFEIS) will be published in Summer 2003. Thirty days after the release of the LFEIS, the FHWA will publish a record of decision authorizing a specific corridor within which to conduct design activities. It should be emphasized that the Dundee TSP is not yet making a land use decision about which bypass alternative is to be chosen. The Dundee TSP will be amended to show the location of a bypass roadway after the preferred alternative is selected through the NDTIP process and before the LFEIS is released. Information about the Dundee bypass preference included in this document is provided as Dundee's non-binding input into the NDTIP decision-making process. Figure ES-2 shows the NDTIP Process.

Roadway Connectivity

The plan evaluated over twenty different street local and collector street connections that would improve mobility and accessibility within the City.

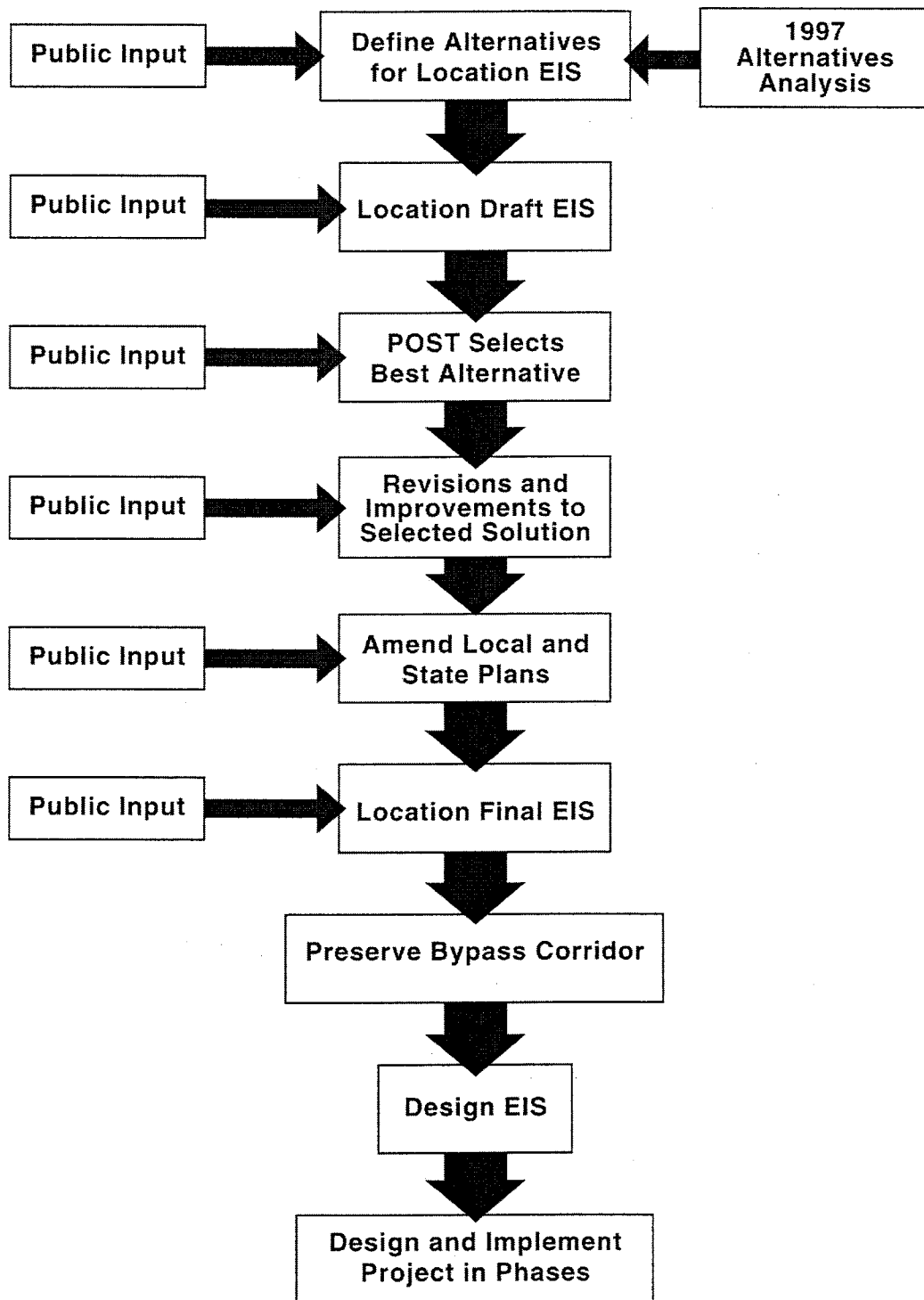
Bicycle

The plan evaluated different magnitudes of bicycle facilities in the City. With respect to bike routes, the alternatives included simply designating routes by way of information, using signing, or actually striping designating roadways. With respect to bicycle provisions such as bike racks, lockers, and showers at employment sites, the plan considered different levels from voluntary participation to required employer participation.

Pedestrian

The plan considered alternative levels of system pedestrian facilities are presented and evaluated in this section. The alternatives included four identified alternatives for sidewalk development levels, from no-build, to provision of a basic system of sidewalks on only one side of all collector streets, to provision of sidewalks on both sides of collectors, to a complete both-sided system of sidewalks.

Figure ES-2: NDTIP Process Diagram



Transit

Various levels of transit service were examined and considered, from simply a no-increase over existing levels to a comprehensive system of local and regionally-connected bus and rail services.

TRANSPORTATION SYSTEM PLAN

The Transportation System Plan chapter of this document (Section 6) contains the majority of the material that will be adopted as the transportation element of the City's comprehensive plan. The preferred alternative that forms the basis of this plan balances Dundee's transportation needs with available resources, and prioritizes its projects based on need and when funding is expected to be available.

The TSP chapter includes the following elements:

- transportation goals and objectives;
- a street system plan, including functional classifications for Dundee's streets, street design standards, and access management policies;
- a local streets plan that identifies future street connections into and through undeveloped residential and commercial areas;
- pedestrian and bicycle plans that identify the locations of future facilities;
- a transit plan that identifies transit services; and
- pipeline, air, rail, marine, and freight plans.

A refinement plan is needed to address issues that were beyond the scope of the project developing this TSP. This issue is related to the interim configuration and operation of Ore 99W prior to the construction of the NDTIP statewide expressway. Figure ES-3 shows the proposed state highway, arterial, and collector functional classification system.

TRANSPORTATION FUNDING

To meet the requirements of the Transportation Planning Rule, the Dundee Transportation System Plan (TSP) must have a transportation financing program that includes the following:

- A list of planned transportation facilities and major improvements
- A general estimate of the priority or timing of planned facilities and improvements
- Determination of rough conceptual capital cost estimates
- A discussion of existing and potential financing sources
- Alternative funding strategies for capital projects

Figure ES-3: Functional Classification Map

Planned Transportation Facilities and Major Improvements

Based on the modal plans adopted for the plan, the total capital costs associated with transportation improvements in Dundee over the next twenty years will be an estimated \$17,842,000², excluding the planned statewide expressway. An estimated \$4.3 million of this total amount will be the responsibility of the City of Dundee, over \$11.3 million of costs will be borne by the development community, almost \$1 million will be borne by Yamhill County, and about \$1.3 million will be borne by ODOT. Attribution of these cost estimates to any of these jurisdictions are not formal funding obligations on the part of ODOT or the local governments.

It is assumed that the improvements that have been identified as developer-related costs will be conditioned on new and existing development as applications are approved. Therefore, as development occurs these improvements will be funded. It is further assumed that those improvements identified for funding by Yamhill County (street improvements outside the Dundee Urban Growth Boundary, but of benefit to Dundee and Yamhill County circulation needs) will be borne by the County. In addition, those improvements on the state transportation system (i.e. Ore 99W) are attributed to regional/statewide travel volumes and are assumed to be funded by ODOT. The City will not fund those improvements that have been attributed to other jurisdictions or sources; however, the City should facilitate to the extent possible each of these other jurisdictions or sources to fund their respective projects. The purpose of the funding plan is to identify sources that can enable the City to fund this \$4.3 million capital cost for transportation system improvements over the next 20-25 years (in 2002 dollars).

Priority & Timing of Planned Facilities & Improvements

There are an estimated \$4,288,000 costs that the City would be responsible for over the planning horizon. This amounts to an annual cost of about \$215,000 in 2002 dollars. The purpose of this plan is to attempt to prescribe a schedule for their orderly implementation.

Based on the “likely time horizon” for each of the City-funded transportation projects, the approximate costs to the City for each five-year time period are as follows:

0-5 years:	\$1,254,500	(29%)
5-10 years:	\$1,542,000	(36%)
10-15 years:	\$1,104,000	(26%)
15-20 years:	<u>\$ 387,500</u>	<u>(9%)</u>
	\$4,288,000	(100%)

As shown above, almost two-thirds of transportation needs in Dundee are focused in the first ten years of the planning horizon.

² The total of \$17.8 million cost of improvements is stated in 2002 dollars, and over time can be expected to grow. Hence, over the life of this plan, the actual cost of these transportation system costs will inflate significantly over this figure.

Transportation Financing and Funding Overview

For each of the possible funding sources available for identified projects, there is a brief description, a listing of the existing application (i.e., who is presently using this method), and a short discussion of the potential for implementing the alternative in Dundee.

Alternative Funding Strategies for Capital Projects

Alternative funding scenarios were developed for the \$4.3 million in projected unfunded transportation project needs over the twenty-year planning horizon. These funding sources included: state motor vehicle funds, state bicycle-pedestrian funds, other unknown federal and state grants, general obligation bonds, street utility fees, and local gas taxes.

Section 1

Introduction

Introduction

1.1 OVERVIEW

The City of Dundee, in conjunction with the Oregon Department of Transportation (ODOT), initiated a study of the City's transportation system in September 2000. This transportation system plan (TSP) that resulted from the study will guide the management and development of appropriate transportation facilities within Dundee, incorporating the community's vision, while remaining consistent with state, regional, and other local plans. This report provides the City of Dundee with the necessary elements to be adopted as the transportation element of the City's comprehensive plan. In addition, this report provides ODOT and Yamhill County with recommendations that can be incorporated into their respective planning efforts.

State of Oregon planning rules require that the TSP be based on the current comprehensive plan land use map and must also provide a transportation system that accommodates the expected 20-year growth in population and employment that will result from implementation of the land use plan.

The contents of this TSP are guided by Oregon Revised Statute (ORS) 197.712 and the Department of Land Conservation and Development (DLCD) administrative rule known as the Transportation Planning Rule (TPR). These laws and rules require that jurisdictions develop the following:

- a road plan for a network of arterial and collector streets;
- a public transit plan;
- a bicycle and pedestrian plan;
- an air, rail, water, and pipeline plan;
- a transportation financing plan; and
- policies and ordinances for implementing the transportation system plan.

The TPR requires that alternative travel modes be given equal consideration with the automobile, and that reasonable effort be applied to the development and enhancement of the alternative modes in providing the future transportation system. In addition, the TPR requires that local jurisdictions adopt land use and subdivision ordinance amendments to protect transportation facilities and to provide bicycle and pedestrian facilities between residential, commercial, and employment/institutional areas. It is further required that local communities coordinate their respective plans with the applicable county, regional, and state transportation plans.

1.2 STUDY AREA & CONTEXT

The City of Dundee is located southeast of the Portland metropolitan area, between the City of Newberg and McMinnville, within Yamhill County. The City has a 2000 census population of 2,598, representing nearly a 64 percent increase in population since 1990 (1,663).

Dundee obtained its name from Mr. William Reid, a railroad official whom originated from Scotland. In 1873, Reid published a pamphlet advertising the advantageous location of Dundee, upon which were being planted "the largest acreage of Prune Orchards". In 1878, Reid also devised a system of narrow gauge railways to be built with Scottish capital.

Bustling with activity, Dundee prepared itself to become one of the main shipping hubs along the Willamette River. Large warehouses were built to store goods for shipping to other locations. Work was started on a bridge to cross the Willamette River and connect east and west trains, and in 1881, the railroad built a large hotel-depot, which they named "Dundee Junction". However, little progress was made on the bridge thereafter, it was never completed, and big business died down for Dundee.

Dundee has always been heavily affected by transportation. Sometime prior to 1933, Dundee also had a Red Electric Train. The train ran through Dundee about six times a day into Portland. The Red Electric Substation in Dundee, from which the train received its booster power, still stands in Dundee today, and can be seen from Ore 99W Ore 99W.

Dundee Elementary School opened its doors in 1893, with two-rooms. It was doubled in size to four rooms in 1905, and again in 1915 when it was expanded to eight rooms. Ever since the beginning, Dundee students have attended high school in Newberg.

In 1895, Dundee was incorporated into the State of Oregon as the City of Dundee. By 1900, the Census showed approximately 92 families within the City of Dundee and the City was on its way to becoming the Dundee we know today. In 102 years, Dundee has grown to just over ten times that size.

Dundee's population within its current planning area is expected to continue to grow during the 20-25 year timeframe addressed by this TSP, from about 2,600 in 2000 to about 5,700 in 2020. A future population estimate of 6,600 was used for year 2025 modeling purposes. This is the population base used in the previous (1997 Alternatives Analysis) modeling efforts upon which this work was built. This figure that has not been officially adopted by the City of Dundee--however, for planning purposes this figure was determined to be a reasonable estimate of the future population level. On Ore 99W, the only transportation facility in Dundee forecast to have future capacity problems, the potential difference in traffic volumes generated between a population of 6,600 and the adopted 2020 forecast of 5,744 is approximately 1.6%. Given that the models used for analyzing future traffic impacts have a standard margin of error of 5% to 10% on major facilities like Ore 99W, this difference is not significant enough to merit any changes to the modeling tool.

Because TSPs are adopted as part of a city's comprehensive plan, Oregon's Transportation Planning Rule limits TSPs to addressing the growth that will occur within the city's Urban Growth Boundary. While there are areas outside the current UGB that may eventually be considered for annexation into the urban area, Dundee's TSP would need to be updated to account for the additional travel demand that would be generated in those areas.

1.3 PUBLIC INVOLVEMENT PROCESS

The purpose of the Public and Agency Involvement Process was to involve members of affected agencies, citizen representatives and the general public in providing guidance to the development of viable solutions for the City's transportation system plan. Interested individuals and groups were included on the project's mailing list and notified of meetings and events. A summary of specific elements follows.

Stakeholder Interviews

Before the public involvement strategy was finalized, the consulting team interviewed key members of the community to identify issues of concern regarding transportation in Dundee and the type of public involvement program that would be most successful. The results guided public involvement efforts throughout the planning process.

Resource Team

The Dundee TSP Resource Team, consisting of representatives from local, state and federal agencies affected by the project, met regularly with the consultant, generally just before the Dundee Transportation Advisory Committee. Members provided technical guidance for the project, reviewed materials and maintained communication between the project team and the agencies they represent. Members of the Resource Team included:

Dan Fricke <i>ODOT Planning</i>	Eve Foote <i>Dundee City Admin</i>	George Lewis <i>Past City Admin</i>	Bill Gille <i>Yamhill County</i>
Darci Rudsinski <i>DLCD</i>	Dorothy Upton <i>ODOT TPAU</i>	Eric Havig <i>ODOT Design</i>	Jim Cox <i>ODOT Environmental</i>
Kent Belleque <i>ODOT Design</i>	Terry Cole <i>ODOT Project Coordinator</i>		

Dundee Transportation Advisory Committee (DTAC)

Throughout the project, 12 citizen representatives, appointed by the mayor and city council, served on the DTAC. The committee held 14 open meetings between November, 2000 and July 2002 at the Dundee City Hall to refine the list of project goals and objectives; assess existing and future conditions; recommend improvements to the City's transportation system; and advise on the public involvement process. Members received information generated by the consultant, ODOT and reviewed by the Resource Team, and provided comments and insights that were taken into account as the project proceeded. Every effort was made to reach consensus on issues of concern. Members included: Mike Ragsdale (Chair), Jon Anderson, Hugh Cleary, Eugene Gilden, Pancho Hernandez, Anne Koch, Terry Light, Steve Mikami, Ivon Miller, Mike Sherwood and Don Sundeen.

Public Events

Four public events gave citizens opportunities to gain information about the project and provide input at key steps in the process. The first was held on February 6, 2001 at the Dundee Elementary

School. Approximately 40 residents reviewed the project's purpose, goals, and schedule and commented on current and future conditions as well as possible solutions.

The second public event on April 9, 2001 focused on the related Newberg-Dundee Transportation Improvement Project (NDTIP) and included information about the Dundee Transportation System Plan (TSP). It took place at the Dundee Elementary School and was attended by approximately 370 people, the majority of whom were Dundee residents.

The last two events were held on September 20 and 24, 2001, at the Dundee Fire Station. About 177 attendees discussed and commented on the DTAC's proposals for a local street network and transportation system improvements as well as bypass options.

All the public events were advertised through flyers in neighborhood gathering places, the City newsletter, and local newspapers.

DTAC members carefully considered the input from these events when they made their recommendations.

Media

Information about the Dundee TSP was available to the public through a variety of media. The *City of Dundee Newsletter*, mailed to every resident, played an important role by reporting on the ongoing status of the project and announcing upcoming DTAC meetings and public events.

A fact sheet, written at the beginning of the process and inserted in the City newsletter, provided basic information about the Dundee TSP, a list of DTAC members and project staff contact information. This information also was included on the NDTIP Web site.

Written summaries of all DTAC meetings, as well as the public events and the stakeholder interviews, are included in *Appendix "B"* of this report.

1.4 STUDY GOALS, OBJECTIVES & ACTIONS

The Dundee Transportation Advisory Committee spent a great deal of effort developing goals, objectives, and actions that would guide the development of a transportation system in Dundee. These were used as criteria in subsequent stages of the process to assist in choosing among the many transportation system alternatives. Study objectives and actions were developed in association with each goal, to facilitate their implementation.

Subsequent to forwarding of the plan to the Planning Commission and City Council, additional goals, objectives and policies were developed for inclusion in the Dundee Comprehensive Plan. These additional elements are included in the Transportation System Plan section of this document.

Goal 1: System Capacity and Mobility

Provide and maintain a transportation system that serves the travel needs of all Dundee residents, businesses, and visitors, and minimizes the adverse impact of through travelers on Dundee.

Objective 1-Improve System Connectivity

Objective 2-Conduct Facility Management

Objective 3-Minimize Congestion

Objective 4-Provide/Support Travel Choices

Action 1—Establish and enforce a functional classification system for local roads that is compatible with the county and state functional classification systems as a basis for ensuring appropriate development and efficient use of local, county, and state roadways.

Action 2—Establish and enforce local transportation system performance standards that are compatible with county and state standards.

Action 3—Develop and implement connectivity plans for local roadways, sidewalks, and bicycle facilities to support local travel that is independent of Ore 99W.

Action 4—Develop plans and ordinances that foster development of facilities that support safe and efficient travel by bicycle, pedestrian, and public transportation.

Action 5—Develop and implement a freight circulation plan.

Action 6—Develop and implement local facility management plans and ordinances that ensure safe and appropriate access/roadway spacing and traffic control improvements that balance the transportation system's operational efficiency with access to residences, businesses, and public facilities and discourage inappropriate use of the local roadway network.

Action 7—Ensure that local facility management plans and ordinances are compatible with county and state regulations and encourage development of facility management plans on county and state facilities when appropriate.

Action 8—Analyze, recommend, and implement transportation system improvements that contribute to achieving local, county, and state operational performance standards.

Action 9—Encourage and provide regulatory or, if feasible, financial support for establishing regularly scheduled public transportation service in Dundee that provides linkages to McMinnville, Newberg, and the Portland metropolitan area.

Goal 2: Livability

Provide and maintain a transportation system that fosters a pleasant, small city and preserves and enhances existing neighborhoods and businesses.

Objective 1-Improve Mobility

Objective 2-Minimize Disruptions to Neighborhoods and Businesses

Objective 3-Enhance Economic Vitality

Objective 4-Manage Transportation Facilities

Objective 5-Minimize Energy, Social, Environmental and Economic Impacts

Objective 6-Improve Pedestrian Facilities

Objective 7-Improve Bicycle Facilities

Action 1—See Goal 1 Actions.

Action 2—Develop and implement ordinances to ensure that the social consequences of transportation projects, including impacts to neighborhoods and historical properties, are understood, considered, and mitigated as necessary, appropriate, and/or required.

Action 3—Develop and implement ordinances to ensure that the consequences of transportation projects to the natural environment are understood, considered, and mitigated as necessary, appropriate, and/or required.

Action 4—Develop and implement ordinances to ensure that the economic impacts of transportation projects businesses are understood, considered, and minimized to the maximum extent possible.

Action 5—Improve signing and access to tourist destinations.

Action 6—Develop and implement parking and circulation strategies that minimize pedestrian and vehicle conflicts and support downtown business retention and development.

Goal 3: Coordination

Develop and maintain a transportation system that is consistent with and supports the goals, objectives, and visions of the Dundee community, participating and affected agencies, the county, and the state.

Objective 1-Support Adopted Local Land Use Plans

Objective 2-Provide for Appropriate Inter-jurisdictional Communication

Objective 3-Achieve Consistency with State and County Plans

Objective 4-Practice Public Outreach

Action 1—Develop ordinance amendment that creates process for notifying outside agencies of proposed development actions.

Action 2—Develop TSP policies and project plans that are not in conflict with state plans and other local plans.

Action 3—Ensure that all aspects of the Dundee TSP achieve compliance with the Dundee TSP.

Action 4—Develop and institute procedures to communicate about TSP implementation activities with Dundee residents and determine their support for implementation.

Action 5—Ensure TSP project development supports adopted local land use plans.

Goal 4: Travel Options

Develop and maintain a transportation system that encourages, supports, and incorporates a variety of multi-modal travel options.

Objective 1-Improve Bicycle Facilities

Objective 2-Improve Pedestrian Facilities

Objective 3-Support Transit and Rail System Development

Objective 4-Improve Truck Access and Circulation

Action 1—Develop and implement connectivity plans for local roadways, sidewalks, and bicycle facilities to support local travel that is independent of Ore 99W.

Action 2—Develop plans and ordinances that foster development of facilities that support safe and efficient travel by bicycle, pedestrian, and public transportation.

Action 3—Develop and implement parking and circulation strategies that minimize pedestrian and vehicle conflicts and support downtown business retention and development.

Action 4—Encourage and provide regulatory or, if feasible, financial support for establishing regularly scheduled public transportation service in Dundee that provides linkages to McMinnville, Newberg, and the Portland metropolitan area.

Action 5—Develop and implement a freight circulation plan.

Action 6—Develop plans and ordinances that foster development of facilities that support safe and efficient travel by bicycle, pedestrian, and public transportation.

Action 7—Develop and implement local facility management plans and ordinances that ensure safe and appropriate access/roadway spacing and traffic control improvements that balance the transportation system’s operational efficiency with access to residences, businesses, and public facilities and discourage inappropriate use of the local roadway network.

Goal 5: Accessibility

Provide and maintain a well-connected transportation system that serves the needs of all members of the community and ensures adequate and efficient accessibility for all acknowledged land uses, and available modes of travel.

Objective 1-Link Recreation and Other Local Destinations

Objective 2-Comply with ADA Requirements

Objective 3-Support Local Land Use Plans

Objective 4-Manage Transportation Facilities

Objective 5-Provide/Support Travel Choices

Action 1— See Goal 4 Actions

Action 2—Develop and institute ordinance amendments to ensure proper consideration and implementation of projects that comply with the American with Disabilities Act.

Action 3—Ensure TSP project development supports adopted local land use plans.

Action 4—Establish and enforce a functional classification system for local roads that is compatible with the county and state functional classification systems as a basis for ensuring appropriate development and efficient use of local, county, and state roadways.

Action 5—Develop and implement local facility management plans and ordinances that ensure safe and appropriate access/roadway spacing and traffic control improvements that balance the transportation system’s operational efficiency with access to residences, businesses, and public facilities and discourage inappropriate use of the local roadway network.

Action 6— Improve signing and access to tourist destinations.

Goal 6: Environment

Provide and maintain a transportation system that preserves, protects, and supports the social, natural, and cultural environment of the Dundee community.

Objective 1- Minimize Energy, Social, Environmental and Economic Impacts

Action 1—See Goal 1 Actions.

Action 2—Develop and implement ordinances to ensure that the social consequences of transportation projects, including impacts to neighborhoods and historical properties, are understood, considered, and mitigated as necessary, appropriate, and/or required.

Action 3—Develop and implement ordinances to ensure that the consequences of transportation projects to the natural environment are understood, considered, and mitigated as necessary, appropriate, and/or required.

Action 4—Develop and implement ordinances to ensure that the economic impacts of transportation projects businesses are understood, considered, and minimized to the maximum extent possible.

Goal 7: Timely Provision and Funding of Transportation Facilities and Services

Develop reasonable and effective funding and financing strategies and priorities to ensure that the future transportation facilities and services called for in the TSP are provided to support community development and acceptable transportation operations and safety.

Objective 1-Identify Full Range of Potential Funding Sources

Objective 2-Match Fund Sources to System Improvement and Maintenance Needs

Objective 3-Prioritize Improvement Needs

Objective 4-Phase Needed Improvements

Objective 5-Acquire and Preserve Right-of-Way Needed for System Improvements

Objective 6-Require Mitigation of Public and Private Development Transportation Impacts

Action 1—Identify and assess all potential transportation system funding sources for their potential and suitability in Dundee, including special legislative funds, state and federal grants and programs, system development charges, and other locally generated revenues (local option gas tax, maintenance fee, etc.).

Action 2—Develop a funding source and schedule for pavement preservation.

Action 3—Develop a process to periodically re-assess and prioritize the transportation system improvements called for in the adopted TSP.

Action 4—Develop a transportation capital improvements program to select and phase implementation of TSP priority projects for which funding has been secured.

Action 5—Develop and implement ordinances that facilitate acquisition and preservation of right-of-way needed for transportation improvements identified in the TSP.

Action 6—Develop and implement ordinances that require private development to provide transportation improvements within or adjacent to the development that support and implement the facilities or services called for in the TSP.

Action 7—Develop and implement ordinances that require public development to provide transportation improvements within or adjacent to the development that support and implement the facilities or services called for in the TSP.

Goal 8: Safety

Develop and maintain a transportation system that protects the health and safety of transportation system users.

Objective 1-Reduce Vehicle Crashes

Objective 2-Reduce Transportation-Related Injuries

Objective 2-Improve Pedestrian Facilities

Objective 3-Improve Bicycle Facilities

Action 1—Develop and implement connectivity plans for local roadways, sidewalks, and bicycle facilities to support local travel that is independent of Ore 99W.

Action 2—Develop plans and ordinances that foster development of facilities that support safe and efficient travel by bicycle, pedestrian, and public transportation.

Action 3—Develop and implement local facility management plans and ordinances that ensure safe and appropriate access/roadway spacing and traffic control improvements that balance the transportation system's operational efficiency with access to residences, businesses, and public facilities and discourage inappropriate use of the local roadway network.

Action 4— Develop and implement parking and circulation strategies that minimize pedestrian and vehicle conflicts and support downtown business retention and development.

Goal 9: Economic Development

Provide and maintain a transportation system that supports the economic vitality of the Dundee community.

Objective 1-Accomodate Freight Movement to Support Local Businesses

Objective 2-Provide for Convenient Parking and Access to Local Businesses

Objective 3-Provide Transportation Choices that Support Employers and Employees

Objective 4-Minimize Transportation Conflicts between Neighborhoods and Businesses

Objective 5-Improve Bicycle and Pedestrian Circulation

Action 1—See Goal 1, Goal 2, and Goal 4 Actions.

1.5 TSP ORGANIZATION AND METHODOLOGY

The development of the City of Dundee's Transportation System Plan began with a review of the local, county, regional, and statewide plans and policies that guide land use and transportation planning in the City. This plan and policy review is presented in **Section 2** of this plan. Next, an inventory of the existing transportation system was performed. This inventory documented all major transportation-related facilities within the study area, which allowed for an objective assessment of the current system's physical characteristics, operational performance, safety, and general function. The inventory process and the documentation of current transportation conditions are presented in **Section 3** of this report.

Upon completion of the existing conditions analysis, the focus of the project shifted to forecasting future travel demand and the corresponding long-term future transportation system needs. Development of long-term (year 2025) transportation system forecasts relied heavily on the City's population growth projections, along with general growth in the Ore 99W corridor. **Section 4** of this report, Future Conditions Analysis, details the development of anticipated long-term future transportation needs within the study area.

Section 5 of this report, Alternatives Analysis, documents the development and prioritization of alternative measures to mitigate identified safety and capacity deficiencies, as well as projects that would enhance the multi-modal aspects of the City's transportation system. The impact of each of the identified alternatives was considered on the basis of its potential costs and benefits, as well as its conformance with and potential conflicts to the City's transportation system and land uses. Ultimately, based on comments received from the City staff, Dundee residents, Dundee Resource Team, and DTAC, a preferred plan was developed that reflected a consensus on which elements should be incorporated into the City's long-term transportation system.

Having identified a preferred set of alternatives, the next phase of the planning process involved presenting and refining the individual elements of the TSP through a series of decisions and recommendations. The recommendations identified in **Section 6**, Transportation System Plan, include a Street Plan, a Pedestrian System Plan, and a Bicycle System Plan, and a Transit Plan, as well as plans for other transportation modes serving Dundee.

Section 7, Transportation Funding Plan, provides an analysis and summary of the alternative funding sources available to finance the identified transportation system improvements.

The recommended modifications presented in **Section 8**, Suggested Policy Considerations, address major land use transportation issues identified during the development of the TSP and reflect the desire to enhance all modes of the transportation system. These ordinances are needed to implement the TSP.

Finally, **Section 9**, Transportation Planning Rule Compliance, lists the requirements of the Oregon Transportation Planning Rule (OAR 660 Division 12) and identifies how the City of Dundee TSP satisfies or could satisfy each criterion.

Section 2

Plan and Policy Review

Plan and Policy Review

2.1 INTRODUCTION

This section summarizes the plans and policies at the state, county, and local level that directly impact transportation planning in the City of Dundee. Although each document reviewed contains many policies, only the most pertinent policies were chosen to help focus the discussion. The policies outlined within this section provide a policy context for the remainder of the study and new policies considered as part of this study should be consistent with the currently adopted policies listed here.

Each applicable goal, policy and action is either listed verbatim from its source or paraphrased where necessary. An independent conclusion is given after each individual policy. These conclusions are meant to emphasize the most important parts of the policies as they apply to the City of Dundee's Transportation System Plan. Conclusions also may point out inconsistencies between policies that were considered further during the course of this study.

2.1.1 Documents Reviewed

Three jurisdictions own the public roadways serving Dundee: the City of Dundee, Yamhill County, and the Oregon Department of Transportation (ODOT). The Dundee Development Code and Comprehensive Plan were reviewed for compliance and consistency with the following plans and policies:

2.2 STATEWIDE AND REGIONAL PLANS

2.2.1 Oregon Highway Plan, ODOT, 1999

The State Classification System (SCS) for OR 99W, otherwise known as Pacific Highway West, classifies the highway as a district, state, and regional route. The segment of Ore 99W through the City of Dundee is classified as a *Statewide Highway*. Portions of OR 99W are a part of the National Highway System (NHS). OR 18 is classified as a state route. The entire length of OR 18 is a part of the NHS.

OR 99W and OR 18 are designated freight routes between US 101 (Lincoln City) to I-5 (Tigard). It is the policy of the State of Oregon to balance the need for movement of goods with other uses of the highway system, and to recognize the importance of maintaining efficient through movement on major truck freight routes.

Policy 1B: Land Use and Transportation recognizes the need to coordinate land use and transportation decisions to efficiently use public infrastructure investments. There is one definition under this policy that is applicable to the City of Dundee, and is listed below:

- **Special Transportation Area (STA):** An STA is a highway segment designation that may be applied to a highway segment when a downtown, business district or community center straddles the state highway within an urban growth boundary or in an unincorporated community. Direct street connections and shared on-street parking are encouraged in urban

areas. An STA is a designated compact district located where the need for appropriate local access outweighs the consideration of highway mobility except on designated Freight Highways where accessibility and mobility are balance which is the case for OR 99W.

2.2.2 Division 51 Highway Approaches, Access Control, Spacing Standards and Medians, ODOT, 2000

Table 2-1 in this plan outlines access management spacing standards for both private and public approaches on Statewide Highways. There is no other specific material to OR 99W or OR 18.

TABLE 2-1
ACCESS MANAGEMENT SPACING STANDARDS FOR BOTH PRIVATE AND PUBLIC
APPROACHES ON STATE HIGHWAYS^{1,2,3,4}
(OAR 734-051-0190)
(measurement is in feet)*

Posted Speed	Rural		Urban			
	Expressway ***	Other	Expressway ** ***	Other ***	UBA	STA
>55	5280	1320	2640	1320		
50	5280	1100	2640	1100		
40 & 45	5280	990	2640	990		
30 & 35		770		770	720	See footnote 6
<25		550		550	520	See footnote 6

¹ These access management spacing standards are for unsignalized approaches only. Signal spacing standards supercede access management spacing standards for approaches.

² These access management spacing standards do not retroactively apply to legal approaches in effect prior to adoption of interchange construction projects, highway or interchange modernization projects, or any other roadway project as determined by the Region Manager, such as preservation, safety and operation projects that affect curb placement or sidewalks, which affect these management spacing standards, but at the very least to improve current conditions by moving in the direction of the access management spacing standards. (See OAR 734-051-0190(2)(b)).

³ When in-fill development occurs, the goal is to meet the appropriate access management spacing standards. This may not be possible and at the very least the goal is to improve the current conditions by moving in the direction of the access management spacing standards. Thus, in-fill development should not worsen current approach spacing. This may involve appropriate mitigation, such as joint access. (See OAR 734-051-0190(2)(c)).

⁴ In some cases an approach will be allowed to a property at less than the designated access management spacing standards or minor deviation limits, but only where a right of access exists, the designated access management spacing standards or minor deviation limits cannot be accomplished, and that property does not have reasonable access, thus the options should be considered such as joint access. (See OAR 734-051-0190(3)). Other options should be considered such as joint access. (See OAR 734-051-0190(2)(d)).

⁵ Does not apply.

⁶ Minimum access management spacing for public road approaches is the existing city block spacing or the city block spacing as identified in the local comprehensive plan. Public road connections are preferred over private driveways and in STAs driveways are discouraged. However, where driveways are allowed and where land use patterns permit, the minimum access management spacing for driveways is 175 feet (55 meters) or mid-block if the current city block spacing is less than 350 feet (110 meter).

** Spacing for Expressway at-grade intersections only.

*** These standards also apply to Commercial Centers.

2.2.3 Oregon Transportation Plan, ODOT 1992

This plan outlines alternatives to meet general transportation goals for Oregon's transportation systems. The elements which are related to the Portland-Lincoln City corridor and Dundee in particular include a Commuter Transit Service between Portland and McMinnville by the year 2012, and an intercity bus or commuter bus service available to cities over 2,500 population.

2.2.4 2002-2005 Final Statewide Transportation Improvement Program, ODOT

The table below displays the projects planned for Ore 99W.

**TABLE 2-2
 2002-2005 ORE 99W SCHEDULED PROJECTS**

Key	Section	Route	Highway Name	Total Cost	Description	Status	Year
09320	NEWBERG-DUNDEE TRANS. IMP. (TEA-21 #37)	OR-99W	PACIFIC WEST	\$6,394,000	ENVIRONMENTAL DOCUMENT AND PROJECT DEVELOPMENT WORK.	ROWAC Q	2003

Source: <http://www.odot.state.or.us/stip/resultsPositive2>

2.2.5 Portland to Lincoln City Corridor, Oregon Highways 99W and 18 I-5 to US 101, Interim Corridor Strategy, ODOT, March 1997

OR 99W and OR 18 are the principal arterial routes in the communities which they pass and Ore 99W acts as a main street setting in Dundee. These state routes serve dual functions of providing through movement and local access. Capacity improvements to improve regional connectivity in the OR 99W corridor include a proposal for a bypass of Newberg and Dundee. The Newberg-Dundee Bypass will serve the long-term need for a limited access route in the 2040 Growth Concept. The regional route would be maintained with signing and design features to attract traffic onto the bypass route. The bypass would incorporate full access control. The location of the bypass was not determined.

The measures recommended in the interim corridor strategy are listed below:

- A four-lane bypass of Dundee would eliminate the need for future widening of the existing route through the year 2020. Hwy 99W to be widened to four through lanes from Hwy 99W/18 intersection to Dundee.
- Improve pedestrian connectivity by linking together sidewalks in Dundee. Improve the traffic setting at the Hwy 99W and Fifth Street intersection in Dundee.
- Review appropriate posted speeds through developed areas of Dundee.
- Create a strategy to improve the Hwy 99W/18 intersection at McDougal Corner. Possible strategies include realignment, grade separation, and future connection to the Newberg/Dundee Bypass.

2.2.6 Newberg-Dundee Transportation Improvement Project Alternatives Analysis, December 1997

The Project Oversight Steering Team (POST) recommended three Multimodal Alternative Packages (MAPs) for advancement to the EIS Phase. In its recommendations, POST stressed that the solution to the transportation problems on Ore 99W in Newberg and Dundee would require a program that includes multiple components. The alternatives recommended for advancement are listed below in alphabetical order:

- The Regional Bypass MAP
- The Southern Bypass MAP
- The Transportation Management MAP

The Regional Bypass MAP

- The Regional Bypass of Ore 99W MAP allows through traffic to bypass the constrained segment of Ore 99W in Newberg and Dundee, as well as the connected highway network between Newberg and Interstate 5, by traveling along an east-west bypass roadway located in Yamhill and Marion counties. The bypass would start south of the Ore 99W/18 intersection (McDougal Corner) and terminate at I-5 near Donald.
- Construct new and/or interconnect existing east-west local or collector roadways within and between Newberg and Dundee (e.g., Dayton Avenue on the south side of Ore 99W).
- Discourage large-scale retail zoning outside of Newberg and Dundee's central business districts.

The Southern Bypass MAP

- The Southern Bypass of Ore 99W MAP allows through traffic to bypass the constrained segment of Ore 99W in Newberg and Dundee by traveling along a new bypass roadway to the south. The bypass would start near Rex Hill and terminate near the Ore 99W/18 intersection (McDougal Corner). Express buses are included, as well as low level of transportation management.
- Discourage large-scale retail zoning outside of Newberg and Dundee's central business districts.

The Transportation Management MAP

- Between Newberg's southern and Dundee's northern city limits, upgrade Ore 99W to current design standards that provide four through traffic lanes.
- Provide four through traffic lanes on Ore 99W throughout Dundee's city limits acquiring right-of-way and widening the highway on either the north side, the south side, or both sides.
- Between Dundee's southern city limits and Highway 18, upgrade Ore 99W to current design standards and provide four through travel lanes.
- Construct new and/or interconnect existing east-west local or collector roadways within and between Newberg and Dundee; e.g., Dayton Avenue on the south side of Ore 99W.

2.3 LOCAL PLANS

2.3.1 Dundee Comprehensive Plan, 1990

The Dundee Comprehensive Plan deleted and repealed the following policies that relate to transportation:

- Special setback requirements will be developed along Ore 99W to reflect probable future expansion of the right-of-way between 5th and 12th Streets.
- The City supports the concept of expanding highways 99W to 4 lanes in the future.

The recommendations included in this transportation plan support these deleted and repealed policies; that is, the City of Dundee does not support expanding Ore 99W to four (or five) lanes in the future.

The plan goes further to say, "As an alternative to widening of Highway 99W, the City supports the proposed Newberg-Dundee bypass listed on the ODOT Six-Year Highway Improvement Program".

The plan lists the following policies under the Road Improvements section:

- Right-of-way dedications – As a condition of approving any development within the UGB which abuts a county road, the city agrees to require dedication of additional right-of-way as necessary to meet both city and county road improvement standards.
- Jurisdiction over roads – The city will request a formal surrender of jurisdiction and accept jurisdiction of county road right-of-way at such time as the roadway meets city street improvement standards. In the event that it is not timely or otherwise practical or possible to complete the level of road improvements specified in the above provisions, the city and county may enter into an agreement either jointly or in association with the developer and/or affected property owners as to the procedure and time required for the completion of such road improvements.

2.3.1 Yamhill County Transportation System Plan, March 1996

The County has identified the following in their Transportation System Plan:

- Support of a limited access Newberg-Dundee bypass.
- Future consideration of commuter rail between McMinnville and Sherwood.
- The following improvements to McDougal Corner: eliminating the left turn lane from Highway 18 to 99W, constructing a new access to McDougal Road, constructing raised medians on both state highways, increasing illumination, restriping section and improving signage.

2.3.2 Yamhill County Public Transportation Needs Assessment, 2000

This study opens with a synopsis of all current public transportation planning impacting Yamhill County from the state, regional, county and city level. The synopsis indicates that generally public

transportation is inadequately addressed in current planning programs to completely meet state goals and guidelines. The rest of the needs assessment study is divided into the following:

- An in-depth demographic study is provided; however, Dundee census block groups appear omitted.
- Existing services were inventoried and evaluated.
- A Public Transportation Opinion Survey was conducted and analyzed. This section included specific comments regarding the “Dundee bottleneck” from the public.
- A section on how public transportation is funded provided a synopsis of existing and potential funding sources.
- A final section of the report discussed that anticipated changes in the immediate future of Yamhill County public transportation.

2.3.3 City of Newberg Transportation System Plan and Addendum Report, June 1994

This report is not applicable because it focuses only on the area within the Urban Growth Boundary for the City of Newberg. However, the Newberg-Dundee Bypass is mentioned with the City recognizing its insufficient funding resources immediately available to fund and construct a bypass in the Newberg area. The cost of constructing the Newberg-Dundee Bypass has been estimated to range anywhere from \$60 to \$65 million. Right-of-way costs alone have been estimated at more than \$5 million (ODOT Reconnaissance Study, 1990). Furthermore, the City has no mechanism in place to develop a bypass facility, as these types of transportation improvements are typically planned, designed, and constructed by the State.

In order to construct the initial phase of the Bypass, the City of Newberg will need to develop roadway design criteria specifically for a limited access highway. Also, in the interim, the City of Newberg must be proactive in planning the needed transportation improvements within its jurisdiction as outlined in the Draft TSP, which includes the Newberg-Dundee bypass.

Section 3

Existing Conditions

Existing Conditions

3.1 INTRODUCTION

This section describes the existing condition of the City's transportation system, covering the highway, pedestrian, bicycle, transit, rail, air, water, freight movement, and pipeline/transmission transportation modes. Each mode's current performance and deficiencies are described. Also included is an inventory of existing transportation facilities. The findings of this existing conditions analysis serves as a baseline to which future conditions can be compared.

This section is a fact-finding document, in that it describes existing conditions, but does not recommend solutions to identified problems. Its findings will be combined with the findings of two other sections (plan and policy review, and future conditions) to provide a comprehensive overview of Dundee's transportation needs. Once this complete set of needs has been identified, subsequent sections will describe solution alternatives developed to meet these needs.

3.2 STUDY AREA AND LAND USE

Figure 3-1 is a street map of Dundee, with the city limits and Urban Growth Boundary (UGB) indicated. Areas within the UGB are expected to become part of the City within the next 20 years. It should be noted that the city limits bounds a larger area than the UGB. Some streets shown may be private (e.g., driveways serving private properties east of Edwards Road), or unimproved (e.g., Warren Road and Worden Hill Road). The base map used in Figure 3-1 and other maps included in this chapter provide a reference for locating other features of Dundee's transportation system. They do not depict the condition or public status of a particular roadway. The study area for the TSP generally consists of the area within the UGB, although in some instances areas outside the study area are also addressed, where transportation issues extend beyond the City.

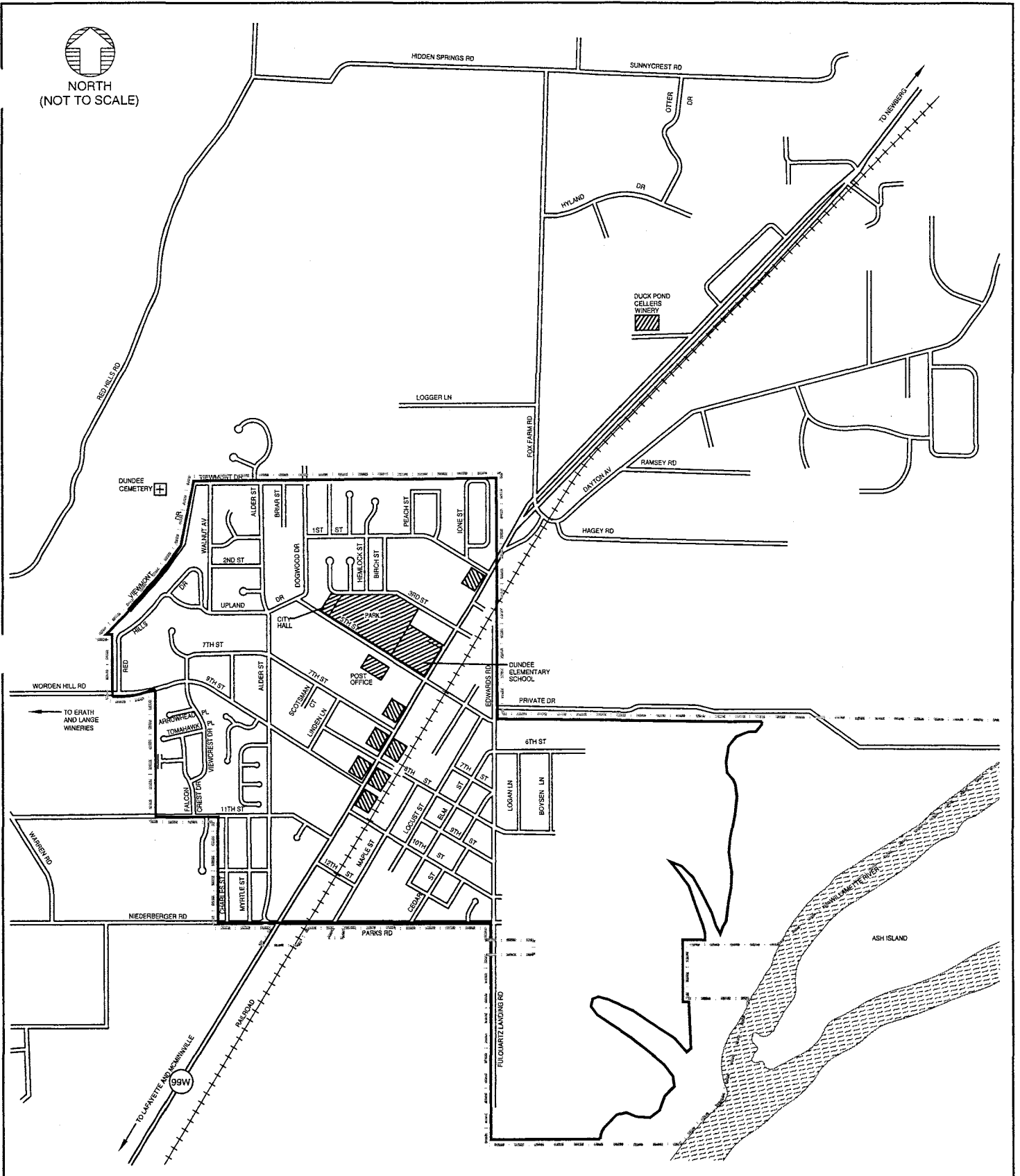
Based on the requirements of Oregon's Transportation Planning Rule, only significant streets within the study area—those that can be classified as arterials or collectors—and intersections of these streets are generally addressed. However, the City of Dundee has not yet adopted a functional classification system. Consequently, the following streets were considered to be higher order roadways within the city and were examined in detail as part of this report:

Ore 99W	5 th Street	Niederberger Road
Alder Street	7 th Street	Parks Road
Edwards Road	9 th Street-Worden Hill Road	Upland Drive-Dogwood Drive
1 st Street	10 th Street	Maple Street
3 rd Street	11 th Street	

Local traffic and safety issues on other roadways will also be addressed in subsequent chapters through the primary analysis of the public involvement process. The future conditions chapter presents a more extensive analysis of Dundee's development potential, while the plans and policies chapter discuss urban reserve areas adjacent to Dundee. However, because of the requirements of Oregon's Transportation Planning Rule, the TSP will only consider those areas currently within the City's planning area boundary (i.e., those areas currently covered by the City's comprehensive plan) when making assumptions about where Dundee will grow in the next 20-25 years.



NORTH
(NOT TO SCALE)



LEGEND

- CITY LIMITS
- URBAN GROWTH BOUNDARY
- KEY ATTRACTORS

STREET SYSTEM MAP

DUNDEE TRANSPORTATION SYSTEM PLAN
DUNDEE, OREGON
OCTOBER 2003

FIGURE
3-1



3.3 TRANSPORTATION MODES AND FACILITIES

The City of Dundee's transportation system provides facilities serving many different transportation modes. Each of these modes is identified and discussed in the following sections.

3.3.1 Pedestrian

Pedestrian facilities serve a variety of needs. These include:

- Relatively short trips (under a mile) to major pedestrian attractors, such as schools, parks and open spaces, retail centers, churches, and public facilities, such as libraries, recreation centers, and community centers.
- Recreational trips—for example, jogging or hiking—and circulation within parklands.
- Access to transit (generally trips under ¼ mile to bus stops).
- Commute trips, where mixed-use development is provided, and people have chosen to live near where they work.

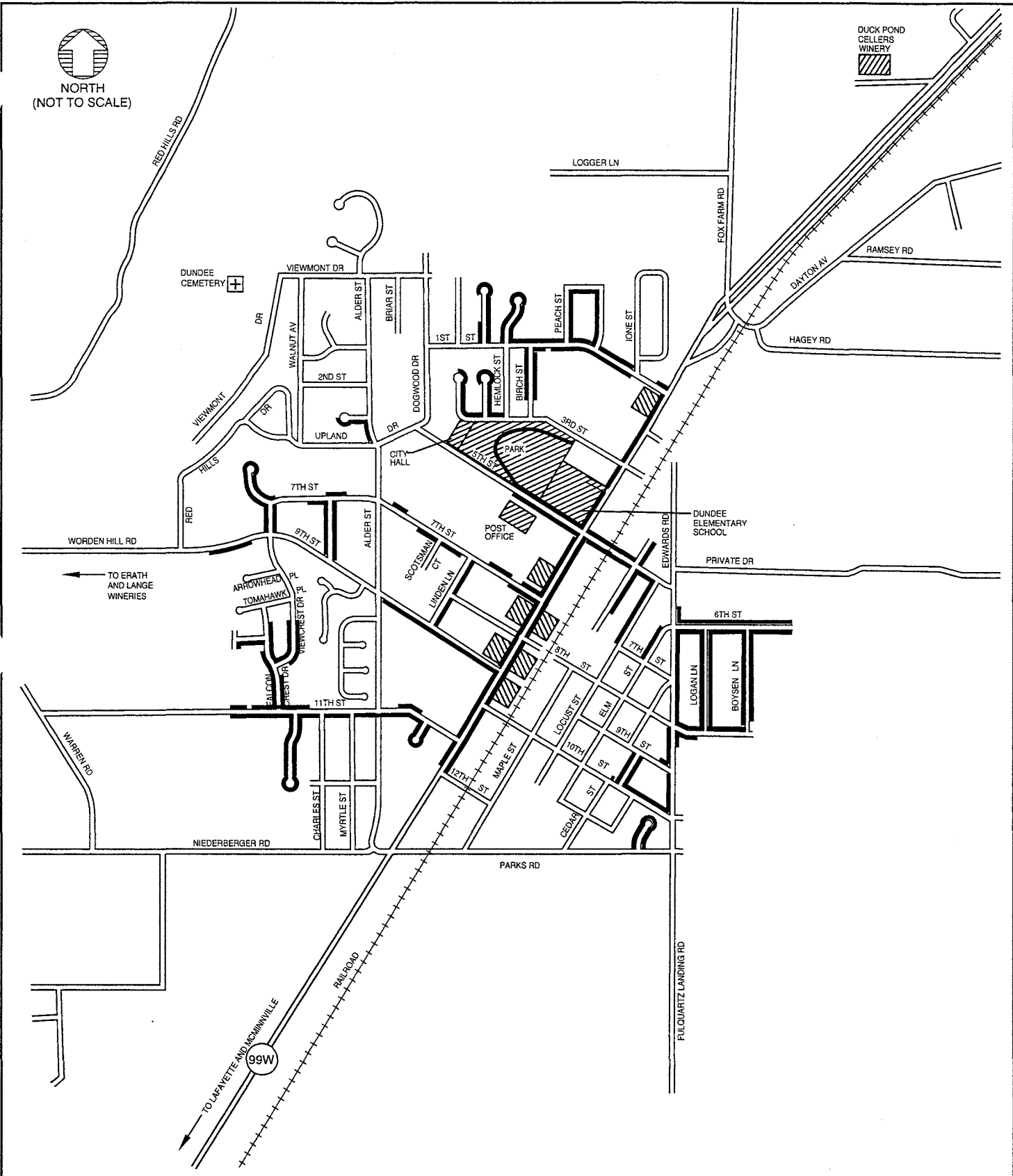
Pedestrian facilities should connect neighborhoods and employment areas to nearby pedestrian attractors, be integrated with transit stops, and separate pedestrians from vehicular traffic. In addition pedestrian opportunities need to be provided at reasonable intervals for pedestrians to *cross* roadways. This latter feature may require trade-offs between the automobile and pedestrian modes.

Persons with disabilities, persons with strollers, and many other types of pedestrians desire sidewalk facilities with minimal grades and even surfaces. Wheelchair users require ramps at intersections, while persons with visual impairments require tactile information, such as a textured pavement surface, to help them navigate.

Figure 3-2 depicts the locations of sidewalks and crosswalks along key roadways within Dundee. The locations of a number of potential pedestrian generators are also shown, including the Dundee Elementary School and Park, post office, and wineries along Ore 99W. The list of generators is intended to be illustrative, not comprehensive. Significant gaps in the sidewalk network, where no dedicated pedestrian facilities exist, or where sidewalks are only provided along one side of a street (forcing pedestrians to cross the same street twice), include the following locations:

- East side of Ore 99W, north of 5th Street
- Segments along undeveloped frontages of 1st Street, 3rd Street, 5th Street, 7th Street, the 9th Street-Worden Hill Road alignment, and 11th Street
- Parks Road-Niederberger Road
- Edwards Road

Figure 3-2 also shows areas of good sidewalk coverage. Ore 99W through central Dundee is generally well-covered by the sidewalk network, although north of 5th Street sidewalks are only present along the west side of the highway. The Dundee Elementary School also has good sidewalk coverage in the immediate vicinity, but no connectivity with neighborhoods to the west. Newer residential and commercial areas also have good pedestrian facilities, reflecting city policies that require new development to provide adequate sidewalk facilities. Crosswalks across Ore 99W are provided north of 7th, 8th and 10th Streets, as well as at the signalized 5th Street/Ore 99W intersection.



LEGEND

— SIDEWALKS/CROSSWALKS

▨ KEY ATTRACTORS

PEDESTRIAN FACILITIES

DUNDEE TRANSPORTATION SYSTEM PLAN
 DUNDEE, OREGON
 OCTOBER 2003

FIGURE
3-2

3.3.2 Bicycle

Just like sidewalks do, bicycle facilities serve a variety of trips. These include:

- Trips to major attractors, such as schools, parks and open spaces, retail centers, and public facilities such as recreation centers and community centers, where secure (and preferably covered) bicycle parking is available.
- Commute trips, where changing and showering facilities are provided at the workplace.
- Recreational trips.
- Access to transit, where bicycle storage facilities are available at the stop, or where space is available on bus-mounted bicycle racks.

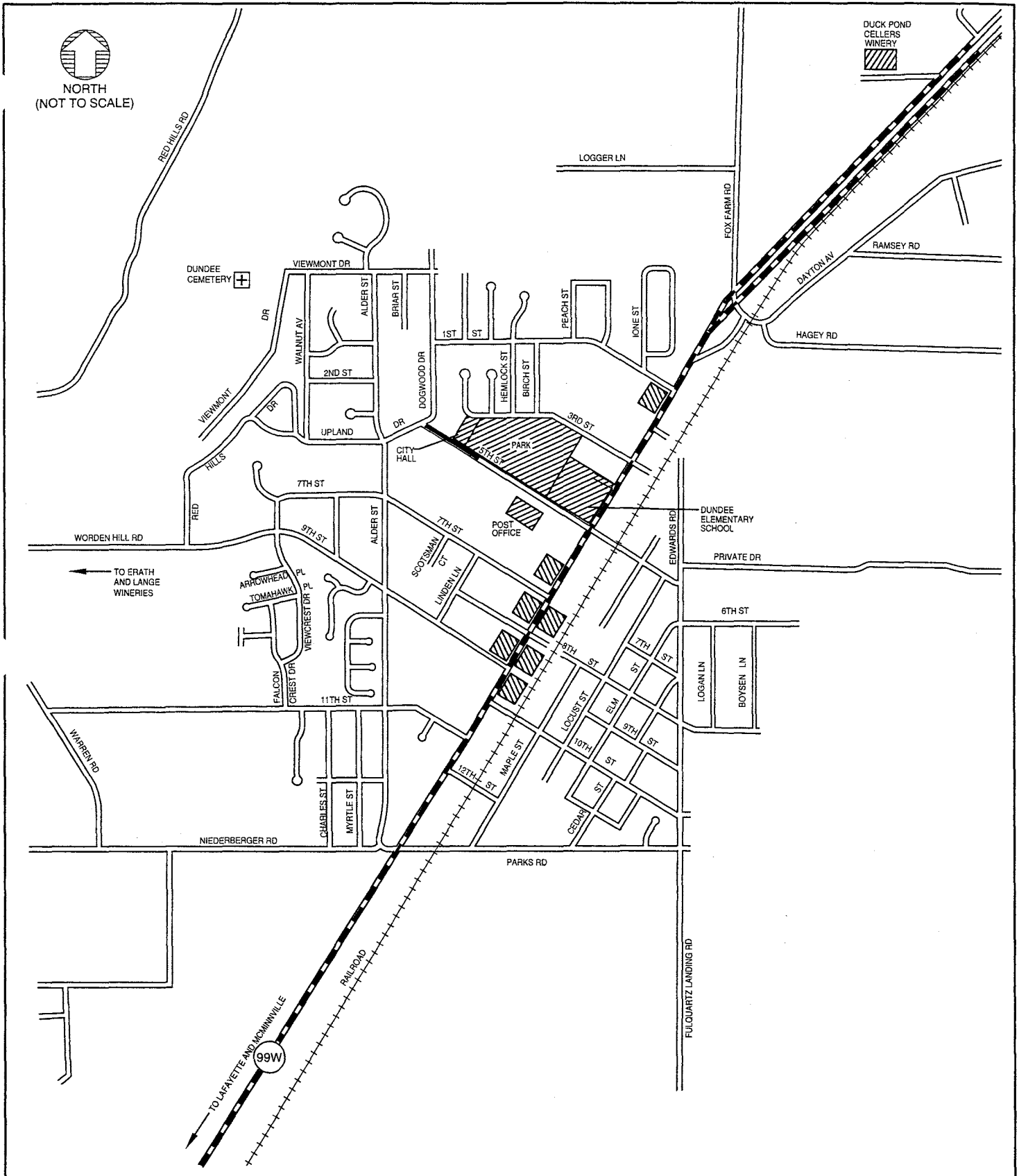
As this list suggests, supporting bicycling as a viable alternative to the automobile requires more than simply providing bicycle lanes. Support facilities, such as secure parking and worksite changing facilities, are also needed before the bicycle trip will be considered as a practical alternative by most potential users.

Bicycle lanes should be provided on major streets where automobile traffic speeds are significantly higher than bicycle speeds. Bicycle lanes should connect residential neighborhoods to schools, retail centers, and employment areas. However, allowing bicycle traffic to mix with automobile traffic is acceptable where the average daily traffic (ADT) on a roadway is less than 3,000 vehicles per day, according to the *Oregon Bicycle and Pedestrian Plan* (Oregon Department of Transportation, 1995).

Providing bike lanes on local streets would be appropriate where the volume of bicyclists is high, vehicle speeds are higher than 25 miles per hour, or poor sight distance exists. Streets leading to schools, for example, may have high volumes of bicyclists. Other bicycle lanes may take the form of a multi-use path—shared with pedestrians—in areas where no street connection currently exists.

Figure 3-3 depicts the locations of bicycle lanes along collector and arterial streets within Dundee. For reference, the locations of a number of potential bicycle attractors are also shown, including the Dundee Elementary School and Park.

As shown in Figure 3-3, bike lanes are provided along both sides of Ore 99W throughout Dundee. It should be noted that these lanes are not specifically striped as such; the lanes are striped as a shoulder on the highway, but no pavement markings delineate this shoulder specifically for bicycle travel. The only other place where bike lanes are provided is along the north side of 5th Street from City Hall to the Dogwood Drive-Upland Drive intersection. Apart from Ore 99W, all roadways within Dundee carry less than 3,000 ADT and therefore do not require bike lanes according to the criteria set forth in the *Oregon Bicycle and Pedestrian Plan*.



NORTH
(NOT TO SCALE)

DUCK POND
CELLARS
WINERY

TO ERATH
AND LANGE
WINERIES

LEGEND

- BIKE LANE, BOTH SIDES
- BIKE LANE, NORTH SIDE
- KEY ATTRACTORS

BICYCLE FACILITIES

DUNDEE TRANSPORTATION SYSTEM PLAN
DUNDEE, OREGON
OCTOBER 2003

FIGURE
3-3



3.3.3 Public Transportation

Several public transportation services are provided within the City of Dundee. The operators include the Newberg School District, Greyhound Bus Lines, and the Chehalem Valley Senior Citizens Council (CVSCC). The Community Action Agency of Yamhill County provides fixed-route and dial-a-ride services in all areas of Yamhill County except the Newberg-Dundee area.

The Newberg School District operates school buses within Dundee and nearby areas, taking children to and from the Dundee Elementary School and schools located in Newberg.

Greyhound Bus Lines makes limited daily stops in Dundee, providing intercity service throughout the country via the major cities of Oregon. Greyhound designates Dundee as a "limited service stop," which means that no ticketing, baggage, or other special services are available in Dundee.

CVSCC operates LINKS, a commuter service that connects McMinnville with Meridian Park Hospital in Tualatin and makes scheduled stops in Dundee. This service makes five round trips every weekday and meets Tri-Met Route 12 in Sherwood. CVSCC also operates a dial-a-ride service for elderly and disabled citizens of Newberg and Dundee. According to the *Yamhill County Public Transportation Needs Assessment* (Mid-Willamette Valley Council of Governments, June 2000), annual ridership on these two services is approximately 23,000.

The *Yamhill County Public Transportation Needs Assessment* also identifies the following public transportation services available to Dundee residents and employees:

- Gray Line of Portland (a sightseeing service)
- Amtrak passenger rail (described in detail later in the plan)
- Luxury TowVan Corporation (specialized towing services)
- Oregon Coachways (bus charter services)
- Shamrock Taxi (taxi service operating primarily out of McMinnville and Newberg but serving the entire county)
- Way-to-Go Shuttle (provides one round trip to Portland International Airport daily; the stop nearest to Dundee is in Newberg)
- Several specialized transport services associated with medical and institutional purposes

In addition, Dundee residents can take advantage of carpooling resources provided by Mid-Valley Rideshare.

3.3.4 Pipeline and Transmission System

Power Transmission System

The Bonneville Power Administration (BPA) is the federal organization that regulates and distributes power throughout the Pacific Northwest. Columbia River hydroelectric sources provide 80 percent of BPA's power. The rest comes from coal mines, the Hanford nuclear plant in Washington, cogeneration, and non-utility sources such as privately owned windmills. The nearest regional transmission line is located approximately three miles west of Dundee. There is a 230 KVA transmission line that runs along the outskirts of Dundee and serves an area up to 3-1/2 miles outside the city limits.

Portland General Electric (PGE) provides electric power to residents and businesses in Dundee and the Portland metropolitan area from eight hydroelectric plants (on the Willamette, Clackamas, Deschutes, and Bull Run Rivers) and five thermal plants (in Oregon, Washington, and Montana) with a total power generation capacity of 2,022 megawatts. Its service area covers 3,170 square miles and 45 percent of Oregon's population. As of December 1998, PGE estimated its system reliability to be 99.98 percent. There are no substations located within Dundee; the nearest substations are in McMinnville and Carlton. However, a 115 KVA transmission line runs along Oregon Ore 99W through the city.

Pipeline Transmission System

Natural Gas

The utility that provides natural gas throughout the Pacific Northwest is Northwest Natural (NWN). NWN obtains its natural gas from the Northwest Pipeline, via NWN gate stations and high-pressure transmission lines. Surplus natural gas is purchased in the summer, when demand and prices are low, to supplement the winter supply.

Currently there is a 6" high-pressure transmission line that runs through Dundee that gets converted to a 4" transmission line within the city. There is also a Class C (or higher) regional NWN transmission main that supplies Dundee. There are no gate stations or storage facilities currently located within Dundee. Dundee residents who live on a street where a natural gas distribution line already exists can be easily connected to that distribution line.

Water

Dundee operates its own water distribution system. The water source for the city comes from nine on-line wells with two more wells sites. The water storage capacity is 0.65 million gallons per day (MGD) with average current utilization at 0.73 MGD.

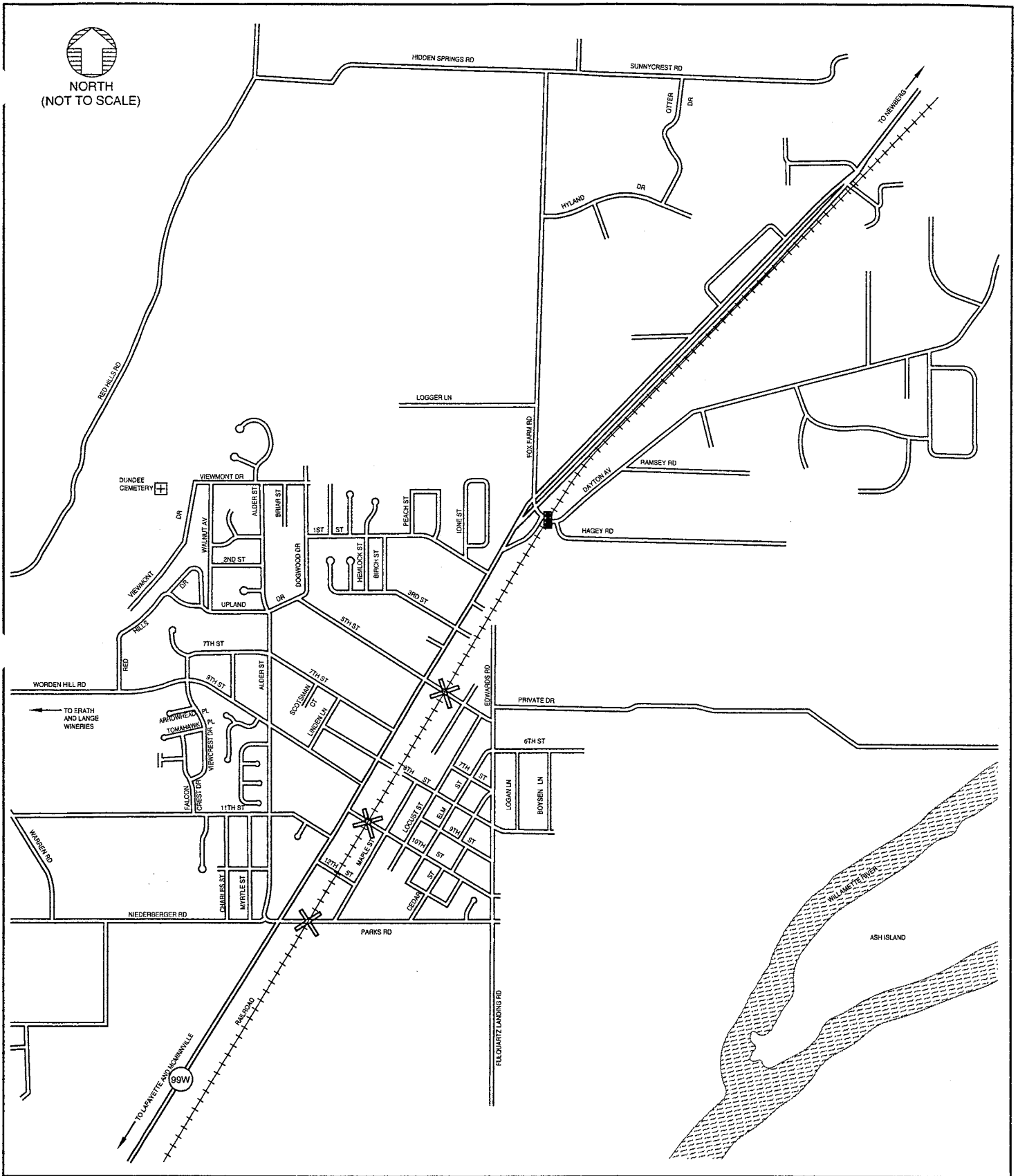
3.3.5 Rail

Lines and Operators

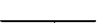


The Willamette & Pacific Railroad (WPRR), owned by the Connecticut-based Genesee & Wyoming Railroad, operates one line through Dundee parallel to Oregon Ore 99W. The WPRR, along with the Portland & Western Railroad (PNWR), operate approximately 447 miles of track in the Willamette Valley, with branches serving the coastal communities of Toledo and Astoria. Rail freight originating in the western Willamette Valley is carried on WPRR tracks as far as Newberg, and on PNWR tracks the rest of the way into Portland, where it may be switched to a larger railroad or to another mode. Figure 3-4 shows the location of this line. The figure also shows the locations of four key at-grade roadway crossings along the line (at Dayton Avenue, 5th Street, 10th Street, and Parks Drive), and the type of control used at these crossings. It should be noted that in the vicinity of the railroad tracks, 12th Street is an unimproved, low-volume private roadway serving industrial properties in the immediate vicinity; consequently, no public, at-grade crossing exists at 12th Street.



NORTH
(NOT TO SCALE)



LEGEND

-  RAILROAD
-  UNSIGNALIZED CROSSING WITH CROSSBUCKS
-  SIGNALIZED CROSSING

**RAILROAD LOCATIONS AND
AT-GRADE RAIL CROSSINGS**

DUNDEE TRANSPORTATION SYSTEM PLAN
DUNDEE, OREGON
OCTOBER 2003

FIGURE
3-4



The Federal Railroad Administration has established six track classes, which set maximum speeds for freight and passenger trains, based on the track condition. The track is classified as Class 2, which limits freight trains to 25 mph and passenger trains to 30 mph. The line is currently used for freight movement. Currently the line has one train operating daily in each direction with up to two additional smaller trains operating periodically.

Passenger Rail Service

Currently, the nearest passenger rail service is located in Portland and Salem and is operated by AMTRAK. From Portland, service is provided four times daily north to Seattle (with service partially funded by Washington State), with next-day rail and same-day bus connections to and from Vancouver, B.C.; and east once a day to Chicago via Spokane, Fargo, and Minneapolis. Service is provided south once a day from Portland and Salem to Sacramento, Oakland/San Francisco, and Los Angeles. Two additional rail trips per day and three bus trips per day are provided between Portland and Eugene, with stops in Salem and Albany.

Oregon has studied the possibility of implementing high-speed rail between Eugene and Portland, continuing future high-speed service from Vancouver, B.C. and Seattle. To date, the Oregon Legislature has been much less willing than Washington's to appropriate funds to develop this service. The recent passage of Initiative 695 in Washington has resulted in substantial cuts in transportation funding, including the high-speed rail program. If high-speed service is eventually implemented, the trains would stop at the same stations as the current AMTRAK service and thus would be no more convenient to Dundee than the existing service.

Regional business and community leaders have discussed the development of a commuter rail system between McMinnville and Milwaukie as a potential future transportation service for the area. It would also serve as a link to the proposed commuter rail system currently being studied between Beaverton and Wilsonville. At this time, however, a formal feasibility and environmental study has not been initiated.

Performance

The following goals from the 1992 Oregon Transportation Plan are relevant to Dundee:

- Branch rail lines within Oregon should be maintained to allow a minimum speed of operation of 25 miles per hour whenever upgrading can be achieved with a favorable benefit-cost ratio.
- Priority rights of way should be preserved for potential public use or ownership when abandonment proceedings are initiated (e.g., corridors where there are future alternative uses, especially near expanding urban areas).

As a Class 2 track, the Willamette & Pacific Railroad (WPRR) line serving Dundee meets the 25-mph goal, and the lines are active.

3.3.6 Air

No public airports are located within the City of Dundee. However, a private airstrip (the "Gary Guthrie Airport") is located south of Hagey Road in northeast Dundee. There are also a number of airports located within thirty miles of Dundee.

The closest public general aviation airport is Sportsman Airpark, located approximately 4 miles north of Dundee in Newberg. The Sportsman Airpark is a privately owned airport operated for public use. It has one paved 2,800-foot runway and averages 14,000 operations (takeoffs or landings) per year. Approximately 55 aircraft are based at the airport. The Sportsman Airpark provides general flight instruction and airplane rental and maintenance services, as well as private helicopter and recreational hot-air ballooning services.

A larger general aviation airport is located approximately 12 miles north of Dundee, in Hillsboro. The Hillsboro Airport serves approximately 200,000 operations annually. It is owned by the Port of Portland and has two paved runways (6,600 feet and 4,000 feet). There are three fixed-base operators at the airport, and the airport provides all the facilities to support jet- and propeller-driven aircraft and helicopters.

The nearest airport with scheduled passenger service is the Portland International Airport, located approximately 30 miles northeast of Dundee. This airport is also owned by the Port of Portland and has three runways (7,000 feet, 8,000 feet, and 11,000 feet). The Portland International Airport serves more than 13.7 million passengers and 270,000 tons of cargo annually.

Performance

The proximity of the Portland International Airport to Dundee satisfies the level of service goals for air service contained in the *1992 Oregon Transportation Plan*. As several general aviation facilities are also located nearby, it can be said that Dundee has good access to the air mode.

3.3.7 Marine

The Willamette River is located east of Dundee and provides potential opportunities for recreational boating. However, no river access or marine facilities are currently provided within the city. The closest marine access is located approximately 4 miles to the north at the Rogers Landing County Park in southern Newberg.

3.3.8 Roadways

Ownership

Three jurisdictions own the public roadways serving Dundee: the City of Dundee, Yamhill County, and the Oregon Department of Transportation (ODOT). The jurisdiction owning a particular road has the following responsibilities for that road:

- Determining the road's functional classification, which sets the roadway's role in the transportation system and its design features, such as width, right-of-way, driveway (access) spacing standards, and the types of pedestrian and bicycle facilities provided.
- Maintenance.
- Approving construction and access permits.

From the City's perspective, having other agencies own some of the roadways within the City can be both good and bad. Typically, county and state facilities carry a greater proportion of regional and statewide traffic than city facilities, and having county and state ownership of these facilities allows the costs of these facilities to be spread over a larger group of users than just residents of Dundee. On the other hand, when improvements are needed to county and state facilities, those

agencies' project priorities, design standards, and/or funding abilities may not match those of the City. This can leave the City in the position of either (1) adopting needed projects into the TSP that it cannot force other jurisdictions to construct, or (2) locally funding part or all of the cost of improvements to regional and statewide facilities in order to construct them according to the City's priorities. Clearly, coordination is required between ODOT and the City of Dundee to ensure that projects are constructed as needed to benefit the transportation system as a whole. Figure 3-5 shows the ownership of roadways in and around Dundee.

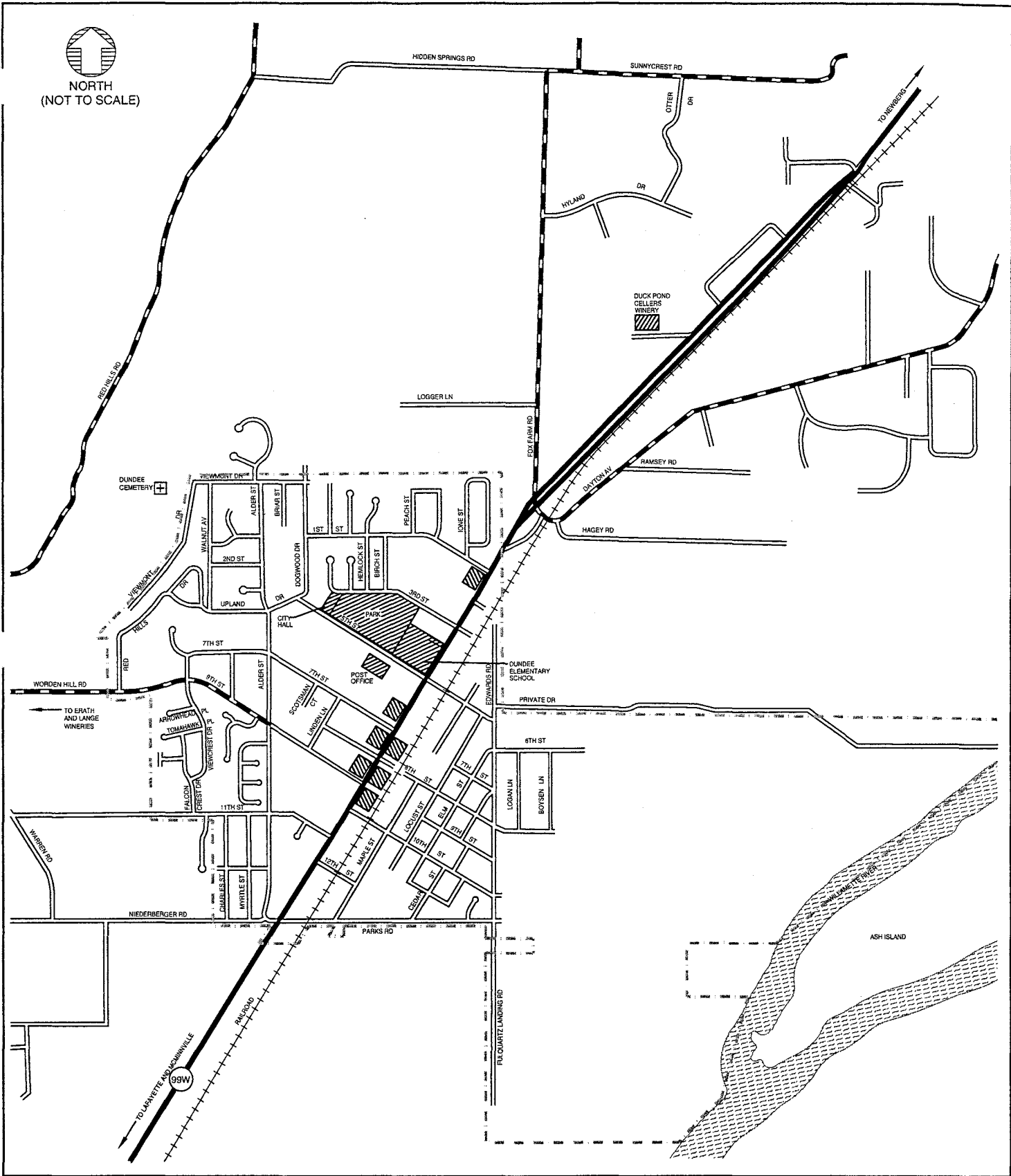
As shown in Figure 3-5, ODOT owns Ore 99W. Ore 99W is a four-lane divided highway north of Dundee, that narrows to a three-lane cross-section (one lane in each direction with a continuous center left-turn lane) as it enters the City. The right-of-way of Ore 99W ranges within Dundee from 60 feet to 110 feet. North of Dundee, Ore 99W connects to the Portland Metro area via Newberg, Sherwood and Tigard. Ore 99W continues south of Dundee to connect to McMinnville, Monmouth and Corvallis, joining with Highway 99E in Junction City. According to the *Oregon Highway Plan* (ODOT, 1999), Ore 99W is designated as a *Statewide Highway* and a *Statewide Freight Route*. Tourist traffic headed for Yamhill County wineries, the Grande Ronde casino, and Lincoln City via Ore 99W greatly increased during the 1990s. The highway experiences significant congestion in both directions on a daily basis since the roadway cross-section narrows from two travel lanes to one lane at the north end of the city.

Providing connections to neighboring areas from the City of Dundee are the following roads owned by Yamhill County:






- Fox Farm Road
- Dayton Avenue
- 9th Street-Worden Hill Road
- Niederberger Road
- Fulquartz Landing Road
- All other public roadways not listed above are owned by the City of Dundee.



NORTH
(NOT TO SCALE)



LEGEND

-  ODOT
-  YAMHILL COUNTY (COLLECTORS AND RESOURCE ROADS)
-  LOCAL STREETS (THOSE LOCALS OUTSIDE DUNDEE CITY LIMITS ARE OWNED BY YAMHILL COUNTY)
-  CITY LIMITS
-  KEY ATTRACTORS

ROAD OWNERSHIP

DUNDEE TRANSPORTATION SYSTEM PLAN
DUNDEE, OREGON

OCTOBER 2003

FIGURE

3-5



Functional Classification

A roadway's *functional classification*, as described earlier, determines its role in the transportation system, as well as its width, right-of-way dedications, driveway (access) spacing requirements, types of pedestrian and bicycle facilities provided, and so on. The functional classification is typically established by the city or county based on the following hierarchy:

Arterials are the highest class of city street. These roadways are intended to serve higher volumes of traffic, particularly through traffic at higher speeds. They also serve truck movements and should emphasize traffic movement over local land access. In some cases, arterial streets are further designated as "major" or "minor," each of which is a variation with different design standards.

Collectors represent the intermediate class. As their name suggests, these roadways collect traffic from the local street system and distribute it to the arterial street system. These roadways provide a balance between traffic movement and land access, and should provide extended continuous stretches of roadway to facilitate traffic circulation through the City. In some cases, up to three levels of collectors are established: "major," "minor," and "residential," each of which may have sub-categories with different design standards.

Local streets are the lowest classification. Their primary purpose is to provide local land access and to carry locally generated traffic at relatively low speeds to the collector street system. Local streets should provide connectivity through neighborhoods, but should be designed so as not encourage cut-through vehicular traffic.

Although the City of Dundee has no established functional classification system, Yamhill County classifies roadways under a six-level functional hierarchy including Principal and Minor Arterials, Major and Minor Collectors, Resource Roads and Local Streets. The County's functional classification system, as applied to existing roadways, is depicted in Figure 3-6. A functional classification system for the City of Dundee, including specific design and access management standards, will be discussed in a subsequent chapter.

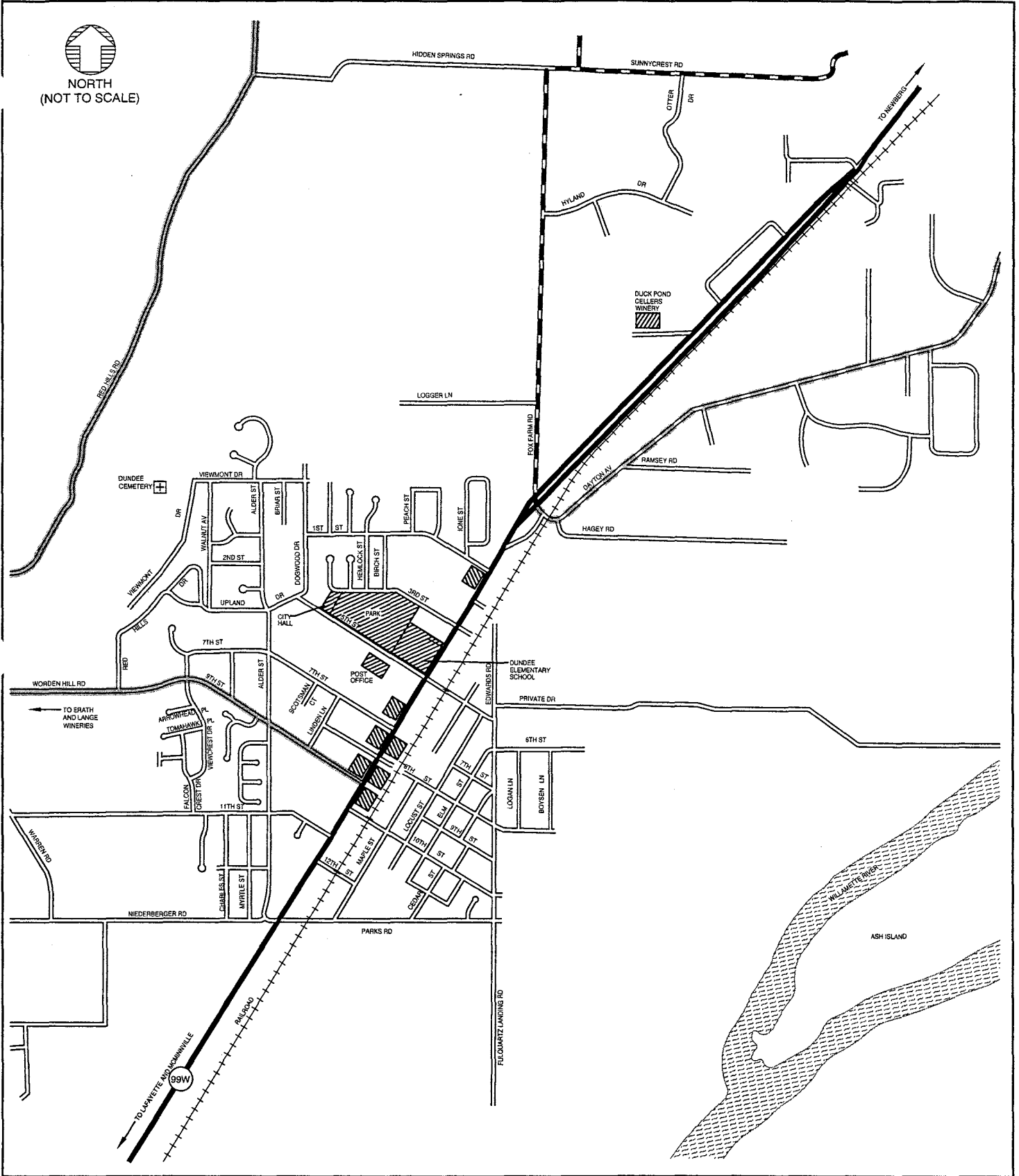
ODOT applies a similar classification system to its highways, particularly concerning roadway operating standards and access standards. ODOT's categories, from highest to lowest, are *Interstate*, *Statewide*, *Regional*, and *District* highways. Ore 99W through Dundee is classified as a *Statewide* highway and *Statewide Freight Route*. In addition, Ore 99W is designated as a route in the National Highway System (NHS), further confirming the importance of travel in this corridor.

Traffic Operations






Traffic volume counts were conducted in November 2000 for intersections of collectors and arterial roadways within Dundee. Based on ODOT 2001 Traffic Volume Tables, November traffic counts represent 97 percent of the annual average daily traffic in the Ore 99W corridor (as measured at the nearest available permanent counter station located in Newberg). Because the counts conducted in November were determined to be within three percent of the annual average, traffic volumes were not seasonally factored. These counts were conducted during the weekday p.m. peak period (4:00 to 6:00 p.m.), which is when traffic volumes are highest on area roadways. Through these counts, the weekday p.m. peak hour was found to occur between 4:30 and 5:30 p.m. The traffic volumes for the weekday p.m. peak hour time period were then summarized and used to evaluate existing operations of roadways and intersections within the City of Dundee.



NORTH
(NOT TO SCALE)



LEGEND

-  PRINCIPAL ARTERIAL (ODOT)
-  MAJOR COLLECTOR (YAMHILL COUNTY)
-  MINOR COLLECTOR (YAMHILL COUNTY)
-  RESOURCE ROAD (YAMHILL COUNTY)
-  KEY ATTRACTORS

**YAMHILL COUNTY
FUNCTIONAL CLASSIFICATION**

DUNDEE TRANSPORTATION SYSTEM PLAN
DUNDEE, OREGON

OCTOBER 2003

FIGURE

3-6



Roadways

Figure 3-7 presents weekday p.m. peak hour traffic volumes (in the peak direction only) for the City's arterial and collector roadway system, derived from traffic volumes observed entering and exiting intersections adjacent to each street segment. Figure 3-7 also presents volume-to-capacity ratios (v/c) for the peak direction of each street segment, indicating the percentage of that segment's capacity that is currently being used. For example, a v/c ratio of 0.50 indicates that half of a street's capacity is being used during the peak hour. The volumes used to calculate these ratios were based on the traffic counts discussed above. The roadway capacity values were estimated for both arterial and collector roadways, considering factors such as vehicle mix, driveway density, lane width and utilization, pedestrians, and the effect of the signal at the 5th Street/Ore 99W intersection. The following planning-level capacities were estimated for the analysis:

- arterials: 1,100 vehicles/lane/hour
- collectors: 750 vehicles/lane/hour

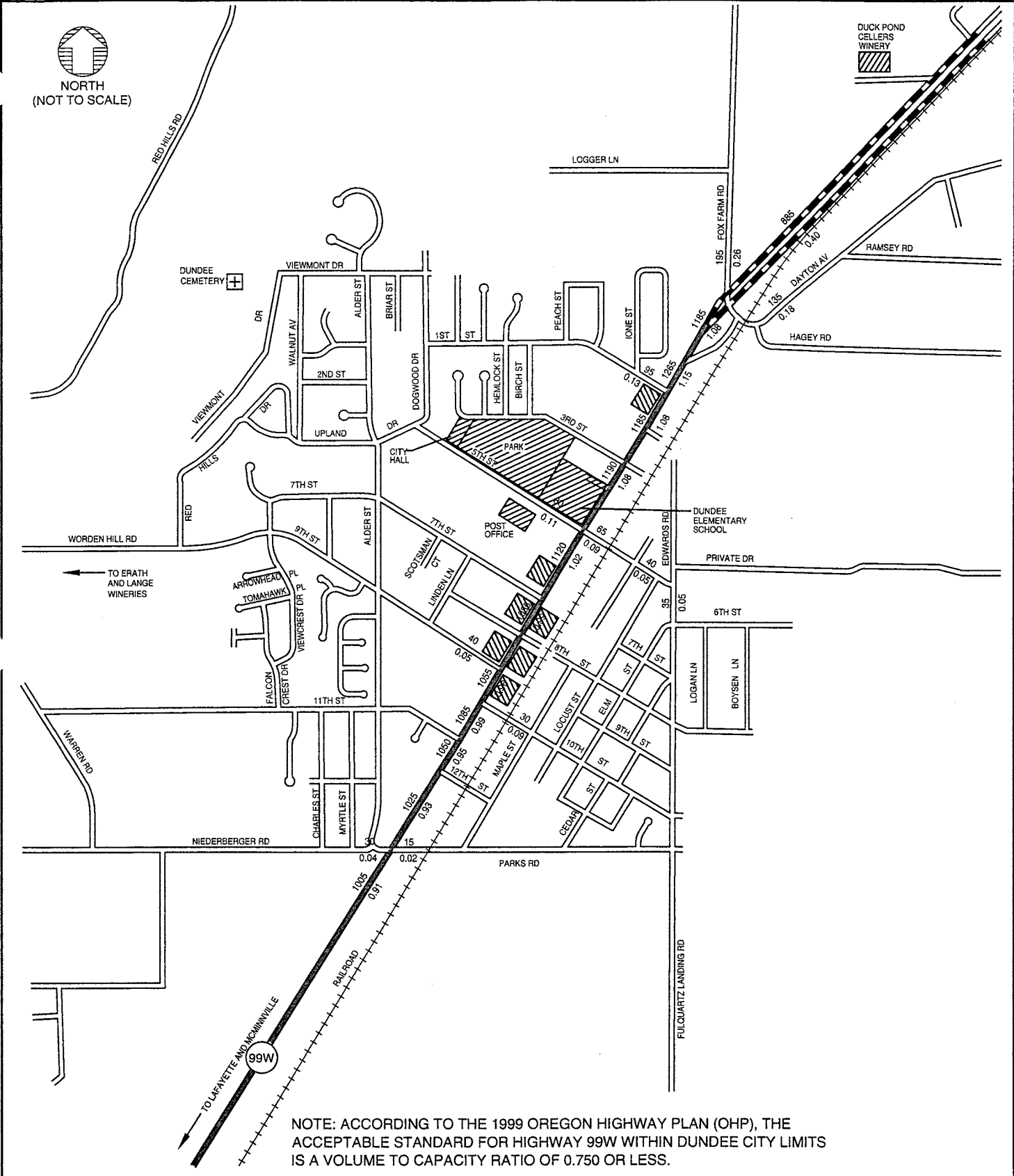
By definition, a roadway's volume cannot exceed its capacity. The v/c 's shown in Figure 3-7 are simply calculated by dividing the observed peak hour traffic volume by the planning-level capacity. Where Figure 3-7 shows v/c ratios greater than 1.00, the planning-level capacities are underestimating the roadway's actual capacity.

Two caveats are in order about Figure 3-7. First, the volumes shown reflect the number of vehicles that were actually able to pass through a road segment during the weekday p.m. peak hour, rather than the number of vehicles that desired to use it. Conditions outside a particular road segment may meter the number of vehicles that can enter a corridor, or can produce queues that back into a road segment.






Ore 99W in the southbound direction is an example of this. The narrowing of the roadway's cross-section from two lanes to one lane near the north city limits, coupled with the traffic signal at 5th Street, meters the number of vehicles that can enter the corridor from the north; the effects are a queue on Ore 99W north of 5th Street and fewer vehicles traveling through the city than if adequate capacity (i.e. two southbound lanes) were provided. As a result, drivers experience congestion throughout the corridor.

Second, a number of factors (e.g., traffic signal timing, the presence or absence of turn lanes, etc.) help determine a roadway's actual capacity. Of these factors, traffic signal timing is the most important, because a roadway's capacity is directly proportional to the percentage of time a green traffic signal indication is provided to that roadway at each intersection. Consequently, depending on signal timing, the actual per lane capacity of an arterial could range from less than 600 vehicles per hour per lane to over 1,000 vehicles per hour per lane.

The 1999 Oregon Highway Plan (OHP) defines a volume-to-capacity ratio of 0.75 or less to be the acceptable operational threshold for *Statewide Freight* highways located within urban areas. As shown in Figure 3-7, Ore 99W meets this v/c standard north of the Fox Farm Road-Dayton Avenue intersection, where two lanes are provided along the highway in each direction. South of this intersection, where the roadway cross-section narrows to one lane in each direction, Ore 99W fails to meet the OHP standard.



LEGEND

-  DOESN'T MEET OHP STANDARD
-  MEETS OHP STANDARD
-  PEAK-DIRECTION VOLUME
-  CRITICAL DIRECTION VOLUME TO CAPACITY RATIO
-  KEY ATTRACTORS

**EXISTING ROADWAY VOLUMES
WEEKDAY PM PEAK HOUR**

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DUNDEE, OREGON
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FIGURE
3-7



As shown in Figure 3-7, not only are the OHP standards not currently met, but Ore 99W through Dundee operates at capacity ($v/c \geq 1.0$) during the weekday p.m. peak hour, due to high volumes of southbound traffic and the narrowing of the roadway's cross-section from two lanes to one lane near the north city limits. In the northbound direction, Ore 99W narrows to a single lane in each direction to the north of Lafayette. This single lane of capacity is insufficient to accommodate demand in the northbound direction as well, as evidenced by the $\frac{1}{4}$ - $\frac{1}{2}$ mile queues that regularly back up from the 5th Street traffic signal. All other roadways within the City operate under capacity during the weekday p.m. peak hour.

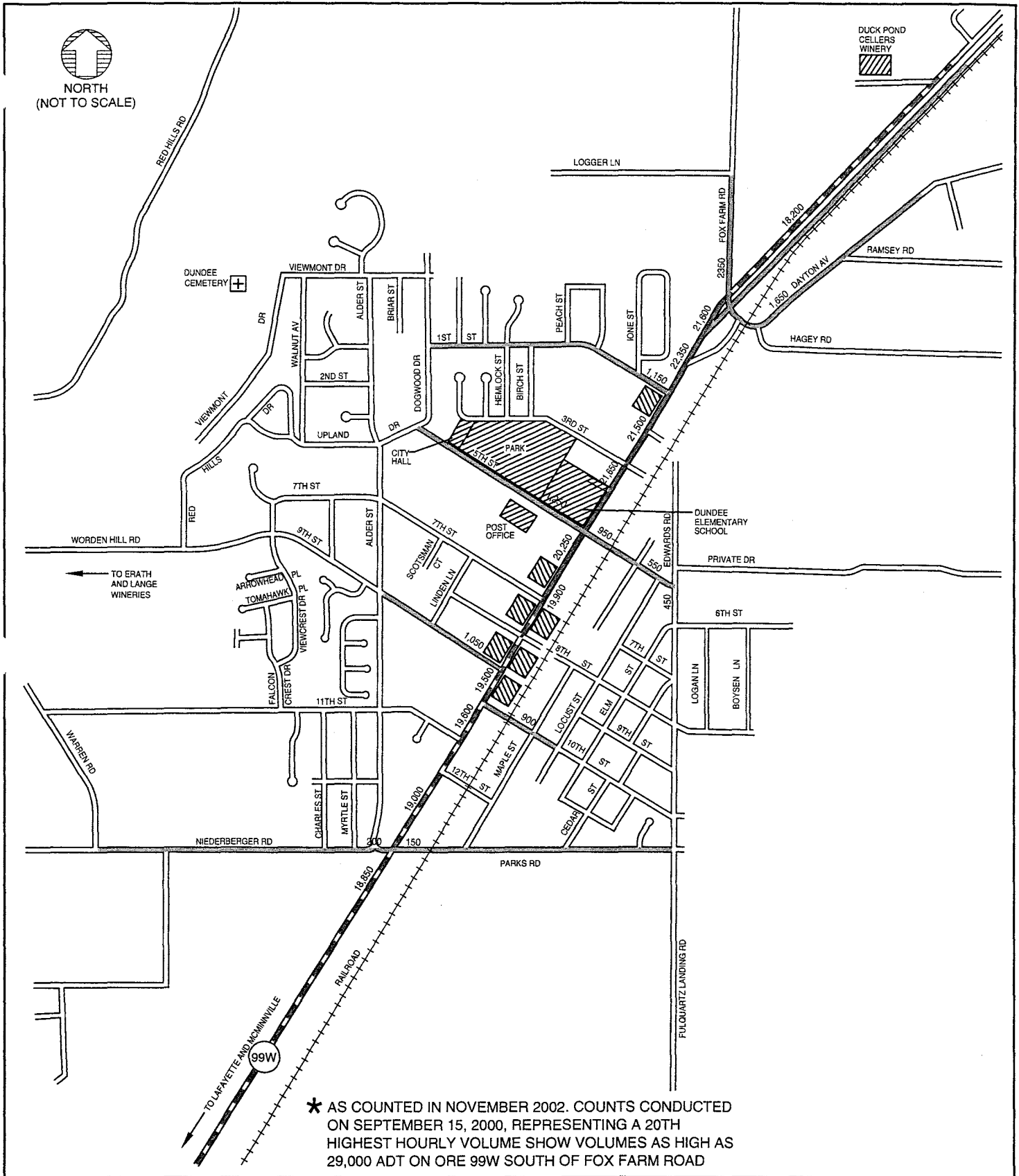
Severe traffic congestion occurs on Ore 99W through Dundee on weekends. According to City sources, northbound traffic on Ore 99W is at or slightly over capacity on Sunday afternoons and evenings in the summer, associated with recreational traffic returning from the beach. In addition, Friday afternoon and evening traffic destined for points west face full capacity conditions during the summer months.

When looking to address congestion problems such as those along Ore 99W through Dundee, it is important to look at opportunities to shift demand away from the congested roadway (as opposed to providing more capacity on the existing roadway), through providing alternative parallel routes. This must be done with care, in recognition that regional or statewide traffic should not be rerouted to use local city streets. Demand can also partially be accommodated by shifting trips to alternate modes or alternate times of day. Successful solutions generally involve a combination of approaches.

Based on the traffic volumes observed entering and exiting intersections adjacent to each street segment during the weekday p.m. peak hour, bi-directional average daily (24-hour) traffic estimates were prepared for each segment of Ore 99W. Figure 3-8 illustrates these average daily traffic volume estimates.

Intersections Operations

Traffic operations at intersections are generally described using a measure known as "level of service" (LOS). Level of service represents ranges in the average amount of delay that motorists experience when passing through the intersection. LOS is measured on an "A" (best) to "F" (worst) scale. At signalized and all-way stop-controlled intersections, LOS is based on the average delay experienced by all vehicles entering the intersection. At two-way stop-controlled intersections, LOS is based on the average delay experienced by the worst movement at the intersection, typically a left-turn from the stop-controlled street. For signalized intersections, LOS "D" (representing no more than 55 seconds of average delay) is generally considered to be the minimum acceptable operational level. For unsignalized intersections, LOS "E" (representing no more than 50 seconds of average delay) is generally considered to be the minimum acceptable level. *Appendix "A" provides a complete description of roadway LOS and notes that the LOS thresholds for two-way stop-controlled intersections are different than for other types of intersections.*



LEGEND

ADT VOLUME

- 1-10,000
- 10,001-20,000
- >20,001

TOTAL TWO-WAY DAILY VOLUME

KEY ATTRACTORS

**EXISTING TRAFFIC CONDITIONS
AVERAGE DAILY TRAFFIC VOLUMES ***

DUNDEE TRANSPORTATION SYSTEM PLAN
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FIGURE
3-8



ODOT uses a different criterion for intersections under its jurisdiction (e.g. Ore 99W), based on the roadway's classification and the volume-to-capacity (v/c) ratio of signalized intersections located along its length. The v/c ratio indicates the percentage of an intersection or movement's capacity that is being used. For example, a v/c ratio of 0.50 indicates that half of the capacity is used. As stated previously, ODOT designates Ore 99W within Dundee as a *Statewide Highway* and freight route located outside the Portland Metro area's Urban Growth Boundary. As such, to meet ODOT performance standards, the volume-to-capacity ratio for the signalized intersections at 5th Street/Ore 99W should not exceed 0.75. In addition, any intersection operating at capacity ($v/c \geq 1.00$) should be considered to be operating unacceptably, even if other LOS standards are met, as queues will develop that can cause operational problems at adjacent intersections.

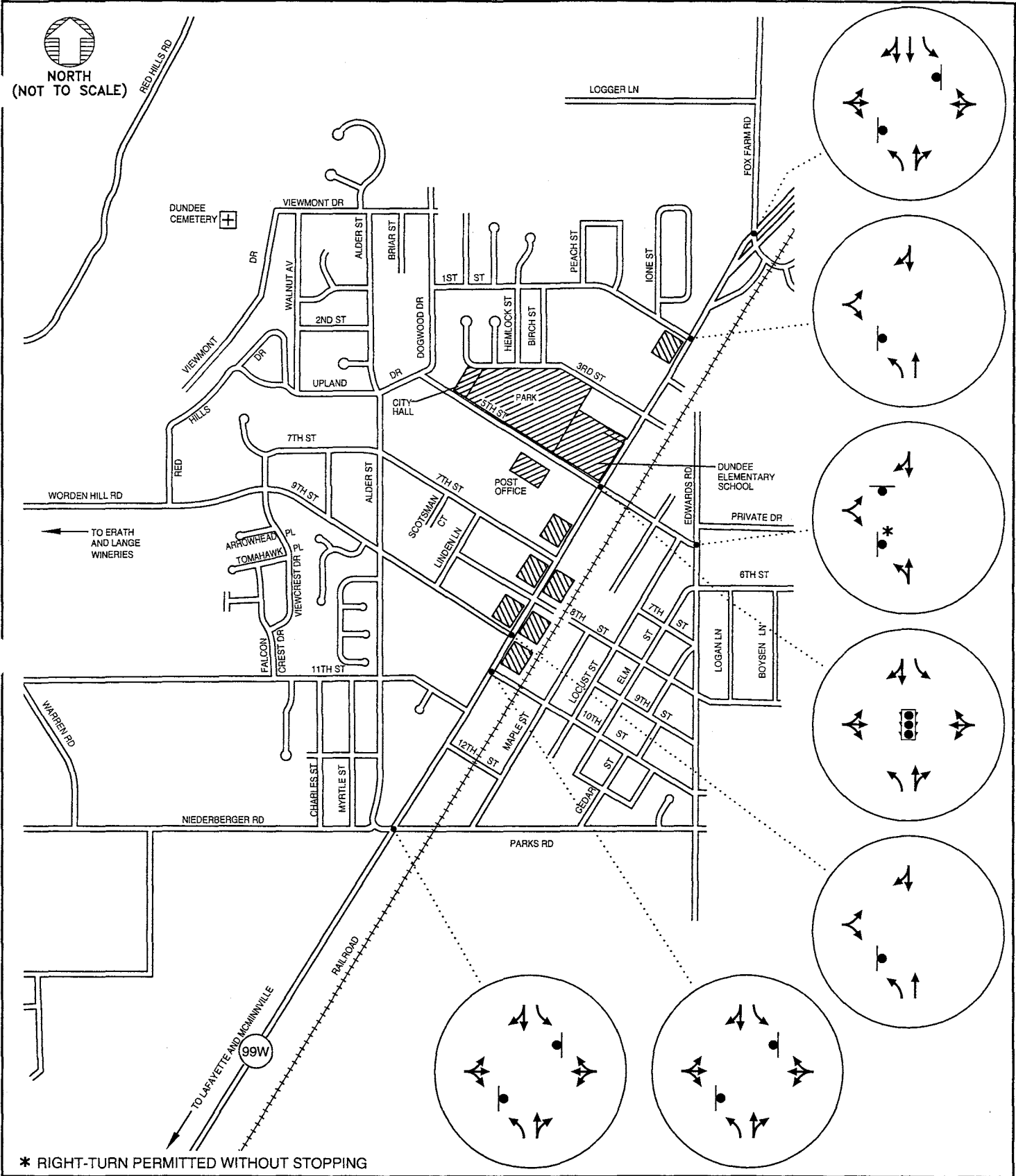
Level-of-service analyses were performed at each of the study intersections, using the procedures stated in the *1997 Highway Capacity Manual*. As noted previously, based on Oregon's Transportation Planning Rule standards for TSPs, only intersections of collectors and arterials were studied.

Figure 3-9 shows the existing traffic control devices and lane configurations at the study intersections and Figure 3-10 shows the existing weekday p.m. peak hour LOS at these intersections. Following traffic engineering terminology, unsignalized intersections that are not all-way stops are referred to as "two-way stops", even if the intersection is a "T" intersection with only one approach stopped. *Appendix "C" includes the existing conditions operational results worksheets for each study intersection.*

As shown in Figure 3-10, each of the study intersections fails to meet the operational criteria described above. The following is a summary of the operational analysis:

- Fox Farm Road-Dayton Avenue/Ore 99W (LOS "F", $v/c = 0.83$)
- 1st Street/Ore 99W (LOS "F", $v/c = 0.41$)
- 5th Street/Ore 99W (LOS "B", $v/c > 0.81$)
- 9th Street/Ore 99W (LOS "F", $v/c = 0.45$)
- 10th Street/Ore 99W (LOS "F", $v/c = 0.06$)
- Niederberger Road-Parks Road/Ore 99W (LOS "F", $v/c = 0.45$)

As shown in Figure 3-10, the signalized 5th Street/Ore 99W intersection currently operates at an acceptable LOS "B"; however, the v/c ratio at this intersection currently exceeds ODOT's performance standard of 0.75. In addition, each of the unsignalized intersections along Ore 99W currently operate at LOS "F." In all cases, this unacceptable operational condition is due to high traffic volumes on the highway and the resultant difficulty drivers experience when making left-turns from the side street approaches. All other traffic movements through these intersections currently experience acceptable levels of service.



LEGEND

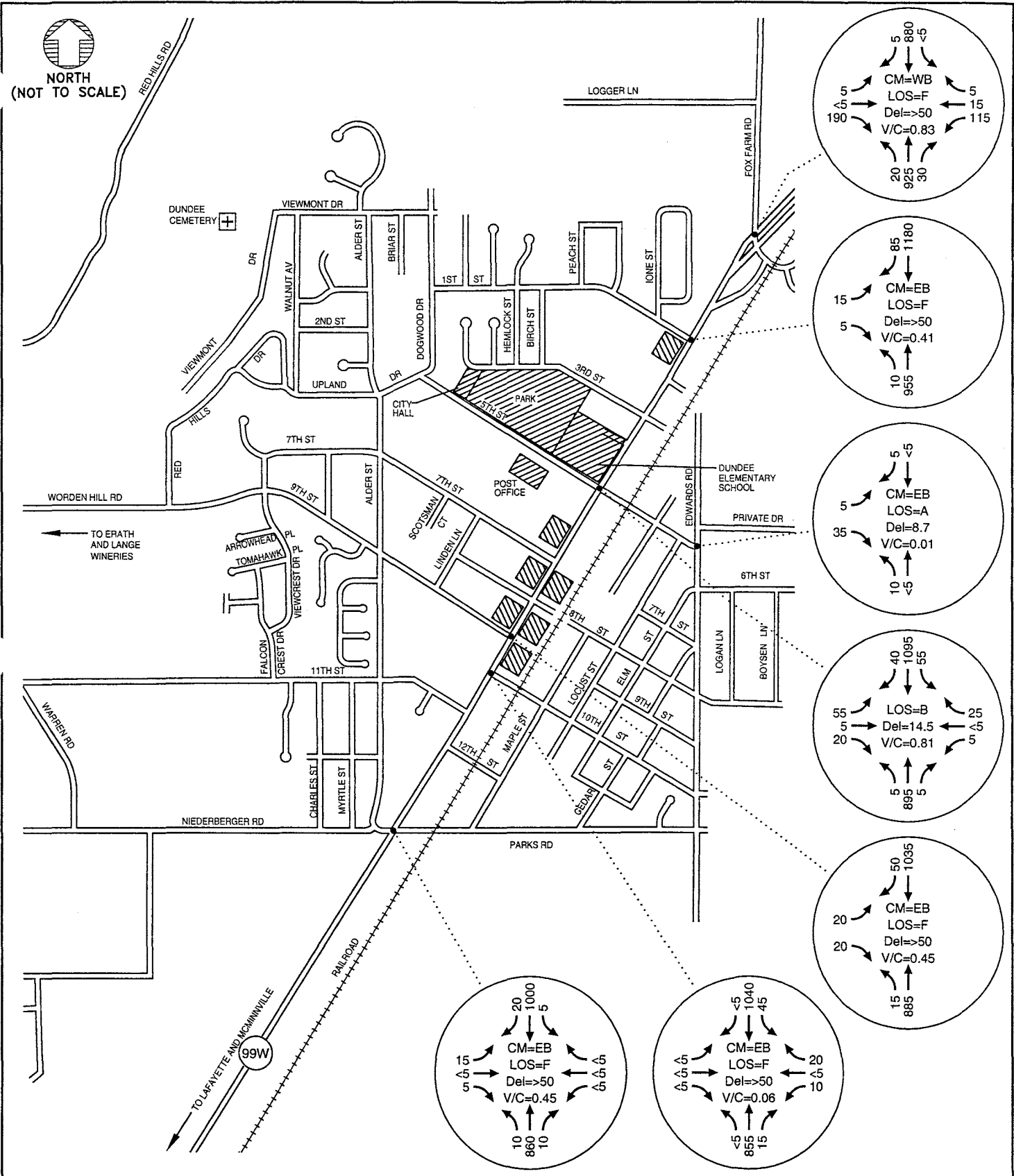
- STOP SIGN
- TRAFFIC SIGNAL

**EXISTING LANE CONFIGURATIONS
AND TRAFFIC CONTROL DEVICES**

DUNDEE TRANSPORTATION SYSTEM PLAN
DUNDEE, OREGON
OCTOBER 2003

FIGURE
3-9





LEGEND

- CM = CRITICAL MOVEMENT (UN SIGNALIZED)
- LOS = INTERSECTION LEVEL OF SERVICE (SIGNALIZED)/
CRITICAL MOVEMENT LEVEL OF SERVICE (UN SIGNALIZED)
- Del = INTERSECTION AVERAGE DELAY (SIGNALIZED)/
CRITICAL MOVEMENT DELAY (UN SIGNALIZED)
- V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

EXISTING TRAFFIC VOLUMES AND INTERSECTION OPERATIONS WEEKDAY PM PEAK HOUR

DUNDEE TRANSPORTATION SYSTEM PLAN
DUNDEE, OREGON
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FIGURE
3-10

Signal Warrants

Unsignalized intersections experiencing failing levels of service can be mitigated with signalization to restore operational capacity and an acceptable LOS. However, LOS failures do not necessarily require signalization or other mitigation measures, particularly if the failure is linked to a lower volume, minor movement. Consequently, warrants have been developed to assist in the determination of the appropriateness of signalization at an intersection.

The *Manual on Uniform Traffic Control Devices* provides the nationally accepted warrant methodology for determining the need for signalization of intersections. The City of Dundee and ODOT accept this methodology and use Warrants 1A and 1B for an initial determination of signalization of an intersection. At a minimum, at least one warrant must be met before a traffic signal can be considered; however, meeting a warrant does not necessarily mean a traffic signal is the best solution. Professional judgment should always be used before installing a traffic signal.

Signal warrants were evaluated at all intersections found to experience an unacceptable LOS “F” during the weekday p.m. peak hour. Table 3-1 reveals the results of signal warrant analyses. Appendix “D” contains the signal warrant analysis worksheets.

**TABLE 3-1
 TRAFFIC SIGNAL WARRANT RESULTS**

Intersection	Warrant 1: Minimum Vehicular Volume	Warrant 2: Interruption of Continuous Traffic	Warrant 11: Peak Hour Volume
Fox Farm Road-Dayton Avenue/Ore 99W	Yes	Yes	Yes
1 st Street/Ore 99W	No	No	No
9 th Street/Ore 99W	No	No	No
10 th Street/Ore 99W	No	No	No
Niederberger Road-Parks Road/Ore 99W	No	No	No

Yes: warrant met No: warrant not met

As shown in Table 3-1, the Fox Farm Road-Dayton Avenue/Ore 99W intersection currently meets each of the three warrants evaluated. Signalization of this intersection would decrease weekday p.m. peak hour delays for westbound turning movements from the Dayton Avenue approach to acceptable levels. Signal warrants are not met for any of the other intersections evaluated, due to relatively low traffic volumes on the minor street approaches to Ore 99W.

Queuing/Stacking Distance Analysis: Railroad-Ore 99W

Queuing/stacking distance analyses were conducted at the uncontrolled, at-grade rail crossings on 5th Street, 10th Street and Parks Road to determine if adequate queue storage distance is provided between Ore 99W and the railroad tracks during weekday p.m. peak hour conditions. Queues at the signalized 5th Street/Ore 99W intersection and the unsignalized 10th Street/Ore 99W and Parks Road/Ore 99W intersections were analyzed under existing traffic conditions to determine if queues from the westbound approach at each intersection would extend east across the railroad tracks. In addition, queues at each railroad crossing (generated by eastbound traffic delayed during train activity) were analyzed to determine the propensity for queues to extend west from the railroad crossing and obstruct traffic movements on the highway.

Using the existing year traffic volumes shown in Figure 3-10, an analysis was conducted to estimate the probability of vehicles stacking to or past the railroad tracks from Ore 99W. In the analysis, random arrivals were assumed and the queue lengths shown will not be exceeded during 95-percent of the weekday p.m. peak hour. For the signalized 5th Street/Ore 99W intersection, the assumed length-of-red interval was obtained from the signal timing parameters used in the existing conditions level-of-service analysis worksheets. Queuing analyses for the unsignalized intersections were performed by comparing the volume-to-capacity ratio against the arrival volume as described in Chapter 10 of the 1997 *Highway Capacity Manual*.

Eastbound queues generated during train crossings were determined based upon the eastbound traffic volume at each crossing and the estimated length of time that these vehicles are delayed while waiting for a train to cross the roadway. This delay time was estimated to be approximately three minutes.

In all queuing analyses, one vehicle was assumed to occupy 25-feet. The stacking distance between the railroad and Ore 99W is approximately 250-feet at the Parks Road crossing and approximately 225-feet at the 5th Street and 10th Street crossings. Table 3-2(6) summarizes the results of the queuing/stacking distance analyses.

**TABLE 3-2
 95TH-PERCENTILE QUEUING/STACKING DISTANCE ANALYSIS RESULTS
 BETWEEN ORE 99W AND RAILROAD CROSSINGS**

Crossing Location	Westbound queue	Eastbound queue	Existing Storage Distance*	Adequate Storage?
5 th Street	75 feet	150 feet	225 feet	Yes
10 th Street	25 feet	150 feet	225 feet	Yes
Parks Road	25 feet	50 feet	250 feet	Yes

*Approximate distance between Ore 99W and railroad.

As shown in Table 3-2(6), adequate storage currently exists between Ore 99W and the railroad to accommodate 95th-percentile queues in each direction at each crossing location. *Appendix "E" contains the queuing analysis worksheets*

Traffic Safety

To determine whether safety deficiencies or potential conflict points may exist along Ore 99W in Dundee, crash data were examined. Data for each of the study intersections, and for the segment of Ore 99W within Dundee, were obtained from ODOT for the three-year period from January 1, 1997 to December 31, 1999. The crash data were analyzed at both the intersection level and the corridor level to identify crash trends and potential safety deficiencies. *Detailed crash rate data are provided in Appendix "F"*.

Ore 99W

Ninety-six crashes were reported along the segment of Ore 99W between Fox Farm Road and Parks Road-Niederberger Road during the three-year analysis period, resulting in a calculated link crash rate of approximately 3.96 crashes per million vehicle miles (MVM). The calculated rate was found to be higher than the statewide average of 3.72 for similar facilities (i.e., non-freeway facilities in

urban areas on the ODOT primary highway system). Forty-nine of these ninety-six crashes (51 percent) resulted in injuries to one or more occupants. No link crashes involved pedestrians or bicyclists. One fatal accident was reported in 1999, south of 10th Street, when a southbound driver fell asleep and collided with a utility pole.

Study Intersections

Crash rates for intersections are expressed in reported crashes per million entering vehicles (MEV). Because some crashes may not be reported by motorists, or because the property damage limit was not exceeded, not all crashes that occur at an intersection may show up in the data. As a rule of thumb, an intersection crash rate higher than 1.0 crash per MEV indicates a potential safety issue requiring further analysis. However, further examination is also necessary when accidents of a particular type recur, pedestrians or bicyclists are involved, a high proportion of accidents result in injuries, or there is a fatality.

Table 3-3(7) indicates crash rates at study intersections and the types of crashes that occurred. As shown in Table 3-3(7), none of the intersections has a crash rate in excess of 1.0 crash per MEV. No accidents were reported at the stop-controlled intersections of Fox Farm Road/Ore 99W or Parks Road-Niederberger Road/Ore 99W during the three-year study period. However, it should be noted that 10 crashes occurred at the Fox Farm Road intersection between 1994 and 1996 prior to timing changes that were made at the Ore 99W and 5th Street intersection in 1997.

**TABLE 3-3
 STUDY INTERSECTION CRASH RATES**

Intersection	Number of Crashes	Crashes Per Year	Peak Hour TEV	MEV/Year	Crashes/MEV	>1.0 Crash/MEV
Fox Farm Road-Dayton Avenue/Ore 99W	0	0	2,191	8.00	0	No
1 st Street/Ore 99W	4	0.2	2,250	8.21	0.16	No
5 th Street/Ore 99W	10	3.3	2,206	8.05	0.41	No
9 th Street/Ore 99W	3	1	2,025	7.39	0.14	No
10 th Street/Ore 99W	1	0.3	1,991	7.27	0.05	No
Niederberger Road-Parks Road/Ore 99W	0	0	1,929	7.04	0	No

TEV = Total Entering Vehicles
 MEV = Million Entering Vehicles

Although the signalized 5th Street/Ore 99W intersection does not have a particularly high crash rate, this intersection experienced a large proportion of rear-end crashes on the southbound approach to the signal (7 out of 10 crashes) during the three-year study period. Six of these seven rear-end crashes resulted in occupant injuries. This finding is supported by the link crash data, which show 29 rear-end crashes out of 31 total crashes occurring within just 0.1 mile of 5th Street. Of the 29 rear-end crashes, 14 resulted in injuries and 11 involved more than two vehicles.

The rear-end crash trend observed on the southbound approach to the signalized 5th Street/Ore 99W intersection suggests that drivers may not be aware of, or alerted to, the presence of the signal. Several factors may contribute to this. First, the signal may not meet driver's expectations. This particular intersection is located at the north end of Dundee where the character of Ore 99W changes from a rural, 4-lane "expressway"-type facility with a posted speed of 45 mph, to an urban,

2-lane facility with a posted speed of 35 mph. The 5th Street/Ore 99W intersection is the first signalized crossing drivers encounter after they leave Newberg and travel south on Ore 99W. Despite advance warning signs, drivers unfamiliar with the roadway may not realize the signal exists, and the situation is exacerbated by long queues that form at the intersection on Ore 99W. Also, poor visibility and the lack of adequate street lighting may contribute to the frequency of rear-end accidents.

3.3.9 Truck Freight Transportation

ODOT classifies Ore 99W as a freight route through the City of Dundee. Triple trailers are not allowed on Dundee streets. No other truck weight or size restrictions were identified in the City.

Truck freight movements in Dundee involve shipments both to and from locations in the City, and shipments that pass through the City, particularly along Ore 99W. Most trucks with origins or destinations within the City are headed for the commercial and industrial areas located along Ore 99W. Freight movements rely in large part on Ore 99W, since it is a primary freight route through Yamhill County. Congestion that occurs on the highway produces delays in getting freight to its destination.

3.4 SUMMARY OF EXISTING CONDITIONS

The following is a summary of the current condition of the transportation modes serving Dundee:

- **Pedestrian:** Ore 99W through central Dundee is generally well-covered by a sidewalk network, although north of 5th Street sidewalks are only present along the west side of the highway. The Dundee Elementary School also has good sidewalk coverage in the immediate vicinity, but no connectivity with neighborhoods to the west. Newer residential and commercial areas also have good pedestrian facilities, reflecting city policies that require new development to provide adequate sidewalk facilities. Crosswalks across Ore 99W are provided north of 7th, 8th and 10th Streets, as well as at the signalized 5th Street/Ore 99W intersection. Nevertheless, many residents have pointed out difficulty in crossing Ore 99W due to high through traffic volumes.
- **Bicycle:** Bike lanes/striped shoulders are provided along both sides of Ore 99W throughout Dundee although no pavement markings delineate this area specifically for bicycle travel. The only other place where bike lanes are provided is along the north side of 5th Street from City Hall to the Dogwood Drive-Upland Drive intersection. Apart from Ore 99W, all roadways within Dundee carry less than 3,000 ADT and therefore do not require bike lanes according to the criteria set forth in the *Oregon Bicycle and Pedestrian Plan*.
- **Public Transportation:** Several public transportation services are provided within the City of Dundee. The Newberg School District operates school buses within Dundee and nearby areas, taking children to and from the Dundee Elementary School and schools located in Newberg. Greyhound Bus Lines makes limited daily stops in Dundee, providing intercity service throughout the country via the major cities of Oregon. The Chehalem Valley Senior Citizens Council (CVSCC) operates LINKS, a commuter service that connects McMinnville with Meridian Park Hospital in Tualatin and makes scheduled stops in Dundee. CVSCC also operates a dial-a-ride service for elderly and disabled citizens of Newberg and Dundee. In addition, Dundee residents can take advantage of carpooling resources provided by Mid-Valley Rideshare.

- **Pipelines and Transmission Systems:** Electric transmission lines, natural gas distribution lines, and water lines serve the City. No issues have been identified with any of these facilities.
- **Rail:** The Willamette & Pacific Railroad (WPRR) operates one line through the City of Dundee for the movement of freight. Track conditions meet state guidelines. Industrial-zoned land abuts the rail lines, providing opportunities for potential customers to locate next to rail service. The closest AMTRAK passenger rail stations are located in Portland and Salem.
- **Air:** No public airports are located within the City of Dundee. The closest public general aviation airports are the Sportsman Airpark in Newberg and the Hillsboro Airport. The nearest airport with scheduled passenger service is the Portland International Airport, located approximately 30 miles northeast of Dundee.
- **Marine:** The Willamette River is located east of Dundee and provides potential opportunities for recreational boating. However, no river access or marine facilities are currently provided within the city. The closest marine access is located approximately 4 miles to the north at the Rogers Landing County Park in southern Newberg.
- **Roadway Operations:** Ore 99W through Dundee operates at capacity during the weekday p.m. peak hour, due to high volumes of southbound traffic and the narrowing of the roadway's cross-section from two lanes to one lane in the southbound direction near the north city limits. Capacity deficiencies are also experienced in the northbound direction on Ore 99W, again due to the single lane capacity through town. All other roadways within the City operate under capacity during the weekday p.m. peak hour. Turning movements from the Dayton Avenue approach to the Fox Farm Road-Dayton Avenue/Ore 99W intersection currently experience delays corresponding to LOS "F" during the weekday p.m. peak hour and signal warrants are met at the intersection. The signalized 5th Street/Ore 99W intersection operates at an acceptable LOS "B", but the v/c of this intersection of 0.833 is below ODOT's volume-to-capacity performance standard of 0.75. Motorists turning left onto Ore 99W from all unsignalized driveways and public street approaches currently experience long delays during peak time periods, due to the high volumes of northbound and southbound traffic along Ore 99W and the lack of acceptable gaps in traffic. Drivers who choose to wait for a single gap in traffic in both directions experience delays corresponding to an unacceptable LOS "F" during the weekday p.m. peak hour. However, drivers that choose to accept gaps in traffic in two stages (using the center median as an intermediate stopping point) experience LOS "D" conditions during the weekday p.m. peak hour, assuming they are not behind someone waiting for a single gap.
- **Roadway Safety:** None of the study intersections has a crash rate in excess of one crash per million entering vehicles. However, the signalized 5th Street/Ore 99W intersection

3 Level of service and volume-to-capacity (v/c) are two different, yet related, performance measures used for evaluating roadway and intersection operations. Both measures have been reported, in recognition that level-of-service (as described in Appendix A) is the traditional measure that many jurisdictions, including the City of Dundee, use as their measure of traffic operation and v/c is the measure used by ODOT for evaluation of their state highways. Level-of-service is directly related to the amount of average delay a motorist experiences in traversing an intersection – the higher the average delay the poorer the level of service on a scale of A (excellent) to F (unacceptable). ODOT uses a slightly different standard to evaluate operations of their state highways – volume-to-capacity (v/c). This measure takes into account the total volume at an intersection or roadway, and relates this volume to the capacity of the facility. Accordingly, a roadway or intersection will operate with a v/c of from 0.00 (empty) to 1.00 (at full capacity). ODOT's minimum performance standard is defined in the Oregon Highway Plan, and varies depending on the function and location of a facility.

experienced a large proportion of rear-end crashes on the southbound approach to the signal during the three-year study period, most of which resulted in occupant injuries. This trend suggests that drivers may not be aware of, or alerted to, the presence of the signal. The Ore 99W corridor was found to have a crash rate exceeding the statewide average rate for similar roadways. The majority of the accidents along the Highway were rear-end accidents and many resulted in occupant injuries.

- **Truck Freight Movement:** Traffic congestion on Ore 99W slows freight movements to and through Dundee.

Section 4

Future Transportation Conditions

Future Transportation Conditions

4.1 INTRODUCTION

This section presents the initial population growth forecast for Dundee through the year 2025 and the transportation needs that will result if no improvements are made to the City's transportation system in the meantime.

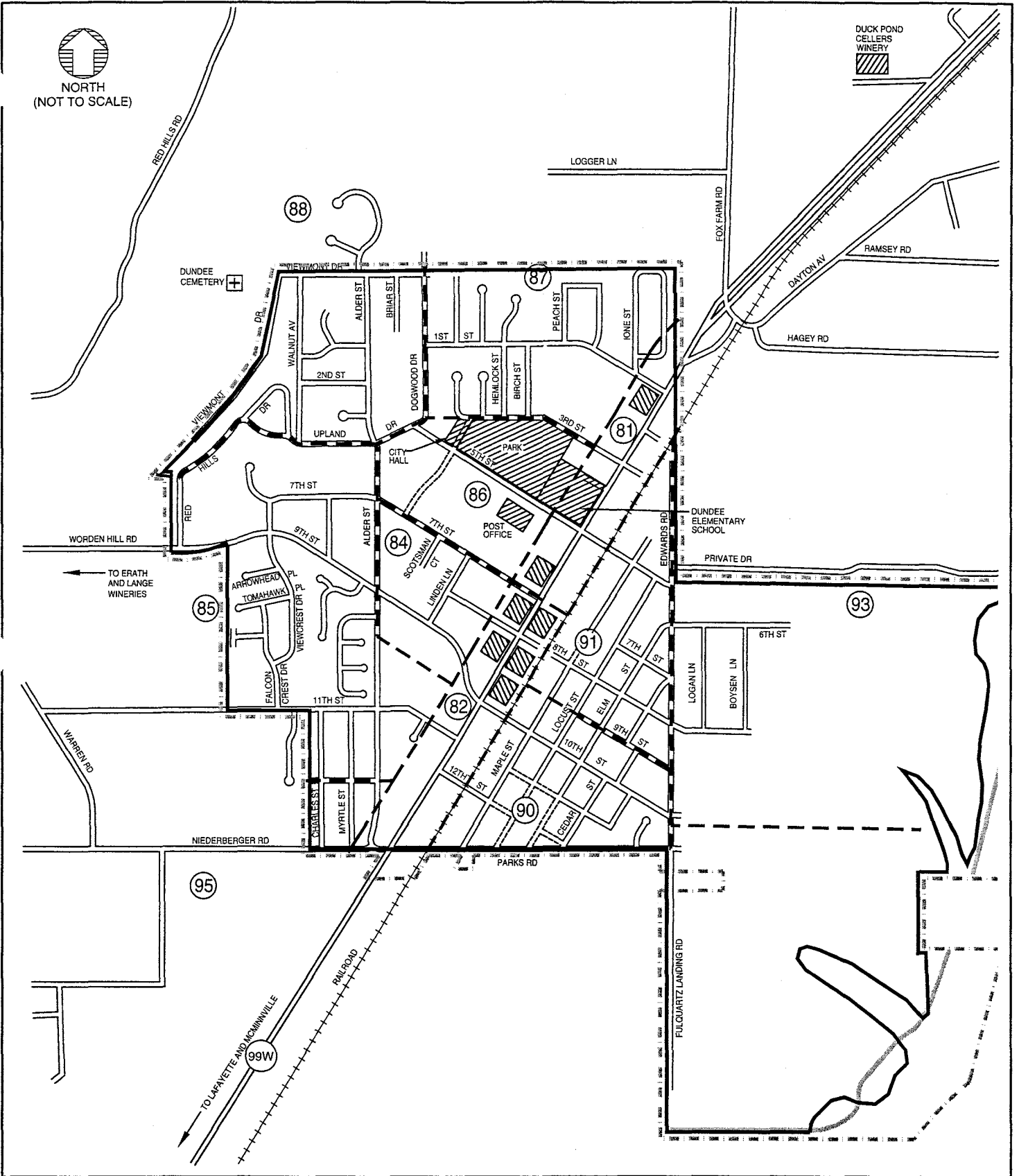
This section is organized into two main sections, followed by a brief summary of land use, growth, and TSP content issues identified through the future conditions analysis. The first section (Future Transportation Demand) presents growth forecasts for the City of Dundee and the impacts of that growth on the City's roadway system. The second section (Transportation Modes and Facilities) presents a list of conditions by mode, based on the technical analysis presented in the five technical memoranda and input received through the project's public involvement process.

4.2 FUTURE TRANSPORTATION DEMAND






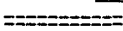
4.2.1 Growth Forecasts

Future transportation demand within the City of Dundee was estimated based on an EMME/2 travel forecasting model developed by Kittelson & Associates, Inc. For the purposes of the model, Dundee is divided into a number of traffic analysis zones (TAZs), which are intended to represent areas that contain similar land uses and access similar roadways. For example, the area bounded by 9th Street, Edwards Road, Parks Road, and the railroad is a TAZ.

1994 household and employment data were developed as a base, along with 2020 household and employment forecasts which include estimates of future households and employment in areas that are within the Newberg-Dundee area. Table 4-1(1) presents household and employment data for both 1994 and 2020 for TAZs wholly or partially within the City of Dundee. Figure 4-1 depicts the TAZ locations.



LEGEND

-  TRAFFIC ANALYSIS ZONE BOUNDARY
-  TRAFFIC ANALYSIS ZONE #
-  CITY LIMITS
-  URBAN GROWTH BOUNDARY
-  KEY ATTRACTORS
-  PLANNED STREETS

TRAFFIC ANALYSIS ZONES

DUNDEE TRANSPORTATION SYSTEM PLAN
 DUNDEE, OREGON
 OCTOBER 2003

FIGURE

4-1



**TABLE 4-1
 DUNDEE POPULATION AND EMPLOYMENT FORECASTS**

TAZ	1994			2020			Growth, 1994-2020	
	HH	Retail	Other	HH	Retail	Other	Households	Employment
81	5	15	27	15	45	31	10	34
82	6	11	57	24	46	63	18	41
84	28	0	25	40	0	29	12	4
85	145	0	0	204	0	0	59	0
86	16	0	0	30	0	0	14	0
87	87	0	0	110	0	0	23	0
88	81	0	0	270	0	0	189	0
90	54	0	9	75	0	12	21	3
91	87	0	20	95	0	24	8	4
95	38	0	14	250	0	16	212	2
Total	547	26	152	1113	91	175	566	88

Note: HH = households, Retail = retail employment, Other = non-retail employment

The City of Dundee recently adopted a population growth forecast of 5,744 total residents to be achieved by year 2020. Dundee's population within its current planning area is expected to continue to grow during the 20-25 year timeframe addressed by this TSP, from about 2,600 in 2000 to about 5,700 in 2020. A future population estimate of 6,600 was used for year 2025 modeling purposes. This is the population base used in the previous (1997 Alternatives Analysis) modeling efforts upon which this work was built. This figure that has not been officially adopted by the City of Dundee--however, for planning purposes this figure was determined to be a reasonable estimate of the future population level. On Ore 99W, the only transportation facility in Dundee forecast to have future capacity problems, the potential difference in traffic volumes generated between a population of 6,600 and the adopted 2020 forecast of 5,744 is approximately 1.6%. Given that the models used for analyzing future traffic impacts have a standard margin of error of 5% to 10% on major facilities like Ore 99W, this difference is not significant enough to merit any changes to the modeling tool.

4.2.2 Transportation Model Process

The previously developed model was refined by the project team to develop the 2025 weekday p.m. peak hour forecasts. This process included three steps:

1. Calibration of the 1994 model
2. Forecasting of 2020 travel demand
3. Derivation of 2025 travel demand using a factoring procedure and an applied annual growth rate

After calibration of the 1994 model, the 2025 travel forecasting model was used to assign 2020 traffic to the transportation system based on the level of household and employment growth in each TAZ. Trips were assigned to the transportation system based on the *minimum time path*; this reflects the fact that travelers will seek the shortest path through the system and may choose to divert their path to avoid congestion during peak periods.

4.2.3 Traffic Volume Forecasts

Preliminary 2025 traffic volume forecasts for intersection turning movements and street segments were derived from a combination of existing turning movement counts, 1994 model results, and 2025 model forecasts, using the procedure described in National Cooperative Highway Research Program (NCHRP) Report 255. The NCHRP 255 process works as follows:

- Actual turning movement volumes and patterns are used as a starting point. For example, a particular movement at an intersection might have 50 vehicles per hour.
- The percentage change in the model's traffic volumes for a movement between the model's base and future years is calculated. For example, if the model's base year volume is 25 vehicles per hour and the future year volume is 75 vehicles per hour, the movement's volume triples during that time. Tripling the actual volumes would result in 150 vehicles per hour.
- The numerical change in the model's traffic volumes is also calculated. In the example, the model's volume for the movement increased by 50 vehicles per hour, from 25 to 75. Increasing the actual volumes by 50 vehicles per hour results in a total of 100 vehicles per hour.
- The results obtained from the two methods, percentage and numerical change, are averaged to obtain the traffic volume used as the future year forecast. In this example, 150 and 100 would be averaged to obtain a movement volume of 125 vehicles per hour.

This procedure was applied to all turning movements at the study intersections in Dundee that existed in the base year model. The through movements were then grown by a three percent annual growth rate to derive a final forecast of 2025 travel demand. The three percent annual growth rate was based upon the level of growth experienced on Ore 99W during the period from 1994 to 1999.

For those intersections that did not exist in 1994, or were not included in base year model for other reasons, growth factors were estimated for each intersection approach based on the growth calculated for other nearby intersections that are included in the base year model. In addition, where intersections are closely spaced, with little or no opportunity for access between the intersections, traffic volumes were balanced between the two intersections.

4.2.4 Year 2025 Roadway Capacity Deficiencies

In order to assess future "no-build" conditions, the existing transportation network was used. Figure 4-2 shows p.m. peak hour traffic demands for the peak direction on segments of the major roadways within Dundee. Figure 4-2 also shows the demand-to-capacity ratio for the critical direction along each segment.

It is important to keep in mind that these figures are *demands*, indicating a motorist's desire to travel along a particular roadway, rather than *volumes*. This is an important distinction because a roadway can only serve a traffic volume corresponding to its capacity. Where traffic demands exceed a roadway's capacity, only a volume equal to that roadway's capacity would actually travel along that roadway; the remaining vehicles would accumulate as a queue that would extend back from the point where demand first exceeded capacity. This phenomenon is referred to as peak spreading and occurs on Ore 99W today, with vehicle very long queues regularly backing up from the 5th Street signal for several hours most weekday afternoons and on weekends.

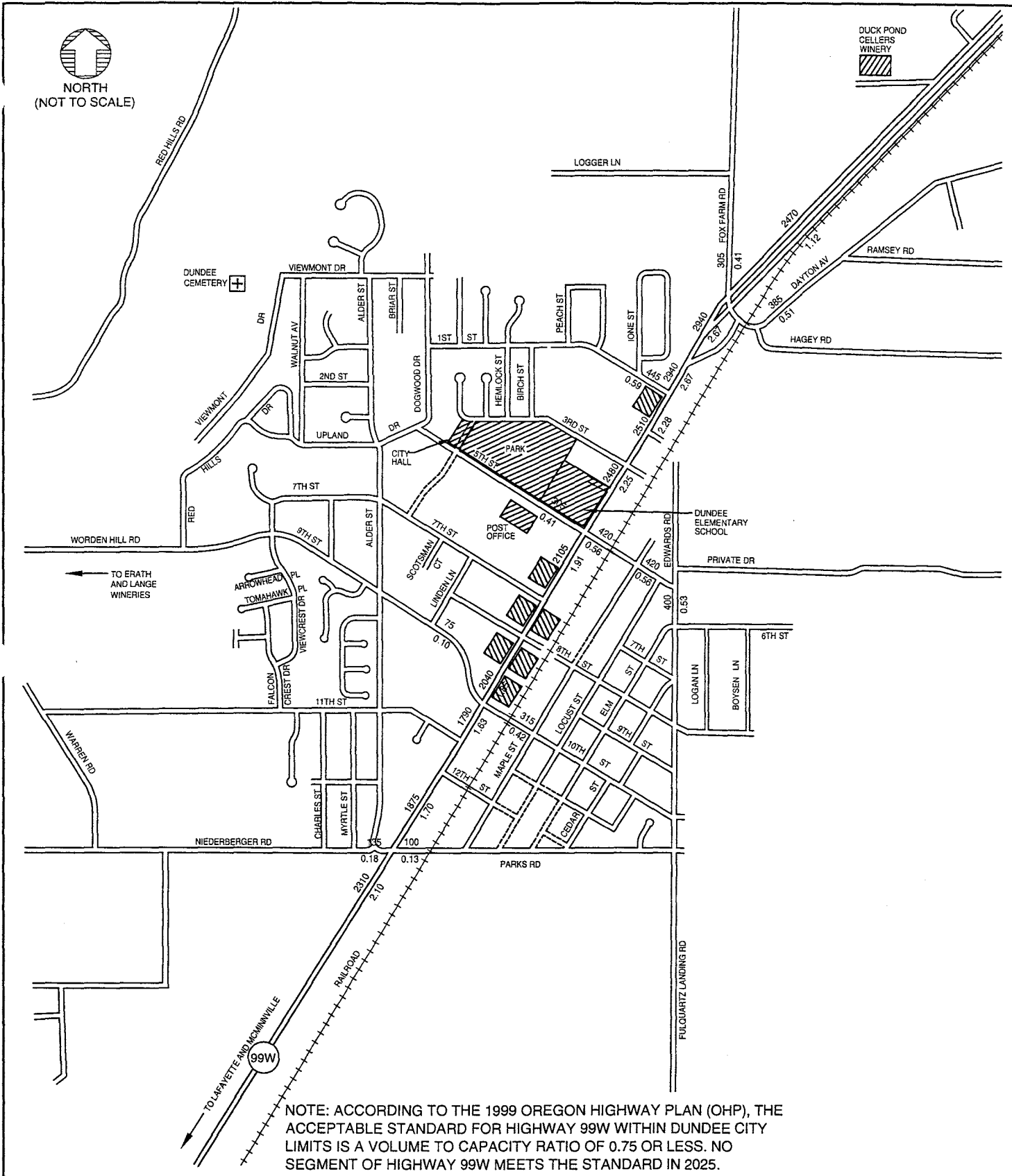
Figure 4-2 shows low demand-to-capacity ratios on City roadways in Dundee, which indicate that these roadways can accommodate forecasted growth without capacity improvements. However, if no improvements are made and if growth occurs as assumed in the model, all segments of Ore 99W in Dundee will exceed capacity in year 2025, to an even greater degree that exists today. Due to the high proportion of regional traffic on Ore 99W and the lack of alternate routes, traffic queues on Ore 99W will be much worse than they are today.

4.2.5 Year 2025 Intersection Capacity Deficiencies

Figure 4-3 shows levels of service and demand-to-capacity ratios for the study intersections. Previously programmed improvements such as the realignment of 9th Street to 10th Street are included in the analysis of future intersection conditions.

The intersection of 5th Street and Edwards Road is projected to operate acceptably in the 2025 no-build scenario. The study intersections on Ore 99W will exceed City or ODOT standards during average weekday p.m. peak hour conditions under the 2025 no-build scenario. This indicates that the unsignalized intersections at Fox Farm-Dayton, 1st Street, 10th Street (realigned), and Niederberger-Parks will not operate at acceptable levels, due to the inability of side street traffic to enter or cross the highway. The provision of traffic signals at many of these locations is discussed in a later section.

Figure 4-4 shows the projected daily traffic volume on Ore 99W in Dundee at Fox Farm-Dayton Roads. As shown in this figure, the 2025 daily traffic volume will be approximately 45,000 vehicles per day. As this figure shows, in order to provide sufficient capacity to satisfy this demand to the standard set forth in the 1999 *Oregon Highway Plan* (OHP), it will take six through travel lanes. The three-lane capacity on Ore 99W has already been exceeded (as of year 2000), and a 4/5-lane capacity will be insufficient for the corridor beyond the next five years, based on OHP operational performance standards.



LEGEND

- #### PEAK DIRECTION VOLUME
- ### PEAK DIRECTION VOLUME-TO-CAPACITY RATIO
- KEY ATTRACTORS
- PLANNED STREETS

**2025 ROADWAY OPERATIONS
WEEKDAY PM PEAK HOUR**

DUNDEE TRANSPORTATION SYSTEM PLAN
DUNDEE, OREGON

OCTOBER 2003

FIGURE

4-2



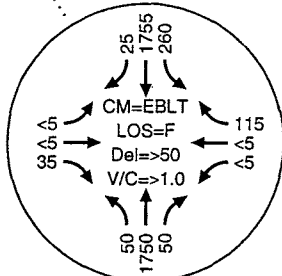
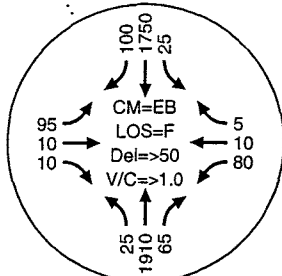
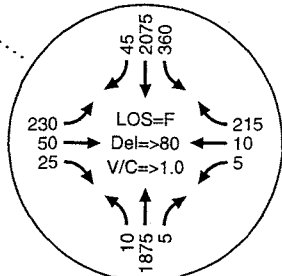
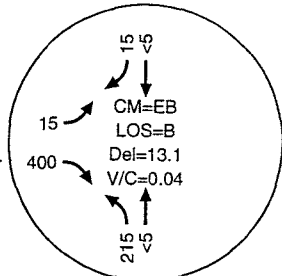
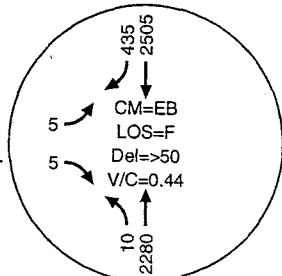
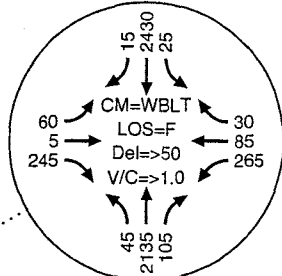
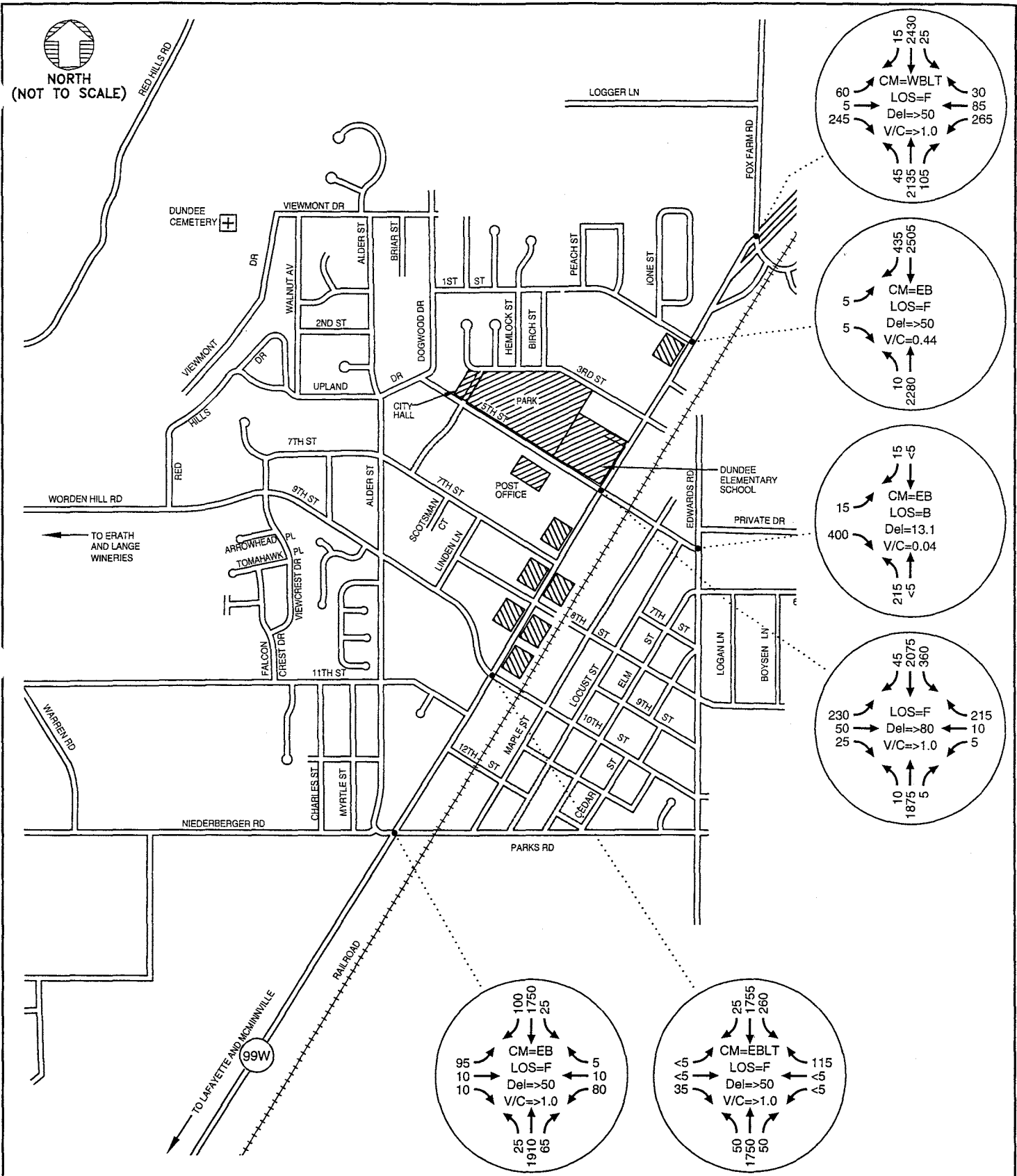
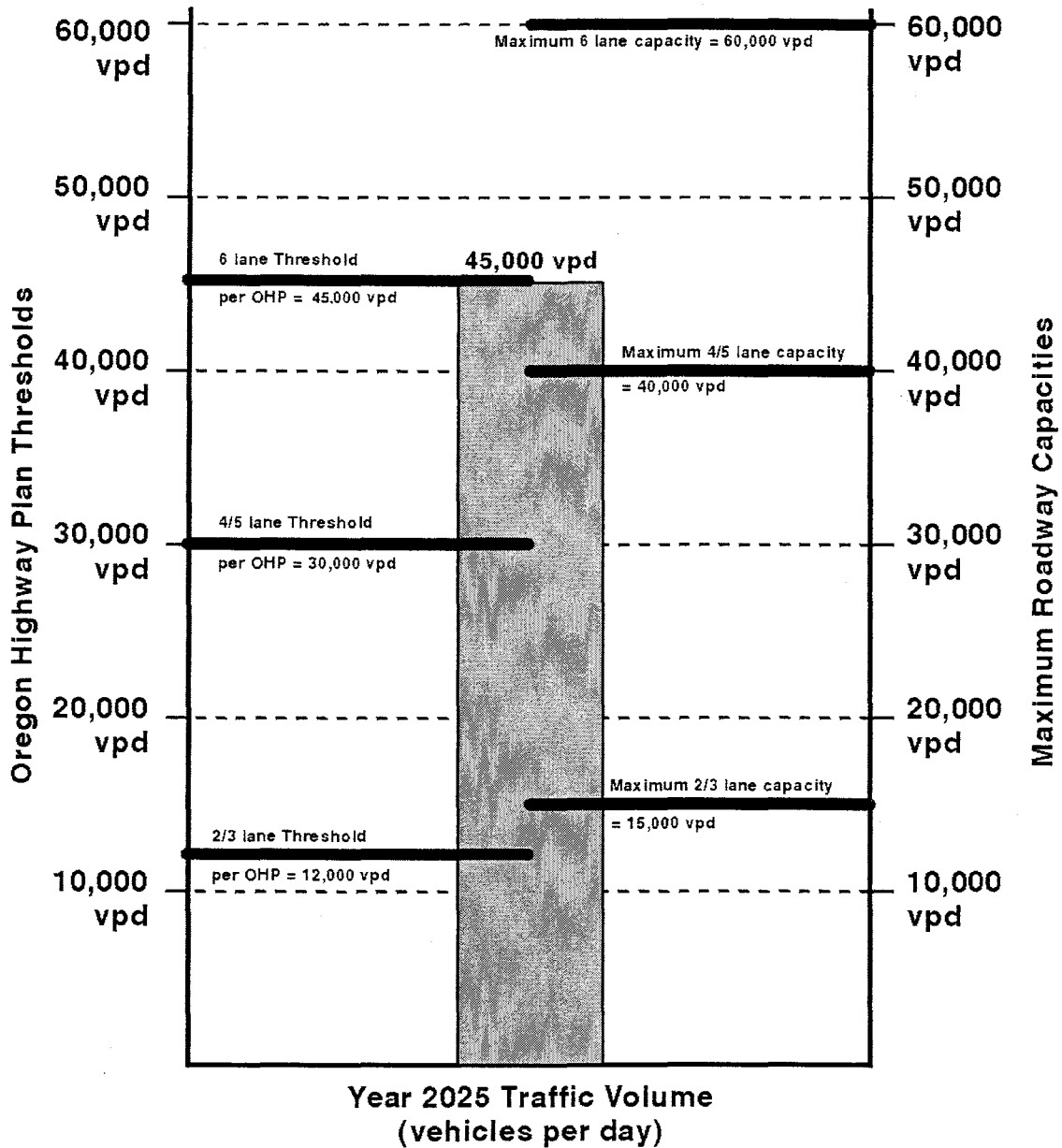


Figure 4-4 2025 Traffic Volume Compared-to-Capacity for Ore 99W in Dundee
 (at Fox Farm Road)



Note: For purposes of illustration in Figure 4-4, daily volumes and capacities were derived as a product of peak hour values times ten. This approach reflects the fact that operational performance standards (which establish maximum desirable traffic volumes) are based on peak hour traffic volumes. It should be noted that in a situation where peak hour travel demand exceeds available capacity (as is the case on Ore 99W in Dundee), demand may exceed capacity for a longer time (currently 3 or more hours in Dundee). This results in actual daily traffic volumes that are much higher than those shown in the figure above.

4.3 TRANSPORTATION MODES AND FACILITIES

4.3.1 Pedestrian

The technical analysis and public comments identified the following types of pedestrian needs, the locations of which are shown in Figure 4-5:

- Gaps in the existing sidewalk network
- Improved pedestrian crossings
- Additional street lighting
- Access to transit stops
- Transit shelters
- Improved signing

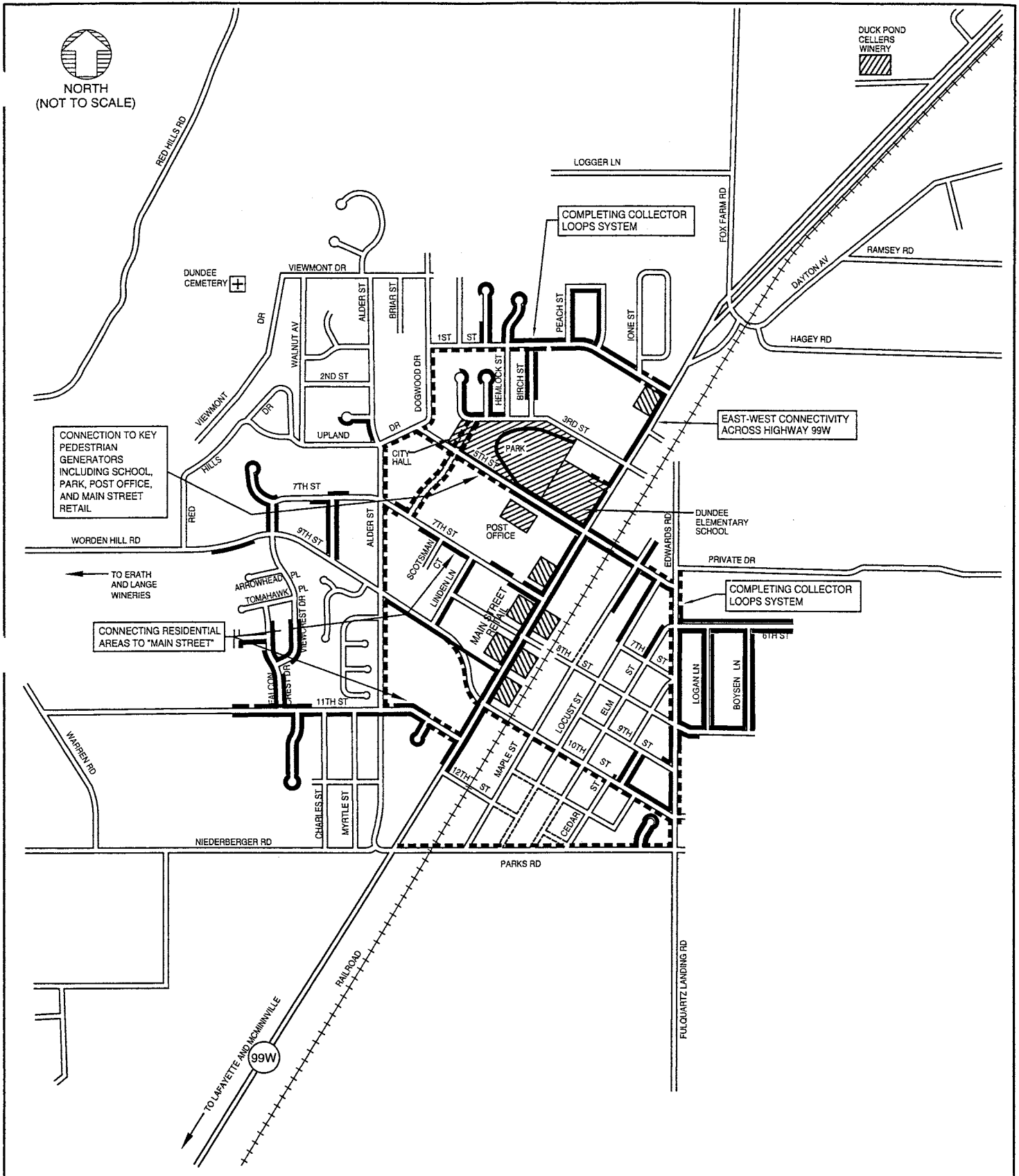
Section 3: *Existing Conditions* identified the sections of major Dundee streets that lack sidewalks on one or both sides. As current City policies require all new developments to provide adequate sidewalk facilities, some of these sections will be completed as development occurs. Consequently, the future provision of pedestrian facilities probably should focus on completing short gaps in the existing sidewalk system and identifying and prioritizing longer sidewalk gaps in already-developed areas. Desirable new sidewalk connections include:

- Connections that facilitate the east-west crossing of Ore 99W, including construction of sidewalks along the east side of Ore 99W north of 5th Street.
- Segments along the key streets that define a loop connecting with Ore 99W. This loop may be defined as:
 - West side loop:* Starting at Ore 99W at 1st Street, 1st Street to Dogwood, Dogwood to Upland, Upland to Alder, Alder to 9th Street, 9th-10th Street (realigned) to Ore 99W.
 - East side loop:* Starting at Ore 99W at 5th Street, 5th Street to Edwards, Edwards to Parks, Parks to Ore 99W.
- Complete a basic pedestrian network between residential areas and Ore 99W (main street), including 5th Street, 7th Street, 11th Street (all west of Ore 99W), and 8th Street, 10th Street, and 12th Street (all east of Ore 99W).
- Connections to major pedestrian generators including schools, parks, post offices, and retail establishments.


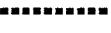

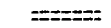
Public comments from a February 6, 2001 public event indicate that pedestrian safety in Dundee is a high-to-medium priority. Specific comments about pedestrian issues include the following:

- “A pedestrian-friendly and safe downtown would be great.”
- “Traffic is so fast on 3rd Street. Kids cross roads without looking—it is scary. An overpass here would help.”

The Dundee Transportation Advisory Committee indicated that Ore 99W is very difficult to cross, especially during peak periods. As new traffic signals are installed on Ore 99W, protected crosswalks would be included.



LEGEND

-  EXISTING SIDEWALKS/CROSSWALKS
-  DESIRED FUTURE PEDESTRIAN CONNECTIONS
-  KEY ATTRACTORS
-  PLANNED STREETS

PEDESTRIAN SYSTEM DEFICIENCIES

DUNDEE TRANSPORTATION SYSTEM PLAN
DUNDEE, OREGON

OCTOBER 2003

FIGURE

4-5



4.3.2 Bicycle

Improved bicycle facilities were the primary bicycle need identified by the technical analysis. Figure 4-6 identifies desirable new bicycle connections within Dundee. These include:

- Interconnecting the existing bicycle lanes on 5th Street and Ore 99W
- Providing a bicycle network on major Dundee streets to promote travel throughout the City and provide connections to the existing bicycle lanes on Ore 99W
- Provide a bicycle network in newly developing areas of Dundee, particularly on the east side. Provide a bicycle route along the west bank of the Willamette River within Dundee
- In the event that a bypass is constructed, associated bicycle facilities should be constructed and connected to the City's bike system
- Additional street lighting
- Improved pavement markings
- Bike racks at destinations
- Improved signing

No specific comments about bicycle issues were received from the public.

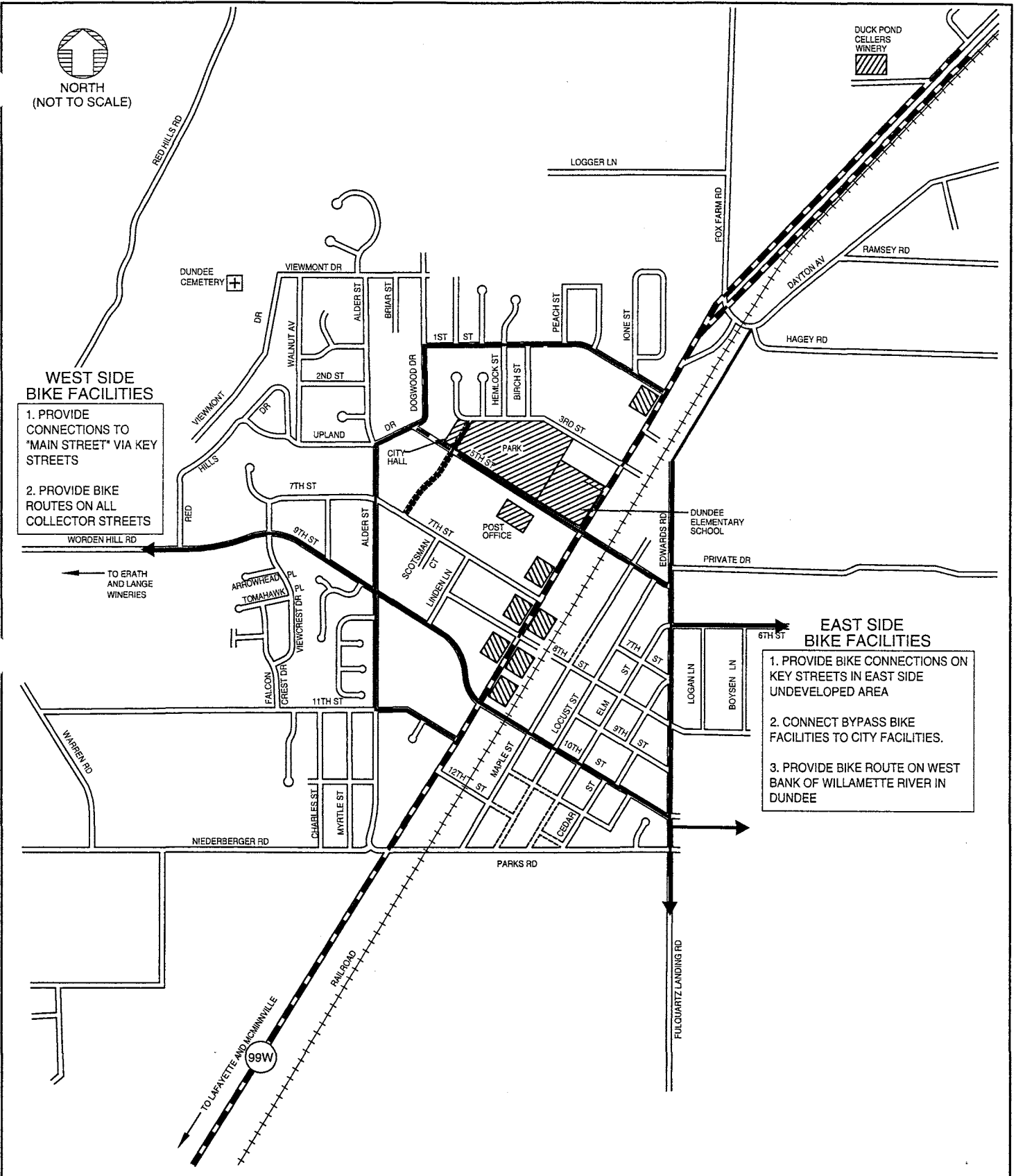
4.3.3 Public Transportation

Lack of adequate transit service in Dundee was rated as a high-to-medium priority by the public. Comments from the public included mention of a "high-speed rail system to Portland." Future transit needs could include expanded regional and intercity commuter services, park-and-ride lots, and intra-city service, as well as more widespread awareness of the existing Mid-Valley Rideshare carpool program.

The Yamhill County Transportation System Plan identifies the following potential transit needs in the county:

- Transit commuter service between Newberg and McMinnville (including Dundee) and from Newberg and McMinnville to Portland and Salem (intercity bus or rail)
- Development of a County rideshare program to encourage carpooling and reduce unnecessary vehicle travel
- Local enhancements to intermodal connectivity

Although providing these services is not solely or even principally the City's responsibility, the TSP should address actions the City can take to support these services. These actions could include developing transit-supportive street design standards that provide room for shelters and other transit amenities, improving corner radii at intersections, and supporting transit priority measures.



LEGEND

- EXISTING BICYCLE LANES
- DESIRED FUTURE BICYCLE CONNECTIONS
- ▨ KEY ATTRACTORS
- PLANNED STREETS

BICYCLE SYSTEM DEFICIENCIES

DUNDEE TRANSPORTATION SYSTEM PLAN
 DUNDEE, OREGON
 OCTOBER 2003

FIGURE
 4-6



4.3.4 Rail Freight

The rail line serving Dundee currently meets ODOT speed standards (25mph). One train uses it daily in each direction, with up to two additional smaller trains operating periodically. Potential future issues associated with the rail mode include the following:

- Safety improvements associated with the grade crossings
- Potential for additional usage of existing lines
- The impact that additional passenger and/or freight trains will have on grade crossings in Dundee

No specific comments about rail freight issues were received from the public. Moreover, no specific deficiencies were identified with respect to rail freight, and there is sufficient rail capacity to handle projected future demand.

4.3.5 Air

The proximity of the Portland International Airport to Dundee satisfies the level of service goals for air service contained in the 1992 Oregon Transportation Plan. As several general aviation facilities are also located nearby, it can be said that Dundee has sufficient access to the air mode to meet future needs, based upon State standards.

4.3.6 Marine

No navigable waterways are located within Dundee. No future deficiencies have been identified through this analysis or by the public.

4.3.7 Pipeline and Transmission Systems

No deficiencies with electrical, natural gas, or water distribution systems were identified. The City should work with the region and appropriate public and private utilities to ensure adequate supplies of electricity, natural gas, and water can continue to be provided in the future.

4.3.8 Roadways

Future roadway and intersection capacity conditions were identified in an earlier section. This section presents specific roadway-related issues raised by the public in a February 6, 2001 public event.

Congestion Relief

- “Add a bypass to 99W”
- “Build a bypass”
- “Build a bypass; toll road”
- “Direct traffic around, not through: Dundee bypass”
- “We need a quick fix, e.g., pave Worden Hill Road to Highway 224, local bypass...”
- “Put Ore 99W in a tunnel through Dundee under the existing highway”

- “Why destroy this beautiful little town by creating more lanes that will not accommodate the 45,000 cars by 2025? Instead, reroute the commuters or let them suffer in traffic.”
- “A five-lane highway through Dundee? Over my dead body.”

Street Connectivity

- “Future connection at the post office to 7th Street is needed”
- “8th Street and 99W to Maple Street southwest”
- “Dayton Avenue to Maple Street—through Dundee, hook onto 99W south of town”
- “Dayton to 5th Street”
- “Dayton to 5th Street: Yes, but consider prohibiting left turns from 99W onto Dayton. Also, connect with Newberg”
- “Dayton Avenue without entering 99W on the east side of the railroad tracks”
- “Provide relief to local residents by extending Dayton Avenue to the 5th Street light”
- “Provide access, other than 99W, to local residents”
- “Need to get from Edwards Road”
- “Need to extend Viewmont Drive to Fox Farm Road without entering 99W”
- “Keep northbound (Sunday) traffic from using Fulquartz Landing Road and getting back on at 5th Street and constantly triggering the light, backing up 99W...”

Safety

- “Visibility on corners of 9th Street”
- “Worden Hill is too narrow, with blind hills, for too much through-traffic”
- “A large volume of traffic on narrow access to 99W from 9th Street and a dangerous corner”

Roadway and Intersection Capacity

- “Need a stop light at 99W and 9th Street”

Other Issues

- “Parking during baseball season is an issue”
- “Police during ‘crunch hours’ on 99W to help alleviate road rage”

4.3.9 Truck Freight Transportation

ODOT classifies Ore 99W as a freight route through the City of Dundee. Freight-related issues can be divided into three main areas: local freight access, through freight movements, and public perception of trucks contributing to congestion. There is no existing local freight circulation plan. Freight circulation, particularly of through movements, is being addressed by the NDTIP process, by facilitating truck movements on the state highway. This will directly address the only public comment received about truck freight issues in Dundee, which was, “Eliminate trucks; direct them to a bypass.”

No specific freight deficiencies have been determined through this analysis thus far, apart from those arising from the operational problems associated with inadequate capacity that affects all vehicular movement through Dundee. Congestion through Dundee and the Ore 99W corridor in general does have a negative economic impact on businesses that rely on truck freight. In the event that a bypass is constructed, Ore 99W as Main Street in Dundee will still need to accommodate local freight deliveries and should continue to have design standards that will do so.

Section 5

Alternatives Analysis

Alternatives Analysis

5.1 INTRODUCTION

This section presents and evaluates the alternatives available to address the transportation needs identified in the existing and future conditions and deficiencies analyses. Based on input from City staff, ODOT staff, the Dundee Transportation Advisory Committee Resource Team and the general public, one or more of the alternatives presented here was chosen as the preferred alternative for future growth and incorporated into the City's Transportation System Plan.

This section is organized into six subsections. It should be noted at this point that as this plan is being developed the only major roadway capacity limitation identified in the existing and future conditions and deficiencies analyses is on Ore 99W. Alternatives for addressing the congestion problems on Ore 99W in Dundee and Newberg are currently being studied in the Newberg-Dundee Transportation Improvement Project (NDTIP), which is sponsored by ODOT and other local government entities. Because Ore 99W is the major thoroughfare of Dundee, any decision made regarding the future of Ore 99W will affect the entire transportation system of the City. Therefore, the first section discusses the alternatives evaluation and selection for a new bypass of Newberg and Dundee. The Location Draft Environmental Impact Statement (LDEIS) currently being prepared by ODOT should be consulted for further detail regarding this alternative analysis, and status of alternative selection.

This section, Alternatives Analysis, presents different means of addressing the transportation conditions identified in the existing and future conditions analyses. Selections are made from the alternatives presented in this section for incorporation into the City's TSP in Section 6.

5.2 HISTORY & STATUS OF NDTIP ALTERNATIVE SELECTION

A bypass of Ore 99W in Newberg and Dundee has been considered for many years. Between 1995 and 1997, a preliminary evaluation of alternatives to address the traffic congestion on Ore 99W in Newberg and Dundee was conducted by ODOT and its local government partners. This effort resulted in the 1997 publication of the Newberg-Dundee Transportation Improvement Project (NDTIP) Alternatives Analysis. The transportation analysis indicates that without an interchange between Newberg and Dundee, Ore 99W within Dundee would have to be expanded to a 5-lane cross-section in order to accommodate forecasted travel demand within the performance thresholds established in the OHP (4 travel lanes and a turn lane). This document identified several alternatives that merited consideration in the required subsequent development of an Environmental Impact Statement that will identify a preferred corridor within which to construct a bypass, as well as other measures to help address the transportation issues along existing Ore 99W.

In the summer of 2000, it was determined that work on the Environmental Impact Statement would take place in two phases, one to determine a general location for a bypass corridor and one to develop detailed design plans for a specific alignment within that corridor. Work on the Location Draft Environmental Impact Statement (LDEIS) for the NDTIP began in the fall of 2000, in close coordination with the development of the Dundee TSP.

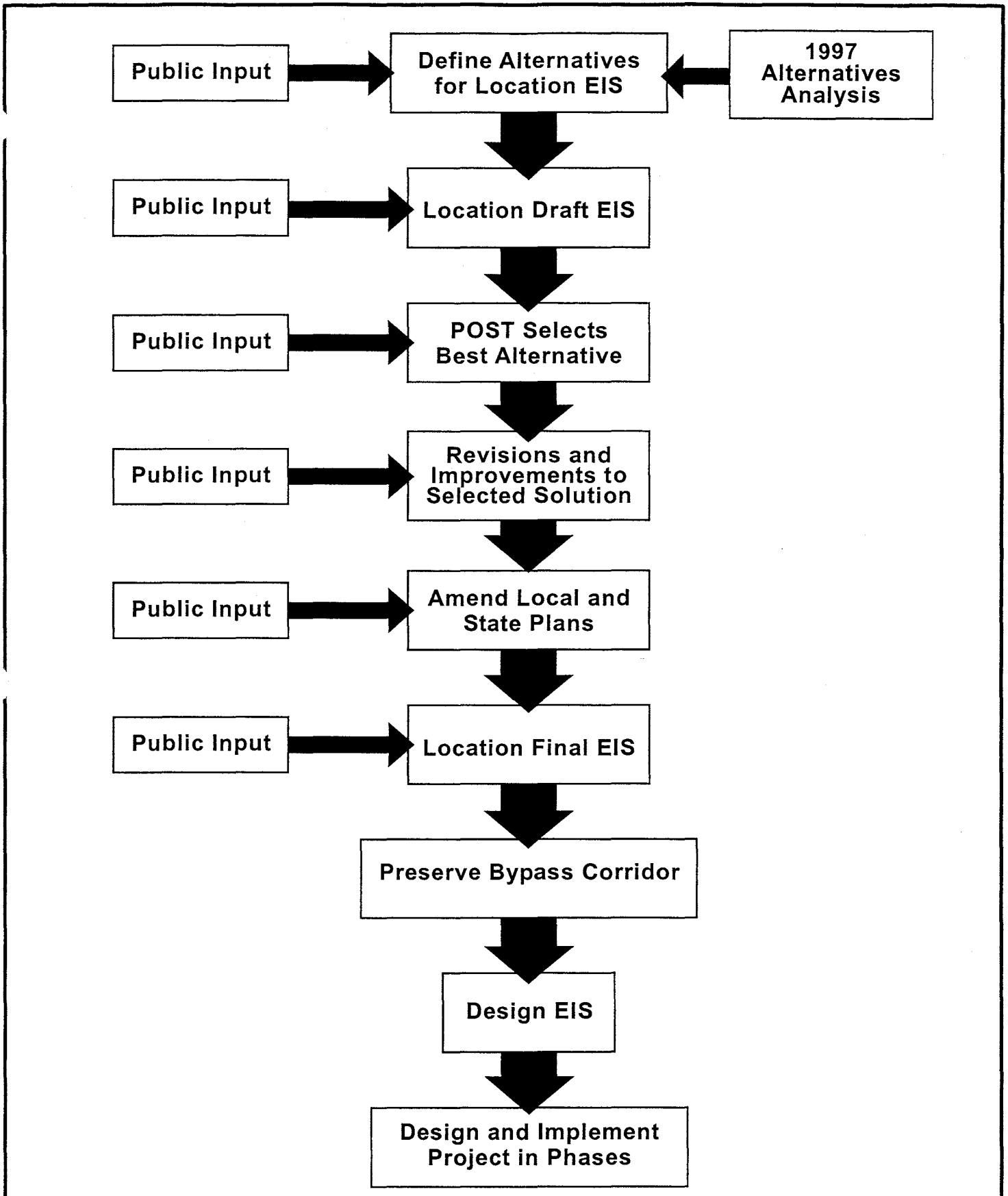
As part of this coordination, the City of Dundee sponsored two public open houses in which a discussion occurred about the City's position on bypass alternatives being analyzed through the NDTIP. Over two hundred Dundee residents attended these meetings, along with many members of the Dundee Transportation Advisory Committee (DTAC), Planning Commission, and City Council. After these meetings, the DTAC forwarded its recommendation to the Planning Commission and City Council, and these bodies formally adopted a position on the bypass as Dundee input to the NDTIP process. This position was to endorse a Southern Bypass, with a desire for its location to be as far east as possible to minimize impacts on existing Dundee neighborhoods.

At the time of these discussions, the Southern Bypass included an interchange between Newberg and Dundee. The analysis performed for the NDTIP shows that with this interchange traffic volumes within Dundee will be reduced to the point that Ore 99W can remain as a three-lane cross-section throughout the 2025-planning horizon. Without this interchange, the analysis shows that, while traffic will initially be reduced, 2025 traffic volumes on Ore 99W in Dundee will be as high as they are today. Under this approach, Ore 99W would need to be reconstructed to a five-lane cross section (four travel lanes and left turn pockets) in Dundee in conjunction with the construction of the bypass. While the City has not yet taken a position about the interchange between Newberg and Dundee, they are opposed to construction of a five-lane cross section on Ore 99W or a couplet with two travel lanes in each direction within Dundee. The City believes that this kind of capacity expansion on Ore 99W in Dundee would not support their livability or community development objectives.

The LDEIS will be completed in Summer 2002 and a selection of a preferred alternative is scheduled for Winter 2003, at which time local planning actions to support the preferred alternative will be initiated. It is expected that a Location Final Environmental Impact Statement (LFEIS) will be published in Summer 2003. Thirty days after the release of the LFEIS, the FHWA will publish a record of decision authorizing a specific corridor within which to conduct design activities. It should be emphasized that the Dundee TSP is not yet making a land use decision about which bypass alternative is to be chosen. The Dundee TSP will be amended to show the location of a bypass roadway after the preferred alternative is selected through the NDTIP process and before the LFEIS is released. Information about the Dundee bypass preference included in this document is provided as Dundee's non-binding input into the NDTIP decision-making process. Figure 5-1 summarizes the NDTIP process.

The following is a chronology of significant past and expected future milestones associated with the NDTIP:

- *April 2001:* In a town hall meeting held at Dundee Elementary School, the City showed strong support for a regional bypass, in the belief that this single alternative would remove through traffic impacts from Dundee. However, analysis showed that this alternative removed fewer trips from Ore 99W in Newberg and Dundee than the other alternative within Yamhill County.
- *May-June 2001:* Marion County Board of Commissioners adopted a resolution officially in opposition to a regional bypass that would introduce new through traffic onto Marion County roads.



NDTIP PROCESS DIAGRAM

DUNDEE TRANSPORTATION SYSTEM PLAN
 DUNDEE, OREGON
 OCTOBER 2003

FIGURE
5-1



- *August-October 2001:* Dundee City Council adopted a formal position on the bypass. This position stated that the City supported a Southern Bypass with an alignment as close as possible to the Willamette River. This alignment would help reduce the negative impacts of the Southern bypass from existing neighborhoods along Edwards Road. The City also expressed its opposition to any alternative that would result in an expansion of Ore 99W in Dundee from 3 to 5-lanes (with center lane turn pockets) as well as to a couplet with four travel lanes.

The City also endorsed a position in opposition to both a Northern Bypass and an inner-city bypass, due to their substantial negative impacts on the livability of the City. The NDTIP process eliminated both options from further consideration.

- *May-August 2002:* The NDTIP process is developing eight alternatives that will be included in the LDEIS. Within Dundee, the eight alternatives include a four-lane, grade-separated “expressway” southern bypass with two different alignments. The two alignment options include one that is located as far from existing residential uses in Dundee as possible (City’s preferred option), and one that would be adjacent (plus or minus 200 feet) to the existing Rolling Acres subdivision in Dundee. Variations of either of these alternatives include a low-speed bypass within Newberg, several that have an interchange in Yamhill County between Newberg and Dundee, and one that only has interchanges north of Newberg and south of Dundee. The NDTIP analysis shows that the alternative with only two interchanges is the only alternative under consideration that would require Ore 99W in Dundee to be widened to five lanes to handle projected traffic volumes.
- *Late Summer 2002-*The LDEIS will be released for public comment.
- *Winter 2003-*Using input from the public, local governments, and reviewing agencies, the NDTIP Project Oversight Steering Team (POST) will recommend to ODOT a preferred alternative corridor to advance for a record of decision by FHWA.
- *Winter-Summer 2003-*All required local plan actions needed to authorize corridor selection will be initiated and completed. These actions will include goal exceptions in Yamhill County and TSP amendments to identify the selected corridor. It is at this time that the bypass alignment through Dundee would become a land use decision.
- *Summer 2003-*A Locations Final Environmental Impact Statement will be published—thirty days after the LFEIS is published, FHWA will render a record of decision authorizing expenditure of federal funds (but not providing) to protect and further develop the bypass within the selected corridor.
- *Fall 2003-*Work will begin on the Design-level Draft Environmental Impact Statement (DDEIS).

A variety of activities will take place during the development of the DDEIS including development of interchange area management plans. It is anticipated that gaining a design-level EIS record of decision will take at least two years. Figures 5-2A and 5-2B show the alternatives will be included in the LDEIS. Newberg-Dundee Transportation Bypass Alternatives.

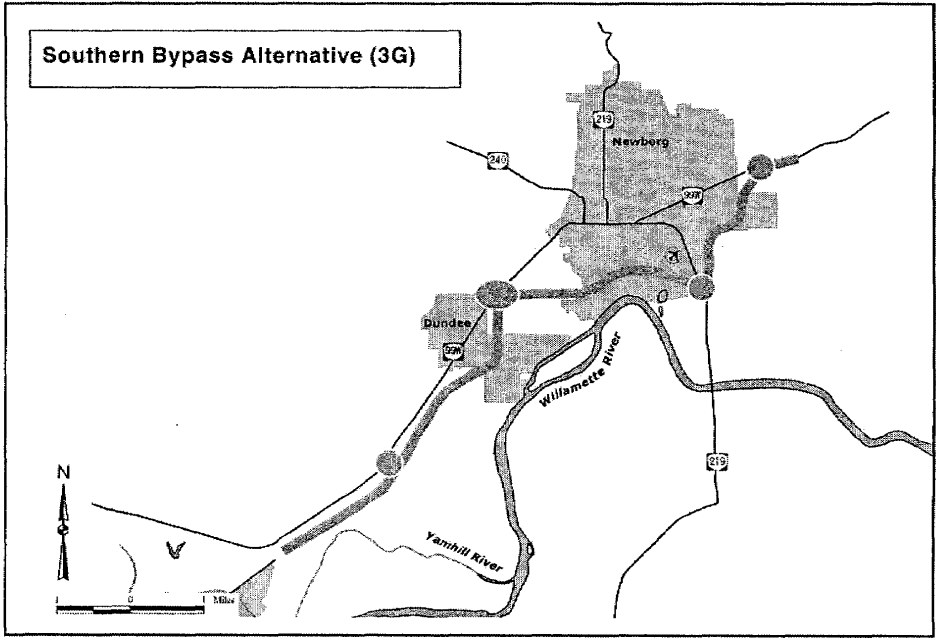
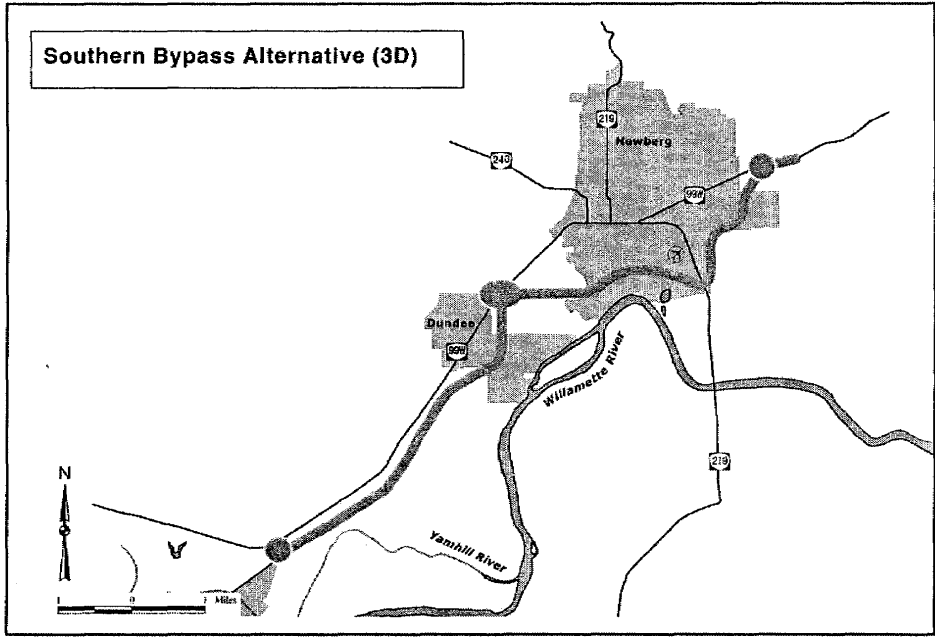
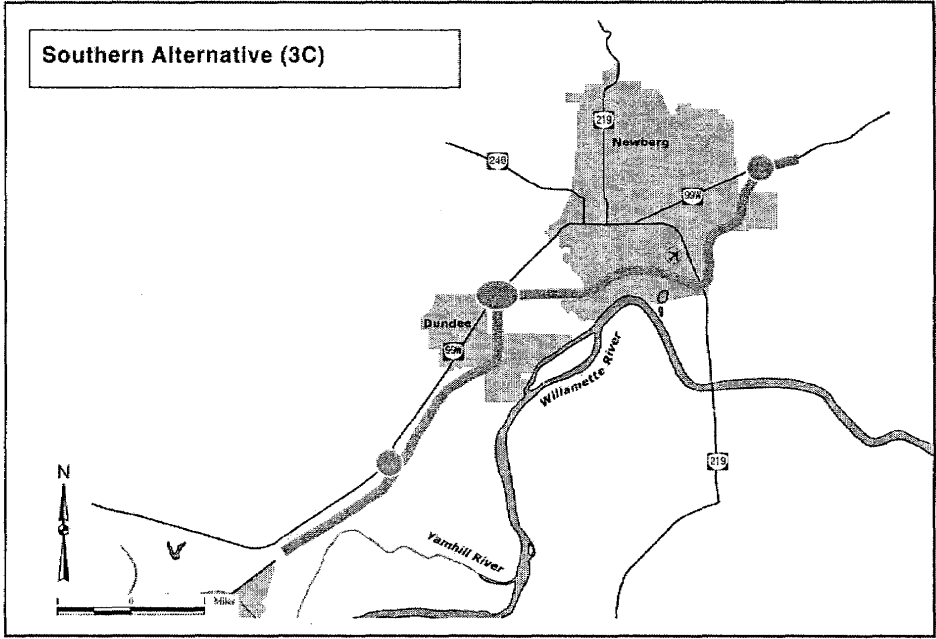
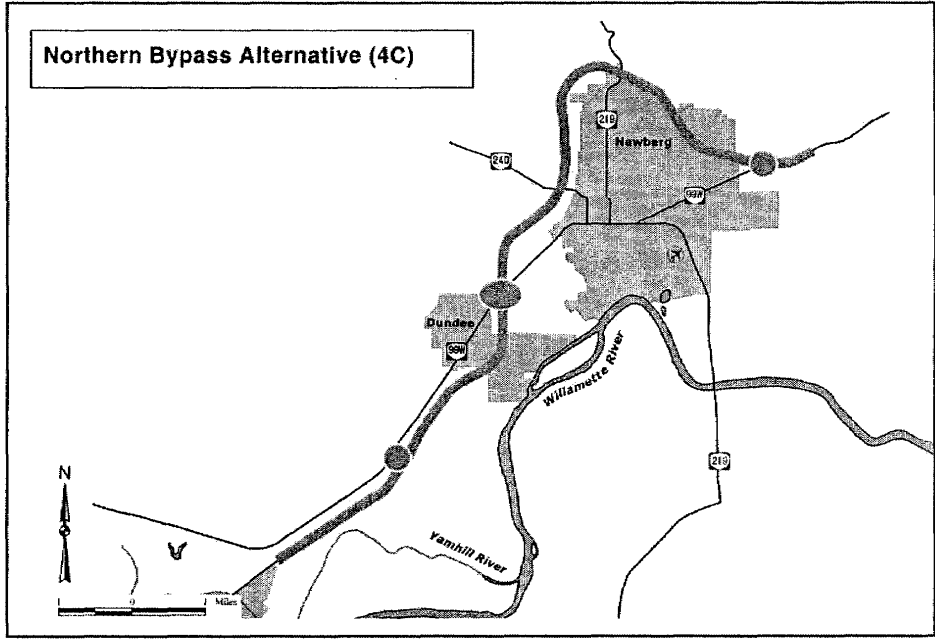


Figure 5-2A Newberg-Dundee Transportation Bypass Alternatives

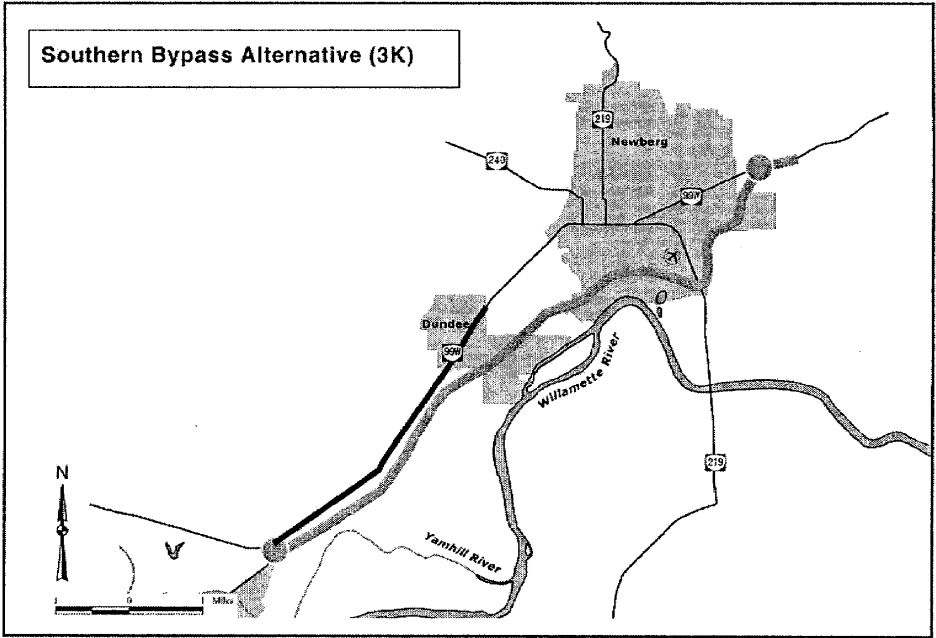
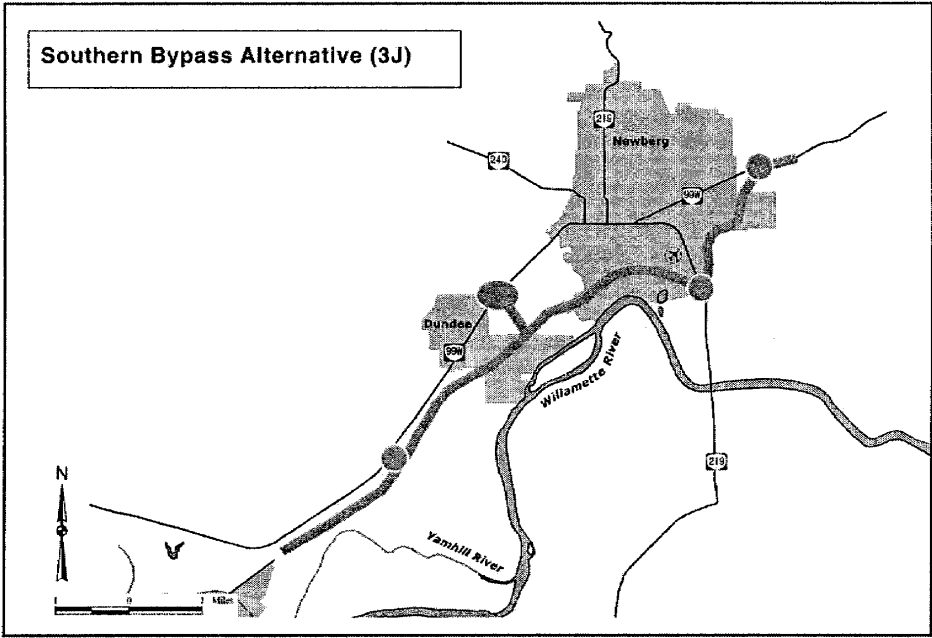
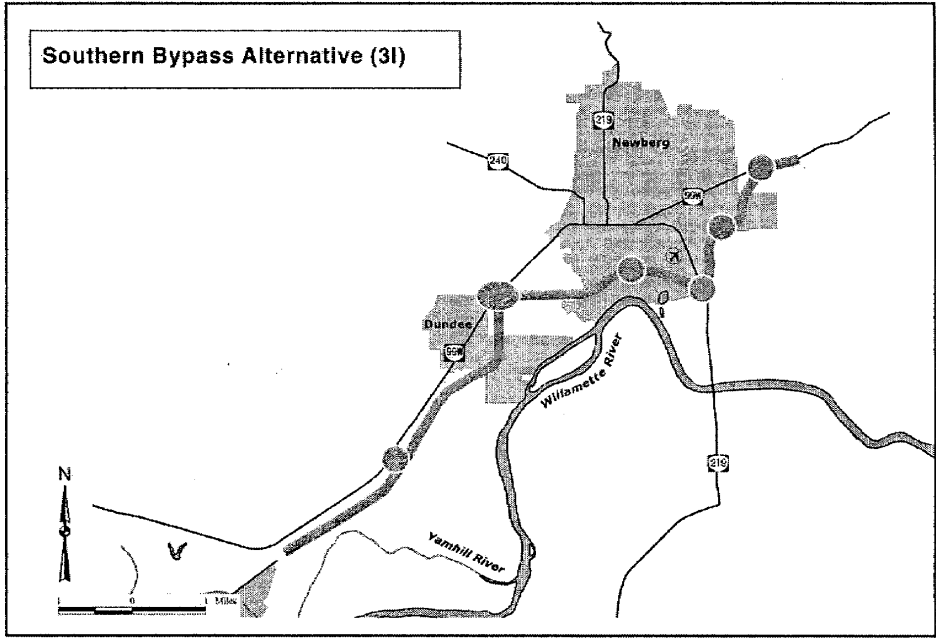
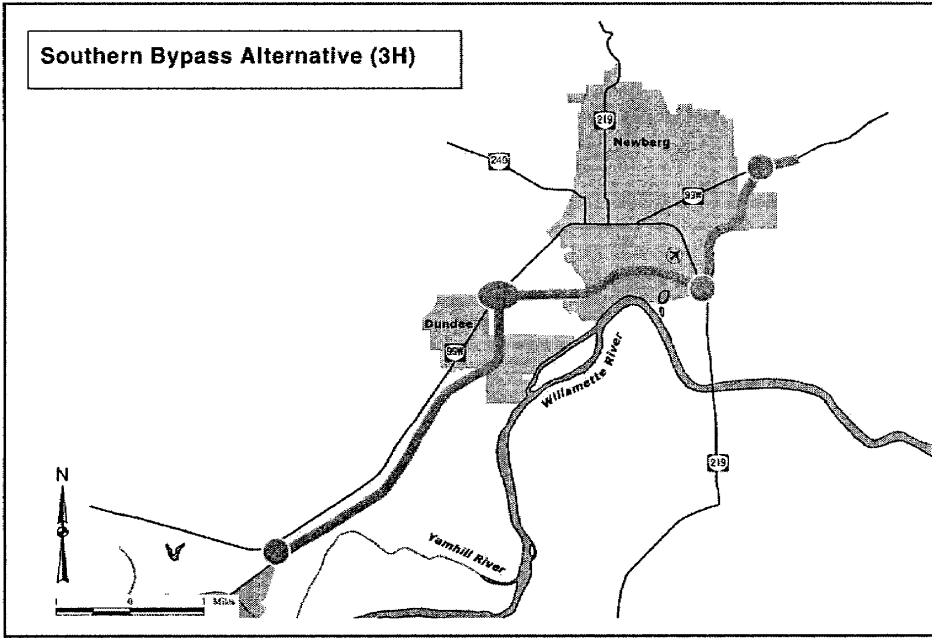


Figure 5-2B Newberg-Dundee Transportation Bypass Alternatives

5.3 RATIONALE FOR CITY-ENDORSED NDTIP ALTERNATIVE

During the NDTIP alternatives evaluation and selection process, the City of Dundee endorsed a Southern Bypass alternative. The City supports a Southern Bypass located as close as possible to the Willamette River. This alignment will help reduce the bypass' impacts on existing neighborhoods along Edwards Road. To support community development and livability objectives, the City would also like to reduce traffic and congestion along Ore 99W in Dundee to the maximum extent possible and enable Ore 99W to function as a more pedestrian friendly "Main Street." A key feature of this objective is to retain the existing three-lane cross-section (two lanes with center turn lane pockets). The City Council is opposed to any alternative that would necessitate expanding Ore 99W capacity along its current alignment or as a couplet in Dundee. While the City Council has not taken an official position in support of the interchange in Yamhill County between Newberg and Dundee, the analysis done to date shows that a five-lane cross-section (four travel lanes with center lane turn pockets) will be needed in Dundee if an interchange connecting existing Ore 99W to the bypass is not constructed between Newberg and Dundee.

The NDTIP evaluation and selection process is still ongoing, and currently there are eight alternatives that are under consideration. The Project Oversight Steering Team (POST), comprised of representatives of all affected parties will make a recommendation to ODOT. The Mayor of Dundee is Dundee's representative to the POST. The City's endorsement of a preferred corridor within Dundee has occurred before a full review of the alternatives, and before the POST has weighted the top 30 evaluation measures. The City's endorsement will likely have an influence on how the alternatives fare under some of the qualitative measures such as "public acceptability" and "community integrity" during the alternative review process. Nevertheless, it must be understood that the City-endorsed corridor within Dundee is not necessarily the alternative that will be selected by the POST. While the process to reach a collective position on the bypass was a prolonged and complex one, the basic rationale for the decision is described below:

- Dundee "Main Street" (existing Ore 99W) should carry as little regional and through vehicular or truck traffic as possible, except as needed to serve local needs; hence the need for a bypass in some configuration and location is needed.
- A Northern Bypass around Dundee was found to have too many impacts to existing land uses and too many natural constraints and was dropped from consideration by the POST early in the LDEIS process.
- Without significant reductions in traffic volumes along existing Ore 99W, it will need to be expanded to a 5-lane cross-section to handle projected traffic volumes. These higher traffic volumes and the wider roadway will, in turn, undermine the City's objective to restore its small town livability and enable more pedestrian friendly community development in its downtown core along Ore 99W. Consequently, any option that results in the need for construction of a 5-lane cross-section along existing Ore 99W in Dundee within the 2025 planning horizon is unacceptable to the citizens and leadership of the City of Dundee.
- The Southern Bypass will have a much less detrimental impact on livability to Dundee residents along Edwards Road if it is located further eastward. Hence, the City's adopted position was for an alignment as close as possible to the Willamette River.

The bypass, under any of these options, would need to be a four-lane section to satisfy 2025 traffic volumes. The bypass *may* be operated as a toll facility. Included in this alternative are eventual provision of express buses, turning lanes and other operational improvements at selected locations

along Ore 99W, and a moderate level of transportation management measures, although none have been specifically identified for Dundee at this time.

- In any of the bypass cases, the existing Ore 99W right-of-way through Dundee would likely be reclassified by ODOT to a District Highway, with decreased access spacing requirements and minor increases in the maximum allowable volume-to-capacity thresholds. This is possible because the bypass would allow most through and regional traffic to avoid travel through downtown Dundee. The bypass would be classified as the Statewide Highway/Expressway in the corridor. Another possible alternative may be for the City of Dundee to assume ownership and authority for existing Ore 99W through an Intergovernmental Agreement. A decision about whether or not the City would take ownership of the existing Ore 99W after the construction of a bypass would involve numerous factors including: condition of the roadway, maintenance costs, and ODOT's need for an alternative route to the bypass in the case of an incident or emergency.

5.4 OTHER TRANSPORTATION ELEMENTS

While the majority of travel in and around the City of Dundee is affected by Ore 99W problems, the City faces issues related to many other transportation elements. The following section describes many of the multi-modal issues for which priorities and choices are to be made.

5.4.1 Existing Ore 99W

As discussed in the Future Conditions section, without a bypass, congestion on existing Ore 99W will worsen over time. In recognition that construction of a bypass will likely take a decade or more to complete, a preliminary investigation was conducted of alternatives to address this traffic congestion. A variety of alternatives were examined, including:

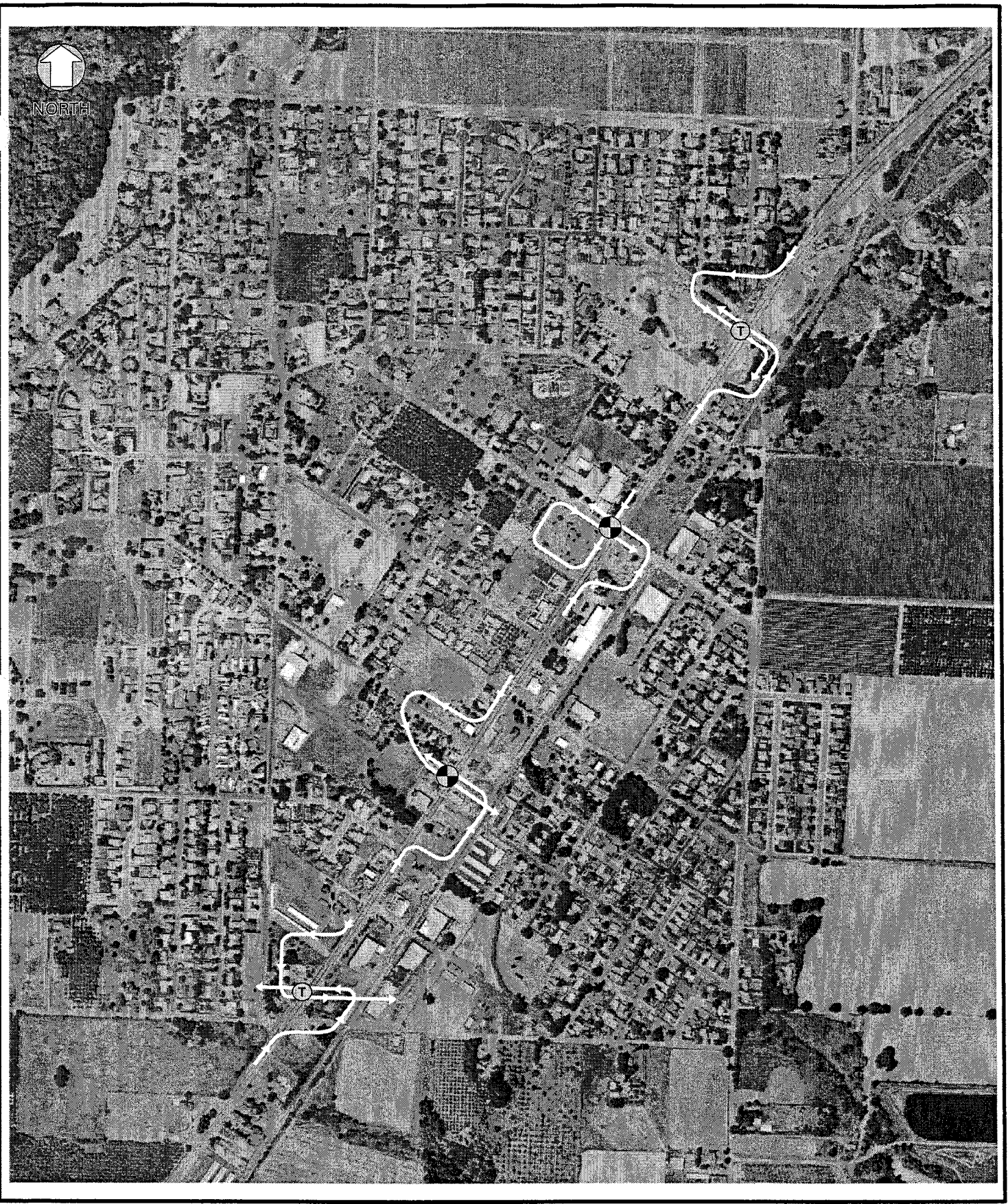
- **No Build:** This alternative would maintain the highway through Dundee as it is today. The three-lane cross-section within Dundee currently operates at full capacity with long queues many hours of the day, thereby not meeting the OHP volume-to-capacity threshold.
- **One-way Couplet:** This alternative would separate westbound traffic from eastbound traffic, each to be carried on different streets. One possible option would involve the existing Ore 99W serving westbound traffic and Maple Street serving eastbound traffic, with the two one-way streets diverting from the two-way section in the vicinity of Fox Farm Road (on the north) and in the vicinity of Niederberger-Parks Roads (on the south). Based on existing traffic volumes, a minimum of two lanes in each direction would be required to provide adequate traffic operations. Any of the couplet options would involve substantial impacts on existing development and livability, much of which would be unneeded once the bypass is complete, if an interchange is constructed between Newberg and Dundee and it reduces traffic in Dundee to the extent indicated by the current analysis. Because of the potential community and livability impacts, the DTAC does not recommend any additional consideration of this alternative.
- **Widen to Five-lanes:** This alternative would involve widening the existing highway to five lanes. This alternative would require significant widening of the highway. The existing right-of-way (in some places as narrow as 60 feet) would not accommodate additional travel lanes, bicycle lanes/shoulders, and sidewalks. Two options were considered in this preliminary analysis. One involved relocating the bicycle lane to adjacent local streets (thereby requiring only a 12-foot widening of the highway), and the other involved retaining the existing bike lanes (thereby requiring a 24-foot widening). Without widening the highway, it would be necessary to either do without bike lanes or sidewalks. In either case, as with the one-way

couplet alternative, the five-lane alternative would result in substantial community and livability impacts that would be unnecessary if the bypass is constructed with an interchange between Newberg and Dundee and traffic volumes are reduced as projected. At community meetings held in April and September 2001, Dundee residents and officials strongly opposed this approach because of the likely community development and livability impacts. Because it would not meet Dundee's community development and livability objectives, the DATC does not recommend any further consideration of this alternative.

- **Four-lane with Jughandle/Loop Circulation:** This alternative would involve creating a four-lane section within the existing right-of-way with two travel lanes in each direction with left turns prohibited. Left turn maneuvers would be converted to a series of non-congested movements using the local Dundee system. A system of local streets would be used (or constructed, where necessary) to facilitate movements as right turns or local street left turns, eventually crossing the highway as through movements at traffic signals. This option would require the installation of traffic signals at 1st and 10th, and possibly at Niederberger-Parks to facilitate the "converted left turn" movements. Figure 5-3 shows a possible configuration of this alternative, for illustrative purposes. This alternative would significantly alter accessibility for Dundee residents and businesses by the prohibition of left turns. Because of significant concerns about the operational viability of this option and its impacts on access, the DTAC does not recommend any further consideration of this alternative.
- **Reversible Lanes:** This alternative would involve providing two travel lanes for the peak period in the eastbound direction in the morning and in the westbound direction in the evening. There are numerous hours of the day in which queues occur in both directions on Ore 99W within Dundee today. Implementing this kind of approach would also require prohibition of left turn movements and significantly diminish accessibility for Dundee residents and businesses. The DTAC determined that this alternative is not an appropriate solution given these conditions.
- **Sunken Grade:** This alternative would involve widening Ore 99W to accommodate six travel lanes and depressing it below grade throughout Dundee, between the railroad tracks and the existing Ore 99W alignment. Local street crossings would be provided via wide landscaped bridges that would be at ground level. This kind of facility would handle all of the traffic demand in the Ore 99W corridor without a new bypass corridor in Dundee. The end result would be a facility that is at least 25 feet deep and 100 to 150 feet wide through the current center of town. It would also require removal of all existing development between Ore 99W and the railroad tracks. This was a major community concern about this alternative. Concerns were raised about the feasibility of engineering such a facility in this location as several residents commented on the high water table in this area. Finally, the cost of this kind of facility was estimated to be at least \$35 to \$40 million, just within Dundee. At community meetings held in September 2001, Dundee residents and officials strongly opposed this approach because of the community development and livability impacts, likely engineering difficulties, and probable high cost. Consequently, the DTAC does not recommend any further consideration of this alternative.

In recognition that even if a bypass is selected and funded, it will probably take at least a decade to construct, a refinement plan should be conducted for the Ore 99W as part of the NDTIP design-level EIS process. Although no actions beyond possible minor improvements to the existing 3-lane cross-section have been deemed acceptable by the DTAC at this time, this refinement plan should attempt to identify actions to address the poor operating conditions (including bicycle and

pedestrian) on the existing Ore 99W in the interim period. It should also address what to do with Ore 99W after a bypass is constructed. The refinement plan is discussed further in Section 6.



4-LANE WITH JUGHANDLE/LOOP CIRCULATIONS

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FIGURE
5-3



5.4.1 Roadway Connectivity

Part of the reason why the Ore 99W issue is so critical to Dundee is that many of the trips within the City of Dundee use Ore 99W as a connection between two locations on the same side of Ore 99W. One of the major objectives in improving local street connectivity is to provide alternate routes that allow local trips to avoid using the highway. However, improved local street connectivity could conceivably attract "cut-through" traffic if the congestion on Ore 99W is not substantially reduced. Cut-through trips occur when drivers leave a main route and look for a shortcut around congestion. There were two street connectivity alternatives developed for consideration.

The first alternative is the no-build alternative. There is no benefit gained with this alternative aside from continuing to make cut-through trips more difficult. It should be noted that improving local street connectivity does not necessarily lead to an increase in cut-through trips if the local improvements are designed with features that discourage through trips (truck postings, smaller corner radii, offset intersections, etc.). This is particularly true if a driver's motivation to leave a main route is eliminated by reducing congestion on the main route. In any case, even with connectivity improvements, the local Dundee streets will not be an attractive alternative to travelers on Ore 99W.

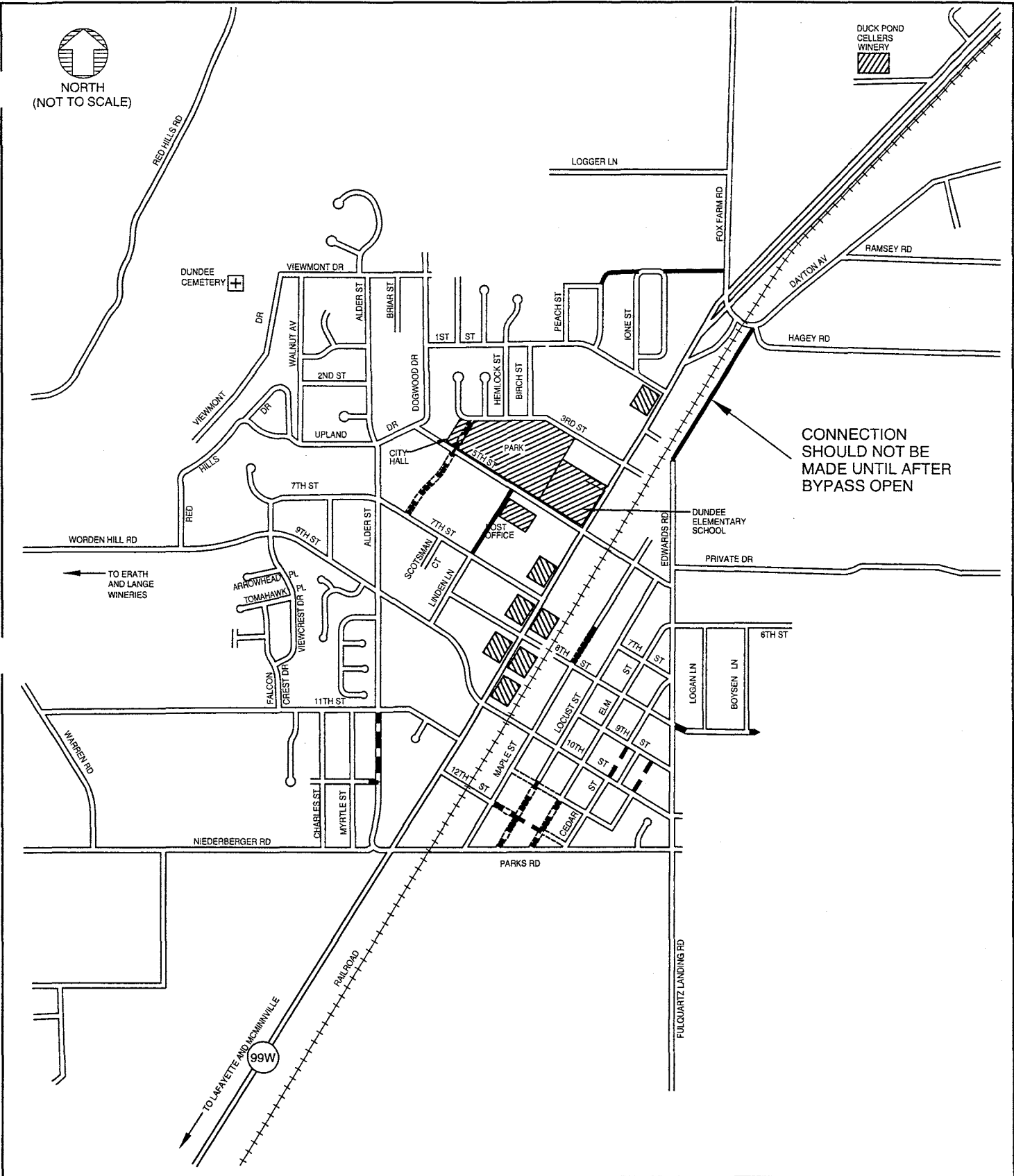
The second alternative is a focused building program designed to improve connectivity parallel to Ore 99W to eliminate unnecessary use of the highway for local trips. The Future Transportation Conditions chapter identified several key roadway links that can provide parallel connectivity. These roadways are identified in Figure 5-4. The length for each roadway segment is presented in Table 4. As shown in Table 5-1, about 1.1 miles of new streets would be constructed to provide a good parallel system to Ore 99W in Dundee.

**TABLE 5-1
 CONNECTIVITY CANDIDATE ROADWAY SEGMENTS:
 ORE 99W PARALLEL FACILITIES**




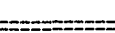
Roadway Name	Location	Length (feet)
Linden Lane	From 7 th Street to 5 th Street	990
	From 5 th Street to 3 rd Street	840
Maple Street	From 8 th Street to 7 th Street	560
Unnamed Connection	From Fox Farm Road to Ione Street	805
	From Ione Street to Peach Street	590
Dayton Avenue or Edwards Road	From 2 nd Street to Hagey Road*	2060
Total		5845

* This connection is not to be made until after bypass in open.

In addition to the roadways listed above, there are numerous places where the existing grid system could be expanded. Some of these suggested connections are also shown in Figure 5-4. Most of these roadway segments are in as yet undeveloped areas, and could be completed when the areas are developed. Note that the segments in this category are representative of a large class of potential roadways, and this list does not identify all such candidates. Dundee's development code requires that local streets be connected through as a part of new developments. This provision in the code should be maintained. The Dundee development code should require that a well-connected local street system be built in undeveloped property as development occurs. How this policy gets implemented will be addressed in changes to Dundee's local development ordinances.



LEGEND

-  PARALLEL CONNECTIVITY ORE 99W
-  GRID SYSTEM CONNECTIVITY
-  KEY ATTRACTORS
-  PLANNED STREETS

**ROADWAY CONNECTIVITY SYSTEM
ALTERNATIVES CONSIDERED**

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FIGURE
5-4



Figure 5-4 shows a roadway connectivity system need between Fox Farm Road and Ione Street (included in Table 5-1 above as “Unnamed Connection”). The DTAC carefully considered this connection, and dismissed it because it would potentially negatively impact the residential neighborhood along Ione Street by providing a cut-through route from Fox Farm to 1st Street.

In summary, local street connections in Dundee might be improved as follows:

1. The City should require developments to make half-street improvements adjacent to their development.
2. Those local connecting streets that will serve as parallel streets to Ore 99W should be implemented in concert with Ore 99W improvements. The City should work in partnership with ODOT to fund these improvements, in recognition that they will improve Ore 99W operations.
3. The City should identify and prioritize those local streets that will not be constructed by adjacent development. A portion of the City’s street budget should be dedicated to constructing the highest candidates on this list.

5.4.2 Bicycle

Existing Bicycle Facilities

Shown in Figure 5-5 are locations of existing and potential bicycle lanes along collector and arterial streets within Dundee. For reference, the locations of potential bicycle attractors are also shown, including the Dundee Elementary School and Park.

As shown in Figure 5-5 bike lanes are provided along both sides of Ore 99W through Dundee. The only other place where bike lanes are provided is along the north side of 5th Street from City Hall to the Dogwood Drive-Upland Drive intersection. Apart from Ore 99W, all roadways within Dundee carry less than 3,000 ADT and therefore do not require bike lanes according to the criteria set forth in the *Oregon Bicycle and Pedestrian Plan*. According to the 2025 traffic forecasts, aside from Ore 99W only 5th Street (from Alder to Edwards) and Edwards Road (south of 5th Street) will carry volumes in excess of 3,000 ADT.

Bicycle Alternatives

The alternatives for bicycle improvements are shown by facility type and are intended as a mix/match listing. Elements from alternatives can be combined to provide the best plan for Dundee.

Bicycle Routes

Under existing conditions, exclusive-striped bicycle lanes are only required on Ore 99W under the criteria set forth in the *Oregon Bicycle and Pedestrian Plan*. Under forecast 2025 conditions, traffic volumes are estimated to exceed 3,000 ADT on 5th Street and Edwards Road south of 5th Street. Other collector streets with relatively higher traffic volumes include Parks Road and 10th Street. As they will be classified as collectors under the proposed functional classification system, these roadways would also be candidates for bicycle lanes. The decision regarding bike lanes on collector streets should be determined concurrently with the decision regarding roadway cross-sections. Alternatives for bicycle lanes are discussed below.

- ***No-Build Alternative:*** The first alternative for bicycle lanes is the no-build alternative. Under this alternative, only Ore 99W and the section of 5th Street currently equipped with a bike lane

would have designated bike lanes. This alternative will serve the city adequately because, even when the city population grows to the point where 5th Street and Edwards exceed 3,000 ADT, bikes can be accommodated within the local streets' traveled way, without designated bike lanes.

- *Sign-only Collectors Alternative:* The second alternative is to designate all collector streets in Dundee as bike routes, and provide signing-only to indicate this to bicyclists. This relatively low cost measure would provide a basic bicycle network.
- *Sign-and-Stripe Collectors:* A third alternative is to provide bicycle lanes on all collector roadways. This would require dedicating a minimum of five feet on each side of collector streets to be used for bike lanes. Based on a 34-36 foot curb-to-curb section, this would displace the opportunity for parking on these collector streets.

Other Bicycle Facilities

Currently employers within Dundee are not specifically required to provide special bicycle facilities (i.e. bike racks, on-site showers, lockers, etc.). However, the Employee Commute Option (ECO) rule, administered at the state level, requires that employers of greater than 50 employees to provide a plan to reduce single-occupant vehicle trips to their establishments. These plans encourage employers to provide multi-modal travel options for employees; the bicycle mode is a primary candidate for reducing vehicular travel in Dundee. Hence, it is reasonable to assume that for large employers in Dundee, there will be requirements to encourage bicycle travel. Currently, there are no employers of greater than 50 employees in Dundee.

There are three basic approaches to additional bicycle facilities (such as bike racks, showers at places of work, etc.).

Laissez Faire Alternative: The first is for the City to allow the provision of bicycle facilities to occur as they are today, with no specific government regulation. This approach would have virtually no affect on the status quo. As large employers emerge in Dundee, the ECO rule would likely result in increased bicycle facilities on their sites.

Bicycle Facility Requirements for New Developments Alternative: The second approach is to set requirements that must be met as part of new development. For instance, all buildings with employment or visitation beyond a certain number of persons per day can be required to provide bicycle racks. Buildings that employ certain numbers of people (say 25) can be required to provide shower facilities to encourage bicycle commuting. These measures can be part of the City's development code and will result in bicycle facilities being built at all new or redeveloped locations meeting the criteria decided on by the city.

Bicycle Facility Requirements for Existing and New Development Alternative: The third option builds on the second. In addition to requiring that all new development provide certain levels of bicycle equipment, the city can encourage retrofitting of existing sites. The city can provide monetary or logistical support to property owners wishing to add bicycle facilities to their sites. For instance, the city could fund a grant program that helps business owners install bicycle racks. Alternately, the city maintenance department could purchase and install bicycle racks for business owners who request them and meet certain criteria for suitability (perhaps based on number of customers/employees). This option requires the highest level of city administration and funding. However, bicycle racks are relatively inexpensive on a per unit basis.

5.4.3 Pedestrian

The technical analysis and public comments identified the following types of pedestrian needs, the locations of which are shown in Figure 5-5:

- Gaps in the existing sidewalk network
- Improved pedestrian crossings

Additional needs not shown in Figure 5-5 include:

- Additional street lighting
- Access to transit stops
- Transit shelters
- Improved signing

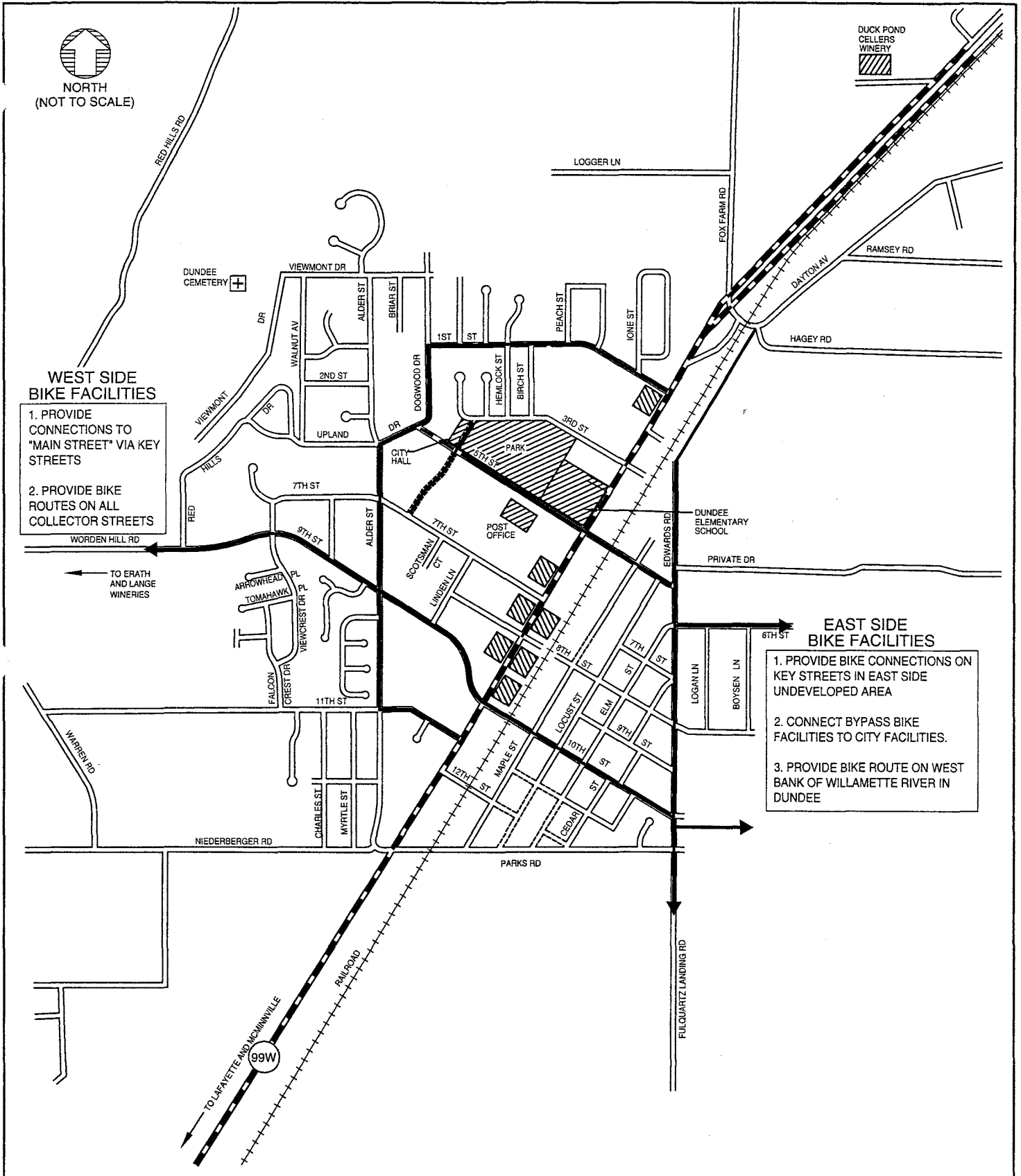
Pedestrian Alternatives

For the purpose of deciding the appropriate level of pedestrian improvements for Dundee, alternative levels of system pedestrian facilities are presented and evaluated in this section. The alternatives for pedestrian improvements are shown by facility type. Elements from alternatives may be combined to provide the best plan for Dundee.

Sidewalks

There are four identified alternatives for sidewalk development within the City of Dundee. A brief description of each alternative is listed below. These alternatives assume that the City's requirements for property development will result in installation of new sidewalks on all street frontage wherever development occurs.

- **No-Build Alternative:** Under this alternative, the City of Dundee would not directly build any new sidewalks. This alternative would result in no new costs to the City for sidewalk improvements. Sidewalk development will take place as the result of new roadway construction and property development along existing roads. Table 5-2 lists the sidewalk segments that may be built as a result of development under the no-build alternative. Table 5-3 shows the sidewalks that can be expected to be built as part of new roads in the City. As these streets are constructed, the City's street standards call for sidewalks on both sides, as itemized in this table.
- **Minimal Build Alternative:** This alternative consists of sidewalk development in areas that provide maximum benefits in terms of use and sidewalk connectivity for minimal cost. This alternative focuses on providing a sidewalk on one side of all collector streets, and does not involve the City building sidewalks where property development may provide them in the future. The *Minimal Build Alternative* is shown in Figure 5-6 and the potential sidewalk improvements included in this alternative are listed in Table 5-4.
- **Medium Build Alternative:** This alternative involves the City constructing sidewalks in all locations suggested in the *Minimal Build Alternative*, and in addition, fills out the collector street system so that there are sidewalks on both sides of all collector streets (except where streets are on the UGB). In addition, certain key connectors between major pedestrian generators, such as sidewalks to the park and school, are included. The City sidewalk build locations are listed in Table 5-5.
-



BICYCLE ROUTE NETWORK

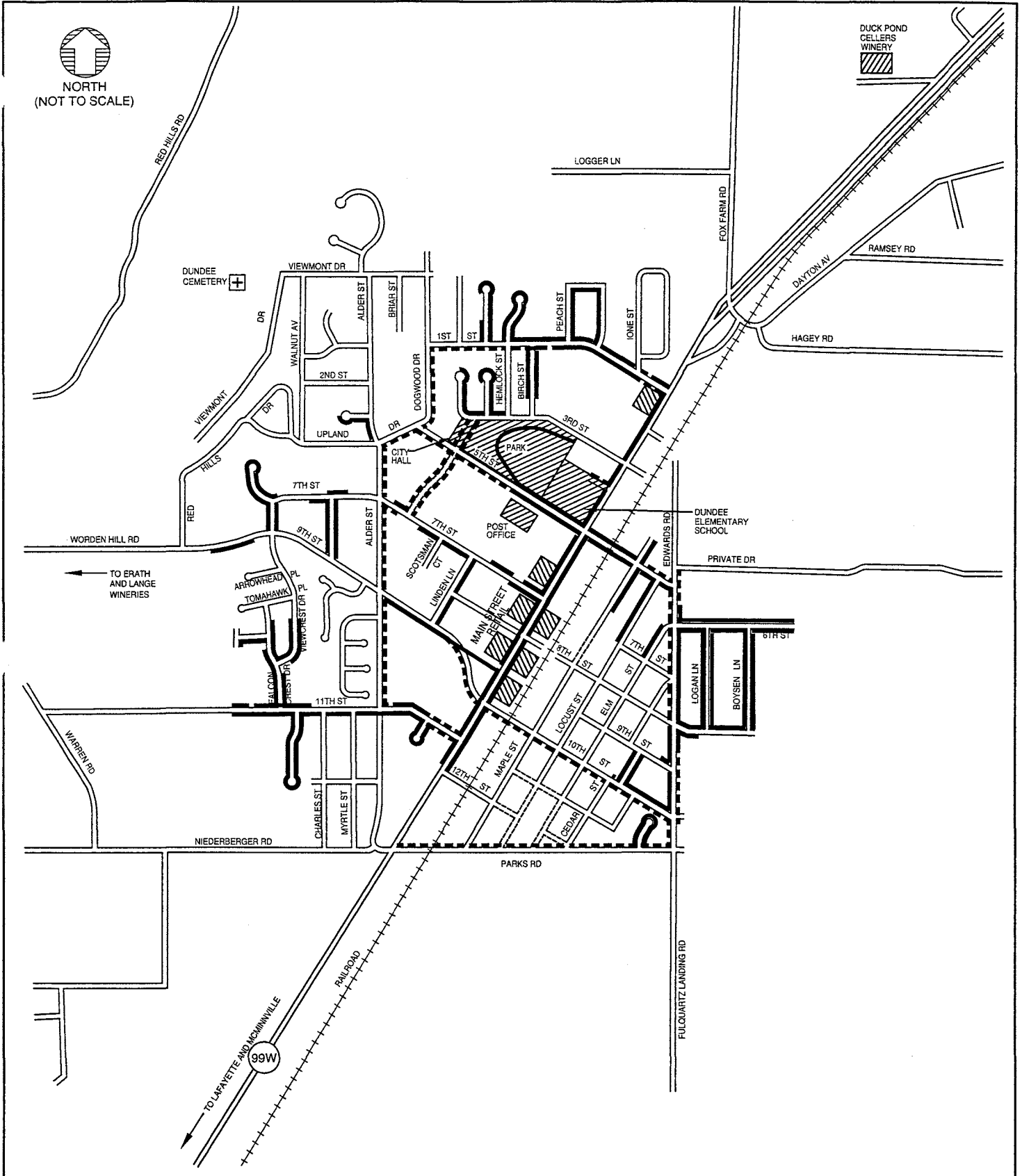
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

FIGURE

5-5





LEGEND

-  EXISTING SIDEWALKS/CROSSWALKS
-  DESIRED FUTURE PEDESTRIAN CONNECTIONS
-  KEY ATTRACTORS
-  PLANNED STREETS

SIDEWALK INFILL SYSTEM NEEDS

DUNDEE TRANSPORTATION SYSTEM PLAN
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FIGURE
5-6



- Full Sidewalk Alternative:** This alternative consists of full sidewalk development on all existing roads within the City of Dundee. Due to the absence of sidewalks on many of the local streets within Dundee, and the economic, environmental, and social cost of retrofitting sidewalks, this alternative was not seriously considered. It would likely not even be desirable for the City to consider the provision of sidewalks on all local streets at any cost, due to the potential physical and environmental impacts. It is likely that this alternative would require double or triple the cost of the *Medium Build Alternative*. As a result, cost estimates were not developed for this alternative.

All sidewalk cost estimates are based on an assumption of \$35 per linear foot for a six-foot sidewalk and curb. An additional \$35 per linear foot was added to account for storm sewer and other drainage issues that must be addressed when adding a curb and gutter to an existing roadway, and a 50% contingency was added to account for unforeseen circumstances. In locations where drainage is not an issue, the cost of a sidewalk will be closer to \$35 per linear foot (1/4 of the estimated cost shown). As a part of a new sidewalk plan, the City should stage new projects strategically (i.e. potentially construct the lower cost, higher use sidewalks first). As a result, the first sidewalk development projects will place more linear feet of sidewalk per dollar.

**TABLE 5-2
 SIDEWALKS TO BE BUILT ALONG EXISTING ROADWAYS UNDER THE DEVELOPER-ONLY
 BUILD ALTERNATIVE**

Street	Description	Length (feet)	Cost
1 st St	Undeveloped between Ore 99W and lone St	150	Cost to be borne by developer
3 rd St	North side opposite west end of park	200	
5 th St	South side where not developed	1,250	
7 th St	Both sides where not yet developed	1,100	
8 th St	North side between Elm St and Maple St	550	
9 th St	South side west of Falconcrest	500	
10 th St	South side one lot near Edwards Road	40	
11 th St	North side proceeding west from Ore 99W	200	
12 th St	New alignment between Maple St and Cedar St	1,500	
lone St	Two lot frontages	180	
Dogwood Dr	West side undeveloped properties	500	
Alder St	East side Undeveloped	1,150	
Hemlock (north)	West side undeveloped	220	
Falconcrest	Undeveloped frontage on Falconcrest and side streets off of Falconcrest	900	
Maple St	West side between the extensions of 6 th and 7 th Avenue East Site between 11 th St and Parks Rd	200 700	
Locust St	Undeveloped frontage between 7 th St and 8 th St	550	
Elm St	Undeveloped frontage on west side north of 8 th St	100	
Hwy 99W	East Side undeveloped properties north of 5 th St	550	
Total		10,540	

Note: The elements included in this table are illustrated in Figure 6-4 in the Transportation System Plan section.

**TABLE 5-3
 SIDEWALKS TO BE BUILT AS PART OF NEW ROAD PROJECTS**

Street	Description	Length (feet)	Cost
New	Collectors west of Edwards Road	18,000	Cost to be borne by developer
New	3 rd St to 7 th St Connection (past City Hall)	2,200	
New	Connection from Ore 99W to Alder St south of 11 th	850	
1 st St	Connection between Dogwood Dr and Alder St	1,050	
7 th St	7 th Street connection west of Alder St	450	
9 th /10 th St	9 th /10 th Street Realignment 11 th St between Maple St and Elm St	1,800 1,000	
11 th St	Both sides of connection between Maple St and Elm St	1,000	
12 th St	Both sides of connections between Maple St and Locust St and between Elm St and Cedar St	1,100	
Locust St	Extension of Locust St to Parks Rd	1,400	
Elm St	Extension of Elm St to Parks Rd	1,000	
Maple St	Connection between 8 th St and 7 th St	1,000	
Total		30,850	

Note: The elements included in this table are illustrated in Figure 6-4 in the Transportation System Plan section.

**TABLE 5-4
 CITY CONSTRUCTED SIDEWALK SEGMENTS UNDER MINIMAL BUILD ALTERNATIVE**

Street	Description	Length (feet)	Cost
1 st St	South side between Dogwood Dr and Birch St	700	\$73,500
3 rd St	South side park frontage - connect to existing trail	300	\$31,500
5 th St	North Side along Park frontage to Dogwood Dr South Side between Locust St and Edwards Drive	1,200 120	\$126,000 \$12,500
10 th St	North side between Ore 99W and Cedar St	1300	\$136,500
Alder St	West side between 11 th St and Upland Dr	2,350	\$247,000
Upland Dr	South Side between 5 th and Alder St	300	\$31,500
Dogwood Dr	North Side developed properties	300	\$31,500
Parks Rd	North side between Hwy 99W and Edwards Rd	1,500	\$157,500
Edwards Rd	West side between Parks Rd and 10 th St West side between 8 th St and 5 th St	250 1,050	\$26,000 \$110,500
Hwy 99W	West side between Neiderberger Rd and 12 th St	800	\$84,000
Total		10,170	\$1,068,000

Note: The elements included in this table are illustrated in Figure 6-4 in the Transportation System Plan section.

**TABLE 5-5
 ADDITIONAL CITY CONSTRUCTED SIDEWALK SEGMENTS UNDER MEDIUM BUILD
 ALTERNATIVE**

Street	Description	Length (feet)	Cost
1 st St	North side from Carmel Circle to Dogwood Dr North side near lone St	700	\$73,500
		200	\$21,000
3 rd St	South side from Ore 99W to park	500	\$52,500
5 th St	North side from Maple St to Edwards Rd South side from Dogwood Dr east	350	\$37,000
		100	\$10,500
9 th St	North side from Alder St to Linden Ln	500	\$52,500
10 th St	South side from Ore 99W to Edwards Rd	1,900	\$199,500
Alder St	East side developed lots between Upland Dr and 11 th St	1,700	\$178,500
Edwards Rd	From 5 th Street south to existing sidewalk	300	\$31,500
Upland Dr	South side developed properties	150	\$16,000
Hwy 99W	West side between Parks Rd and 12 th St West side developed frontage north of 5 th St	800	\$84,000
		850	\$89,000
Subtotal for Medium Build segments not included in Minimal Bld		8,050	\$845,500
Total City Cost for Medium Build Alternative			
Subtotal for Minimal Build segments		10,170	\$1,068,000
Subtotal for Medium Build segments not included in Minimal Build		8,050	\$845,500
Total		18,220	\$1,913,500

Note: The elements included in this table are illustrated in Figure 6-4 in the Transportation System Plan section.

Potential New Facilities in East Undeveloped Dundee

There are two potential new roads that, if developed, would include key new bicycle and/or pedestrian facilities:

- *Statewide Expressway:* This new facility, for which a Locational Environmental Impact Statement is currently underway, will have associated pedestrian and bicycle facilities. These facilities will provide vehicular access to Dundee through interchanges outside the community, and will connect to Newberg (to the north) and McMinnville-Lafayette (to the south). No direct vehicular access will be provided to Dundee. However, bicycle facilities will be provided on the bypass, and these bike facilities will likely provide access to Dundee. Pedestrian crossings of the bypass would likely be provided at collector street grade crossings.
- *River Front Drive:* The concept for a facility like this would include a multi-purpose bicycle-pedestrian pathway along the Willamette River (see the *Street System Plan*).

It should be emphasized that these facilities are not yet officially recognized as planned facilities in this document. When a decision is made through the NDTIP process about a preferred alignment for the expressway, this TSP will have to be amended to recognize that decision. The same will be true for River Front Drive when and if it becomes part of a development proposal.

Crosswalks

Pedestrian crossing across each approach to an intersection is permitted unless there are signs prohibiting crossing. For low-volume roadways, crosswalks need only be striped in areas where crossing would not be normally permitted (mid-block) or where particular emphasis on the right of pedestrians to cross is needed (near schools or other high pedestrian volume locations). Crosswalks should be striped on all signalized intersections. Identified locations for crosswalk striping are listed below:

- Mid-block crosswalk on 5th Street to connect the post office with school and park.
- Striping of all crosswalks on collector streets at Ore 99W approaches.

Traffic Signals

Traffic signals are recommended on Ore 99W at Fox Farm Road, 9th Street-10th Street and at Niederberger Road-Parks Road (see the street system plan for details). Signals at these locations and 5th Street will provide for safe and convenient crossing of Ore 99W at regular intervals. A traffic signal is currently warranted, based on existing traffic volumes, at the Fox Farm-Dayton Road intersection. A traffic signal at the realigned 10th Street intersection would be likely needed in the mid-term (say 5-10 years), and the Niederberger-Parks Road intersection would likely require signalization in the longer term (beyond ten years). Traffic volumes should be monitored at these locations, and traffic signals should not be installed until traffic signal warrants are met, as specified in the *Manual for Uniform Traffic Control Devices*. Installation of traffic signals on ODOT highways require that criteria set forth in OAR 734-020 be met.

Current signal design practice will ensure that pedestrians are adequately accommodated at the signalized intersections. Given the low traffic volumes elsewhere in the City of Dundee, signalized pedestrian facilities are not recommended.

5.4.4 Transit

The City of Dundee Transit Plan has been developed to examine modal choices for travelers in the City in the context of those services that are currently provided and planned. The analysis presented in this section documents the alternatives considered in the provision of transit facilities and services in the City.

Existing Transit Services

Several public transportation services are provided within the City of Dundee. The Newberg School District operates school buses within Dundee and nearby areas, taking children to and from the Dundee Elementary School and schools located in Newberg. Greyhound Bus Lines makes limited daily stops in Dundee, providing intercity service throughout the country via the major cities of Oregon. The Chehalem Valley Senior Citizens Council (CVSCC) operates LINKS, a commuter service that connects McMinnville with Meridian Park Hospital in Tualatin and makes scheduled stops in Dundee. CVSCC also operates a dial-a-ride service for elderly and disabled citizens of Newberg and Dundee. In addition, Dundee residents can take advantage of carpooling resources provided by Mid-Valley Rideshare.

Type of Service: There are currently two separate transit services that provide service in and around the City of Dundee. The first is the LINK public bus. The LINK bus provides service between Sherwood and McMinnville with a stop in Dundee. The same agency also provides dial-a-

ride service for seniors and disabled persons throughout the area. In addition, the agency operates the LINK express, which is a shuttle service between Nap's IGA in Newberg and the Hillsboro MAX Station.

Route: The LINK public bus operates on Ore 99W and Highway 18 between Sherwood and Dayton, and then makes a loop consisting of Ore 99W and Highway 18 between Dayton and McMinnville. Dial-a-ride is flexible in route and is designed to meet the needs of its users. The LINK express shuttle does not stop between Newberg and the Hillsboro MAX.

Operating Hours: LINK public bus service operates 6 westbound buses that pass through Dundee between 5:07 a.m. and 6:51 p.m. and 6 eastbound buses that pass through between 5:55 a.m. and 7:40 p.m. The LINK express shuttle travels from Newberg to Hillsboro and back leaving Newberg at 6:00 a.m. and 4:55 p.m. Dial-a-Ride operates between 8:15 a.m. and 4:30 p.m.

Cost: Difficult to discern the portion attributable to Dundee of the total operating cost from Sherwood to McMinnville

Operating Agency: Chehalem Valley Senior Citizens Council (CVSCC)

Additional Info: LINK bus ridership data shows that ridership is relatively low out of Dundee. The LINK bus management requests advance notice of rider pick-ups in Dundee. The LINK bus does connect with Tri-Met in Sherwood.

Future Bus Transit Needs

Future bus transit needs could include expanded regional and intercity commuter services, park-and-ride lots, and intra-city service, as well as more widespread awareness of the existing Mid-Valley Rideshare carpool program. The *Yamhill County Transportation System Plan* identifies the following potential transit needs in the county:

- Transit commuter service between Newberg and McMinnville (including Dundee) and from Newberg and McMinnville to Portland and Salem (intercity bus or rail)
- Development of a County rideshare program to encourage carpooling and reduce unnecessary vehicle travel
- Local enhancements to intermodal connectivity

Planned Transit Facilities/Services as part of NDTIP Statewide Expressway

Each Build Alternative includes the potential implementation of the following transit elements as part of the overall State Expressway NDTIP project:

- A moderate (30-minute peak, 60-minute off-peak) level of express bus service, including park-and-ride lots and local buses in the Ore 99W corridor. (Mid term implementation).
- Improve Ore 99W corridor bus system to serve the express bus transit stops. (Mid term implementation).
- Concentrate park-and-ride lots to support express and local bus service in the Ore 99W corridor (Mid term implementation).

- Utilize local buses to feed the inter-city express bus system.
- Consider a commuter rail line from McMinnville to the proposed Wilsonville / Beaverton commuter rail line. (This could replace express bus service over the long term).

Over the long-range future, these services are planned for potential implementation as part of the NDTIP Statewide Expressway project.

Dundee Transit Alternatives Considered

In addition to the assumed transit services associated with the NDTIP bypass, this section discusses alternatives to be considered by Dundee.

No Build Alternative

This alternative assumes no change in the existing transit service within the City of Dundee. The only potential beneficiaries for this option are those who would receive no benefits from new transit service, but who would pay the additional taxes that would be needed to expand and support transit.

Route: Maintain existing service with no future transit facility developments.

Operating Hours: No change from existing conditions.

Cost: None

Operating Agency: No change from existing conditions.

Future Transit Implementation Alternative

This alternative involves maintaining the existing level of transit service; however, this alternative also involves planning for future transit development through the dedication of existing right-of-way (bus, rail, other). This alternative serves any future benefactors of transit service (both riders and drivers who may marginally benefit from reductions in traffic volumes as a result of transit).

Route: Possible routes include: Collector streets within the City of Dundee and Ore 99W.

Operating Hours: Probably weekdays for about 8 hours (9 a.m. to 5 p.m.)

Cost: TBD (right-of-way and transit center land costs)

Operating Agency: City of Dundee

Additional Info: The second option is to continue at the current level of transit provision, but to plan and in some cases provide supporting infrastructure for transit, in order to make startup of transit at some later date easier. The types of actions possible include transit-friendly designs of roadways, setting aside of properties for use as a transit center and/or transit maintenance facility, setting aside right-of-way and easements for bus shelters. Another possible planning measure is to set aside or zone for rail facilities along the rail line through town.

Dundee Local Transit Service Alternative

Type of Service: Local bus and shuttle services throughout Dundee. The major demographic served by this service are persons without vehicles who use transit to accomplish errands, etc. Typical ridership consists of children, seniors, disabled and low-income persons.

Route: Fixed route on local collector street network.

Operating Hours: 9 a.m. to 5 p.m. or 6 a.m. to 9 p.m.

Transit Center: none

Cost: Assuming one bus and a part time city employee to handle public relations, dispatching and administration, the cost is estimated at \$160,000 per year with cost variations depending on operating hours, size of bus, etc. , Operating Agency: City of Dundee

Additional Info: This alternative consists of only local service. Due to the City of Dundee's current relatively small size, low population density and lack of adequate street connectivity, a rather unusual approach may be warranted. Rather than operating a fixed route service, it may be better to specify major attractions in Dundee (post office, wineries, grocery stores) as fixed stops. As part of this alternative, the bus would visit the attractions in a set order at fixed times, but would not be required to follow a particular route. A phone-in system would allow for riders to request a pick-up from their homes when the bus is in the vicinity.

Alternately, a loop route could be set up through Dundee, and it may be possible for a single bus to provide high-frequency service throughout the core area of Dundee.

Dundee-Newberg Transit Service Alternative

Type of Service: Bus and/or shuttle service between Dundee and Newberg. The major demographic served by this service are persons without vehicles who use transit to accomplish errands, etc. Typical ridership consists of children, seniors, disabled and low-income persons, although some commuters may be captured if the service is offered in commute time periods.

Route: Ore 99W

Operating Hours: 9 a.m. to 5 p.m. or 6 a.m. to 9 p.m.

Transit Center: none

Cost: Assuming a single bus and administrative support, \$160,000 per year (plus or minus depending on hours of operation). For two buses, the cost will be \$280,000 (depending on hours).

Operating Agency: City of Dundee, Newberg, and Yamhill County

Additional Info: This alternative consists of bus service between Newberg and Dundee, connecting the two towns via Ore 99W. There are several possible permutations of this service or any other bus service.

The first element subject to variation is the frequency and hours of transit service. For a short route such as this one, it may be possible to offer headways of 45 to 60 minutes using a single bus.

Adding additional buses could increase the frequency of service. In addition to the frequency of service, the hours of service will determine the staffing needs. If hours of operation extend beyond an eight-hour workday, it will be necessary to hire at least one extra driver per bus. If commuters use the bus, service will need to extend into the evening to serve the work-to-home trip.

The second element subject to variation is the bus route. The most simple bus route would be one running from the center of Dundee to the center of Newberg via Ore 99W and returning. Another option is a bus route that makes a loop in either Newberg or Dundee (or both). Longer routes will reduce the frequency of service that can be offered using the same number of buses. Further study should be done to determine if route deviation would be beneficial as part of this service.

This service would likely attract more riders if it were a part of a larger bus network within Newberg.

Dundee-Portland Transit Service Alternative

Type of Service: Bus and/or shuttle service between Dundee and Portland (Sherwood). This type of service benefits commuters who live in Dundee and work in Portland (or vice versa).

Route: Ore 99W

Operating Hours: 5:30 a.m. to 8:00 p.m.

Transit Center: Dundee station would likely consist of some type of park-and-ride facility.

Cost: Dundee to Sherwood service with 2 buses should cost roughly \$280,000 per year. Service to Portland would likely require 4 or more buses and cost roughly \$520,000 per year. In addition, the land and facilities for the park and ride would result in a significant start up cost. This cost could exceed a million dollars depending on the size of the park-and-ride facility, amenities offered, and right-of-way.

Operating Agency: City of Dundee, City of Newberg, City of Sherwood, Yamhill County, possibly Tri-Met

Additional Info: This alternative consists of transit bus connections to downtown Portland. There are several options for how this could be operated. The first is to operate a dedicated bus line that runs all the way from downtown Dundee directly to downtown Portland. Depending on frequency, this could provide a very high level of service to downtown Portland due to the lack of transfers. However, the length of the trip to Portland would preclude operating the same bus for the trip more than once in the peak period, requiring additional buses to provide a reasonable frequency of service.

Another alternative is to run the service to the nearest connection point with Tri-Met (probably Ore 99W in Sherwood) and let passengers proceed from there via Tri-Met. This will work best if coordinated with Tri-Met on both a schedule and fare basis. There are two Tri-Met express lines (94X and 95X) that provide express service from Sherwood to downtown Portland. The total trip time on either line is roughly 50 minutes, and the departure headway is 10 to 15 minutes. Assuming random arrivals of buses from Dundee, the average wait for an express bus should be between 5 and 8 minutes. If the trip from Dundee to Sherwood takes 30 minutes, and there is an average wait of 5 minutes in Dundee, the total travel time from the bus stop in Dundee to

downtown Portland will be on the order of magnitude of 1 hour and 40 minutes. Of this time, between 10 and 25 minutes will be spent waiting at a bus stop. Research indicates that the perception of time is much greater at a bus stop than on a bus. It is likely that a direct express with no stops beyond Newberg could reduce the travel time by 10 to 20 minutes with larger reduction in perceived travel time (that is, the trip will seem even shorter).

It may be possible for Newberg and Dundee to work with Tri-Met to financially support such a bus line in exchange for Tri-met being the operator. The result would be Dundee receiving the advantage of Tri-Met's economies of scale, while the passengers experience fare compatibility and easier connections. The challenge in this case would be to find a reason for Tri-Met to be supportive of such a partnership.

This service would most likely operate through the center of Dundee on Ore 99W, and include stops in Newberg. Due to the commuter nature of this demand, it is likely that stops will be limited in both Newberg and Dundee.

Rail Transit Alternative

Type of Service: Rail

Route: Existing rail network

Operating Hours: Most likely 6 a.m. to at least 9:00 p.m. Monday through Friday with reduced weekend hours

Transit Center: Park and Ride

Cost: Rail cars are in excess of \$400,000 each. Maintenance and any track improvements necessary are likely to be expensive. In general, rail transit provides a high level of service at a high cost.

Operating Agency: Probably not the City of Dundee or City of Newberg – most likely Tri-Met, or a completely new multi-jurisdictional agency.

Additional Info: The rail transit alternative consists of implementing passenger service on the railway running through downtown Dundee. This is not a project that will be financially feasible for Dundee to undertake as anything but a very minor partner. However, if other jurisdictions decide to pursue this option, it may be desirable for Dundee to support their efforts. The existing rail right-of-way through Dundee could be used for passenger service. A rail station located anywhere between 3rd Street and 12th Street would provide excellent access to rail transit for all of Dundee.

If rail transit seems like a reasonable possibility, it may be wise to regulate land use along the rail tracks in such a manner that it is easy to add a rail station.

Paratransit service may need to extend the full length of the rail transit corridor, and would likely be provided under the same agency as the rail transit service.

Cost Estimates and Funding Sources

Costs for transit are dependent on a large number of factors so the numbers presented are estimates, and only estimates. The actual costs depend on the operating parameters of the service. The estimates quoted in each alternative are based on annualized costs of \$120,000 per year per bus. This includes the costs of drivers, maintenance and annualized costs of buying and eventually replacing the bus. Full size transit buses cost between \$150,000 and \$250,000, and have a lifespan of 12 to 15 years. Smaller mini-buses have smaller initial costs, but tend to last a shorter period of time (3-5 years), thereby narrowing the cost benefit as compared to a larger bus. Operating costs excluding bus purchase cost are roughly \$100,000 per year. It is assumed that any transit operation will require at least one part or full time employee within the city offices.

Paratransit will need to be provided in conjunction with all transit services. The Americans with Disabilities Act (ADA) mandates that disabled persons be provided bus service in areas in which public transportation is provided to the general public. Accordingly, the LINK service that is current in place has been assumed to meet this requirement.

**TABLE 5-6
 COST ESTIMATES**

Alternative	Operational Costs		Transit Infrastructure Costs*	Paratransit Costs
	Bus Costs	Admin Costs		
No Build	0	0	None	None
Future Transit	0	0	Depends on level of Commitment	None at this time
Dundee Local Transit	\$120,000/yr	\$40,000/yr	Minor	Low
Dundee-Newberg Service	\$240,000/yr	\$40,000/yr	Minor	Medium
Dundee-Sherwood Commute Service	240,000/yr	\$40,000/yr	Mostly related to any land costs for a Park-and-Ride Facility	Medium
Dundee-Portland Commute Service	\$480,000/yr	\$40,000/yr		Depends on form of service – most likely Medium to High
Rail Transit	\$3,000,000		\$112,000,000	Medium-Low

*Transit infrastructure includes bus stop equipment, transit center land, bus parking area, etc.

There are several potential funding avenues for transit service. The first option is to form a transit district. However, it is unlikely that Newberg and Dundee together will meet the minimum population of 50,000 for organizing a transit district within the 20-year planning horizon.

Another option is for Tri-Met to annex Newberg and Dundee into its transit district. This is unlikely to happen because there is little for Tri-Met to gain by annexing Newberg and Dundee. The relatively small population base and low population densities (even with significant increases in both factors over the 20-year planning horizon) will not likely result in routes that recover enough costs to justify their operation. In addition, the level of service likely to be offered in Newberg and Dundee is likely to be less than could be obtained by using the same funds as part of a local transit district.

Finally, any rail transit provided will likely be part of a regional effort, and the City of Dundee can assess the cost to the city as part of any proposed rail transit effort at the time when the proposal is made. Near term costs may include setting aside a rail transit station location if one becomes available.

5.4.5 Rail

AMTRAK

The closest AMTRAK passenger rail stations are located in Portland and Salem. Provision of improved passenger rail service to Dundee should be supported by the City, although it would be beyond the financial capability of the City to provide this service.

RAIL FREIGHT

The Willamette & Pacific Railroad (WPRR) operates one line through the City of Dundee for the movement of freight. Track conditions meet state guidelines. Industrial-zoned land abuts the rail lines, providing opportunities for potential customers to locate next to rail service.

Increases in use of rail facilities, either for transit or for freight could raise the following issues or needs:

- Safety improvements associated with grade crossings
- Potential for additional usage of existing lines
- Additional noise and other physical intrusions that trains create in urban areas
- Safety of mixing freight/transit and passenger service in the same corridor

These issues should be dealt with in a manner specific to the proposed change in rail use. At this time there are no approved or firmly proposed plans to change the use of the rail facilities in the City of Dundee.

Section 6

Transportation System Plan

Transportation System Plan

6.1 INTRODUCTION

This section presents the individual elements that comprise the City of Dundee Transportation System Plan. The TSP addresses those components necessary for the development of the future transportation network including:

- Street Plan
- Local Street Plan
- Pedestrian and Bicycle System Plan
- Transit Plan
- Air/Water/Pipeline System Plan

The transportation components presented in this section were developed to address the requirements of Oregon's Transportation Planning Rule (TPR). These recommendations have been developed in accordance with the findings presented in the existing and future forecast conditions analysis, the alternative analysis, and the interest of the citizens, business owners, and governmental agencies within the City of Dundee, as expressed by the Dundee Resource Team, DTAC, City staff, and citizen input provided during project meetings.

6.2 TRANSPORTATION GOALS AND OBJECTIVES

Established at the outset of the TSP planning process, the transportation goals and objectives provide guidance and direction for the development of the City of Dundee's transportation system over the next twenty years. A total of nine goals have been developed in the categories of system capacity and mobility, livability, coordination, travel options, accessibility, environment, timely provision and funding of transportation facilities and services, safety, and economic development. Under each of these goals are objectives that further help to measure the success of the plan in goal achievement. These goals and objectives were created by the DTAC to guide the development of the TSP. Section 2, presented earlier, describes the associated action items that will help define how each specific goal and objective will be accomplished. Immediately following the DTAC goals and objectives are a set of transportation goals, objectives and policies that were adopted by the Planning Commission and City Council for inclusion in the Dundee Comprehensive Plan.

Goal 1: System Capacity and Mobility

Provide and maintain a transportation system that serves the travel needs of all Dundee residents, businesses, and visitors, and minimizes the adverse impact of through travelers on Dundee.

Objective 1-Improve System Connectivity

Objective 2-Conduct Facility Management

Objective 3-Minimize Congestion

Objective 4-Provide/Support Travel Choices

Goal 2: Livability

Provide and maintain a transportation system that fosters a pleasant, small city and preserves and enhances existing neighborhoods and businesses.

Objective 1-Improve Mobility

Objective 2-Minimize Disruptions to Neighborhoods and Businesses

Objective 3-Enhance Economic Vitality

Objective 4-Manage Transportation Facilities

Objective 5-Minimize Energy, Social, Environmental and Economic Impacts

Objective 6-Improve Pedestrian Facilities

Objective 7-Improve Bicycle Facilities

Goal 3: Coordination

Develop and maintain a transportation system that is consistent with and supports the goals, objectives, and visions of the Dundee community, participating and affected agencies, the county, and the state.

Objective 1-Support Adopted Local Land Use Plans

Objective 2-Provide for Appropriate Inter-jurisdictional Communication

Objective 3-Achieve Consistency with State and County Plans

Objective 4-Practice Public Outreach

Goal 4: Travel Options

Develop and maintain a transportation system that encourages, supports, and incorporates a variety of multi-modal travel options.

Objective 1-Improve Bicycle Facilities

Objective 2-Improve Pedestrian Facilities

Objective 3-Support Transit and Rail System Development

Objective 4-Improve Truck Access and Circulation

Goal 5: Accessibility

Provide and maintain a well-connected transportation system that serves the needs of all members of the community and ensures adequate and efficient accessibility for all acknowledged land uses, and available modes of travel.

Objective 1-Link Recreation and Other Local Destinations

Objective 2-Comply with ADA Requirements

Objective 3-Support Local Land Use Plans

Objective 4-Manage Transportation Facilities

Objective 5-Provide/Support Travel Choices

Goal 6: Environment

Provide and maintain a transportation system that preserves, protects, and supports the social, natural, and cultural environment of the Dundee community.

Objective 1-Minimize Energy, Social, Environmental and Economic Impacts

Goal 7: Timely Provision & Funding of Transportation Facilities and Services

Develop reasonable and effective funding and financing strategies and priorities to ensure that the future transportation facilities and services called for in the TSP are provided to support community development and acceptable transportation operations and safety.

Objective 1-Identify Full Range of Potential Funding Sources

Objective 2-Match Fund Sources to System Improvement and Maintenance Needs

Objective 3-Prioritize Improvement Needs

Objective 4-Phase Needed Improvements

Objective 5-Acquire and Preserve Right-of-Way Needed for System Improvements

Objective 6-Require Mitigation of Public and Private Development Transportation Impacts

Goal 8: Safety

Develop and maintain a transportation system that protects the health and safety of transportation system users.

Objective 1-Reduce Vehicle Crashes

Objective 2-Reduce Transportation-Related Injuries

Objective 3-Improve Pedestrian Facilities

Objective 4-Improve Bicycle Facilities

Goal 9: Economic Development

Provide and maintain a transportation system that supports the economic vitality of the Dundee community.

Objective 1-Accommodate Freight Movement to Support Local Businesses

Objective 2-Provide for Convenient Parking and Access to Local Businesses

Objective 3-Provide Transportation Choices that Support Employers and Employees

Objective 4-Minimize Transportation Conflicts between Neighborhoods and Businesses

Objective 5-Improve Bicycle and Pedestrian Circulation

In addition to the goals and objectives developed by the Dundee Transportation Advisory Committee during the development of the TSP, the Planning Commission and City Council adopted additional goals, objectives and policies that apply to the overall transportation system, to the Newberg-Dundee Bypass, and to the alternative modes of the plan. These goals, objectives and policies have been adopted into the Dundee Comprehensive Plan, and in addition, are included below.

GOAL

To provide and encourage a safe, convenient, aesthetic and economical transportation system, addressing the needs of all citizens within the community.

OBJECTIVES

- A. The development of a well-connected street network that is safe, accessible and efficient or motorists, pedestrians, bicyclists and the transportation disadvantaged.

- B. Preserve the aesthetic quality of the community.
- C. The construction of a safe, continuous and direct network of streets, accessways, and other improvements, including bikeways, sidewalks, and safe street crossings to promote safe and convenient bicycle and pedestrian circulation within Dundee.
- D. Develop policies for the location and improvement of arterials, collectors, local streets and sidewalks.
- E. Improve the transportation links within the region as well as other regions of the state, while encouraging alternative transportation mode for commuters.

POLICIES

A. General Transportation Network

- 1. The designated arterial and collector streets of the street network will be used to assist in prioritizing street development and maintenance.
- 2. The City of Dundee shall protect the function of existing and planned roadways as identified in the Transportation System Plan. This policy recognizes the proposed new street locations are conceptual in nature and the actual dedication and installation of improvements shall comply with applicable regulations, including environmental provisions.
- 3. All development proposals, plan amendments, or zone changes shall conform with the adopted Transportation System Plan.
- 4. The City of Dundee shall include a consideration of their impact on existing or planned transportation facilities in all land use decisions.
- 5. Transportation facility siting and design shall be done in a manner that will minimize adverse effects on the existing land uses and natural features.
- 6. The City of Dundee shall protect the function of existing or planned roadways or roadway corridors through the application of appropriate land use regulations, exactions, voluntary dedication, or setbacks.
- 7. New direct access to Highway 99W shall be granted only after consideration is given to Oregon Department of Transportation access management standards, land use and traffic patterns in the area of development, and not just at the specific site. Common driveways and other access management techniques shall be encouraged to coordinate traffic and land use patterns and these shall be implemented wherever feasible.
- 8. The City shall coordinate development and revisions of its transportation systems plan with the Oregon Department of Transportation and Yamhill County. Improvements listed in ODOT's Statewide Transportation Improvement Program that affect Dundee shall be consistent with the City's Transportation System Plan and Comprehensive Plan.

9. Off-street parking shall be provided by all land uses to improve traffic flow, promote safety, and lessen sight obstruction along the streets.
10. The City shall develop a Capital Improvement Program to identify and prioritize transportation projects.
11. All City streets shall operate at a Level of Service standard "D" or better during the 20-year planning period. When the LOS drops to "E," actions will be initiated to return the street to LOS D.
12. The City of Dundee shall work with Oregon Department of Transportation on a continual basis to have a traffic signal installed at the Parks Road/Highway 99W and 10th Street/Highway 99W intersections as soon as possible.
13. Through the refinement plan process, the City of Dundee will investigate the potential of developing a unique streetscape plan for the community's downtown, including the potential for establishing a Special Transportation Area consistent with ODOT regulations.

B. Newberg-Dundee Bypass

1. The City shall coordinate with the Oregon Department of Transportation, Yamhill County and other affected agencies regarding the location and construction of the Newberg-Dundee Bypass.
2. The City shall encourage the selection of a bypass alternative that ensures sufficient traffic is diverted from Highway 99W through Dundee to allow the remaining traffic to be served by two travel lanes within the Transportation Plan's planning horizon.
3. The City shall encourage the new by-pass design to provide adequate public access - including pedestrian, bicycle, vehicle and recreational - to the Willamette River.
4. The City shall encourage the new bypass design to incorporate adequate buffering and physical separation between the new highway, and, public access to the Willamette River and existing residential neighborhoods.
5. Improvements for street connectivity within the City, including alternative linkages to adjacent communities, shall not occur until such time the bypass is in operation.
6. The land use decisions regarding the location of the proposed Newberg-Dundee Bypass shall be made through a subsequent amendment to the Dundee TSP. As part of this process, the City recognizes Newberg and Yamhill County will need to amend their TSPs to authorize a bypass corridor, and, Yamhill County must take an exception to Statewide Planning Goal 12 to authorize a new transportation facility in rural lands.

C. Pedestrian and Bicycle Facilities

1. In areas of new development the City of Dundee shall investigate the existing and future opportunities for bicycle and pedestrian accessways. Existing accessways such as user

trails established by school children distinguish areas of need and should be incorporated into the transportation system.

2. Bike lanes and/or sidewalks shall be included on all new arterials and collectors within the Urban Growth Boundary, as referenced by the Transportation System Plan.
3. Sidewalks shall be included on all new streets within the Urban Growth Boundary, as referenced by the Transportation System Plan.
4. Where feasible, bikeways and pedestrian accessways shall connect to local and regional travel routes.
5. Bikeways and pedestrian accessways shall be designed and constructed to minimize potential conflicts between transportation modes. Design and construction of such facilities shall follow the guidelines established by the Oregon Bicycle and Pedestrian Plan.
6. Maintenance and repair of existing bikeways and pedestrian accessways (including sidewalks) shall be given equal consideration to the maintenance and repair of motor vehicle facilities.
7. To achieve a safe, continuous and direct network of sidewalks and bikeways, one of the City's priorities is to construct these facilities on the streets depicted on the Pedestrian/Bicycle Plan Map as incorporated within the Transportation System Plan.
8. The City of Dundee shall consider the potential to establish or maintain accessways, paths, or trails prior to the vacation of any public easement or right-of-way.
9. Where possible and financially feasible, the City will upgrade existing substandard sidewalks.

D. Public Transportation

1. The City shall encourage the creation of a customer-based and oriented regionally coordinated public transit system that is efficient, effective, and founded on present and future needs.
2. Promote regional planning of public transportation services and encourage the use of innovative technology to maximize efficiency of operation, planning and administration of public transportation.
3. The City encourages the development of a daily transit shuttle service to the major activity centers in Newberg and McMinnville as well as the Portland and Salem metropolitan areas.

E. Rail and Pipeline Transportation

1. The City shall coordinate land use planning adjacent to the Willamette and Pacific Railroad facilities in order to promote industrial development with rail access.
2. The City will work with the local rail operator, the Oregon Department of Transportation and other affected agencies or businesses to improve the at-grade railroad crossings within the community.
3. The City supports the concept of commuter rail service serving the West Valley and providing connections with the Portland metropolitan area. If passenger rail service does become a reality, the City will encourage the development of a passenger rail depot in Dundee, including necessary Development Ordinance revisions to permit construction.
4. The City supports activities that maintain adequate pipeline operations such as natural gas service into, within and through Dundee.

6.3 STREET SYSTEM PLAN

The City of Dundee street system plan reflects the anticipated operational and circulation needs through the year 2025 and provides guidance on how to best facilitate travel over the next 20-25 years. The plan was completed in two steps. First, the current functional classification system was reviewed and, where appropriate, recommendations were made for changing classifications and design standards associated with each facility type. Based on this initial step, street cross-sections and design standards were developed for the future modernization of existing streets, and the future construction of new streets. Second, the key issue of street connectivity was addressed, to provide for adequate circulation for both auto and other modes.

6.3.1 Dundee Functional Classification Plan

The purpose of classifying streets is to create a mechanism through which a balanced transportation system can be developed that facilitates mobility for all modes of transportation. A street's functional classification determines its intended purpose, the amount and character of traffic it is expected to carry, the degree to which non-auto travel is emphasized, and the street's design standards. It is imperative that a street's classification considers the adjacent land uses and the transportation modes that should be accommodated. The public right-of-way must also provide sufficient space for utilities to serve adjacent land uses.

The functional classification system for the City of Dundee establishes four functional categories to address the City's needs for mobility and accessibility. These categories include: statewide expressway (future), arterials, collectors, and local streets. Table 6-1 provides a detailed description of each category.

**TABLE 6-1
 DUNDEE FUNCTIONAL CLASSIFICATION DESCRIPTIONS**

Functional Classification	Description
Statewide Expressway ¹	Primary function is to serve regional and statewide through traffic; traffic is high speed and has no access within Dundee; separate bike facilities are preferred where possible; no parking is allowed; will serve statewide and regional transit.
Arterial	Primary function is to serve both local and through traffic as it enters and leaves the urban area; distributes traffic to the collector street system; provides access to other cities and communities; serves major traffic movements; allows on-street

	parking under appropriate conditions; sidewalks and bicycle facilities required; may allow a right-turn pocket if warranted; will be used by public transit.
Collector ³	Primary function is to serve local traffic between neighborhoods and community facilities, principal carrier between arterials and local streets; provides degree of access to adjacent properties, while maintaining circulation and mobility for all users; carries lower traffic volumes at slower speeds than arterials; typically has two to three lanes; may contain some on-street parking; pedestrian and bicycle facilities are required; bicycle facilities may be exclusive or shared streets depending on traffic volumes, speeds, and extent of bicycle travel; may be used by public transit.
Parkway Collector ³	Primary function is to serve local traffic access to the Willamette River recreational area and community facilities; carries lower traffic volumes and slower speeds than arterials; may have on-street parking; typically has two travel lanes; generous pedestrian and bicycle facilities; bicycle facilities may be exclusive or shared with traffic; may be use by public transit.
Local Street ³	Primary function is to provide direct access to adjacent land uses; characterized by short street distances, slow speeds, and low volumes; offers a high level of accessibility; serves passenger cars, pedestrians, and bicycles, but not through trucks; may be used by public transit, pedestrian facilities are required.

Notes:

1. Planning is currently underway for the alignment of a new statewide highway bypass of Dundee to the southeast of the developed portion of the City. This is not yet an officially planned facility. This classification reflects the design elements currently under consideration in the NDTIP process. A final decision about whether or not this facility will be recommended will come from the NDTIP process. If such a facility is recommended, this TSP will be amended to recognize it as an officially planned facility.
2. The only arterial in Dundee is Ore 99W. Since this facility is under ODOT jurisdiction, its design is subject to ODOT design guidelines.
3. Street design standard – See Figures 6-2

Generally, the designated speed, daily traffic volume, and spacing of each of the facility types will increase with the hierarchy of the facility (starting with local streets and ending with the statewide expressway). The future *Statewide Expressway* is expected to operate at travel speeds in the 50 to 55 mile per hour range, and is expected to carry traffic volumes of 30,000 to 35,000 daily trips by the year 2025. The Statewide Expressway, with two lanes in each direction and limited access, will have capacity to carry as many as 50,000-60,000 daily trips.

In order to provide needed levels of mobility and accessibility to adjacent land uses, arterial, collector and local streets in Dundee should be spaced appropriately. This spacing is discussed in general below.

Arterials in urban areas are expected to operate at travel speeds in the 30-45 mile per hour range, providing capacity for 12,000 to 40,000 trips per day (depending on the number of lanes on the facility), and at typical spacings of ½ to 1-mile intervals. *Collectors* are expected to operate at travel speeds in the 25-30 mile per hour range, carrying 3,000 to 10,000 trips per day, and are typically constructed at ¼ mile spacings. *Local streets* are expected to operate at 25 miles per hour, carry less than 3,000 trips per day, and are spaced appropriately to provide direct access to local land uses.

Figure 6-1 presents the functional classifications for all existing and future streets within the Dundee planning area. The alignment for future streets should be considered conceptual: the end points of the streets are fixed, but the alignments between intersections may vary depending on design requirements at the time the street is constructed. Table 6-2 presents a summary of the statewide expressway, arterial and collector streets.

**TABLE 6-2
 STREET FUNCTIONAL CLASSIFICATION SUMMARY**

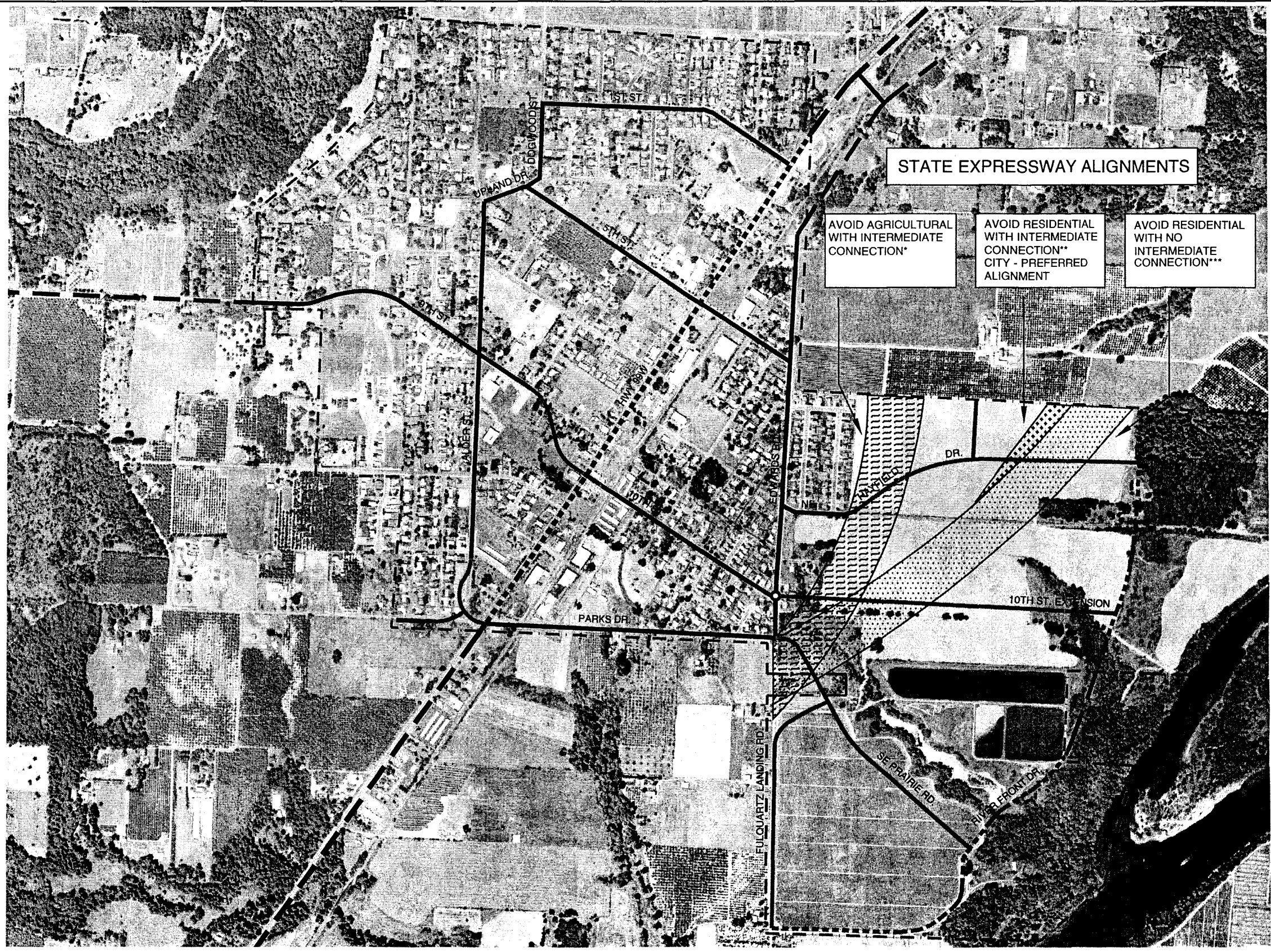
Statewide Expressway	
Future Ore 99W Statewide Expressway – North city limits to south city limits	
Arterials	
Ore 99W “Main Street” – North city limits to south city limits	
Parkway Collector	
River Front Drive – SE Fulquartz Landing Road to NE Hayfield Drive	
Collectors	
NE Hayfield Drive – Edwards Road to River Front Drive	10 th Street – Edwards Road to Hwy 99W
10 th Street Extension – Edwards Road to River Front Drive	9 th Street – Hwy 99W to west city limits
SE Prairie Road – Edwards Road to River Front Drive	Upland Drive – Alder Street to Dogwood Street
Fulquartz Landing Road – River Front Drive to SE Prairie Road	Dogwood Street – Upland Drive to 1 st Street
Edwards Road – North city limits to Parks Drive	1 st Street – Dogwood Street to Hwy 99W
Alder Street – Upland Drive to Parks Drive	5 th Street – Upland Drive to Edwards Road
	Parks Drive – Alder Street to Edwards Road

The proposed new expressway (bypass) was given a classification of its own – *Statewide Expressway* – in recognition of its unique high speed, limited access function. The statewide expressway will not be connected to the local road system within the city limits. None of the alternatives currently being considered in the Location Environmental Impact Statement for the Newberg-Dundee Transportation Improvement Project have access points within the City of Dundee. The only arterial in Dundee is Ore 99W, as it serves a “main street” function through Dundee.

While all statewide expressway alternatives under consideration are located southeast of Dundee, public sentiment in Dundee has indicated an overwhelming majority toward an alternative that is as close as possible to the Willamette River and as far as possible from developed Dundee. As shown in Figure 6-1, there are two distinct bypass alignments as they relate to Dundee. As a result of a number of public meetings that eventually led to a City Council recommendation, the *Avoid Residential* alignment is favored by the City. This alignment locates the statewide expressway as far eastward as feasible. The limiting factor defining how far the alignment can be located eastward is the floodplain to the north and the sewer lagoons to the south. Alternatively, the NDTIP process is still considering an alignment called the *Avoid Agricultural* alternative, which locates the new state expressway in close proximity to the Rolling Acres subdivision east of Edwards Road. This alignment is not favored by the City of Dundee.

The *Avoid Residential* Alignment has two distinct options as they affect Dundee. Alternative 3K in the NDTIP process does not include an intermediate connection to the existing highway between Newberg and Dundee. Accordingly, the transportation analysis indicates that in the absence of this connection the existing Ore 99W through Dundee would need to be five lanes (four travel lanes with center turn lane pockets). All other alternatives would have intermediate connections to the existing Ore 99W through Dundee, and would only require a three-lane cross-section on main street through Dundee. Based on the analysis to date, public input, and previously described positions taken by the DTAC, Planning Commission and City Council, Alternative 3K would not meet the City’s longer-term community development and livability objectives due to the need to widen Ore 99W to a five-lane cross-section through the downtown.

As noted earlier in this document, the City's position with regard to the potential statewide expressway bypass does not yet constitute a land use decision. At this time, the position taken by the City simply serves as their input into the NDTIP process as that process advances towards selection of a preferred bypass corridor. The City will not make a formal land use decision about this potential corridor and facility until a preferred alternative is selected through the NDTIP process. Inclusion of the selected alternative into the Dundee TSP will occur between identification of the preferred alternative and the publication of the Location Final Environmental Impact Statement.



STATE EXPRESSWAY ALIGNMENTS

AVOID AGRICULTURAL WITH INTERMEDIATE CONNECTION*

AVOID RESIDENTIAL WITH INTERMEDIATE CONNECTION** CITY - PREFERRED ALIGNMENT

AVOID RESIDENTIAL WITH NO INTERMEDIATE CONNECTION***

NOTE: COLLECTOR STREET SYSTEM SHOWN IN THE UNDEVELOPED AREA ARE FOR ILLUSTRATIVE PURPOSES ONLY. THESE ARE NOT OFFICIALLY PLANNED FACILITIES, AND DO NOT NECESSARILY PRESCRIBE EXACT LOCATIONS OF NEW COLLECTOR STREETS.

A DECISION ON THE LOCATION OF ANY OF THE STATE EXPRESSWAY ALIGNMENTS HAS NOT BEEN MADE AND WOULD REQUIRE A TSP AMENDMENT IN ORDER TO BECOME A LAND USE DECISION.

CORRIDOR ALIGNMENTS ARE APPROXIMATELY 300 FEET, WITH ROADWAY WIDTHS BETWEEN 100 AND 140 FEET.

LEGEND	
ARTERIALS	-----
COLLECTORS	=====
FUTURE COLLECTORS	=====
PARKWAY COLLECTOR	-----
ARTERIALS AND COLLECTORS OUTSIDE OF UGB	-----
CITY LIMITS	- . - . - .

STATE EXPRESSWAY ALIGNMENTS
 *INCLUDES NDTIP ALTERNATIVES 3C, 3D, 3G, 3H, 3I, AND 4C
 **NDTIP ALTERNATIVE 3J
 ***NDTIP ALTERNATIVE 3K
 ****SEE FIGURES 3a AND 3b FOR RECOMMENDED ALIGNMENTS OF FILBERT DR. FOR EACH STATE EXPRESSWAY ALIGNMENT

FUNCTIONAL CLASSIFICATION MAP

DUNDEE TRANSPORTATION SYSTEM PLAN
 DUNDEE, OREGON
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6.3.2 Street Design Standards

Street design standards are based on the functional and operational characteristics of streets such as travel volume, capacity, operating speed, and safety. They are necessary to ensure that the system of streets, as it develops, will be capable of safely and efficiently serving the traveling public while also accommodating the orderly development of adjacent lands.

The proposed street design standards are shown in Figure 6-2. This figure only shows the typical design standards for collectors, the parkway collector, and local streets, in recognition that the only arterial in Dundee, Ore 99W, is an ODOT facility and must meet ODOT's design guidelines. The typical street cross sections comprise the following elements: right-of-way, number of travel lanes, bicycle and pedestrian facilities, and other amenities such as landscape strips. This figure is intended for planning purposes for new street construction, as well as for those locations where it is physically and economically feasible to improve existing streets. Table 3 presents the standards in tabular form.

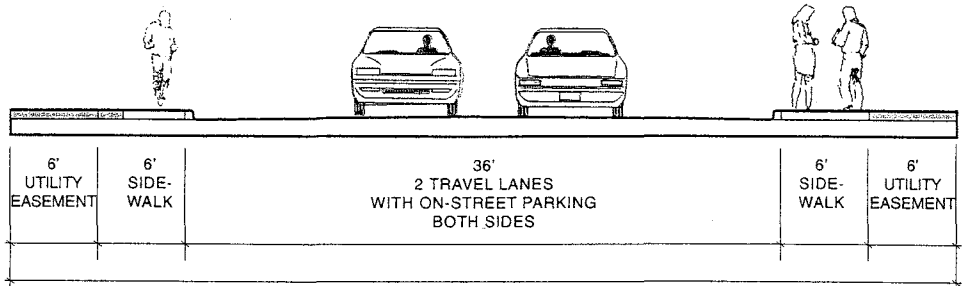
**TABLE 6-3
 FUNCTIONAL CLASSIFICATION DESIGN STANDARDS SUMMARY**

Street Classification	Minimum R-O-W (a)	Median Type	Street Improvement (ft)	Travel Lanes	Bike Lanes	Sidewalk	On-Street Parking	Planter Strip
Statewide Expressway (b)	120-150	Separated		4	Yes	No	No	ODOT
Arterials	ODOT	CL or Median	ODOT	ODOT	Yes	Yes	ODOT	ODOT
Collectors	60	Median, no CL	36	2	Yes	Yes	(c)	(c)
Parkway Collector (d)	70	No median	48	2	Yes	Yes	One-side	Yes
Local - I (e)	50	No median	26	2	No	Yes	One -side	No
Local - II (e)	60	No median	34	2	No	Yes	Yes	No
Cul-de-sacs	50	No median	34	2	No	Yes	Yes	No
Turnaround Radii	45	No median	38	NA	No	Yes	Yes	No
Alleys	15	No median	12	NA	No	No	No	No

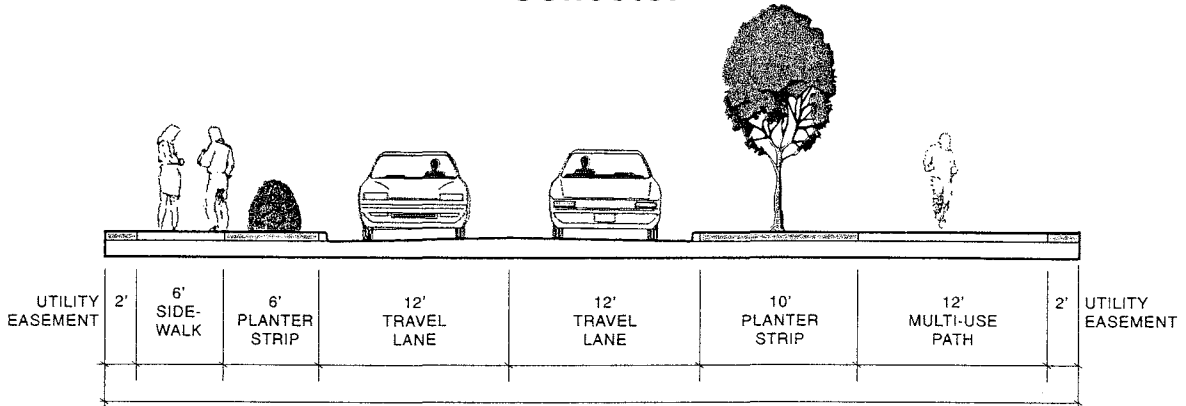
- (a) Additional right-of-way may be necessary due to topographical constraints or to accommodate additional left- or right-turn lanes at intersections
- (b) This classification reflects the design elements currently under consideration in the NDTIP process.
- (c) Improvements shall comply with provisions in the Dundee TSP. Where on-street parking is provided, the bicycle lane shall be shared with the traffic lane. Planter strips shall be installed when no on-street parking is provided.
- (d) This classification shall reflect the design element contained in the Dundee TSP.
- (e) The Local I shall be the standard for the City of Dundee, and shall be subject to the following:
 - i. The subject local streets shall connect with other streets and not terminate in a cul-de-sac. The street may "dead-end" provided there is potential to continue the connection through the adjacent property.
 - ii. Subdivisions and other developments using these standards shall be limited to blocks with a maximum of 400 feet in length.
 - iii. The street grade shall not exceed 4% for the length of the street.
 - iv. The Dundee Fire Chief shall determine the street design does not reduce the ability of vehicles to provide necessary emergency services.
 - v. The narrower street shall not be used to extend existing streets that contain wider right-of-ways and/or street improvements.

The developer shall construct the street to a Local II standard if the proposed local street improvement cannot meet all of the requirements noted above.

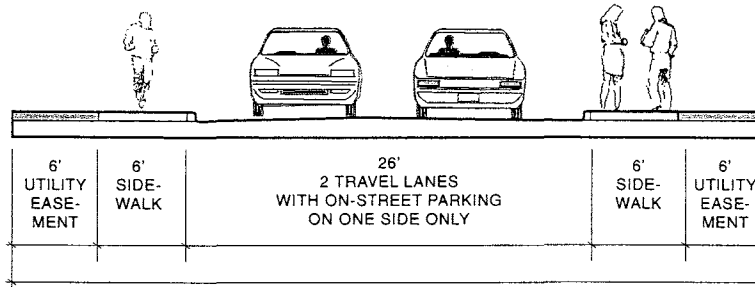
ODOT = This is an ODOT facility and the final design authority rest with ODOT.
 NA = Not applicable.
 CL = Center Lane



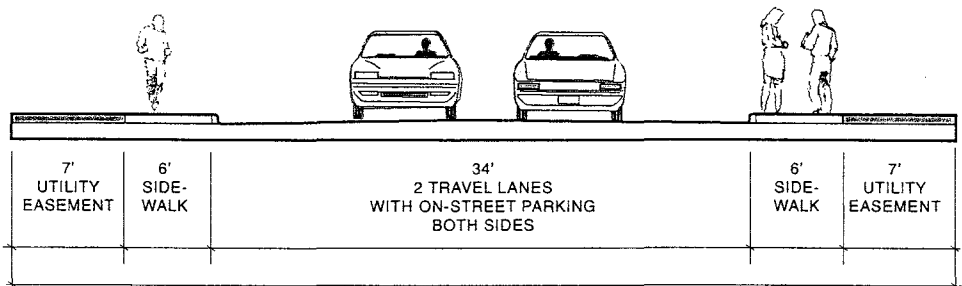
60'
Collector



70'
Parkway Collector



50'
Local Street I



60'
Local Street II

NOTE: In the event that the developer is willing to assume responsibility for a planter strip, an alternative local street cross section could include: 1' utility easment, 6' sidewalk, 6' planter strip, 6' sidewalk, and 1' utility easment.

STREET STANDARDS

DINDEE TRANSPORTATION SYSTEM PLAN
DUNDEE, OREGON
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FIGURE
6-2



River Front Drive is to be designated as a new functional classification called *parkway collector*. Figure 6-2 shows a typical cross-section for the proposed parkway collector. The intent of this facility is to provide a scenic route along the Willamette River that establishes a recreation-oriented and pedestrian friendly environment. Included in the proposed 70-foot right-of-way are a 24-foot travel way, on-street parking (on the side away from the river), planter strips, a sidewalk, and a multi-use path. The typical cross-section for the east side of the street has been developed to create a pedestrian-friendly environment. Included on the riverfront side of the street are an enlarged plant strip and a multi-use path. No on-street bike lanes are provided. More experienced bicyclists who are comfortable with traffic and moving at a faster pace are able to share the travel lane with motorists. The enlarged planter strip provides a buffer between traffic and the multi-use bike path. The planter strip is planned as a park-like space, providing resting places and recreational facilities to the community.

Figure 6-2 also shows the typical cross-section for local streets. Under its previous street standards, Dundee currently required a dedicated right-of-way of 60 feet for all local (and collector) streets. Within this 60-foot right-of-way, there is a 34-foot travel way, which will accommodate two travel lanes along with sufficient unstriped space for parking or bicyclists, straddled by six-foot sidewalks. The remaining seven feet on either side of the local streets would be designated as a utility easement, to be generally used as a continuation of the yard of the adjacent property.

In recent years increasing attention has been given to the concept popularly known as "skinny" streets. Simply stated, skinny streets are local, primarily residential roadways, that are constructed with a narrower pavement width than has become typical in most post-war subdivisions. Skinny streets typically have a 24' to 28' paved cross-section. Dundee's previous development code required a 34' paved cross-section for local streets. On-street parking is allowed on both sides of the street.

As an alternative to the local street standards previously in the Dundee development code, the City of Dundee supports the principle of "skinny streets" as a way to reduce the costs of construction, provide for more efficient use of urban land, and discourage inappropriate traffic volumes and speeds. In response to this need, the City has adopted an alternative standard to allow skinny streets. The Local - I street type allows for a 50-foot right-of-way and 26-foot curb-to-curb section, and shall meet the following factors:

- Topography
- Emergency access (in consultation with local fire and police)
- Connectivity with other local streets

The City of Dundee shall apply the following standards for the Local - I street type:

- The right-of-way shall be 50 feet
- The paved cross-section shall be a minimum of 26 feet
- Parking shall only be allowed on one side of the street
- Provisions for adequate pedestrian and bicycle circulation shall be demonstrated
- Options for adequate off-street parking shall be provided

*Adm
Language
is
different*

The City supports the concept of “green streets”. Green streets address the growing conflict between good transportation design, planned urbanization in rural areas and the need to protect streams and wildlife corridors from urban impacts. A green street can be defined as a street designed to:

- integrate a system of stormwater management within its right of way
- reduce the amount of water that is piped directly to streams and rivers
- be a visible component of a system of "green infrastructure" that is incorporated into the aesthetics of the community
- make the best use of the street tree canopy for stormwater interception as well as temperature mitigation and air quality improvement
- ensure the street has the least impact on its surroundings, particularly at locations where it crosses a stream or other sensitive area.

The design and construction of green streets is one component of a larger watershed approach to improving the region's water quality, and requires a more broad-based alliance for its planning, funding, maintenance and monitoring.

While green street concepts are supported by the City, they are not specifically identified in the City's street standards. The Dundee Planning Commission shall, on a case-by-case basis, consider developer requests to allow green streets within any new subdivision or planned unit development proposal.

6.3.3 Street Location & Access Standards

In addition to the cross-sectional requirements discussed above, this section discusses the locational, access, and spacing standards that should be adhered to.

Local street spacing should be a maximum of 600 feet apart based on maximum preferred block size from the Dundee Development Code (page 157), except along arterials, where the minimum spacing is 800 feet. For arterials, the current minimum spacing requirement is not consistent with either current block spacing or the Oregon Highway Plan (ODOT, 1999). Current block spacing on Ore 99W “main street” is typically about 375 feet. The Oregon Highway Plan specifies minimum block spacing of 770 feet for Ore 99W with its current designation as a *Statewide* highway. In recognition that the statewide expressway will serve the statewide function, the minimum access spacing standard on the current Ore 99W “main street” after its completion will be 400 feet (as is prescribed for a *District Highway* in the OHP), or 325 feet with a minor deviation from the standard. Assuming eventual construction of the statewide expressway, the current block spacing will be consistent with Oregon Highway Plan standards. It is recommended that the City modify its access spacing standards for arterials to be consistent with the access spacing standards from the Oregon Highway Plan that will be in place on Ore 99W once the statewide expressway is completed.

Based on the functional classification and the Dundee Development Code, the following guidelines are offered for new street development.

1. *Local streets shall be spaced at a maximum 600 feet apart, unless accessing Ore 99W, where Oregon Highway Plan access spacing requirements will control spacing. The OHP*

- allows continuation of existing street spacing where capacity or safety deficiencies are not identified.*
2. *Collectors shall be located wherever necessary to carry traffic volumes higher than local street standards, or where the street provides primary access to Ore 99W. In general, collectors should be spaced at no more than ¼ mile apart.*
 3. *New streets shall connect with existing streets as specified in the Dundee Development Code.*
 4. *New streets shall allow for future development based on the potential for development of adjacent parcels. If additional development can take place beyond a given property proposed for development, through streets for access shall be provided on the subject property under the provisions in the Dundee Development Code. The through roads provided shall be classified and built as collectors unless it can be shown that under a reasonable largest development situation that the traffic volumes will not exceed the local street standards.*
 5. *Exceptions to these standards shall be allowed on a case-by-case basis after review by the planning commission and city staff.*

6.3.4 The Dundee Development Code

In addition to the block size standard presented above, a review of the Dundee Development Code also revealed some relevant street and design standards. Page 91 of the Dundee Development Code includes the following design standards:

- A. *The location, width and grade of streets shall be considered in their relation to existing and planned streets, to topographical conditions, to public convenience and safety, and to the proposed use of the land to be served by the streets*
- B. *Development proposals shall provide for the continuation of existing streets, bikeways, and accessways where necessary to promote circulation for all modes in the vicinity of the development*
- C. *Alignment: All streets other than local streets or cul-de-sacs, as far as practical, shall be in alignment with existing streets by continuation of the centerline thereof. The staggering of street alignments resulting in "T" intersections shall, wherever practical, be avoided. If unavoidable, the "T" intersection shall leave a minimum distance of 200 feet between center lines of streets running in approximately the same direction. A "T" intersection having less than a 200-foot separation from the center line of another street shall be subject to the review and approval of the City Engineer.*
- D. *Future extension of streets: Where necessary to give access or to permit a satisfactory future development of adjoining land, streets, bikeways and accessways shall be extended to the boundary of a tract being developed and the resulting dead-end streets may be approved without turn-a-rounds. Reserve strips and street plugs may be required to preserve access.*
- E. *Intersection Angles: Streets shall be laid out to intersect at angles as near to right angles as practical except where topography requires a lesser angle, but in no case shall the acute angle be less than 60 degrees unless there is a special intersection design approved by the city engineer. Efforts should be made to achieve a 90-degree*

intersection angle, in recognition that the intersection will operate better, lines of sight are better, and it is advantageous for all users (cars, bikes, pedestrians, and buses). The intersection of an arterial or collector street with another street shall have at least 100 feet of tangent adjacent to the intersection unless topography requires a lesser distance, to be approved by the city engineer. Other streets, except alleys, shall have at least 50 feet of tangent adjacent to the intersection unless topography requires a lesser distance, to be approved by the city engineer. Intersections which contain an acute angle of less than 80 degrees or which include an arterial street shall have a minimum corner radius to allow for a minimum curb radius of 25 feet and maintain a uniform width between the street and the right-of-way lane.

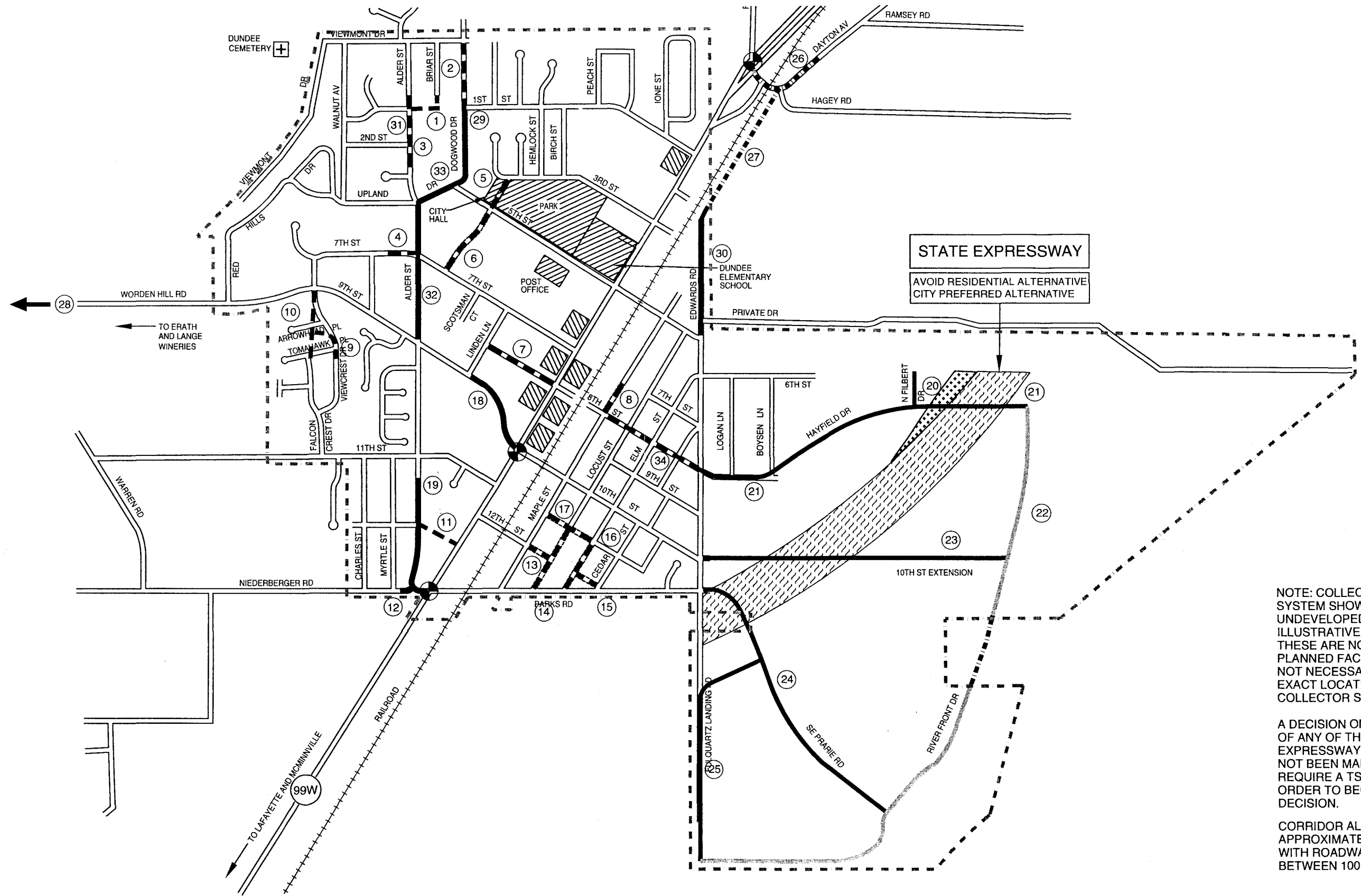
The Development Code provisions have been amended to affect these changes.

6.3.5 Street Improvements

As a product of two meetings with the Dundee Transportation Advisory Committee, City staff, and transportation analysis, potential street improvements to the City's local and collector street system were identified. This section lists the identified substandard streets and potential improvements with their estimated cost and funding source. Figure 6-3 shows the location of the proposed projects described in this section.

Proposed Local Streets

Numerous discontinuities exist in the street grid within Dundee, principally because properties along the discontinuities have not developed yet. The proposed local street improvements inside the Urban Growth Boundary include construction of parts of SE 1st Street, Briar Street, Alder Street,



NOTE: COLLECTOR STREET SYSTEM SHOWN IN THE UNDEVELOPED AREA ARE ILLUSTRATIVE PURPOSES THESE ARE NOT OFFICIAL PLANNED FACILITIES, AND DO NOT NECESSARILY PRESCRIBE EXACT LOCATIONS OF NEW COLLECTOR STREETS.

A DECISION ON THE LOCATION OF ANY OF THE STATE EXPRESSWAY ALIGNMENTS HAS NOT BEEN MADE AND WOULD REQUIRE A TSP AMENDMENT IN ORDER TO BECOME A LAND USE DECISION.

CORRIDOR ALIGNMENTS ARE APPROXIMATELY 300 FEET, WITH ROADWAY WIDTHS BETWEEN 100 AND 140 FEET.

LEGEND			
	LOCAL STREET		POSSIBLE SOUTHERN BYPASS SWATH
	COLLECTOR		FUTURE TRAFFIC SIGNALS
	PARKWAY COLLECTOR		PROJECT NUMBER (SEE TABLES 4-6)
	ROADWAY (OUTSIDE OF CITY LIMITS)		
	CITY LIMITS		

**NEW STREET FACILITIES
AVOID RESIDENTIAL
STATE EXPRESSWAY ALIGNMENTS**

DUNDEE TRANSPORTATION SYSTEM PLAN
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SE 7th Street, SE 8th Street, Maple Street, Viewcrest Drive, Falconcrest Drive, SE 11th Street, SE 12th Street, SE 13th Street, Locust Street, and Elm Street. (As of April 2002, Viewcrest and Falconcrest Courts had been completed). These projects also include a new street through the City Hall property from SE 3rd Street to SE 5th Street, and a connection from 5th to 7th. It should be noted that, while new streets are desired for better connectivity in the southeast part of town (11th, 12th, Locust, Elm), environmental constraints may inhibit some of these connections. The intent of providing a continuous, well-connected grid system of streets in this area should be balanced with the constructability of these streets due to physical constraints (e.g. wetlands). The total cost for these new streets is expected to be about \$2,850,000. Approximately \$2,200,000 are adjacent to undeveloped land and would be funded by new development, leaving approximately \$650,000 for City funding. Table 6-4 lists funding responsibility for the proposed local street improvements.

How?

Proposed Collectors

The proposed collectors fall into two basic categories. The first category is “planned” collectors that are extensions or re-routed to fill in gaps in the existing collector network. This category includes the extension of Alder Street to intersect with Niederberger Road and the realignment of 9th Street west of Ore 99W to connect with 10th Street at Ore 99W.

The second category consists of collectors that are east of Edwards Road that could be constructed concurrently with the development of that area. This includes new roads as shown for illustrative purposes only in Figure 6-3. It should be emphasized that the new facilities in East Dundee that are shown in Figure 6-3 and discussed below are not “planned” facilities and are shown in the figure only to demonstrate how collectors may be located to meet the principles in the TSP. In any case, collectors as shown in Figure 6-3 will require plan amendments at the time they are approved as part of a development. Of interest is River Front Drive. This road follows part of the Willamette River and continues north to connect with NE Hayfield Drive. River Front Drive is located 300 feet outside of the 100-year flood plain as indicated in the City of Dundee’s 1990 Comprehensive Plan and Periodic Revision. The collector system designated in Figure 6-3 is an example of how streets *could* be developed, rather than indicating specifically how streets *should* be developed. The basic principles by which new collector streets should be constructed in this area should be:

- Collectors should be spaced approximately ¼ mile apart
- Collectors will access all newly developing areas east of Edwards Road
- Collectors will be connected to the existing grid to facilitate safe and efficient movements in the City (i.e. connections to the existing 5th Street, 8th Street, 10th Street, and Parks Road)
- Collectors will provide good access to River Front Drive

The actual plan for collectors in the undeveloped east side area should follow the guidelines above. *Figure 6-3 presents only an example of how these design guidelines can be followed, and is not meant to be prescriptive of the specific street plan for the area.*

It should be noted that the second category collectors (and possibly the extension of Alder Street) would likely be funded and built by development when development occurs. The total cost for these street facilities is approximately \$9,070,000. It is estimated that about \$420,000 of the total cost of collectors would be the responsibility of the City, while about \$8,650,000 would be funded by adjacent development. Table 6-5 lists expected funding responsibility for each improvement.

Proposed Streets Outside the UGB

There are certain collector streets located outside the City of Dundee that, if improved or extended, will improve circulation or accessibility for Dundee travelers. The proposed street improvements outside the Urban Growth Boundary include an extension of Edwards Road, intersection

improvements at Fox Farm Road, and part of the proposed Riverfront Drive. It was strongly recommended by the DTAC that Worden Hill Road be paved from Dundee city limits to its intersection with Highway 240. The total cost for the new street facilities is approximately \$954,000. The funding of these projects will not be the responsibility of the City of Dundee; nevertheless, the inclusion of these streets in the TSP will serve as a strong suggestion to Yamhill County and ODOT that these projects serve not only the City of Dundee, but Yamhill County and the State of Oregon as well.

**TABLE 6-4
 LOCAL STREET IMPROVEMENT COST ESTIMATES**

Description	Cross Section (ft)	Length (ft)	Likely Funding Source	Total Cost
Proposed Local Streets				
1) 1st St from Dogwood St to Alder St	34	500	Development	\$ 204,000
2) Briar St extension to 1st St	34	120	Development	\$ 49,000
3) Alder St Widening	10	580	Development	\$ 70,000
4) 7th St extension to Alder St	34	220	75% City 25% Development	\$ 67,500 \$ 22,500
5) New street: 3rd St to 5th St	34	300	City	\$ 122,000
6) New street: 5th St to 7th St	34	680	Development	\$ 277,000
7) 8th Street: Linden Lane to Hwy 99W	34	750	60% City 40% Development	\$ 184,000 \$ 122,000
8) Maple St: 7th St to 8th St	34	350	Development	\$ 143,000
9) Viewcrest Dr extension to Falconcrest Dr	34	470	Development	Complete
10) Falconcrest Dr extension to 9th St	34	760	Development	Complete
11) 13th St: Alder St to Hwy 99W	34	420	50% City 50% Development	\$ 85,500 \$ 85,500
12) Niederberger Rd realignment	34	225	City	\$ 92,000
13) 12th St: Maple St to Locust St ⁴	34	200	Development	\$ 82,000
14) Locust St: 11th St to Parks Dr ⁴	34	650	Development	\$ 265,000
15) 12th St: Elm St to Cedar St ⁴	34	200	Development	\$ 82,000
16) Elm Street: 11th St to Parks Dr ⁴	34	500	Development	\$ 204,000
17) 11th St: Elm St to Maple St ⁴	34	470	50% City 50% Development	\$ 96,000 \$ 96,000
City Total				\$ 647,000
County Total				\$ 0
Development Total				\$ 1,702,000
Total				\$ 2,349,000

Notes:

1. Assume 34 ft. street width (includes parking on both sides) for residential roads and 36 ft. street width (includes parking on both sides) for collectors - cost estimate assumes standard sidewalks, drainage, etc.
2. All cost estimates are for typical terrain and typical cross sections. Additional costs may be incurred for non-standard drainage, special structures, or unusual construction conditions.
3. Cost estimates do not include right-of-way acquisition.
4. Special considerations to be given to avoid wetlands.
5. Costs are shown in 2002 dollars.

**TABLE 6-5
COLLECTOR STREET AND STATEWIDE EXPRESSWAY IMPROVEMENT COST ESTIMATES**

Description	Cross Section (ft)	Length (ft)	Likely Funding Source	Total Cost
Proposed Collectors				
18) 9 th /10th St Realignment	36	850	67% City 33% Development	\$ 245,000 \$ 122,000
19) Alder St extension to Hwy 99W	36	1150	33% City 67% Development	\$ 166,000 \$ 331,000
20) NE Filbert Drive: Hayfield Drive to north city limits ⁵	36	1780	Development	\$ 769,000
21) NE Hayfield Dr: Edwards Rd to River Front Dr ⁵	36	2650	Development	\$ 1,145,000
22) River Front Dr: SE Fulquartz Landing Rd to NE Hayfield Dr ⁵	44	3810	Development	\$ 2,012,000
23) 10th St extension: Edwards Rd to River Front Dr ⁵	36	3080	Development	\$ 1,331,000
24) SE Prairie Rd: Fulquartz Landing Rd to River Front Dr ⁵	36	2670	Development	\$ 1,153,000
25) Fulquartz Landing Rd extension: River Front Dr to SE Prairie Rd ⁵	36	4170	Development	\$ 1,801,000
Subtotal				\$ 9,075,000
Proposed Collectors Outside the UGB				
26) Fox Farm Lane realignment	36	260	County	\$ 112,000
27) Edwards Rd extension to Dayton Ave	36	1950	County	\$ 842,000
28) Worden Hill Road: west of Fairview Dr to Ore 240 - pave section to north	24	-	County	NA
Subtotal				\$ 954,000
Ore 99W Statewide Expressway (Southern)				
Statewide Expressway	TBD	TBD	ODOT	TBD
City Total				\$ 1,058,000
County Total				\$ 954,000
Development Total				\$ 10,868,000
Total				\$ 12,880,000 ⁴

Notes:

1. Assume 34 ft street width (includes parking on both sides) for residential roads and 36 ft street width (includes parking on both sides) for collectors - cost estimate assumes standard sidewalks, drainage, etc.
2. All cost estimates are for typical terrain and typical cross sections. Additional costs may be incurred for non-standard drainage, special structures, or unusual construction conditions.
3. Cost estimates do not include right-of-way acquisition.
4. Does not include cost of Ore 99W statewide expressway, which will be borne by ODOT.
5. These streets are shown for illustrative purposes only and are not prescriptive.

Ore 99W Main Street Improvements

Intensive efforts are currently underway to identify the location, size and other characteristics of a new Newberg-Dundee Bypass (a.k.a. statewide expressway). Accordingly, it is reasonable to assume that in the long-range future this new facility will be constructed. If the bypass/expressway includes an interchange between Newberg and Dundee, it is projected that the new statewide expressway will divert 60 to 70 percent of traffic from existing Ore 99W through Dundee in the 2025-planning horizon. As a result, it is expected that:

- Ore 99W through downtown Dundee will carry 13,000-15,000 vehicles per day in 2025.
- The current three-lane cross section of Ore 99W is adequate to satisfy this projected demand.
- Ore 99W could be reclassified as a *District Highway*, or ownership of this facility could be turned over to the City. (This would require an Intergovernmental Agreement).
- Ore 99W through downtown Dundee will serve more of a traditional “main street” function than it does currently.
- Pedestrian and bicycle use of the street will increase substantially and should be accommodated.

It must be understood that, even in an optimistic scenario, the new statewide expressway will likely not be constructed for at least 8-10 years. Consequently, a refinement plan should be developed to address (1) how (or if) statewide travel on Ore 99W can be better accommodated prior to the construction of the bypass/expressway and (2) what will happen to Ore 99W after the bypass/expressway is constructed. However, this kind of planning process will require a level of design detail and community dialogue that is more detailed and expensive than could be funded through this initial TSP development. As a result, the refinement planning for Ore 99W in Dundee will need to be accomplished through the NDTIP design-level EIS process.

Based on the Alternatives Analysis in Section 5 and community input, the DTAC determined that the only acceptable alternative identified so far for addressing congestion on Ore 99W before a bypass is constructed is making minor improvements to increase the efficiency of the existing 3-lane cross-section. Therefore, the focus of the Ore 99W interim improvement alternative on Ore 99W will be identification and analysis of possible minor improvements to deal with increasing congestion on the existing 3-lane cross-section (while not necessarily excluding other new ideas that may emerge during the refinement planning process).

In addition to resolving how to deal with Ore 99W before a bypass/expressway is constructed, the refinement plan should resolve what to do with Ore 99W after the bypass/expressway is constructed. It is essential that these issues and their potential consequences are thoroughly explored with community businesses and residents before interim and long-term courses of action are selected. In order to deal with all of these issues, the refinement plan should include (but not necessarily be limited to) the following elements:

- Detailed evaluation of ways to keep the existing 3-lane cross-section on Ore 99W as operationally viable as possible before the bypass/expressway is constructed
- Identification of appropriate “Main Street” improvements including:
 1. Improved curb, gutter and sidewalk facilities
 2. Curb extensions at selected locations
 3. Wider sidewalks

4. Improved bicycle lanes
5. Bicycle racks
6. Pedestrian/transit benches/shelters
7. Improved crosswalks
8. Parking strategy
9. Landscaping/other "Main Street" design elements

- Citizen Involvement: It should include public outreach, in which all stakeholders and interest groups have an opportunity for input.
- Assessment of "Main Street" businesses' needs/options (before and after construction of a bypass/expressway)
- Assessment of Statewide Freight and vehicular mobility needs/options (before and after construction of a bypass/expressway)
- Assessment of Dundee residents accessibility and mobility needs/options (before and after construction of a bypass/expressway)
- Jurisdictional responsibility for Ore 99W after the construction of a bypass/expressway
- Implementation strategy for recommended actions
- Consistency with City, County and ODOT long-range objectives

Deferred Maintenance of Existing City Streets

There are a number of street sections in currently developed parts of the City of Dundee that are in a state of disrepair to the point where complete reconstruction is required rather than repair. Table 6-6 lists the street sections that will require reconstruction.

**TABLE 6-6
 STREETS WITHIN DUNDEE REQUIRING RECONSTRUCTION**

Street	Section	Cost	Collector Street?
29) Dogwood St	Between Viewmont and Upland Dr	\$200,000	Partial
30) Edwards Rd	Between 2 nd St and 5 th St	\$200,000	Yes
31) Alder St	Between 1 st St and 2 nd St	\$100,000	No
32) Alder St	Between 9 th St and Upland Dr	\$300,000	Yes
33) Upland Dr	Between 5 th St and Alder St	\$200,000	Yes
34) 8 th St	Between railroad and Edwards Rd	\$200,000	No
Total		\$1,200,000	

Cost Estimate Assumptions

Cost estimates for local and collector streets are based upon inclusion of the following: standard sidewalks, drainage, construction, etc. This estimate is for typical terrain and typical cross sections. Additional costs may be incurred for non-standard drainage, special structures, or unusual construction conditions. These cost estimates are based on a 34-foot width cross-section for residential streets and a 36-foot width cross-section for collectors (as found in the Dundee Development Code, page 94).

6.3.6 Other Transportation Infrastructure Needs

Associated with the implementation of the City of Dundee street system is the need for improved access to Ore 99W for existing streets, including such provisions as traffic signals and railroad crossing gates. Accordingly, an assessment was made of the future need for further transportation facilities. Table 6-7 shows the costs and likely funding for these other transportation infrastructure needs.

**TABLE 6-7
 OTHER TRANSPORTATION INFRASTRUCTURE IMPROVEMENTS**

Description	Likely Funding Source	Total Cost
Proposed Traffic Signals		
1) Fox Farm-Dayton Road & Hwy 99W	ODOT	\$ 200,000
2) 10 th Street & Hwy 99W	50% City	\$ 100,000
	50% ODOT	\$ 100,000
3) Niederberger-Parks Road & Ore 99W	50% City	\$ 100,000
	50% ODOT	\$ 100,000
Subtotal		\$ 600,000
Proposed Railroad Crossing Gates*		
1) Fox Farm-Dayton Road**	ODOT	\$ 400,000
2) 5 th Street	33% City	\$ 198,000
	33% ODOT	\$ 198,000
	34% Development	\$ 204,000
3) 10 th Street	33% City	\$ 132,000
	33% ODOT	\$ 132,000
	34% Development	\$ 136,000
4) Niederberger-Parks Road	33% City	\$ 132,000
	33% ODOT	\$ 132,000
	34% Development	\$ 136,000
Subtotal		\$ 1,800,000
Proposed Roundabout		
1) Edwards Rd & 10 th St	City	\$ 300,000
Subtotal		\$ 300,000
City Total		\$ 962,000
ODOT Total		\$ 1,262,000
Development Total		\$ 476,000
Total		\$ 2,700,000

*Rail actuated and coordinated with Ore 99W signals. ODOT funds available for rail projects are allocated by the ODOT Rail Group, and cannot be intermingled with other ODOT funds.

**Grade crossing at Fox Farm-Dayton Rd is outside of UGB.

6.3.7 Traffic Signal Needs

As Dundee grows there will be an increased need for traffic signals at key access points to the highway. The number of traffic signals allowable on Ore 99W through Dundee, and their associated impedance on through movements, is largely dependent upon the functional classification of the highway. Currently, Ore 99W is classified a statewide highway and state freight route. Currently, there is a single signal on Ore 99W in Dundee at 5th Street. In the event that a bypass route is built, the existing highway would likely be reclassified to a district level highway. In order to respond to this possible future, this plan addresses the likely traffic signal needs on existing Ore 99W under the two scenarios.

Ore 99W As a Statewide Facility

Traffic signal spacing on a statewide route is at a minimum of ½ mile intervals, with final approval being required by the state traffic engineer (ODOT Administrative Rules website, 2001). In recognition that ODOT standards call for this relatively wide spacing of traffic signals, there may be little opportunity for many additional signalized access points beyond the existing traffic signal at 5th Street. Traffic analysis indicated that the intersection at Fox Farm-Dayton Road/Ore 99W currently is operating at level of service “F” and meets traffic signal warrants. This intersection is approximately ½ mile north of 5th Street, thereby meeting the minimum spacing standard. In addition, the intersection at Niederberger-Parks/Ore 99W is approximately ½ mile south of 5th Street. Hence, as growth occurs in the south section of Dundee, particularly on the east side of the highway, this would be a likely intersection to signalize. Thus, in the 20-25 year future the City of Dundee should plan for three traffic signals on Ore 99W in its current alignment as a statewide highway at Fox Farm-Dayton Road, 5th Street, and Niederberger-Parks Road. Traffic signals should only be installed when signal warrants are met, and all signals should be interconnected within the City to ensure the efficiency of through movements on the highway. In addition, traffic signals on Ore 99W should be interconnected with traffic-actuated Willamette Pacific Railroad (WPRR) crossing gates on Dayton, 5th, and Parks Road.

Ore 99W As a District Facility

Traffic signal spacing on district highways is a minimum of ¼ mile, again with final approval coming from the state traffic engineer (ODOT Administrative Rules website, 2001). With this closer spacing of signals allowed, it is recommended that all collector facilities intersecting the highway be signalized, with the exception of 1st Street. These facilities would include: Fox Farm-Dayton Road, 5th Street, 10th Street, and Niederberger-Parks. Traffic signals should only be installed when signal warrants are met (per criteria set forth in OAR 734-020), and all signals should be interconnected within the City to ensure the efficiency of through movements on this arterial. In addition, traffic signals on Ore 99W should be interconnected with traffic-actuated WPRR crossing gates on Dayton, 5th, 10th, and Parks Road.

6.3.8 Rail Crossing Protection

The WPRR tracks run parallel to Ore 99W approximately 200-250 feet to the east. There are currently five train crossings, all of which are controlled by crossbucks (warning signs). In order to minimize the number of vehicular-train conflicts, it is recommended that over the next 20-25 years crossings of Ore 99W be consolidated to only the collector system. This will require the closing of one rail crossing at 12th Street. These crossing would be at four locations: Fox Farm-Dayton Roads,

5th Street, 10th Street, and Niederberger-Parks. It is recommended that these crossings be equipped with crossing gates, and that in order to comply with railroad regulations the crossing gates be equipped with rail detection devices (to detect when a train is coming and close the gates automatically). In addition, given the close spacing of the rail line with Ore 99W, it is further recommended that the crossing gates be interconnected with Ore 99W traffic signals to ensure that vehicle queues don't spill back onto the highway during times that trains are present.

6.3.9 Roundabout

Another improvement project of interest is a proposed roundabout at the intersection of Edwards Road/10th Street. A roundabout at this location would provide sufficient capacity for all near-term traffic demands and would accommodate all future development traffic in that area. In addition, a roundabout would provide with a unique gateway into the soon-to-be-developed riverfront area of Dundee. The DTAC recommended that a roundabout at this location be considered, in conjunction with development proposals for the adjacent lands.

6.4 PEDESTRIAN AND BICYCLE PLAN

The City of Dundee Pedestrian and Bicycle Plan has been developed to provide modal choices for travelers within those already-developed and undeveloped areas of the City. The analysis presented in this section documents the choices made by the City in the provision of pedestrian and bicycle facilities.

6.4.1 Pedestrians

Pedestrian Facilities

There are several types of facilities that enhance a transportation system's ability to serve pedestrians, as discussed below.

- **Sidewalks** are one of the vital elements of a successful pedestrian system and can be one of the most expensive. A sidewalk's effectiveness is dramatically increased as it is connected into a larger network, so an early priority is to connect existing sidewalks.
- **Crosswalks** are a safety-related feature often used to connect sidewalks by providing a pedestrian channel across roadways. Crosswalks range from implied crosswalks, to striped crosswalks, to crosswalks with beacons (both permanent and pedestrian activated), to signal controlled crosswalks. For the most part, the more involved crosswalks are warranted in situations where there are large numbers of pedestrians and vehicles competing for the same space.
- **Traffic Signals** typically provide for pedestrian crossings at the intersection. In almost all recent installations, pedestrians can request a specific pedestrian signal by use of a pushbutton. Refinements include audible signals for those with visual impairments.

Existing Pedestrian Facilities

Figure 6-4 depicts the locations of sidewalks and crosswalks along key roadways within Dundee as well as locations where sidewalks will be added as development occurs. It is assumed that sidewalks will be provided as part of frontage improvements associated with the development of vacant parcels inside the city. For reference, the locations of a number of potential pedestrian

generators are also shown, including the Dundee Elementary School and Park, the post office, and the wineries along Ore 99W. The list of generators is intended to be illustrative, not comprehensive.

Significant gaps in the sidewalk network are caused by a lack of existing facilities and locations where sidewalks are only provided along one side of a street (potentially forcing pedestrians to cross the same street twice). Several examples of sidewalks with undeveloped gaps are listed below.

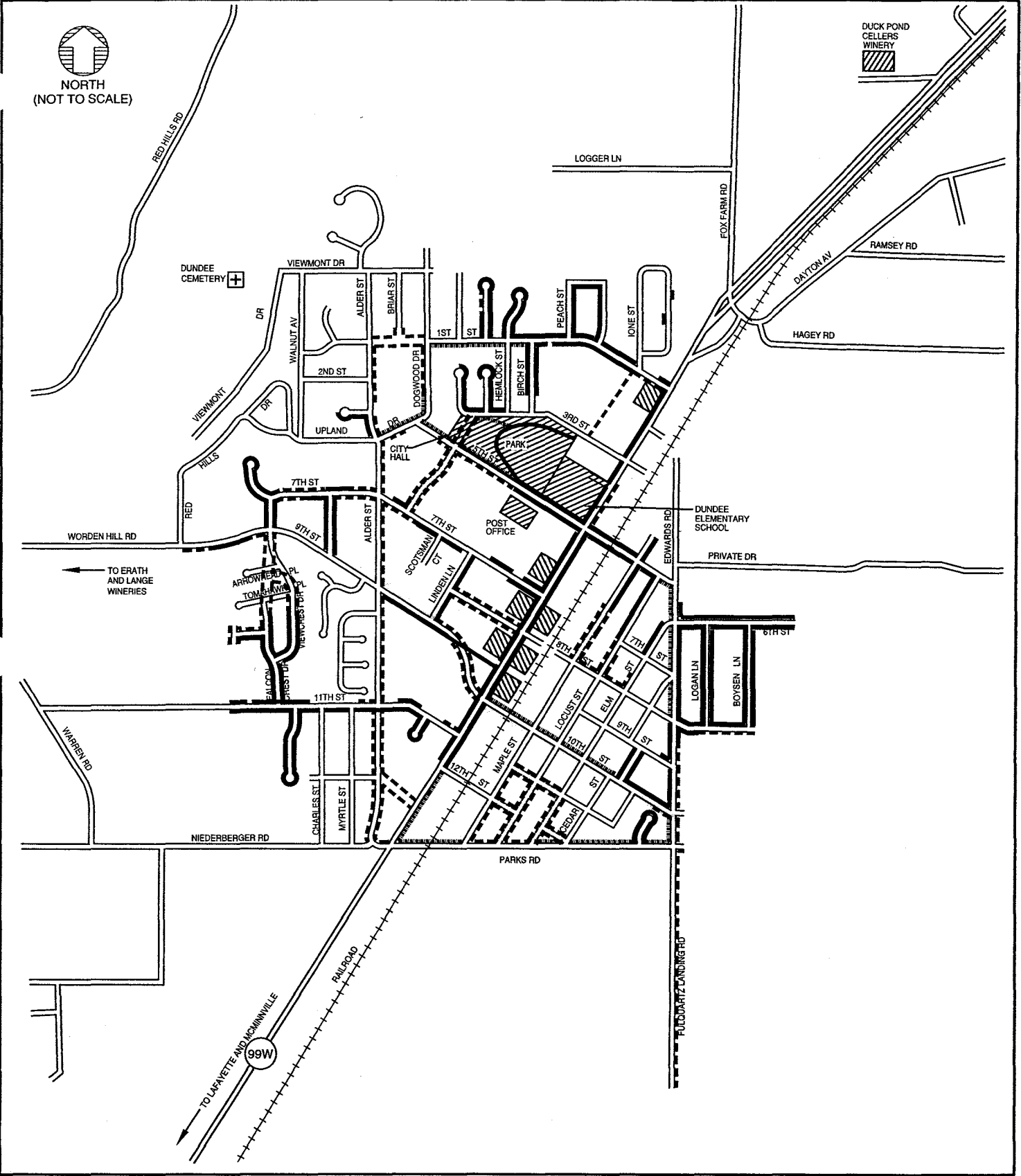
- east side of Ore 99W, north of 5th Street
- segments along undeveloped frontages of 1st Street, 3rd Street, 5th Street, 7th Street, the 9th Street-Worden Hill Road alignment, and 11th Street
- Parks Road-Niederberger Road
- Edwards Road

Also shown in Figure 6-4 are areas of good sidewalk coverage. Ore 99W through central Dundee is generally well-covered by the sidewalk network, although north of 5th Street sidewalks are only present along the west side of the highway. The sidewalks on Ore 99W are six feet wide; generally in downtown areas wider sidewalks are desired. The Dundee Elementary School also has good sidewalk coverage in the immediate vicinity, but no connectivity with neighborhoods to the west. Newer residential and commercial areas also have good pedestrian facilities, reflecting city policies that require new development to provide sidewalk facilities. Crosswalks across Ore 99W are provided north of 7th, 8th and 10th Streets, as well as at the signalized 5th Street/Ore 99W intersection.

Elements of the Dundee pedestrian plan are described below.

Sidewalks

This pedestrian plan assumes that the City's requirements for property development will result in installation of new sidewalks on all street frontage wherever development occurs. It was decided that, in order to get maximum benefit with minimum cost, the adopted sidewalk plan would recommend retrofitting a sidewalk on at least one side of all collector streets where none exists today, and does not involve the City building sidewalks where property development may provide them in the future. The City's current street standards, which are carried forth in this transportation system plan, require that all new streets have sidewalks on both sides. In addition, it is recommended that streets to be reconstructed shall have sidewalks on at least one side, and, where practical, have sidewalks on both sides. The pedestrian plan is shown in Figure 6-4 and the recommended sidewalk improvements are listed in Tables 6-8 through 6-10.



LEGEND	
	EXISTING SIDEWALKS/CROSSWALKS
	SIDEWALKS THAT WILL OCCUR WITH DEVELOPMENT
	SIDEWALKS INSTALLED BY THE CITY
	FUTURE ROADWAY
	TRIP ATTRACTORS
	PLANNED STREETS

EXISTING SIDEWALK SYSTEM AND RECOMMENDED IMPROVEMENTS

DUNDEE TRANSPORTATION SYSTEM PLAN
DUNDEE, OREGON
 OCTOBER 2003

FIGURE
6-4



**TABLE 6-8
 SIDEWALKS TO BE BUILT ALONG EXISTING ROADWAYS -- COSTS TO BE BORNE BY
 DEVELOPERS**

Street	Description	Length (feet)	Cost
1 st St	Undeveloped between Ore 99W and lone St	150	Cost to be borne by developer
3 rd St	North side opposite west end of park	200	
5 th St	South side where not developed	1,250	
7 th St	Both sides where not yet developed	1,100	
8 th St	North side between Elm St and Maple St	550	
9 th St	South side west of Falconcrest	500	
10 th St	South side one lot near Edwards Road	40	
11 th St	North side proceeding west from Ore 99W	200	
12 th St	New alignment between Maple St and Cedar St	1,500	
lone St	Two lot frontages	180	
Dogwood Dr	West side undeveloped properties	500	
Alder St	East side Undeveloped	1,150	
Hemlock (north)	West side undeveloped	220	
Falconcrest	Undeveloped frontage on Falconcrest and side streets off of Falconcrest	900	
Maple St	West side between the extensions of 6 th and 7 th Avenue East Site between 11 th St and Parks Rd	200 700	
Locust St	Undeveloped frontage between 7 th St and 8 th St	550	
Elm St	Undeveloped frontage on west side north of 8 th St	100	
Hwy 99W	East Side undeveloped properties north of 5 th St	550	
Total		10,540	

Note: The elements included in this table are illustrated in Figure 6-4.

**TABLE 6-9
 SIDEWALKS TO BE BUILT AS PART OF NEW ROAD PROJECTS**

Street	Description	Length (feet)	Cost
New	Collectors west of Edwards Road	18,000	Cost to be borne as part of road construction project
New	3 rd St to 7 th St Connection (past City Hall)	2,200	
New	Connection from Ore 99W to Alder St south of 11 th	850	
1 st St	Connection between Dogwood Dr and Alder St	1,050	
7 th St	7 th Street connection west of Alder St	450	
9 th /10 th St	9 th /10 th Street Realignment 11 th St between Maple St and Elm St	1,800 1,000	
11 th St	Both sides of connection between Maple St and Elm St	1,000	
12 th St	Both sides of connections between Maple St and Locust St and between Elm St and Cedar St	1,100	
Locust St	Extension of Locust St to Parks Rd	1,400	
Elm St	Extension of Elm St to Parks Rd	1,000	
Maple St	Connection between 8 th St and 7 th St	1,000	
Total		30,850	

Note: The elements included in this table are illustrated in Figure 6-4.

**TABLE 6-10
 CITY CONSTRUCTED SIDEWALK SEGMENTS TO COMPLETE COLLECTOR ONE-SIDE LOOP**

Street	Description	Length (feet)	Cost
1 st St	South side between Dogwood Dr and Birch St	700	\$73,500
3 rd St	South side park frontage - connect to existing trail	300	\$31,500
5 th St	North Side along Park frontage to Dogwood Dr South Side between Locust St and Edwards Drive	1,200 120	\$126,000 \$12,500
10 th St	North side between Ore 99W and Cedar St	1300	\$136,500
Alder St	West side between 11 th St and Upland Dr	2,350	\$247,000
Upland Dr	South Side between 5 th and Alder St	300	\$31,500
Dogwood Dr	North Side developed properties	300	\$31,500
Parks Rd	North side between Hwy 99W and Edwards Rd	1,500	\$157,500
Edwards Rd	West side between Parks Rd and 10 th St West side between 8 th St and 5 th St	250 1,050	\$26,000 \$110,500
Ore 99W	West side between Neiderberger Rd and 12 th St	800	\$84,000
Total		10,170	\$1,068,000

Note: The elements included in this table are illustrated in Figure 6-4.

Potential New Facilities in East Undeveloped Dundee

There are two potential new roads that, if developed, would include key new bicycle and/or pedestrian facilities:

- *Statewide Expressway:* This new facility, for which a Locational Environmental Impact Statement is currently underway, will have associated pedestrian and bicycle facilities. These facilities will provide vehicular access to Dundee through interchanges outside the community, and will connect to Newberg (to the north) and McMinnville-Lafayette (to the south). No direct vehicular access will be provided to Dundee. However, bicycle facilities will be provided on the bypass, and these bike facilities will likely provide access to Dundee. Pedestrian crossings of the bypass would likely be provided at collector street grade crossings.
- *River Front Drive:* The concept for a facility like this would include a multi-purpose bicycle-pedestrian pathway along the Willamette River (see the *Street System Plan*).

It should be emphasized that these facilities are not yet officially recognized as planned facilities in this document. When a decision is made through the NDTIP process about a preferred alignment for the expressway, this TSP will have to be amended to recognize that decision. The same will be true for River Front Drive when and if it becomes part of a development proposal.

The City shall require new development to install sidewalks on all street frontage wherever development occurs. This requirement should be implemented through the City's development code. In addition, streets to be reconstructed shall have sidewalks on at least one side and, where practical, both sides.

Crosswalks

For low-volume roadways, crosswalks should only be striped in areas where crossing would not be normally permitted (mid-block) or where particular emphasis on the right of pedestrians to cross is needed (near schools or other high pedestrian volume locations). Crosswalks should be striped on all signalized intersections, as is the typical standard for ODOT signalized intersections. Identified locations for crosswalk striping are listed below:

- a mid-block crosswalk on 5th St to connect the post office with school and park
- striping of all crosswalks on collector streets at Ore 99W approaches

Traffic Signals

Traffic signals are recommended on Ore 99W at Fox Farm Road, 9th-10th Street and at Niederberger Road-Parks Road (see the street system plan for details). Signals at these locations will provide for safe and convenient crossing of Ore 99W at regular intervals. A traffic signal is currently warranted, based on existing traffic volumes, at the Fox Farm-Dayton Road intersection. A traffic signal at the realigned 10th Street intersection would be likely needed in the mid-term (say 5-10 years), and the Niederberger-Parks Road intersection would likely require signalization in the longer term (beyond ten years). Traffic volumes should be monitored at these locations, and traffic signals should not be installed until traffic signal warrants are met, as specified in the *Manual for Uniform Traffic Control Devices*.

These four future traffic signals on Ore 99W are prescribed assuming that a statewide expressway (bypass) will be constructed, and that the existing Ore 99W “main street” is relegated to *District Highway* status. In the event that the existing Ore 99W through Dundee (main street) retains its *statewide highway* classification, the proposed traffic signal at 9th-10th would not meet ODOT traffic signal spacing standards. Thus, in this event there would be only three Ore 99W traffic signals (and hence, three protected crosswalks of Ore 99W), located at Fox Farm-Dayton, 5th Street (existing), and Niederberger-Parks.

Current signal design practice will ensure that pedestrians are adequately accommodated at the signalized intersections. Given the low traffic volumes elsewhere in the City of Dundee, signalized pedestrian facilities are not recommended.

6.4.2 Bicycle

Bicycle Facilities

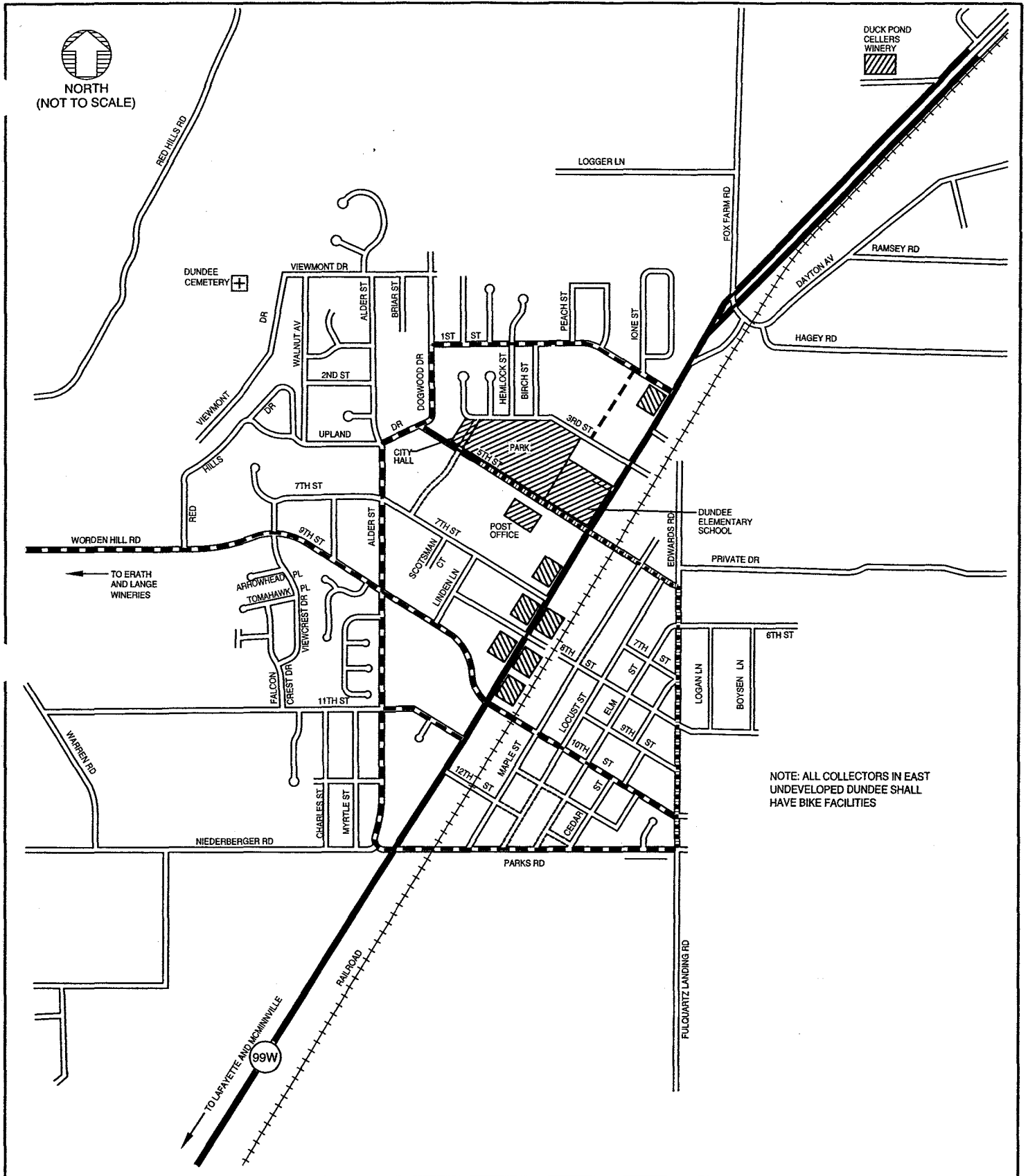
There are several types of facilities that enhance a transportation system’s ability to facilitate bicycle movements, as discussed below:

- **Bicycle Lanes** provide a formal bicycle space on high volume roads to enhance the safety and comfort of riders. While there may be no physical or operational reason why bicycle lanes cannot be placed on all roadways, exclusive bicycle lanes are not typically considered necessary or cost effective on low volume roadways.
- **Bicycle Racks/Lockers** provide secure storage for bicycles at destinations where riders transition from bicyclists to pedestrians or transit riders. In addition, a properly placed bicycle rack discourages other less desirable bicycle storage options.
- **Bicycle Facilities for Transit** include bike racks for buses and designated train cars for bicycle riders as well as bicycle racks, lockers, and/or storage areas at transit stations.
- **Changing/Shower Facilities** at places of employment make a bicycle commuting more practical. The provision of these facilities is not typically within a city’s scope of regulation, but there may be creative ways to encourage employers to provide better facilities for bicycle commuting.





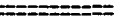
Existing Bicycle Facilities

Shown in Figure 6-5 are the locations of existing and potential bicycle lanes along collector and arterial streets within Dundee. For reference, the locations of potential bicycle attractors are also shown, including the Dundee Elementary School and Park.

As shown in Figure 6-5, bike lanes are provided along both sides of Ore 99W. The only other place where bike lanes are provided is along the north side of 5th Street from City Hall to the Dogwood Drive-Upland Drive intersection. Apart from Ore 99W, all roadways within Dundee carry less than 3,000 ADT and therefore do not require bike lanes according to the criteria set forth in the *Oregon Bicycle and Pedestrian Plan*. According to the 2025 traffic forecasts, aside from Ore 99W only 5th Street (from Alder to Edwards) and Edwards Road (south of 5th Street) will carry volumes in excess of 3,000 ADT. These streets should be equipped with bike lanes when daily traffic volumes exceed 3,000 ADT. Aside from the section of 5th Street already equipped with a bike lane, the other specified streets will likely reach these threshold volumes when a substantial amount of development occurs in eastern Dundee.



LEGEND

-  EXISTING BICYCLE LANES
-  POTENTIAL FUTURE BICYCLE LANES
-  SIGNED BICYCLE ROUTES
-  TRIP ATTRACTORS
-  PLANNED STREETS

**EXISTING BICYCLE SYSTEM AND
RECOMMENDED IMPROVEMENTS**

DUNDEE TRANSPORTATION SYSTEM PLAN
DUNDEE, OREGON
OCTOBER 2003

FIGURE
6-5



Bicycle Alternatives

The adopted bicycle alternatives are presented by facility type in this section.

Bicycle Routes

Under existing conditions, exclusive-striped bicycle lanes are only required on Ore 99W under the criteria set forth in the *Oregon Bicycle and Pedestrian Plan*. Under forecast 2025 conditions, traffic volumes are estimated to exceed 3,000 ADT on 5th Street and Edwards Road south of 5th Street. Other collector streets with relatively higher traffic volumes include Parks Road and 10th Street. As they will be classified as collectors under the proposed functional classification system, these roadways shall have bicycle lanes when these traffic volume thresholds are met.

All designated bike routes, which constitute all collector streets in Dundee, should be signed as bike routes. Dedicated street space should not be striped – the bike routes will share the traveled way with vehicular traffic. This relatively low cost measure would provide a basic bicycle network.

Other Bicycle Facilities

Currently employers within Dundee are not specifically required to provide special bicycle facilities (i.e. bike racks, on-site showers, lockers, etc.). However, the Employee Commute Option (ECO) rule, administered at the state level, requires that employers of greater than 50 employees to provide a plan to reduce single-occupant vehicle trips to their establishments. These plans encourage employers to provide multi-modal travel options for employees; the bicycle mode is a primary candidate for reducing vehicular travel in Dundee. Hence, it is reasonable to assume that for large employers in Dundee, there will be requirements to encourage bicycle travel. Currently, there are no employers of greater than 50 employees in Dundee.

The City has adopted a policy of allowing the provision of bicycle facilities to occur as they are today, with no specific local government regulation. As large employers emerge in Dundee, the Employee Commute Option (ECO) rule would likely result in increased bicycle facilities on their sites.

All new non-residential developments shall provide bicycle racks. The Dundee Development Code should be amended to include this requirement.

6.5 TRANSIT PLAN

The City of Dundee Transit Plan is based on the examination of modal choices for travelers in the City presented in Section 5. Due to Dundee's small size and limited resources, this plan relies on those services that are currently provided and planned at a regional level by other jurisdictions. The plan prescribed in this section documents the transit facilities and services in the anticipated by the City to be available during the planning horizon.

6.5.1 Existing Transit Services

Type of Service: There are currently two separate transit services that provide service in and around the City of Dundee. The first is the LINK public bus. The LINK bus provides service between Sherwood and McMinnville with a stop in Dundee. The same agency also provides dial-a-ride service for seniors and disabled persons throughout the area. In addition, the agency operates the

LINK express, which is a shuttle service between Nap's IGA in Newberg and the Hillsboro MAX Station.

Route: The LINK public bus operates on Ore 99W and Highway 18 between Sherwood and Dayton, and then makes a loop consisting of Ore 99W and Highway 18 between Dayton and McMinnville. Dial-a-ride is flexible in route and is designed to meet the needs of its users. The LINK express shuttle does not stop between Newberg and the Hillsboro MAX.

Operating Hours: LINK public bus service operates 6 westbound buses that pass through Dundee between 5:07 a.m. and 6:51 p.m. and 6 eastbound buses that pass through between 5:55 a.m. and 7:40 p.m. The LINK express shuttle travels from Newberg to Hillsboro and back leaving Newberg at 6:00 a.m. and 4:55 p.m. Dial-a-Ride operates between 8:15 a.m. and 4:30 p.m.

Cost: Difficult to discern the portion attributable to Dundee of the total operating cost from Sherwood to McMinnville

Operating Agency: Chehalem Valley Senior Citizens Council (CVSCC)

Additional Info: LINK bus ridership data shows that ridership is relatively low out of Dundee. The LINK bus management requests advance notice of rider pick-ups in Dundee. The LINK bus does connect with Tri-Met in Sherwood.

6.5.2 Planned Transit Facilities/Services as part of NDTIP Statewide Expressway

Each Build Alternative includes the potential implementation of the following transit elements as part of the overall State Expressway NDTIP project:

- A moderate (30-minute peak, 60-minute off-peak) level of express bus service, including park-and-ride lots and local buses in the Ore 99W corridor. (Mid term implementation).
- Improve Ore 99W corridor bus system to serve the express bus transit stops. (Mid term implementation).
- Concentrate park-and-ride lots to support express and local bus service in the Ore 99W corridor (Mid term implementation).
- Utilize local buses to feed the inter-city express bus system.
- Consider a commuter rail line from McMinnville to the proposed Wilsonville / Beaverton commuter rail line. (This could replace express bus service over the long term).

Over the long range future, these potential services are planned for implementation as part of the NDTIP Statewide Expressway project.

6.5.3 Additional Transit Services

The DTAC chose to maintain the current transit services, all of which are provided by other entities than the City. The City further will promote the provision of additional transit services in conjunction with the County, ODOT, or other agencies. In addition, where possible the City will require design elements on arterials that facilitate the provision of supporting infrastructure for transit, in order to make expansion of existing services or startup of new services easier at some later date. The types of actions possible include transit-friendly designs of roadways, setting aside

of properties for use as a transit center and/or transit maintenance facility, setting aside right-of-way and easements for bus shelters. Another possible planning measure is to set aside or zone for rail facilities along the rail line through town.

This prescribed transit plan carries no additional costs to the City.

6.6 PIPELINE AND TRANSMISSION PLAN

The transmission of power, natural gas, and water are all services of importance to businesses, industry, and residents of Dundee.

6.6.1 Power Transmission

The Bonneville Power Administration (BPA) anticipates that will be adequate distribution capacity provided and anticipates no need to construct any substations or power lines within the City of Dundee. No new substations will be needed to serve the area.

6.6.2 Pipeline Transmission

Natural Gas

There are no infrastructure capacity constraints with the existing or future natural gas pipeline system.

Water

The water usage within the City is expected to grow, but the current water supply system provides adequate supply to meet current demand. Existing pipeline facilities should be maintained and enhanced as needed by the City.

6.7 RAIL PLAN

The Willamette & Pacific Railroad (WPRR) operates one line through the City of Dundee for the movement of freight. Track conditions meet state guidelines. Industrial-zoned land abuts the rail lines, providing opportunities for potential customers to locate next to rail service. The closest AMTRAK passenger rail stations are located in Portland and Salem.

Increases in use of rail facilities, either for transit or for freight could raise the following issues or needs:

- Safety improvements associated with grade crossings
- Potential for additional usage of existing lines
- Additional noise and other physical intrusions that trains create in urban areas
- Safety of mixing freight/passenger/commuter trains

These issues should be dealt with in a manner specific to the proposed change in rail use. At this time there are no approved or firmly proposed plans to change the use of the rail facilities in the City of Dundee.

6.8 AVIATION PLAN

The air passenger and freight transportation needs of the City of Dundee are primarily serviced by a system of two airports owned and operated by the Port of Portland (Portland International Airport and Hillsboro Airport) and one owned and operated by ODOT (Aurora Airport). These airports are designed to meet the needs of commercial aviation and personal and business aircraft for passengers and freight movement. The city of Dundee should continue to support the continued use and expansion of the regional air transportation facilities.

6.9 MARINE PLAN

No economically navigable waterways are located within the City of Dundee. The closest marine facilities are located in Portland along the Willamette and Columbia Rivers.

6.10 FREIGHT PLAN

Delays to freight movement caused by traffic congestion are a major concern to the business community, because of the added shipping costs and uncertainty in the arrival times of goods that truck delays generate. The Dundee TSP addresses improving freight movement to and through the City's support for the Newberg-Dundee statewide expressway (bypass) project. Capacity improvements by ODOT to the existing Ore 99W should be supported by the City in order to better facilitate local freight movements in the long-term and through freight movements in the short term (pre-bypass).

6.11 MAINTENANCE PLAN

Paved streets are one of the most significant investments a community makes for the safety and convenience of the public. Pavement maintenance ensures that the investment a community has made in its roads is protected and that road users and taxpayers enjoy the benefits of cost savings associated with extending the life of street pavements. In order for the City of Dundee to manage its investment in pavements, it is essential that a procedure be in place to improve the efficiency of decision-making, to provide feedback as to the consequences of decisions, and to ensure consistency of decisions. This procedure that needs to be in place to optimize benefits from street pavements can be called a Pavement Management System.

A Pavement Management System (PMS) assures that all maintenance needs are systematically identified with associated cost estimates to allow the prioritization of maintenance activities in accordance with the goals and objectives of the community. *The objective of the PMS is to provide decision makers with optimum coordinated strategies derived through clearly defined rational procedures toward achieving the best value possible for available public funds in providing and maintaining smooth, safe, and economical street pavements.*

6.11.1 Pavement Data

Pavement management systems usually require expensive physical measurements and complicated mathematical models using several variables in assessing existing and predicting future pavement conditions. Small municipalities and local governments have limited resources to implement a sophisticated PMS. The need for careful and astute management of resources is, however, an objective of small and large agencies. The PMS for the City of Dundee should be designed for the

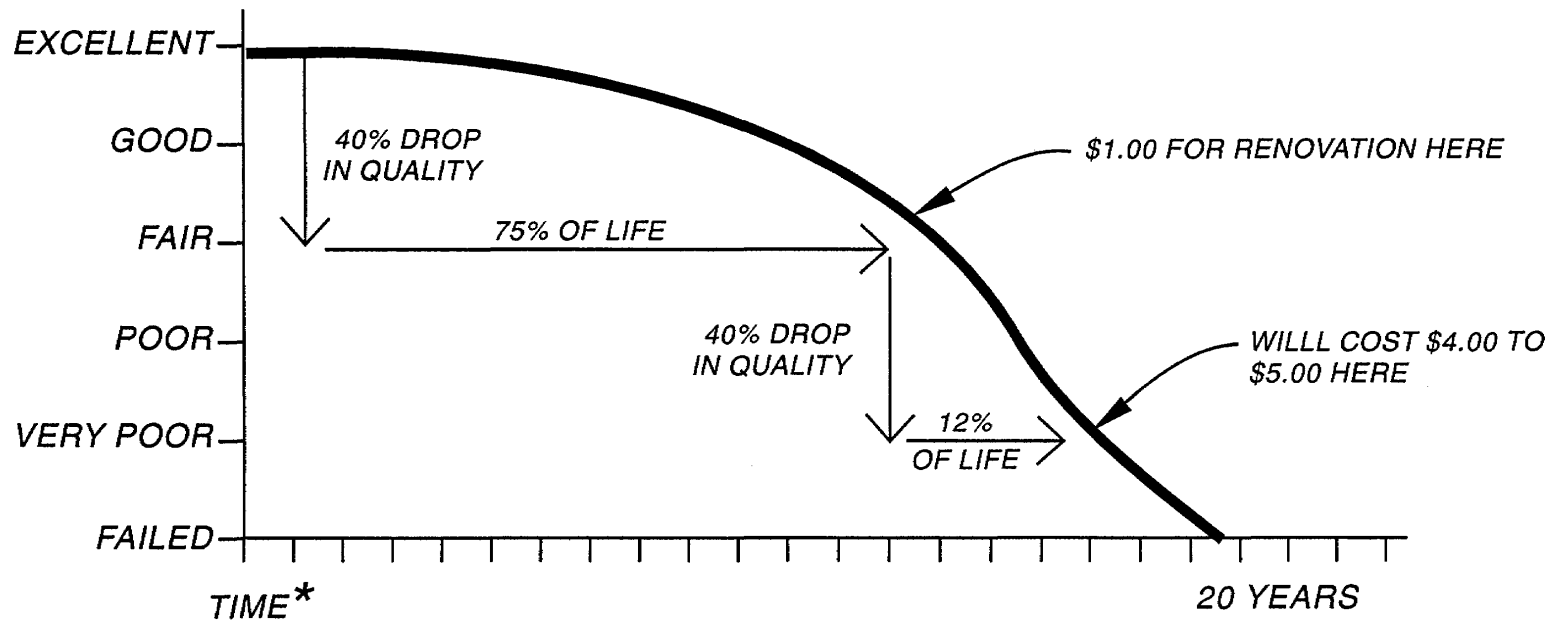
needs of a small community in managing its resources prudently and, therefore, expensive physical measurements and complicated mathematical models should be avoided. The focus is on a cost-effective program that satisfies the objective of the PMS.

6.11.2 Pavement Maintenance

Regular maintenance of roadways will reduce costs over the long term. Figure 6-6 illustrates the relationship between pavement condition and time ("Pavement Management System Study Summary Report," Metropolitan Transportation Commission, Oakland CA. 1985). The rate of deterioration increases rapidly in the later years of a pavement's useable lifetime. Typical pavements will show a 40 percent quality drop after the first 75 percent of their useable lifetime. The next 40 percent quality drop will occur in only the next 12 percent of the usable lifetime (see Figure 6-6). Moreover, every dollar spent on pavement rehabilitation when pavement quality is still fair will correspond to four to five dollars required for rehabilitation if maintenance is deferred until pavement quality is very poor. These factors make deferred maintenance very expensive and an appropriate Pavement Management System (PMS) very desirable.

A PMS assures that all maintenance needs are systematically identified with associated cost estimates to allow the prioritization of maintenance activities in accordance with the goals of the community. Pavement management systems vary greatly in the sophistication of expected data collection and cost-projection analysis provided. The City of Dundee should consider the implementation of a relatively simple PMS appropriate to its needs and resources. The key elements of a PMS include:

- Scheduled, regular inspections of all paved roads (the whole system does not need to be inspected every year).
- Established thresholds from roughness and/or visual distress surveys that will trigger a structural survey of a given road segment.
- Correlations between the age of the existing surface, its present condition, and projected time of most economical major maintenance (overlay).
- An annually updated list of anticipated minor and major maintenance for at least 5 years ahead.



PAVEMENT LIFE CYCLE

DUNDEE TRANSPORTATION SYSTEM PLAN
 DUNDEE, OREGON
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FIGURE
6-6



6.11.3 Pavement Conditions

To assess the current condition of pavements in the City of Dundee, a field survey and assessment should be conducted. Each segment of roadway should be rated on a PSI scale of zero to five. Present Serviceability Index (PSI) is a scale for rating pavement condition based on perceived ride quality. In practice, surveys of pavement damage, e.g. cracking and rutting, are conducted and the results correlated to a PSI scale. The PSI scale ranges from five to zero, with five being best. Table 6-11 lists the magnitude of needed maintenance corresponding to various PSI ratings.

**TABLE 6-11
 PSI RATING - ROADWAY PAVEMENT MAINTENANCE THRESHOLDS**

Present Serviceability Index (PSI)	Needed Action
5.0 - 4.7	Do Nothing
4.6 - 3.8	Minor Maintenance
3.7 - 3.2	Major Maintenance
3.1 - 2.5	Structural Improvement
2.4 - 0.0	Reconstruct

Minor maintenance includes pothole repair, slurry treatment, and chip seals. Major repair usually will mean a resurfacing overlay, up to three inches thick. Thicker overlays are structural improvements, and adding new base material as well as a structural surface layer constitutes a road reconstruction.

6.11.4 Determining Future Needs and Priority Improvements

Evaluation Procedure: The evaluation of pavement conditions to determine future needs and priority improvements is completed by establishing criteria or threshold values of pavement performance. These threshold values will be the specified limits of pavement condition against which comparisons of actual measurements can be made. If the measurement or estimate exceeds the limit, then a deficiency or need can be said to exist. The establishment of criteria or threshold limits provides for an objective and consistent assessment of pavement conditions. The threshold limits established also provides a means to portray current and future backlogs of work and allows the identification of deficient mileage.

The threshold values recommended for the City of Dundee is based on a PSI rating. Note that this assessment should be taken as guide and, in order to maximize cost-efficiency, the decision to complete maintenance activities on a section of pavement must account for the adjacent pavement section's condition. For example, when a pavement section that requires limited maintenance activities in the short-term is adjacent to sections that require immediate, longer-term attention, all sections should be considered for longer-term attention.

Monitoring of Pavement Conditions: Pavement conditions deteriorate at different rates based on a number of different factors. For example, vehicle weight is a far more critical factor than traffic volume with respect to the longevity of pavement. Moreover, a good road base will yield considerably longer pavement life, and cracked pavement is much more susceptible to rain and water damage. It becomes essential therefore, to put in effect a monitoring program by which pavement conditions are evaluated, problems identified early, and maintenance completed in a

timely manner. This monitoring activity is to be done more frequently for those roadways that are at higher risk of rapid deterioration. Arterial pavement sections in the City need to be evaluated on an annual basis. The condition of collector street pavement sections could be evaluated once every two years and local streets once every three years. This sampling scheme could be modified if it is determined at some later stage that the evaluation is not frequent enough.

Section 7

Transportation Funding Plan

Transportation Funding Plan

7.1 INTRODUCTION

To meet the requirements of the Transportation Planning Rule, the Dundee Transportation System Plan (TSP) must have a transportation financing program that includes the following:

- A list of planned transportation facilities and major improvements
- A general estimate of the priority or timing of planned facilities and improvements
- Determination of rough conceptual capital cost estimates
- A discussion of existing and potential financing sources
- Alternative funding strategies for capital projects

The remainder of this section summarizes the anticipated transportation projects identified in the Transportation System Plan and highlights funding sources available for their implementation.

7.1.1 Planned Transportation Facilities and Major Improvements

Based on the modal plans adopted for the plan, the total capital costs associated with transportation improvements in Dundee over the next twenty years will be an estimated \$17,842,000, excluding the planned statewide expressway, non-City funded sidewalks of transit improvements, and streetscape improvements to existing Ore 99W. As shown in Table 1, an estimated \$4.3 million of this total amount will be the responsibility of the City of Dundee, over \$11.3 million of costs will be borne by the development community, almost \$1 million will be borne by Yamhill County, and about \$1.3 million will be borne by ODOT.

It is assumed that the improvements that have been identified as developer-related costs will be conditioned on new and existing development as applications are approved. Therefore, as development occurs these improvements will be funded. It is further assumed that those improvements identified for funding by Yamhill County (street improvements outside the Dundee Urban Growth Boundary, but of benefit to Dundee and Yamhill County circulation needs) will be borne by the County. Those improvements on facilities outside of Dundee's authority or boundary have been assumed to be funded by other jurisdictions; however, the City may choose to contribute funding toward these improvements to accelerate implementation by these jurisdictions. In addition, those improvements on the state transportation system (i.e. Ore 99W) are attributed to regional/statewide travel volumes and are assumed to be funded by ODOT. The City will not fund those improvements that have been attributed to other jurisdictions or sources; however, the City should facilitate to the extent possible each of these other jurisdictions or sources to fund their respective projects. It is the purpose of this section to identify sources that can enable the City to fund this \$4.3 million capital cost for transportation system improvements over the next 20 years.

Table 7-1 summarizes the overall transportation capital costs over the horizon of the plan.

**TABLE 7-1
 TOTAL DUNDEE TRANSPORTATION SYSTEM COSTS**

Description	City	Development	County	ODOT	Total
Local Streets	\$647,000	\$1,702,000	-	-	\$2,349,000
Collectors	\$411,000	\$8,658,000	\$954,000	-	\$10,023,000
Intersections	\$962,000	\$476,000	-	\$1,262,000	\$2,700,000
Deferred Maintenance	\$1,200,000	-	-	-	\$1,200,000
Sidewalks	\$1,068,000	NA	-	-	\$1,068,000
Bicycle Facilities	-	-	-	-	-
Transit Facilities	-	-	-	-	-
Statewide Expressway	-	-	-	TBD	TBD
Total	\$4,288,000	\$11,338,000	\$954,000	\$1,262,000	\$17,340,000

7.1.2 Priority & Timing of Planned Facilities & Improvements

As shown in Table 7-1 above, there are an estimated \$4,288,000 costs that the City would be responsible for over the planning horizon. This amounts to an annual cost of about \$215,000 in 2002 dollars. The purpose of this section is to attempt to prescribe a schedule for their orderly implementation.

Tables 7-2 through 7-6 below itemize the projects by type for which the City has responsibility for funding. Very few of the City-funded transportation improvements are required by a capacity or safety related need. Thus, the timing of project implementation is discretionary, and is likely based on when the City is able to acquire funding. In order to put the implementation schedule in context, we have attempted to indicate the likely time horizon when each of the 30 City-funded transportation projects may be needed. Tables 7-2 through 7-6 show this likely implementation schedule.

**TABLE 7-2
CITY TRANSPORTATION SYSTEM COST BREAKDOWN: LOCAL STREET IMPROVEMENTS**

Project Description	Project Number ¹	Length (ft)	Total Cost	City's Share	City's Cost	Likely Time Horizon
7 th Street extension to Alder Street	4	220	\$90,000	75%	\$67,500	10-15 yrs
3 rd Street extension thru City Hall	5	300	\$122,000	100%	\$122,000	15-20 yrs
8 th Street connection: Linden to Ore 99W	7	750	\$306,000	60%	\$184,000	5-10 yrs
13 th Street: Alder to Ore 99W	11	420	\$171,000	50%	\$85,500	15-20 yrs
Niederberger Road realignment	12	225	\$92,000	100%	\$92,000	5-10 yrs
11 th Street: Elm to Maple	17	470	\$192,000	50%	\$96,000	15-20 yrs
Total					\$647,000	

Notes: 1. Project number relates to Figure 6-3 in Street System Plan section.

**TABLE 7-3
CITY TRANSPORTATION SYSTEM COST BREAKDOWN: COLLECTOR IMPROVEMENTS**

Project Description	Project Number ¹	Length (ft)	Total Cost	City's Share	City's Cost	Likely Time Horizon
9 th /10 th Street Realignment	18	850	\$367,000	67%	\$245,000	0-5 yrs
Alder St. extension to Ore 99W	19	1,150	\$497,000	33%	\$166,000	5-10 yrs
Total					\$411,000	

Notes: 1. Project number relates to Figure 6-3 in Street System Plan section.

**TABLE 7-4
CITY TRANSPORTATION SYSTEM COST BREAKDOWN: OTHER IMPROVEMENTS**

Project Description	Total Cost	City's Share	City's Cost	Likely Time Horizon
Ore 99W/10 th Street Traffic signal	\$200,000	50%	\$100,000	0-5 yrs
Ore 99W/Niederberger-Parks Traffic signal	\$200,000	50%	\$100,000	10-15 yrs
5 th Street WPRR Crossing Gates*	\$600,000	33%	\$198,000	5-10 yrs
10 th Street WPRR Crossing Gates*	\$600,000	33%	\$132,000	5-10 yrs
Niederberger-Parks WPRR Crossing gates*	\$400,000	33%	\$132,000	5-10 yrs
Edwards/10 th Street Roundabout	\$300,000	100%	\$300,000	10-15 yrs
Total			\$962,000	

* For the state share, these funds would come from ODOT rail funds.

**TABLE 7-5
CITY TRANSPORTATION SYSTEM COST BREAKDOWN: DEFERRED MAINTENANCE COSTS**

Street	Section	Project No. ¹	Total Cost	City's Share	City's Cost	Likely Time Horizon
Dogwood Street	Between Viewmont & Upland	29	\$200,000	100%	\$200,000	0-5 yrs
Edwards Road	Between 2 nd St and 5 th St	30	\$200,000	100%	\$200,000	10-15 yrs
Alder Street	Between 1 st St and 2 nd St	31	\$100,000	100%	\$100,000	10-15 yrs
Alder Street	Between 9 th St and Upland Dr	32	\$300,000	100%	\$300,000	5-10 yrs
Upland Drive	Between 5 th St and Alder St	33	\$200,000	100%	\$200,000	0-5 yrs
8 th Street	Between RR and Edwards Rd	34	\$200,000	100%	\$200,000	10-15 yrs
Total					\$1,200,000	

Notes: 1. Project number relates to Figure 6-3 in Street System Plan section.

**TABLE 7-6
CITY TRANSPORTATION SYSTEM COST BREAKDOWN: SIDEWALKS**

Street	Description	Length (feet)	Cost ¹	Likely Time Horizon
1 st St	South side between Dogwood Dr and Birch St	700	\$73,500	0-5 yrs
3 rd St	South side park frontage - connect to existing trail	300	\$31,500	0-5 yrs
5 th St	North Side along Park frontage to Dogwood Dr South Side between Locust St and Edwards Dr	1,200 120	\$126,000 \$12,500	5-10 yrs
10 th St	North side between Ore 99W and Cedar St	1300	\$136,500	5-10 yrs
Alder St	West side between 11 th St and Upland Dr	2,350	\$247,000	0-5 yrs
Upland Dr	South Side between 5 th and Alder St	300	\$31,500	5-10 yrs
Dogwood	North Side developed properties	300	\$31,500	5-10 yrs
Parks Rd	North side between Hwy 99W and Edwards Rd	1,500	\$157,500	0-5 yrs
Edwards Rd	West side between Parks Rd and 10 th St West side between 8 th St and 5 th St	250 1,050	\$26,000 \$110,500	10-15 yrs
Ore 99W	West side between Niederberger Rd and 12 th St	800	\$84,000	15-20 yrs
Total			\$1,068,000	

Note: 1. All sidewalk costs in this table are attributable to the City.

Based on the "likely time horizon" for each of the City-funded transportation projects, the approximate costs to the City for each five-year time period are as follows:

0-5 years:	\$1,254,500	(29%)
5-10 years:	\$1,542,000	(36%)
10-15 years:	\$1,104,000	(26%)
15-20 years:	\$ 387,500	(9%)
	\$4,288,000	(100%)

As shown above, almost two-thirds of transportation needs in Dundee are focused in the first ten years of the planning horizon.

7.1.3 Transportation Financing and Funding Overview

Transportation projects are often paid for using a combination of funding and financing. Funding describes methods that generate revenue for transportation projects. Financing refers to how projects are paid for over time.

Funding for transportation improvement projects is typically derived from federal, state, and local governments. A description of the funding sources from each of those three categories follows. In some cases, funds may come from one level of government (such as ODOT or OECDD) to be spent by another level of government (i.e., City of Dundee). A summary of state and local funding sources is provided in Table 7-7.

For each of the funding alternatives listed below, there is a brief description, a listing of the existing application (i.e., who is presently using this method), and a short discussion of the potential for implementing the alternative in Dundee. No effort has been made to screen alternatives according to their political or legal feasibility. The intent is to provide an overview of a number of alternative revenue sources. The decision on how the funds are spent is ultimately a policy issue to be decided by the Dundee City Council.

Federal Funding Options

Transportation Efficiency Act for the 21st Century (TEA-21)

Description: The act emphasizes flexibility in funding transportation solutions and establishes a series of funding categories for implementation. Funding through the TEA-21 is targeted to improvement of all modes of transportation that demonstrate beneficial impacts towards enhancing the multi-modal nature of the transportation system, and meet local land use, economic, and environmental goals. TEA-21 is set to expire after FY 2003 and will be replaced by a new federal transportation program that is yet unnamed. The nature of the new federal program will likely be very similar to TEA-21.

Existing Application: Transportation improvement projects within Dundee are potentially eligible for funding through a number of categories under the TEA-21. Selected categories include:

- Surface Transportation Program (STP): Funding through this category may be used on roads that are not functionally classified as local or rural minor collectors. These roads are now collectively referred to as federal-aid routes.
- Transportation Enhancement Program: Funding through this category may be used for providing pedestrian, bicycle and transit facilities, and improvements or programs that enhance scenic or historic resources. Dundee will need to coordinate with ODOT Region 2 to receive TEA-21 funding.
- Federal Earmarked Funds
- STP for Rail Crossing Safety Projects
- STP for Safety Projects
- Hazard Elimination Program

Community Development Block Grants (CDBG)

The Federal Department of Housing and Urban Development offers a Community Development Block Grant Program (CDBG). To receive CDBG funds, cities must compete for grants based upon a formula that includes their size and other factors such as rural/urban status, demographics, local funding match, and potential benefits to low-to-moderate income residents, including new job creation. CDBG funds can also be used for emerging public work needs.

**TABLE 7-7
 POTENTIAL RESOURCES FOR DOWNTOWN DEVELOPMENT ACTIVITIES
 IN DUNDEE**

Program Name	Funding Source	Form of Available Funds		Contact Person Phone #	Funding Deadline		Award Limits	Eligible Funding Use	
		Grants	Loans		First Come/ First Served	Competitive Cycle		Operational	Capital Improvements
County Video Poker Fund	County Commission	X	X	County Commissioners or County Administration	X	X	Varies by County	X	X
Transient Room Tax Funds	Cities and Counties	X		Cities, Counties, & Convention & Visitors Bureaus		Typically	Varies	X	X
Corporate Foundations with Local Connections	Statewide Corporations	X		See <i>Guide to Oregon Foundations</i>	X	X	Varies		More typical than "operational" use
City and County General Fund	Cities and Counties	X	X	City Managers and County Administrators	X	X	Varies	X	X
Foundations	Oregon Foundations	X		See <i>Guide to Oregon Foundations</i>	X	X	Varies		Generally preferred over operating funds
	State Historic Preservation Office	X		James Humrick (503) 378-6821 ext. 231		X		X	
Preservation Services Fund	National Trust for Historic Preservation	X		Anthony Veerkamp (415) 956-0610		X	Generally not exceeding \$3,000	X	X
National Preservation Loan Fund	National Trust for Historic Preservation		X	Regional Staff	X	X	\$100,000		X
Rural Investment Fund	Oregon Economic Development Department	X		Regional Staff	X	X	Varies	X	X
TEA-21 Enhancement Fund	Oregon Department of Transportation	X		Federal Aid Specialist in Regional Office		X	Approx. \$500,000		X
Old Growth Diversification Fund	US Forest Service/ Oregon Economic Development Department	X		Regional Development Office/ Regional Coordinator (800) 233-3306	X		Varies		Preferred over operating expenses

Source: Oregon Economic and Community Development Department; modified by Otak, Incorporated

Potential: In small rural communities this program has limited application but may be a source of street funds for roads serving new developments supporting job creation or multifamily housing. CDBG funding requests should be coordinated through Yamhill County.

Federal Economic Development Administration (EDA)

The Federal Economic Development Administration provides annual grant funding on a competitive basis for public works improvements that directly generate or retain jobs in local communities. These funds can be used for local utilities and transportation facilities that serve new development sites.

Potential: EDA funds are difficult to obtain but could be considered for targeted improvements for mill site redevelopment, or local industry expansion. Funding requests for EDA grants should be coordinated with Yamhill County and the OECDD.

State Funding Options

State Motor Vehicle Fund

Description: The State of Oregon currently collects the following fuel and vehicles fees for the State Motor Vehicle Fund:

- State Gas Tax \$0.24 per gallon
- Vehicle Registration Fee \$15.00 per year

In addition, a weight-mile tax is assessed on freight carriers to reflect their use of state highways. The revenue from the fund is used by ODOT and distributed to cities and counties throughout the state with each city's distribution based on a city's share of statewide population, and the county distribution based on a county's share of statewide vehicle registration.

Existing Application: ODOT Region 2, Yamhill County, and the City of Dundee each receive funds from the state Motor Vehicle Fund. ODOT uses their allocation from the State Motor Vehicle Fund for maintenance and capital purposes. The State Transportation Improvement Program (STIP) describes the capital projects to be funded by ODOT. Yamhill County and the City of Dundee typically use their funding allocation for street maintenance.

The state distributes approximately 16 percent of the State Motor Vehicle Fund to cities and 24 percent to counties based on a per capita rate (cities) and vehicle registration (counties). The remaining amount in the State Motor Vehicle Fund is used to maintain and enhance the state highway system. The state operates a grant program available to cities for bicycle-related transportation system improvements and one percent of the fuel tax returned to cities and counties is designated for bike paths and lanes.

Potential: In fiscal year 2000, Dundee received approximately \$150,000 from this source of funds. With an increase in population, number of registered vehicles, and fuel sales, the total revenue from the State Motor Vehicle Fund will rise. However, if the fees (tax per gallon) stay at current levels, there will be a reduction in buying power due to inflation.

Special Public Works Funds (SPWF) and Immediate Opportunity Funds (IOF) — Lottery Program

Description: The State of Oregon through the Economic and Community Development Department provides grants and loans to local governments to construct, improve, and repair public infrastructure in order to support local economic development and create new jobs.

Existing Application: SPWF and IOF funds have been used in a number of cities for the construction of water, sewer, and limited street improvements.

Potential: These funds are limited to situations where it can be documented how a project will contribute to economic development and family-wage job creation. An example of the application of these funds in Dundee may be for street improvements on Ore 99W to better facilitate customers accessing downtown retail businesses. Another application may include eastside industrial site development projects proposed by private developers. Funding applications should be coordinated with Yamhill County, OECDD, and ODOT.

Special City Allotment (SCA)

Description: SCA funding is available to incorporated cities with populations less than 5,000. This funding comes from state gas tax funds and provides grants up to \$25,000 to selected cities. Cities are asked by ODOT annually to apply for funding for projects they select on their local street system. Cities can apply only if previous SCA Grants are complete and paid for. ODOT regions evaluate project proposals from each city and rank each proposal.

Application: Region 2 is allocated several grants per year for small cities.

State Bicycle-Pedestrian Grants

Description: Cities and counties can apply annually for bike path or sidewalk grants of projects they have selected. Grants for projects on local street systems have a match of 20 percent and projects next to state highways have a lower match requirement. Bicycle-pedestrian grants are generally below \$125,000 per project. Project evaluation and selection is made annually statewide by the Statewide Bicycle/Pedestrian Committee.

Application: Communities throughout Yamhill County have successfully received these grants for bicycle and sidewalk improvements.

Oregon Transportation Infrastructure Bank

Description: In 1996, Oregon became part of a 10-state national pilot program intended to provide innovative funding for a variety of highway and transit capital projects. The bank helps fund needed infrastructure by making revolving loans to communities throughout Oregon. The important advantages of the bank include providing low tax-exempt interest rate loans, quick processing of loan applications, and administrative simplicity.

Application: The first round of loans from the bank totaled \$5.8 million with funding from state highway money and federal matching funds. Representative projects include transit facilities in Hood River, Marion County, and Washington County, and a statewide rideshare vanpool program.

Momentum appears to be building in support of this program as the U.S. Congress increased funding authorization for state infrastructure banks under the TEA-21.

Potential: This is a viable alternative to local bond levies, especially for multi-modal projects.

Local Funding Options

The following programs are used by cities in the funding of transportation improvements:

General Obligation Bonds (G.O. Bonds)

Description: Bonds are often sold by a municipal government to fund transportation (or other types) of improvements, and are repaid with property tax revenue generated by that local government. Under Measure 50, voters must approve G.O. Bond sales with at least a 50 percent voter turnout.

Existing Application: Cities all over the state use this method to finance the construction of transportation improvements. For smaller jurisdictions, the cost of issuing bonds vs. the amount that they can reasonably issue creates a problem. Underwriting costs can become a high percentage of the total cost for smaller issues. According to a representative of the League of Oregon Cities, the state is considering developing a "Bond Pool" for smaller jurisdictions. By pooling together several small bond issues, they will be able to achieve an economy of scale and lower costs.

Potential: Within the limitations outlined above, G.O. bonding can be a viable alternative for funding transportation improvements when focused on specific projects.

Serial Levy/Property Taxes within the Limits of Ballot Measure 50

Description: Local property tax revenue (city or county) could be used to fund transportation improvements through a serial bond levy.

Existing Application: Revenue from property taxes ends up in the local government general fund where it is used for a variety of uses. Precedents for the use of property taxes as a source of funding for transportation capital improvements can be found throughout the state. However, with the limitations resulting from Measure 50, use of property taxes for transportation capital improvements will continue to compete with other general government services under the three percent assessed value increase allowed by Measure 50 and the local tax limits of \$15 per \$1,000 of assessed value established under Measure 5. Under Measure 50, however, there is no limit on assessed value generated by new construction.

Potential: Because the potential for increased funding from property tax revenue is limited by Ballot Measures 5 and 50 and by competition from other users who draw funds from the general fund, it is not a practical source for financing major local street improvements.

Revenue Bonds

Description: Revenue Bonds are those bonds sold by a city and repaid from an enterprise fund with a steady revenue stream such as a water or sewer fund. The bonds are typically sold to fund improvements in the system producing the revenue.

Existing Application: Revenue bonds are a common means to fund large high-cost capital improvements that have a long useful life. A water or sewage treatment plant is a good example where the high construction cost over a short period makes it difficult to pay for from operating funds, yet a long-term revenue stream from sewer revenues makes the sale of bonds a viable alternative, spreading the cost of the facility improvement over a long period of time. Innovative applications include the City of Independence, where local fuel tax revenue was pledged to finance revenue bonds to fund street improvements.

Potential: Revenue bonds are not currently considered as a likely funding source for roads or other transportation in small cities.

Transportation System Development Charges (SDC)

Description: A transportation system development charge (SDC) or traffic impact fee is a fee charged to new development to pay for infrastructure improvements needed as a result of new development.

Existing Application: Cities now use transportation SDCs (or traffic impact fees) to assist in funding traffic improvements attributed to new development.

Potential: Dundee already collects water, sewer, and stormwater SDCs, but does not have a transportation SDC. Based on a review of transportation SDCs in 17 Oregon cities, average SDCs in 1999 were \$1,350 for single-family dwellings and \$34,000 per restaurant.

The City may choose to initiate a Systems Development Charge for transportation. This charge would be imposed on new developments in Dundee. Based on the need to raise \$3 million, a per-household cost of about \$3,500 could be imposed on the 900-1,000 new homes projected in Dundee over the planning horizon. There are a number of challenges associated with this approach:

- *SDC's can only be used to address growth-related transportation needs.* SDC's cannot be used to fund any existing transportation deficiencies. Hence, many of the capital projects would not be eligible for funding using an SDC.
- *Identified capital projects that are constructed as a part of a new development would be credited against the SDC that the development would pay.* Accordingly, newly developing areas, particularly in eastern Dundee, would be credited with the infrastructure that they would construct as part of their development. As a result, after applying credits the City would collect very little, if any, funds from the large developers for capital transportation projects.
- *Administrative costs of SDC's can be high.* The administration of an SDC for transportation can be very high when compared to the expected return.

Based on these challenges, it is questionable whether an SDC is the appropriate method for funding transportation projects in Dundee.

Local Vehicle Fuel Tax

Description: Local jurisdictions can implement a local gas tax that would be in addition to the state gas tax it currently receives.

Existing Application: Five jurisdictions in Oregon have a local gas tax — Woodburn (\$0.01/gallon), Washington County (\$0.01/gallon), Tillamook (\$0.015/gallon), The Dalles (\$0.01/gallon), and Multnomah County (\$0.03/gallon). The local gas taxes are estimated to raise the following amounts each year:

Woodburn	\$147,000
Tillamook	\$135,000
The Dalles	\$420,000
Multnomah County	\$8,800,000
Washington County	\$2,500,000

Potential: While there are no gas stations currently in the City of Dundee, a proposed fuel station is now being considered. If this development occurs, a modest \$.01 to \$.02 local fuel tax can be expected to generate \$27,000 to \$54,000 in annual local revenue. These estimates are based on average estimates for gasoline sales, and would be affected by station size, access, volume of passing traffic (which would be severely reduced with a bypass), and presence of competitive stations.

Local Vehicle Registration Fee

Description: Like a local fuel tax, local jurisdictions can implement a local vehicle registration fee. This would operate similarly to the existing statewide vehicle registration fee.

Existing Application: Presently no cities or counties in Oregon charge a local registration fee.

Potential: Not a likely source for local funding but proposed legislation is expected to increase vehicle registration fees across the state this year.

Local Street Utility/User Fee

Description: This fee is based on the fact that streets are utilities used by citizens and businesses just like a public water or sewer system. Fees are typically assessed by usage (e.g., average number of vehicle trips per development type).

Existing Application: This fee is used in several Oregon cities through a \$2.00 to \$12.00 monthly fee charged on local dwelling units. The revenue generated by the fee is used for operations and maintenance of the street system.

Potential: There is little potential for capital projects but this fee could be considered to supplement local road maintenance funds. In Dundee, a \$10.00 monthly fee charged to the estimated 1,024 households would generate approximately \$123,000 per year in revenue. As households grow to an estimated 1,952 in 2025, revenues would grow to \$234,000 annually.

Local Improvement District (LID)

Description: Through a local improvement district (LID), a street or other transportation improvement is built and the adjacent properties that benefit are assessed a fee to pay for the improvement.

Existing Application: LID programs have wide application for funding new or reconstructed streets, sidewalks, water/sewer or other public works projects. The LID method is used primarily for local or collector roads, though arterials have been built using LID funds in certain jurisdictions.

Potential: LIDs continue to offer a good mechanism for funding projects such as new sidewalks and street surface upgrades. An example of a good application for an LID may be for sidewalk projects on collector streets. In the developed areas of Dundee where there are no sidewalks in front of existing developed properties, the City may be able to fund the \$1 million cost of sidewalks on one side of collector streets to provide a connected pedestrian system for current and future residents

Developer Dedications of Right-of-Way and Local Street Improvements

Description: New local streets required to serve new development areas are provided at the developer's expense to the City in accordance with the tentative and final plan approvals granted by the City Council.

Existing Application: Current City ordinance requires local streets and utilities to be provided in accordance with the adopted Land Use Plan, and the zoning ordinance and subdivision ordinance. This includes dedication of street/utility right-of-way and construction of streets, pedestrian/bicycle facilities, and utilities to City design standards.

Potential: Private developer street dedications are an excellent means of funding new local street/utility extensions, and are most effective if guided by a local roadway network plan. This funding mechanism can apply to all new local street extensions in Dundee within the 20-year planning period.

City of Dundee Capital Improvement Program

According to former City manager, George Lewis, Dundee operates on an annual budget of approximately \$2.8 million. The City's consolidated street fund was budgeted at \$297,398 during the fiscal year 2000/2001. Virtually this entire amount is spent toward street maintenance, including select reconstruction of currently under-maintained streets. State tax receipts account for nearly one-half of the total street fund revenues. Each year the City budgets a "carryover" balance from unrestricted general funds on the order of \$100,000 to \$150,000. These unrestricted revenues are often used to construct strategic local street projects such as 1st Street and 11th Street. Based on this past history, it is reasonable to expect that in the future the City may have the following annual revenues:

\$150,000	State gas tax revenue
\$150,000	General fund (budgeted)
<u>\$100,000</u>	General fund (carry-over at end of year)
\$400,000	

As stated above, virtually all of these funds are allocated toward street maintenance, with the general fund carry-over available for reconstruction of streets with severe deferred maintenance. Thus, based on past history the City will need additional funding sources for the \$4.3 million of capital projects identified for City-funding in Table 6-1.

7.1.4 Alternative Funding Strategies for Capital Projects

As previously identified in Table 7-1, of the \$17.8 million capital needs for transportation over the next twenty years in Dundee, about \$13.5 million will be funded by sources other than the City. The majority of capital projects will be funded by developers as conditioned by the City for their development approval (\$11.3 million). Hence, it is imperative that the City monitor transportation needs as new developments are proposed, and that these developments are indeed conditioned with right-of-way dedication and new transportation projects as they come on line. Similarly, the City should coordinate with ODOT to ensure that developers provide appropriate mitigation for their impacts to Ore 99W. The City should also coordinate with county and state agencies regarding the of availability of funding sources for specific projects (i.e. scenic byway funds for River Front Drive) to assist in the long term funding of the capital program.

This transportation needs assessment has also identified projects that are outside the city, but are important links to assist in the mobility of Dundee residents and businesses. Accordingly, the City should coordinate with Yamhill County in the support of these projects. Even so, there are about \$4.3 million in projected unfunded transportation project needs over the twenty-year planning horizon. Based on past history, an estimated \$250,000 can reasonably be expected to be collected from state bicycle and pedestrian funds over the planning horizon to pay for City projects. Moreover, based on discussions with DTAC, the committee felt that is reasonable to assume that over the next 20-25 years the City will acquire funding from federal or state sources to pay for an additional \$1 million of transportation infrastructure costs. Hence, the unfunded portion of the City's transportation costs over the next 20-25 years would be an estimated \$3 million. Likely City costs and outside funding are itemized below for the planning horizon.

Dundee Transportation Costs:

Total System Costs (excluding bypass)		\$17,340,000
Costs Borne by Developers	(\$10,836,000)	
Costs Borne by County	(\$954,000)	
Costs Borne by ODOT	(\$1,262,000)	
Capital Costs to be Borne by City		\$4,288,000
Maintenance Costs (\$150,000/yr)		\$3,000,000
Total Costs to be Borne by City		\$7,288,000

Probable Funding Sources for City Costs:

State Motor Vehicle Fund	\$3,000,000
State Bike/Ped Funds	\$250,000
Other Misc. Fed/State Grants	<u>\$1,000,000</u>
Remaining Unfunded City Share	say \$3,000,000

Possible Funding Strategies for City's Unfunded Share (in 2002 dollars)

Based on the funding sources and strategies identified in the previous section, the following strategies may be considered by the City. These strategies have been developed simply as suggestions to the City, and more detailed financial analysis would be needed prior to adoption of a financial plan:

Option 1: General Obligation Bonds to Fund Whole Unfunded Share

Local voter approved \$3,000,000 Bond at 6% annual coupon 20-year term funded by 1,024 current households growing to 1,952 households by year 2025. The amount paid per household to amortize the GO bond would be added to the household property tax bill.

Annual Cost Per Household: \$175

Option 2: Utility Fees to Fund Whole Unfunded Share

Charge households and businesses for street maintenance. Assumes \$125,000 in annual funding is raised from a \$10 monthly street utility fee charged to 1,024 current households increasing to 1,952 households by year 2025 (also to be charged to businesses at \$10/business). Based on experiences in other similar cities in Oregon, \$10 per month is about the maximum that can be reasonably collected per household. As a result, only about \$1.4 million, or slightly less than one-half of the total amount desired, could be collected using this strategy.

Annual Cost Per Household: \$120 (only raises \$1,400,000)

Option 3: Local Fuel Tax to Fund Whole Unfunded Share

A service station in Dundee could be expected to pump an estimated 2.7 million gallons annually (500 customers/day @ 15 gal/customer x 365). At \$.02 local fuel tax per gallon, a new service station in Dundee could collect about \$54,000 annually. Over twenty years at a bonding rate of 6%, the present value of the amount collected would be about \$620,000. Since it would take five new stations to raise the \$3,000,000 desired amount, it is unrealistic to rely solely on this strategy.

Annual Cost Per Household: \$20 (only raises \$620,000 for 1 station)*

Option 4: Combination of General Obligation Bond, Utility Fee and Local Gas Tax

Given that the City will not likely ever have demand for more than one gas station (possibly two), a local gas tax of \$.02 (could generate approximately \$620,000. This could be augmented by an monthly street utility fee of \$10 per household (and additional fee revenue from businesses) to raise \$1.4 million more, and a General Obligation Bond (equivalent to \$60 per household annually) to raise an additional \$1 million. The combination of these sources would obtain the \$3,000,000 in additional local funding needed to fund the estimated share of local transportation costs.

* Assumes a typical Dundee family drives 20,000 miles with a car that consumes gas at 20 miles per gallon, thereby consuming 1,000 gallons annually. Further assuming that all of a family's gas is purchased at this local station, at \$0.02 per gallon the family would pay \$20 annually.

Section 8

**Transportation System Plan
Policies**

Transportation System Plan Policies

8.1 INTRODUCTION

Based on the recommendations provided in this transportation system plan, there are several policies and ordinances on the statewide, regional, and local levels that have been addressed and modified to help fulfill these recommendations. The policies referenced in this section have been adopted by the Dundee City Council as part of their consideration of the transportation system plan. Appendix H includes Ordinance 411-2003, an ordinance adopting the Dundee TSP by amending the Dundee Comprehensive Plan and Dundee Development

8.2 LOCAL PLANS

8.2.1 Yamhill County Transportation System Plan

The Yamhill County Transportation System Plan identifies the following potential transit needs in the county:

- Transit commuter service between Newberg and McMinnville (including Dundee) and from Newberg and McMinnville to Portland and Salem (intercity bus or rail)
- Development of a County rideshare program to encourage carpooling and reduce unnecessary vehicle travel
- Local enhancements to intermodal connectivity
- Yamhill County should include in its transportation plan the connection of Edwards Road to Dayton Road (north of Dundee). This connection shall not be made until the Newberg-Dundee Bypass is constructed and operational, thereby relieving traffic congestion on existing Ore 99W main street in Dundee.
- Yamhill County should include in its transportation plan the paving of Worden Hill Road to Highway 240 (west of Dundee).
- Yamhill County and the City of Dundee should preserve the WPRR rail corridor to enable the possibility of commuter rail from McMinnville to Sherwood.

Although providing these services is not solely or even principally the City's responsibility, the TSP should address actions the City can take to support these services. These actions could include developing transit-supportive street design standards that provide room for shelters and other transit amenities, improving corner radii at intersections, and supporting transit priority measures.

8.2.2 Dundee Development Code

- This TSP, as the transportation element of the City's comprehensive plan, presents the City's transportation policy. This policy is implemented through revisions to the Dundee Development Code (DDC), which is the legal document that provides the City's development standards and regulations.

Final versions of code language have been adopted as part of the adoption of this TSP. Proposed amendments to the Dundee Development Ordinance, as adopted by the Dundee City Council in Ordinance 411-2003 are included in Appendix H.

8.2.3 Dundee Comprehensive Plan Text Amendments

On June 2, 2003, the Dundee City Council adopted the following goals, objectives and policies to be incorporated into the Dundee Comprehensive Plan.

TRANSPORTATION GOAL

To provide and encourage a safe, convenient, aesthetic and economical transportation system, addressing the needs of all citizens within the community.

OBJECTIVES

- A. The development of a well-connected street network that is safe, accessible and efficient for motorists, pedestrians, bicyclists and the transportation disadvantaged.
- B. Preserve the aesthetic quality of the community.
- C. The construction of a safe, continuous and direct network of streets, accessways, and other improvements, including bikeways, sidewalks, and safe street crossings to promote safe and convenient bicycle and pedestrian circulation within Dundee.
- D. Develop policies for the location and improvement of arterials, collectors, local streets and sidewalks.
- E. Improve the transportation links within the region as well as other regions of the state, while encouraging alternative transportation mode for commuters.

POLICIES

- A. General Transportation Network
 - 1. The designated arterial and collector streets of the street network will be used to assist in prioritizing street development and maintenance.
 - 2. The City of Dundee shall protect the function of existing and planned roadways as identified in the Transportation System Plan. This policy recognizes the proposed new street locations are conceptual in nature and the actual dedication and installation of improvements shall comply with applicable regulations, including environmental provisions.
 - 3. All development proposals, plan amendments, or zone changes shall conform with the adopted Transportation System Plan.

4. The City of Dundee shall include a consideration of their impact on existing or planned transportation facilities in all land use decisions.
5. Transportation facility siting and design shall be done in a manner that will minimize adverse effects on the existing land uses and natural features.
6. The City of Dundee shall protect the function of existing or planned roadways or roadway corridors through the application of appropriate land use regulations, exactions, voluntary dedication, or setbacks.
7. New direct access to Ore 99W shall be granted only after consideration is given to Oregon Department of Transportation access management standards, land use and traffic patterns in the area of development, and not just at the specific site. Common driveways and other access management techniques shall be encouraged to coordinate traffic and land use patterns and these shall be implemented wherever feasible.
8. The City shall coordinate development and revisions of its transportation systems plan with the Oregon Department of Transportation and Yamhill County. Improvements listed in ODOT's Statewide Transportation Improvement Program that affect Dundee shall be consistent with the City's Transportation System Plan and Comprehensive Plan.
9. Off-street parking shall be provided by all land uses to improve traffic flow, promote safety, and lessen sight obstruction along the streets.
10. The City shall develop a Capital Improvement Program to identify and prioritize transportation projects.
11. All City streets shall operate at a Level of Service standard "D" or better during the 20-year planning period. When the LOS drops to "E," actions will be initiated to return the street to LOS D.
12. The City of Dundee shall work with Oregon Department of Transportation on a continual basis to have a traffic signal installed at the Parks Road/Ore 99W and 10th Street/Ore 99W intersections as soon as possible.
13. Through the refinement plan process, the City of Dundee will investigate the potential of developing a unique streetscape plan for the community's downtown, including the potential for establishing a Special Transportation Area consistent with ODOT regulations.

B. Newberg-Dundee Bypass

1. The City shall coordinate with the Oregon Department of Transportation, Yamhill County and other affected agencies regarding the location and construction of the Newberg-Dundee Bypass.

2. The City shall encourage the selection of a bypass alternative that ensures sufficient traffic is diverted from Ore 99W through Dundee to allow the remaining traffic to be served by two travel lanes (or three including a center left turn lane) within the Transportation Plan's planning horizon.
3. The City shall encourage the new bypass design to provide adequate public access - including pedestrian, bicycle, vehicle and recreational - to the Willamette River.
4. The City shall encourage the new bypass design to incorporate adequate buffering and physical separation between the new highway, and, public access to the Willamette River and existing residential neighborhoods.
5. Improvements for street connectivity within the City that may provide alternative routes to avoid Ore 99W congestion through Dundee, including alternative linkages to adjacent communities, shall not occur until such time the bypass is in operation.
6. The land use decisions regarding the location of the proposed Newberg-Dundee Bypass shall be made through a subsequent amendment to the Dundee TSP. As part of this process, the City recognizes Newberg and Yamhill County will need to amend their TSPs to authorize a bypass corridor, and, Yamhill County must take an exception to Statewide Planning Goal 12 to authorize a new transportation facility in rural lands.

C. Pedestrian and Bicycle Facilities

1. In areas of new development the City of Dundee shall investigate the existing and future opportunities for bicycle and pedestrian accessways. Existing accessways such as user trails established by school children distinguish areas of need and should be incorporated into the transportation system.
2. Bike lanes and/or sidewalks shall be included on all new arterials and collectors within the Urban Growth Boundary, as referenced by the Transportation System Plan.
3. Sidewalks shall be included on all new streets within the Urban Growth Boundary, as referenced by the Transportation System Plan.
4. Where feasible, bikeways and pedestrian accessways shall connect to local and regional travel routes.
5. Bikeways and pedestrian accessways shall be designed and constructed to minimize potential conflicts between transportation modes. Design and construction of such facilities shall follow the guidelines established by the Oregon Bicycle and Pedestrian Plan.
6. Maintenance and repair of existing bikeways and pedestrian accessways (including sidewalks) shall be given equal consideration to the maintenance and repair of motor vehicle facilities.

7. To achieve a safe, continuous and direct network of sidewalks and bikeways, one of the City's priorities is to construct these facilities on the streets depicted on the Pedestrian/Bicycle Plan Map as incorporated within the Transportation System Plan.
8. The City of Dundee shall consider the potential to establish or maintain accessways, paths, or trails prior to the vacation of any public easement or right-of-way.
9. Where possible and financially feasible, the City will upgrade existing substandard sidewalks.

D. Public Transportation

1. The City shall encourage the creation of a customer-based and oriented regionally coordinated public transit system that is efficient, effective, and founded on present and future needs.
2. The City shall promote regional planning of public transportation services and encourage the use of innovative technology to maximize efficiency of operation, planning and administration of public transportation.
3. The City encourages the development of a daily transit shuttle service to the major activity centers in Newberg and McMinnville as well as the Portland and Salem metropolitan areas.

E. Rail and Pipeline Transportation

1. The City shall coordinate land use planning adjacent to the Willamette and Pacific Railroad facilities in order to promote industrial development with rail access.
2. The City will work with the local rail operator, the Oregon Department of Transportation and other affected agencies or businesses to improve the at-grade railroad crossings within the community.
3. The City supports the concept of commuter rail service serving the West Valley and providing connections with the Portland metropolitan area. If passenger rail service does become a reality, the City will encourage the development of a passenger rail depot in Dundee, including necessary Development Ordinance revisions to permit construction.
4. The City supports activities that maintain adequate pipeline operations such as natural gas service into, within and through Dundee.

8.3 TRANSPORTATION IMPROVEMENTS OUTSIDE OF DUNDEE

The following is a list of transportation improvements recommended in the TSP that fall outside of the City of Dundee's city limits and within Yamhill County's jurisdiction.

- Edwards Road extension to Dayton Avenue (not to be made until after bypass is operational).
- Worden Hill Road improvements to provide an east-west connection between the City of Dundee and Highway 240.
- Realign Fox Farm Road to improve its approach to Ore 99W.
- Adopt operational roadway and intersection performance standards as described in Section 3.3.8 – Intersection Operations, first paragraph.

Although these improvements all lie outside of Dundee's city limits, the City of Dundee strongly recommends that the County provide for these improvements and that the City shall provide support to the County in implementing these recommendations.

Section 9

**Transportation Planning Rule
Compliance**

Transportation Planning Rule Compliance

9.1 OREGON TRANSPORTATION PLANNING RULE REQUIREMENTS

The Transportation Planning Rule requires cities with populations of 2,500 or more, and counties with populations of 25,000 or more to adopt Transportation System Plans (TSPs) with land use ordinances and facilities to meet overall transportation needs. Table 9-1 shows how the Dundee TSP, Comprehensive Plan, and Development Code have been modified to be in compliance with the Oregon TPR. Ordinance 411-2003, included in Appendix H, shows adopted amendments to these documents.

9.1.1 Applicable Local Plans and Codes

Portions of existing comprehensive plans or ordinances, or combination of plans that meet all or some of the requirements of the Transportation Planning Rule, may be incorporated by reference into a local transportation system plan.

9.1.2 Road Network and Connectivity

The TSP includes a road plan for a network of arterials and collectors and standards for the layout of local streets and other important non-collector street connections. The standards for the layout of local streets addresses extensions of existing streets, connections to existing or planned streets including arterials and collectors, and connections to neighborhood destinations. Careful efforts should be made to ensure that the local and collector street system is connected.

The TSP includes a bicycle and pedestrian plan for a network of bicycle and pedestrian routes throughout the planning area.

9.1.3 Land Use Regulations

The TSP includes the identification of deficiencies in land use regulations required to implement the Transportation Planning Rule. Exceptions to code regulated uses include:

- Minor transportation facility improvements with no significant impact on land use;
- Operation, maintenance, and repair of existing transportation facilities identified in the transportation system plan;
- Dedication of right-of-way, authorization, and the construction of facilities and improvements;
- Farm and forest uses permitted outright; and
- Changes in the frequency of transit, rail, and airport services.

The Transportation Planning Rule requires adoption of land use or subdivision ordinance regulations, including:

- Access control measures for state highway facilities;
- Standards to protect the future operation of state highway facilities;

- Measures to protect public use airports;
- A process for coordinated review of land use actions with ODOT;
- A process to apply conditions to development approvals;
- Regulations to provide notice to public agencies;
- Land use applications that require public hearings;
- Subdivision and partition applications;
- Other applications that affect private access to roads; and
- Regulations ensuring that amendments to land use designations and densities are consistent with the functions, capacities, and levels of service of facilities identified in the TSP.

Specific ordinance regulations require:

- Bicycle parking facilities as part of new multifamily residential development;
- On-site facilities to accommodate safe and convenient pedestrian and bicycle access from within new subdivisions, multifamily developments, planned developments, shopping centers, and commercial districts to adjacent residential areas;
- Sidewalks along arterials and collectors in urban areas, except for freeways;
- Cul-de-sacs and other dead-end streets may be used as part of a development plan, consistent with the purposes of the Transportation Planning Rule.

Local governments must establish their own standards or criteria for providing streets and access-ways. Such measures may include standards for spacing of streets or access-ways, while avoiding excessive out-of-direction travel. Streets and access-ways need not be required where one or more of the following conditions exist:

- Physical or topographic conditions make a street or access-way connection impracticable;
- Buildings or other existing development on adjacent lands physically preclude a connection;
- Where streets or access-ways would violate provisions of leases, easements, covenants, restrictions or other agreements; or
- Where off-site road improvements are otherwise required as a condition of development approval.
- Local governments must establish standards for local streets and access-ways that minimize pavement width and total right-of-way. Local street standards adopted to meet this requirement need not be adopted as land use regulations.
- The Transportation Planning Rule defines safe and convenient access as bicycle and pedestrian routes, facilities and improvements which are reasonably free from hazards, provide a reasonably direct route of travel, and meet travel needs of cyclists and pedestrians considering destination and length or trip.

9.1.4 Documents Reviewed

The following documents were reviewed to determine changes needed to comply with the Transportation Planning Rule requirements:

- Dundee Development Code
- Dundee Comprehensive Plan

9.1.5 Specific Ordinance /Plan Amendments

As previously stated, the Comprehensive Plan and Land Use Ordinances are required to meet the Transportation Planning Rule. The following table describes deficiencies in meeting the rule, specifically in Dundee's Comprehensive Plan and implementing ordinances. The table is divided under the following categories:

- Agency Coordination and Review;
- Access Management;
- Protection of Transportation Facilities;
- Implementation;
- Bicycles and Pedestrians;
- Permitted and Conditional Transportation Improvements); and
- Street Standards.

**TABLE 9-1
DEFICIENCIES IN MEETING THE TPR**

TPR Requirements	Current Plan/ Code Compliance Yes/No	Current Dundee Plan/Code Provision(s)	Action Taken
Agency Coordination and Review			
<p>OAR 660-12-045(2) Adopt land use or subdivision ordinance measures, consistent with applicable federal and state requirements, to protect transportation facilities, corridors and sites for their identified functions, to include the following topics:</p> <p>660-12-045(2)(d) coordinated review of land use decisions potentially affecting transportation facilities.</p> <p>660-12-045(2)(f) regulations to provide notice to public agencies providing transportation facilities and services of land use applications that potentially affect transportation facilities.</p>	YES/NO	<p>The Comprehensive Plan Policies (Transportation Chapter) does not provide any specific language requiring notice to affected governmental agencies and service districts for land use actions. Under the <i>Implementation</i> section of the Transportation chapter, coordination is required between ODOT and Yamhill County for future Ore 99W expansion.</p> <p>The Comprehensive Plan Policies (Citizen Involvement) does provide language relating to notice. Under <i>Part I</i>, the Planning Commission is required to be the point of contact for Federal, State, regional and county agencies. Under the <i>Effective Two-Way Communication</i> section, early notification of government actions (including studies, plans or actions) is required for affected agencies.</p> <p>Also under Citizen Involvement is a section called <i>Involvement of Public Agencies</i>. This section specifies involvement of affected agencies in the Comprehensive Planning Process, but makes no mention of involvement in land use applications.</p> <p>Under <i>Part II - Continuing Involvement of Land Use Planning</i>, there is a requirement that affected governmental agencies be given an opportunity to review and comment on any proposed comprehensive plan changes.</p> <p>The Dundee Development Code, Administrative Procedures Section (Section 3.200) does not require notice to affected governmental agencies and service districts for land use actions. The language states that referrals may be sent to interested agencies, but does not require it.</p>	<p>Comprehensive Plan includes specific language requiring notice to affected governmental agencies and service districts for land use actions.</p>
Access Management			
<p>660-12-045(2) Adopt land use or subdivision ordinance measures, consistent with applicable federal and state requirements, to protect transportation facilities, corridors and sites for their identified functions, to include</p>	NO	<p>The Comprehensive Plan (Transportation chapter) does not contain goals or policies that specify access management as a City transportation goal.</p> <p>Chapters 2.1, Zoning Districts and 2.2, General Development Standards, do not contain language that ensures access management.</p>	<p>City supports ODOT's access management standards and goals, as stated in the Transportation System Plan section.</p> <p>Subdivision and Planned Unit Development Ordinance, adopted, specify access management standards.</p>

TPR Requirements	Current Plan/ Code Compliance Yes/No	Current Dundee Plan/Code Provision(s)	Action Taken
the following topics: 660-12-045(2)(a) access management and control measures		Chapter 3.107, Subdivisions and Planned Unit Developments does not specify access management standards.	
Protection of Transportation Facilities			
660-12-045(2) Adopt land use or subdivision ordinance measures, consistent with applicable federal and state requirements, to protect transportation facilities, corridors and sites for their identified functions, to include the following topics: 660-12-045(2)(e) conditions to minimize development impacts on transportation facilities. 660-12-045(2)(g) regulations assuring that amendments to land use designations, densities, and design standards are consistent with the TSP.	NO	The Comprehensive Plan does contain some language to minimize vehicular impacts in the city of Dundee, however, it does not contain specific policy language to minimize development impacts on the transportation system. There is no Comprehensive Plan language assuring amendments to land use regulations, densities and design standards are consistent with the TSP. The Dundee Development Code does contain language that requires Zone Changes (Section 3.102) to be reviewed in terms of the potential for impact on the transportation system. The Subdivision and Planned Unit Development Ordinance (Section 3.107) contains provisions that require a land use application to be submitted for review by the City Recorder, to determine compliance with existing ordinances and regulations. The Planning Commission reviews the preliminary plans. However, the Ordinance does not set forth specific review criteria for transportation projects.	Comprehensive Plan, Development Code, and Subdivision and Planned Unit Development Ordinance will specify that comprehensive plan modification and zone change proposals must meet City's operational and safety performance standards, as described in the TSP.
Implementation			
OAR 660-12-045(1) Amend land use regulations to implement the TSP	NO	The Comprehensive Plan contains policies to guide development of the transportation system, but does not contemplate implementation of the 1991 Transportation Planning Rule which requires local Transportation System Plans and changes to land use regulations.	TSP has language which will implement the TPR.
Bicycle and Pedestrians			
660-12-045(3) Adopt land use or subdivision regulations for urban areas and rural communities to provide safe and convenient pedestrian and bicycle circulation and bicycle parking, and to ensure	NO	Comprehensive Plan Objectives 3, 4, 5 and 6 indirectly encourages bicycle and pedestrian system improvements. Specific sidewalk policies contain language to require sidewalks in R-1, R-2 and R-3 zones. In other parts of town, sidewalks are required where the City Council decides they are necessary. The Street Standard section (2.202) does contain language that specifically requires new streets to provide sidewalks. There is no	A system of bicycle routes has been identified for implementation in the TSP.

TPR Requirements	Current Plan/ Code Compliance Yes/No	Current Dundee Plan/Code Provision(s)	Action Taken
that new development provides on-site streets and access-ways that provide reasonably direct routes for pedestrian and bicycle travel.		mention of bicycle travel improvements. The Development Standards for Land Divisions Ordinance (Section 2.208) does require sidewalks on both sides of the streets for any land division. However, it does not contain specific standards or guidelines to direct separated pedestrian ways or bicycle system improvements.	
Permitted and Conditional Transportation Improvements			
660-12-045(1)(a) Identify which transportation facilities, services, and improvements are allowed outright, conditionally permitted, and permitted through other procedures	NO	The Development Code does not indicate what types of site/zone specific transportation improvements or standards are allowed outright, or are conditionally allowed to conform with and implement the TSP.	TSP identifies those transportation facilities and services that are allowed outright, and those allowed through conditional use or variance procedures.
Street Standards			
OAR 660-12-045(7) Establish street standards that minimize pavement width and total right-of-way.	NO	The Street Standards Chapter, (Section 2.202), contains street standards language and guidelines that require generous pavement and right-of-way widths.	TSP identifies a specific standard for "skinny streets" and the conditions under which they can be approved.

Appendix A

Description of Roadway LOS

Appendix A Description of Roadway Level of Service

Level-of-Service Concept

Level-of-service (level-of-service) is a concept developed to quantify the degree of comfort (including such elements as travel time, number of stops, total amount of stopped delay, and impediments caused by other vehicles) afforded to drivers as they travel through an intersection or roadway segment. Six grades are used to denote the various level-of-service from A to F.¹

Signalized Intersections

The six level-of-service grades are described qualitatively for signalized intersections in Table B1. Additionally, Table B2 identifies the relationship between level-of-service and average control delay per vehicle. Control delay is defined to include initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Using this definition, level-of-service "D" is generally considered to represent the minimum acceptable design standard.

**TABLE A-1
 LEVEL-OF-SERVICE DEFINITIONS (SIGNALIZED INTERSECTIONS)**

Level-of-Service	Average Delay per Vehicle
A	Very low average control delay, less than 10 seconds per vehicle. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	Average control delay is greater than 10 seconds per vehicle and less than or equal to 20 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for a level-of-service A, causing higher levels of average delay.
C	Average control delay is greater than 20 seconds per vehicle and less than or equal to 35 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
D	Average control delay is greater than 35 seconds per vehicle and less than or equal to 55 seconds per vehicle. The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle length, or high volume/capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Average control delay is greater than 55 seconds per vehicle and less than or equal to 80 seconds per vehicle. This is usually considered to be the limit of acceptable delay. These high delay values generally (but not always) indicate poor progression, long cycle lengths, and high volume/capacity ratios. Individual cycle failures are frequent occurrences.
F	Average control delay is in excess of 80 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation. It may also occur at high volume/capacity ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also contribute to such high delay values.

¹ Most of the material in this appendix is adapted from the Transportation Research Board, *Highway Capacity Manual*, Special Report 209 (1997).

**TABLE A-4
LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS**

Level-of-Service	Average Control Delay per Vehicle (Seconds)
A	≤ 10
B	>10 and ≤ 15
C	>15 and ≤ 25
D	>25 and ≤ 35
E	>35 and ≤ 50
F	>50

It should be noted that the level-of-service criteria for unsignalized intersections are somewhat different than the criteria used for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection. Additionally, there are a number of driver behavior considerations that combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, while drivers on the minor street approaches to TWSC intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized intersections than signalized intersections. For these reasons, it is considered that the control delay threshold for any given level-of-service is less for an unsignalized intersection than for a signalized intersection. **While overall intersection level-of-service is calculated for AWSC intersections, level-of-service is only calculated for the minor approaches and the major street left turn movements at TWSC intersections.** No delay is assumed to the major street through movements. For TWSC intersections, the overall intersection level-of-service remains undefined: level-of-service is only calculated for each minor street lane.

In the performance evaluation of TWSC intersections, it is important to consider other measures of effectiveness (MOEs) in addition to delay, such as v/c ratios for individual movements, average queue lengths, and 95th-percentile queue lengths. By focusing on a single MOE for the worst movement only, such as delay for the minor-street left turn, users may make inappropriate traffic control decisions. The potential for making such inappropriate decisions is likely to be particularly pronounced when the HCM level-of-service thresholds are adopted as legal standards, as is the case in many public agencies.

Appendix B

DTAC Meeting Summaries

DUNDEE TRANSPORTATION ADVISORY COMMITTEE

Meeting Summary

Meeting 1

City Conference Room

November 20, 2000

Attending

Committee Members: Jon Anderson, Hugh Cleary, Eugene Gilden, Anne Koch, Terry Light, Ivon Miller, Mike Sherwood, Don Sundeen

Consultants and Staff: George Lewis, City Administrator; Carlotta Colette, Colette Communications; Elaine Cogan and Suzanne Roberts, Cogan Owens Cogan; Dan Seeman, Kittelson and Associates; Terry Cole, ODOT

Guests: Floyd Aylor, Howard Meredith, Jerome Rogers

After George Lewis opened the meeting, committee members, staff and guests introduced themselves.

Update on Dundee Transportation System Plan (DTSP) and the Newberg/Dundee Transportation Improvement Plan (NDTIP)

Terry Cole, explained the history of the project, saying that the Dundee Transportation System Plan (DTSP) is one phase of the Newberg-Dundee Transportation Improvement Project (NDTIP). The projects are led by the consulting firm of URS. Kittelson and Associates, OTAK and Cogan Owens Cogan are specifically assigned to the DTSP. An important aspect of the DTSP process is to make sure it is integrated with the NDTIP at key points. As each project is on a different timeline, coordination is essential.

The purpose of the NDTIP is to reach a consensus on a transportation alternative that relieves traffic congestion. It includes a location environmental impact study (EIS) that will lead to a preferred alternative. The process is expected to take two years, with implementation to follow. It is a continuation, not a repeat, of the past project, which ended in 1997.

Review of Dundee TSP Work Program and Schedule

Next, Dan Seeman distributed a copy of the draft Work Plan for the Committee's review. The anticipated schedule is 12 to 15 months. The roles of the three consulting teams on the project are: Kittelson and Associates, transportation analysis and project management; Cogan Owens Cogan, public involvement; and OTAK, ordinance review and development. Two committees have been formed to provide regular input and review of work products. These committees, the Resource Team and the Dundee Transportation Advisory Committee (DTAC), will meet six times each over the course of the project. The Resource Team is comprised of agency representatives affected by the plan, and the DTAC is a citizen advisory Committee. Four public events are anticipated: three open houses at key junctures of the project, and one Planning Commission/City Council work

session. Other public involvement tools include hearings, speakers bureau trainings, factsheets/newsletters, the media and the Internet. This Dundee Transportation Advisory Committee will be informed of the work of the Resource Team and the Dundee 2020 Vision throughout the process. The first of three NDTIP Summits will be held November 29, 2000 with 50 to 55 representatives of principal agencies and groups. Dundee representation will attend.

Discussion followed. Comments from Committee members and guests are in italics. Responses from staff and the consultants follow in regular print.

Who will participate in the Summit?

Participants will include representatives from every jurisdiction in the project area and a wide range of agency and interest group representatives. The public is welcome to observe.

At what level are the agencies represented?

We have invited individuals who are in a decision-making positions in regard to this project.

The Project Oversight Team (POST) is responsible for final recommendations to the Oregon Transportation Commission.

Upcoming steps in the DTSP process involve determining criteria to evaluate the alternatives and then comparing the alternatives to statewide legislation and local comprehensive plans.

Kittelson will also conduct research to document current multi-modal conditions, including roads, pedestrian and bicycle facilities, transit, pipelines and air travel. Throughout the process, technical memos will be produced for both the Resource Team and DTAC to review. There will also be a future conditions analysis to determine additional needs that will exist by the year 2020 based on the best projections of growth.

In the alternatives analysis portion of this project, a range of alternatives, including various financing options, will be presented to both the Resource Team and DTAC members for review and comment. The alternatives include transportation system management solutions as well as multi-modal possibilities. This process also will involve consideration of changes in urban development (i.e. relocation of downtown Dundee) and its affect on transportation needs. All work will be incorporated into a draft TSP to be reviewed by the DTAC before being presented to the Dundee Planning Commission.

Providing us with a glossary of all the technical terms would be very helpful.

We will do that.

Will there be time for input on the EIS later in the process?

Yes, when the Draft TSP is being reviewed. We will have to make sure the timing coordinates with that of the NDTIP. Some aspects of our study are more dependent on the NDTIP than others.

ODOT requires consistency between plans all local and regional transportation system plans. The contents of the TSP include existing conditions, transit needs, street improvements and plan implementation. Many of these are dictated by the Oregon Transportation Planning Rule (TPR).

Dundee has been in this position for 10 to 15 years.

The difference is that now there may be funding.

Will telecommunication lines be included in the analysis?

Yes.

Does the financial analysis allow for different sources if they occur, such as a gas tax?

All kinds of mechanisms can be explored.

It would be helpful if this information were on the Internet.

There is an ODOT website and the TPR is on the DLCD website--we can put links to these agencies on the NDTIP website. Carlotta Colette is designing the website and can also include the glossary and other information that you request. Hard copies also will be provided.

Public involvement is most successful when it is done the way the public likes. What works best in Dundee to involve the public?

Sending information with the water bill, with a request for a response, is effective. The Community Progress Team (CPT) has a quarterly newsletter. Public events are often held at the elementary school cafeteria. The Women's Hall is another choice but it is smaller.

Are there local groups who may be interested in receiving a speakers bureau presentation?

Community forums at the school are usually successful. However there are just a few community organizations, including the school, church, CPT, Newberg Area Chamber of Commerce, the Parks and Recreation District and the Yamhill County Winery Association.

Are their any interests not currently represented in the DTAC?

Members said they are generally satisfied with the representation for the work that is to be done, but that it is important to involve the public. They also recommended receiving input from local business owners who do not live in community.

Transportation Issues

Next, Elaine Cogan asked members to review the report: *Key Results of the Public Involvement Stakeholder Interviews*--particularly the issues. The following summarizes the discussion. The

complete text of the document and revisions are available separately. The list will be revised according to members' suggestions, and reviewed at the next DTAC meeting.

Dundee has been left out of a Yamhill County alternative transit study. Add to this list the assurance that our needs are recognized in studies and that we have representation on policy committees. It is currently listed under Possible Solutions but may be worth repeating.

Add a reference to safety, particularly for students, but also for the public in general. I am concerned about pedestrians' ability to cross Highway 99W.

This list should address truck traffic, which is very much a problem.

Is there a need for better traffic control?

Trying to cross at pedestrian crossings is very difficult, with all the logging trucks traveling on Highway 99W on the way to Willamina.

Traffic speed is an issue. Newberg was allowed (by ODOT) to decrease its speed limit to 25 mph while we are not.

Traffic laws are not enforced. This is dangerous where students cross the highway.

There is a significant number of rear-end accidents at the lights.

This study will include a collision analysis, but it will not show things like law enforcement.

The problems usually need to get worse before they receive any attention. Perhaps frustration about congestion will be a sufficient issue to attract attention.

The sidewalks along the highway have poor access and no buffer.

Is it possible to exclude truck traffic from the City Center?

There is not an alternate route for truck traffic as Highway 99W is a statewide freight route, but maybe it could be prohibited on alternate routes.

There are impediments for bicyclists using bike lanes on the highway. For example on the corner of 7th, the surface to the storm drain is three to four inches below the asphalt.

Businesses have lost parking along the highway because of the creation of the bike lane and the center lane.

Air quality and other traffic-related issues should be addressed.

Bringing up the issue with DEQ may expose us to the same monitoring that big cities receive.

Seasonality should also be considered.

The coast should be included because of its impact. Casinos have also had a major impact. There is a lack of alternative routes for tourists.

There are not enough safe left-turn intervals on the highway.

Under the *Possible Solutions* portion of the Key Results document, Terry explained that the Oregon Highway Plan (OHP) allows for "exception area" sections of highway through urban areas that allow for a higher level of congestion. ODOT will work with the community, recognizing that some areas cannot achieve high mobility. This may help the City obtain funds for downtown planning.

Maybe the speed limit should be decreased.

The OHP does not deal with speed limit or design standards. It provides opportunities to bring in roadside culture, i.e. buildings closer to roads to create a downtown feel, and visual cues to encourage traffic to slow down.

An adequate amount of land for parking should be provided for any business attempting to start up. I see a problem in Newberg where it is not comfortable to walk along the highway and the traffic is not much slower, despite the buildings being closer to the street.

It would be better if there were a wider pedestrian way and improved pedestrian facilities.

There is currently no policy to provide parking to compensate for what is removed.

There are several instances where business signs block the view of traffic.

Sight distance can be looked at in this study.

More traffic lights are needed. People avoid businesses because they cannot get back onto the road.

The safety of railroad crossings should be addressed.

According to the Stakeholder Interview Summary, people seem to feel that there is too much traffic and not enough roads. They also want to add additional capacity, such as another bypass and/or local roads. The interviews emphasized that Highway 99W is the problem. That is what this Committee seems to be saying, too.

Meeting adjourned.

Next meeting is Monday, January 8.

DUNDEE TRANSPORTATION ADVISORY COMMITTEE (DTAC)

Meeting Summary

Meeting 2

City Conference Room

January 8, 2001

Attending

Committee Members: Hugh Cleary, Eugene Gilden, Terry Light, Ivon Miller, Stan Stupor, Don Sundeen

Staff and Consultants: Terry Cole, ODOT; George Lewis, City Administrator; Elaine Cogan and Suzanne Roberts, Cogan Owens Cogan; Dan Seeman, Kittelson and Associates

Guest: Mayor Roger Worrall

After Elaine Cogan opened the meeting, George Lewis said that Don Sundeen's title should be changed to City Councilor on the list of Dundee Transportation Advisory Committee (DTAC) members.

Roger Worrall, newly elected Mayor of Dundee, remarked that from discussions he has had with Oregon's congressional delegation, they are all very supportive of the Newberg-Dundee Transportation Improvement Project (NDTIP).

The City newsletter with Fact Sheet and a notice of the February 6th public event will be mailed to citizens the week of January 8th.

Report on the November 29 Summit

The committee heard reports from Elaine and Dan about the NDTIP Kickoff Summit on November 29th. A wide range of jurisdictions, agencies and citizens were represented. Activities during the Summit included revising the project's draft Purpose and Need and completing the sentence, "*This project will be successful when...*". Participants also suggested minimum transportation performance thresholds and agreed that success means elimination of congestion and facilitating movement while maintaining community livability and preserving and enhancing businesses.

During the presentation on performance thresholds at the Summit, it was explained that 99W is a statewide highway and statewide freight route. As a highway of statewide importance, the Oregon Highway Plan (OHP) establishes a minimum volume to capacity (V/C) ratio standard of 0.70 between Newberg and Dundee and 0.75 within the cities; in other words, the system should operate at 70-75% capacity during peak hours. The summit participants generally felt that this was appropriate, although some slightly greater level of congestion in the 0.80 to 0.90 V/C range might be acceptable during peak congestion periods, depending on the overall nature of the eventual solution.

Most participants at the Summit felt that two hours of congestion on weekdays, and zero to three hours of congestion on weekends are acceptable periods for the highest V/C ratios to occur. They also learned that the Transportation Management Alternative (TMA), which consists of additional lanes and a combination of other improvements to maximize the existing use of facilities, fails with respect to acceptable standards. The vast majority of summit participants agreed that the 20-year forecast of 9-12 hours of congestion on 99W at a V/C ratio of greater than 1.0 during much of the 9 and 12-hour periods under the TMA was not an acceptable alternative for further consideration.

A minority opinion expressed was that a maximum V/C ratio of 0.90 or greater could be acceptable if it does not increase.

As a participant in the Summit, George Lewis observed that Portland residents seem to think of 99W in terms of a route to drive between Portland and McMinnville. He was glad to see that participants did not seem to feel that transportation improvements would promote growth.

Ivon Miller, also attended the Summit and said she was encouraged to see that so many of the people who were involved in the previous phase of the project are still interested. She was impressed with the variety of representation and was especially encouraged to see Community Solutions Team (CST) members from the Governor's office. The diversity of opinions at her table lead to a good conversation. Some issues were raised that were not part of the original study, such as the endangered fish in the Willamette River.

Don Sundeen observed part of the Summit and said he sensed the purpose was to discuss and brainstorm the proposed alternatives in light of new issues and conditions.

Terry Cole added that the endangered species listing is one of several issues that will have to be addressed.

Mayor Worrall also attended and added that he believes the accepted standards were borderline acceptable. He said that Highway 99W is now a barrier through the City and that existing plans would increase the problem.

Responding to members' request, the consultants agreed to provide a glossary of commonly used terms and have it displayed at every meeting.

Goals and Objectives

Next, Dan distributed copies of transportation plans from comparable cities to give members an idea of what the final Dundee Transportation System Plan (DTSP) can look like. He introduced a set of 11 Goals and Objectives as a starting point for discussion. The process will be to first develop the goals, then the objectives, which are more quantifiable goals. The following is a summary of the discussion of the Goals, which will be revised according to DTAC members' suggestions. The complete text is available separately.

Discussion followed. Comments from Committee members and guests are in italics. Responses from staff and the consultants follow in regular print.

What the difference is between “travel options” and “accessibility?” “Travel options” refers to modal choice while “accessibility” refers to the ability to access places with the transportation system. Accessibility involves considering which and how modes operate, the availability of sidewalks, bike paths, streets and driveways, and the locations of residences, businesses, public facilities, and services.

What is the definition of concurrency?

In the strict sense, it refers to a legal requirement, such as the one that exists in the State of Washington, in which transportation facilities must be in place when development occurs. For the DTSP, it is not intended to be so strict; it is mainly to say that facilities must be in place in a timely manner. Maybe concurrency is the wrong word with too much of a legal connotation. Such a requirement could make the City’s growth literally dependent on the state’s ability to fund it, which is contrary to our intent. What we should strive for is a reasonable expectation that improvements can be provided in a timely manner so that growth does not get too far ahead of improvements that it needs to mitigate its impacts.

We will develop an implementation strategy along with the DTSP that will consider transportation improvements in five-year increments. It also will indicate responsibilities and will have as a goal, but not as an absolute requirement that a facility be in place in conjunction with development.

The Committee agreed to change the title of Goal 10 to “Timely Provision of Facilities”.

In answer to a question, Dan described the Resource Team (RT), which consists of representatives from agencies such as ODOT and DLCD, as well as County and City staff. The RT meets before each DTAC meeting to review and comment on the same materials presented to the DTAC. Per request of members, consultants will provide a list of RT members.

I appreciate having the oversight. What does the RT do in preparation for our meetings?

They serve as advisory body to Dan and to DTAC by giving comments on the materials that we are working on. As citizens, DTAC puts the Dundee stamp of approval on the work products.

How much influence does Dundee have in the overall (NDTIP) process?

The NDTIP, which involves participants from many jurisdictions and agencies, including Dundee, and the DTSP are being conducted concurrently and with the same contractor team. An important purpose of the DTAC is to provide a means for Dundee citizens to apprise us of the local issues. Also, if a new project is to receive federal funds, community concurrence is needed. By next fall, the DTSP project will likely reach a hiatus until the NDTIP can reach its conclusions and provide the “big picture” context that will be needed to complete the DTSP.

Throughout both the development of both projects, each will have the ability to influence the other.

If our committee reaches a consensus on an issue, does that guarantee that the issue will be in the DTSP?

The City Council will have to approve it, and even then, it may not go into the plan if it is a regulatory issue in conflict with what other agencies or jurisdictions must enforce. All the jurisdictions and agencies involved have to reach an agreement. ODOT does not want to spend public funds in a way that puts the majority of citizens at a disadvantage. There are regulatory requirements and other objectives that have to be met. This process has been designed in an effort to maximize agreement. We are at the beginning of the process and the schedule requires that DTSP work products are considered and reflected in the NDTIP process at key points.

The committee then returned to the list of Goals; Dan explained that while the Goals are numbered, they are not ranked or in any particular order. He asked members if they would prefer a different type of system. Members agreed to keep current numbering system, suggesting adding a qualifier to clarify that the goals are not ranked. Discussion followed.

Attached is a revised set of goals, incorporating comments from DTAC members. This revised version includes many comments that are not included in this meeting summary.

Goal 1: Mobility

Some Summit participants wondered why Dundee is concerned about through-traffic.

We can't not include it. Through-traffic probably makes up a large percentage of our traffic. As we grow we hope to increase tourism, which will further increase through-traffic.

Between Newberg and Dundee, 60% of the traffic on 99W is through-traffic.

I agree with the Goal but Dundee should not have to accommodate through-traffic.

If we agree we want traffic to pass through as efficiently as possible, we should not stop considering alternatives for through-drivers.

People choose the most efficient routes. Changing route signs, in an effort to divert through-traffic, is possible, but it is difficult to change the routes people choose to take.

Maybe people would go out of their way if they could move faster.

Perhaps "serve" is a better word than "accommodate".

Other possibilities could be "considers" or "minimizes impact".

Goal 2: Livability

We are just one group contributing to a larger group of stakeholders. Why is it our responsibility to balance all needs when this will be done anyway by the larger group? The phrase "balance of user needs" indicates we are compromising at the beginning of the process.

The committee agreed to eliminate the phrase to "balancing user needs with the community's desire to".

Goals 1 and 2, as currently written, do not put Dundee's interests first. We are interested in our needs first and then user needs.

Members agreed to rework that part of the sentence.

Goal 3: Coordination

There were no changes to this Goal.

Goal 4: Travel Options

Are local streets incorporated into this goal?

Connectivity is included in the objectives.

Kids are not comfortable riding their bicycles to the skatepark. This is an example of the type of accommodations we should consider.

Because this goal is so broad-based, the improvements should be spelled out in the objectives.

The purpose of this goal is to keep a balance between autos and other modes of transportation, although it is the intent of the OHP to limit reliance on auto.

Let's end the sentence after "options". Agreed.

Goal 5: Accessibility

Dan explained that an example of this issue would be, if a new gas station were built on 99W, a balance would be sought between its need for driveways and the need to maintain an efficient transportation system.

Perhaps we can modify the last part of the sentence to say "for all desired community users" to ensure that Dundee's needs are met first. Agreed.

This Goal refers to access to uses in other parts of the community as well.

If the City wants to attract state funds to enhance livability, the goal should be written in such a way that can achieve that purpose.

I think we should leave the Goal as it is. Each use has different needs. Agreed.

The phrase "system users" is somewhat in conflict with Goals 1 and 2, which we changed so that values specific to Dundee would be covered.

The committee agreed to strike "system users" and add "available modes of travel".

"Accessibility" is a more inclusive term.

We will look at how we can fit that in.

Dan said that the RT suggested that street connectivity be addressed as a way to improve accessibility. He said it is already in several objectives but he will see if he can put it into the Goal.

George said that for a planning document, this should be a separate Goal.

Goal 6: Environment

The RT suggested striking "integrity" and adding "natural and built environment" to include natural and cultural resources. This is because of a national policy that calls for protection of certain cultural resources and minority classes.

Strike "and region".

Strike "integrity of".

There are other types of protected resources such as wetlands, species, low income housing. "Natural and cultural resources" is a more inclusive phrase.

Add "cultural" to the list of resources to be protected.

Agreed to all of the above.

Goal 7: Capacity

Is this goal is necessary because capacity seems to be covered in some of the other Goals?

Does the City have enough capacity to carry traffic?

Many streets are too narrow. Our goal is to improve local streets. Add "on the local street system" to ending.

Members agreed to keep the Goal.

Goal 8: Funding

It is important to tell the public that all these goals will not necessarily become reality.

Maybe this can be listed in the Objectives.

We should add a goal about setting priorities.

Financing strategies inherently have priorities.

Mention "priorities" somewhere in the Goal.

Goal 9: Safety

"Adequate" is not a strong enough word. It does not meet the community needs. Maybe "acceptable" is a better choice.

Add "health and" to cover air quality. Agreed.

Goal 10: Timely Provision of Facilities

The title of the Goal was changed from "Concurrency" to "Timely Provision of Transportation Facilities".

Remove reference to "travel growth".

The reference to "development" should be changed to "community development" so it does not appear that we are taking responsibility for growth elsewhere. Agreed.

Goal 11: Economic Development

I am concerned about business and what we have now as well as in the future. Remove the reference to "development".

George said it is important to have an economic development component in plan. He suggested the phrase "supports economic viability". Agreed.

The Committee agreed to remove "desired amount of" since it is implied.

Other Comments

One member suggested that there should be a goal for social justice that refers to addressing issues, such as housing dislocation, that affect protected classes.

The committee agreed to add "social resources" to Goal 6.

Next Steps

Next, Elaine distributed a flyer announcing the Open House scheduled for February 6 at the Dundee Elementary School, and briefly described the format.

In addition to being mailed with the City newsletter, the flyer will be distributed to the Yamhill County Wine Association, the Newberg Area Chamber of Commerce and the Chehalem Parks and Recreation District, with each organization then distributing the information to their members. DTAC members also suggested informing the local newspapers and the school district.

Meeting adjourned.

The next DTAC meeting is scheduled for February 26th, 7 to 9 pm.

DUNDEE TRANSPORTATION ADVISORY COMMITTEE (DTAC)
Meeting Summary
Meeting 3
City Conference Room
February 26, 2001

Attending

Committee Members: Hugh Cleary, Eugene Gilden, Terry Light, Ivon Miller, Don Sundeen

Staff and Consultants: Terry Cole, ODOT; George Lewis, City Administrator; Elaine Cogan and Suzanne Roberts, Cogan Owens Cogan; Dan Seeman, Kittelson and Associates

Guest: Jerome Rogers

George Lewis opened the meeting. Committee members and staff discussed a proposed subdivision between 1st and 3rd Streets and its possible impacts on transportation in Dundee. The Planning Commission will discuss the issue in April and George asked for the DTAC's opinion. Members agreed that hearing the position of developers is inappropriate for the DTAC's purpose, particularly at this time, but that perhaps it can be presented as an option later in the process, possibly as a model policy to prevent future hurtful development.

Report on February 6 Public Event

Next, Elaine summarized the public event held on February 6 at the Dundee Elementary School. Approximately 40 Dundee residents viewed and commented on a variety of exhibits. They identified several transportation problems, particularly access around the City and to local streets. Their highest priority for improvement is congestion and its affect on the quality of life. Low priorities include the lack of traffic enforcement and parking. Participants consider weekday traffic less of a problem than weekend traffic.

Overall, participants want traffic diverted outside the City. They want their livability preserved. They strongly support a bypass, but no more lanes through their City.

People also were concerned about through-traffic clogging local streets when they are used as alternate routes.

Generally, the attendees were very engaged and positive about this Committee's work.

Next, Dan Seeman explained that the packet recently mailed to DTAC members includes the glossary of transportation terms they requested. The packet also includes the draft Goals and Objectives, which were revised at the last DTAC meeting. One copy details the objectives under each goal, the other the action items under each goal. Also included is a summary of citizen comments received at the public event.

Revised Goals and Objectives

Dan reviewed the DTAC comments to each goal, along with comments from the Resource Team, who had met prior to today's DTAC meeting. He followed with a suggested response to the comments, then asked for Committee input. Members generally agreed to all changes unless otherwise noted.

Discussion followed. Comments from Committee members and guests are in italics. Responses from staff and the consultants follow in regular print.

Goal 1: Mobility

In the last meeting, this committee agreed to remove the reference to balancing and accommodating the needs of through-travelers.

A suggestion was made to designate the section of Hwy 99W through Dundee as a "Special Transportation Area" where through-traffic needs are balanced with needs for local access and circulation. This will be included as an action item to help to achieve the goal, not as part of the goal itself.

It seems that ODOT generally tries to minimize impacts on through-traffic on any project that it works on.

ODOT's goal generally is to improve traffic movement around the state, while striving for balance where there are community needs to consider.

We want to decrease the amount of drivers; therefore a bypass would be helpful.

Members generally agreed that the goals should not be written too specifically. Specific details and action items are more appropriate to be listed in the objectives.

A large part of the impacts is from the number of cars we will be accommodating in the future.

Do we want to list what the impacts are?

The inclusion of the numbers covers most things.

It is not just the numbers, but also the character of future traffic, e.g. commercial trucks.

Maybe we should add adjectives, such as "adverse impacts". (Agreed)

Who is the audience for this Plan?

This document will serve as a reference of citizen intentions for the Planning Commission, City Council, Yamhill County and ODOT to consider as they make future policy decisions about transportation in Dundee.

Then, our intentions should be clearly stated.

Goal 2: Livability

In the previous meeting, members had agreed to include reference to preservation and enhancement of existing residential neighborhoods and businesses.

The promotion of street connectivity is addressed in *Goal 5: Accessibility*.

The other comments we received are too detailed and should be listed as objectives.

It is important to think about the character of the community in 20 years. We envision a small city. Can we add (the underlined) "maintain a pleasant small city"? (Agreed)

Goal 3: Coordination

The first comment, to bring a balance between modes and increase the range of mode choices, is defined in *Goal 4: Travel Options*, and is more appropriate there.

Regarding the second comment not to structure the Transportation System Plan (TSP) to support Hwy 99W or to serve the needs of others--Hwy 99W is designated as a statewide highway by the Oregon Highway Plan (OHP), thus it must serve needs of regional trips.

We hope to have an alternative to Hwy 99W in the future. Is it possible to establish a bypass that serves as a statewide highway so that Hwy 99W no longer has this designation?

Maybe we could add an action statement saying that with a bypass designated as a statewide highway, Hwy 99W should be redesignated as a local road. This may be more appropriate in *Goal 1: Mobility*.

First, Hwy 99W should be upgraded.

Goal 4: Travel Options

The comment to coordinate with Yamhill County is covered by *Goal 3: Coordination*, which states that cooperation is needed with County.

Improvements to certain neighborhood roads and intersections that relieve traffic on City streets should be included in the action items.

Goal 5: Accessibility

In response to a citizen comment, we added to ensure that the street network is well-connected.

Goal 6: Environment

From discussion at the last DTAC meeting, we added the adjectives “social, natural and cultural” to describe the environment to be supported by the transportation system.

Rather than using the word “built” to refer to the environment, we concluded it is implied in the word “cultural”.

Goal 7: Capacity

We did not include giving Dundee the option of accepting a lower level-of-service, when faced with improvements that detract from the quality of life in the goal. It is recognized that there will be tradeoffs.

Establishment of an arterial system that accommodates all local trips is included in *Goal 5: Accessibility*. This also will decrease the impacts of through-traffic.

If it establishes a good system of cross and parallel streets, it would help.

Goal 8: Transportation Funding

To provide for improvements that can be staged over time to facilitate adequate funding is included in *Goal 10: Timely Provision of Transportation Facilities*.

Goal 9: Safety

The Resource Team suggested eliminating the reference to “health”. (Agreed)

We should keep this reference because health is related to air quality.

Goal 10: Timely Provision of Transportation Facilities

Adopting transportation standards that reduce traffic noise, enhance the streetscape, are pedestrian friendly and encourage redevelopment are action-oriented and should be listed as objectives rather than included in the goal. They are probably more appropriate under *Goal 2: Livability*.

Goals and Action Items

Dan explained that action statements are listed under each goal and that redundancy has been eliminated.

Existing Conditions and Deficiencies Assessment

Next, Dan highlighted some key points of his Draft Technical Memorandum #4, which shows existing facilities throughout the transportation system, for all modes. He explained that there will be more connections to pedestrian facilities in the future.

Members pointed out existing roads and pedestrian facilities that are not included in the map. Dan asked them to send him any corrections that should be made.

Dan explained that bicycle lanes are defined as facilities that are striped so they are separate from the road. They are allowed only on roads with specific amounts of traffic volumes (3,000/day). Hwy 99W is the only street in Dundee that meets this criteria.

In the public transit section of the memorandum, all operators are included, as required in the State Transportation Planning Rule (TPR).

Regarding functional classification, ODOT has jurisdiction only over Hwy 99W, while Yamhill County has jurisdiction of three other roads. All the others within city limits are under Dundee's jurisdiction, which has no functional classification system for its roads.

There is a classification system identified in Dundee's Comprehensive Plan.

It is not in the transportation section.

Hwy 99W is operating at double the Oregon Highway Plan (OHP) thresholds and exceeds maximum roadway capacity, meaning that the peak level of congestion starts to occur for more hours of the day. Hwy 99W operates at a level of service (LOS) of "F" in all intersections, which is an unacceptable operational condition.

A certain threshold is need to be met at intersections in order to warrant signal lights at those intersections. Fox Farm Road at Hwy 99W is the only intersection that meets this threshold.

This study found that rail crossings provide adequate space to prevent backups on nearby streets.

I have seen backups that are 1 1/2 miles long and impede other streets.

The traffic does not typically back up to the tracks.

There are more than the one or two train trips per day that are described in the study. The number is closer to six or seven.

When was this data measured?

It was measured in the fall of 1999 by a private company.

The crash rate on Dundee roads is not particularly high; it is slightly higher than the statewide average.

This is probably because the traffic is moving so slowly.

There are many more severe crashes on the highway just outside the City.

Future Conditions

Next, Dan reviewed the status of his Draft Technical Memorandum #5, Future Transportation Needs. He explained that looking at future conditions (in 2025), the level of capacity for vehicles needs to increase. Transit and recommended pedestrian and bicycle connections will be examined, which include those supported at the February 6 public event as well as some additional ones.

Mitigation Alternatives

The next public event is scheduled for April 9 at the Dundee Elementary School. Information about the Newberg-Dundee Transportation Improvement Project (NDTIP) and the DTSP will be available. The purpose is to receive citizen input on the transportation alternatives under consideration. The event will be followed by a second NDTIP Summit on May 11 where agency representatives and advisory committee members will discuss the refined list of alternatives.

Meeting adjourned.

The next DTAC meeting is scheduled for May 21st, 7 to 9 pm.

DUNDEE TRANSPORTATION ADVISORY COMMITTEE (DTAC)
Meeting Summary
Meeting 4
City Conference Room
May 21, 2001

Attending

Committee Members: Hugh Cleary, Eugene Gilden, Pancho Hernandez, Anne Koch, Terry Light, Steve Mikami, Ivon Miller, Mike Ragsdale, Mike Sherwood, Don Sundeen

Staff and Consultants: Terry Cole, ODOT; George Lewis, City Administrator; Elaine Cogan and Suzanne Roberts, Cogan Owens Cogan; Dan Seeman and Gary Katsion, Kittelson and Associates

Guests: Marc Dochez, Mayor Roger Worrall

Mayor Roger Worrall opened the meeting by introducing the new DTAC members appointed by the City Council: Pancho Hernandez, Steve Mikami, Mike Ragsdale. The Mayor said he recruited the new members to provide a greater opportunity for public input to be heard. Stan Stupor has agreed to step down as the City Council was already sufficiently represented. Mike Ragsdale was nominated by the Mayor to be chair of the committee.

Don Sundeen then nominated Eugene Gilden, who declined.

With no objections, Mike Ragsdale was named chair. He addressed the committee, saying he is very concerned about the outcome of the project but wants to get up to speed on the process to date before making more remarks.

Dan Seeman, Kittelson & Associates, asked members to let him know of any concerns they have about the process of the committee so that he can address them and help ensure that members' expectations are being met.

Reports—NDTIP, POST and Summit Meetings

Next, Dan and Gary Katsion of Kittelson & Associates, Deputy Project Manager, summarized what has taken place in the Newberg-Dundee Transportation Improvement Project, since the last DTAC meeting on February 21. There has been one meeting of the Project Oversight Team (POST), on April 27 to discuss the transportation alternatives: the Transportation Management Alternative (TMA), which involves improvements to the existing highway to improve its efficiency; the Southern Bypass, two of which include minimized agricultural impacts and two others that are "mini-bypasses" around Newberg to form a couplet in Dundee; the Northern Bypass; and the Regional Bypass.

Discussion followed. Comments from Committee members and guests are in italics. Responses from staff and the consultants follow in regular print.

Is anything being done to coordinate with the needs of Tigard and Tualatin? The Regional Bypass would address the problems of two areas—theirs as well as ours. Some of our solutions would bear more weight if we knew other communities would be affected.

We are just now at a point where we are looking at these implications and coordinating with Metro. While we have capacity here, I-5 has constraints, even without a diversion of traffic, and could be aggravated by more traffic here. These are serious issues.

All traffic in the Newberg-Dundee corridor will not go to I-5. We should be trying to alleviate traffic, not just move it.

If we do nothing, in 2025, the projected volume in the Newberg-Dundee corridor is almost double what it is today (from 27,000 to 52,000 cars per day). If we build a regional bypass, we would divert about 27,000 cars per day off Hwy 99W.

At the POST meeting, members determined the TMA does not adequately meet future demand and therefore removed it from consideration as a stand-alone alternative.

With either the Southern or the Northern bypasses, an interchange between Newberg and Dundee is being considered to help relieve traffic through Dundee. This interchange appears as if it would significantly reduce traffic in Dundee and would allow Hwy 99W through Dundee to remain at three lanes, as it is today. This is an objective that has been stated by the POST.

If traffic is going to go through Dundee, a total of six lanes is needed, in virtually any configuration.

We took the POST's decision to the second NDTIP Summit on May 11, where participants representing all jurisdictions as well as many agencies and interest groups heard from regulatory experts about complications that were not in the previous study. Agencies can veto a decision if they find it endangers what they are protecting.

Another purpose of the Summit was to ask participants their opinions of the alternatives in terms of flaws and viability and to hear their suggestions about possible changes or remedies to improve the viability of the alternatives. Participants also discussed the fact that Marion County opposes the Regional Bypass Alternative, which is seen as a fatal flaw by state agencies and the Federal Highway Administration (FHWA).

Marion County made a political decision, without all the data. Can Dundee take a position on another alternative?

It would be possible, but it would not be productive. It would be best for any jurisdiction to withhold judgement until all of the facts are in. Nonetheless, if Marion County puts this decision in its Comprehensive Plan, we would have to prove the Regional Bypass is the only feasible alternative in order for it to be considered.

Our committee has discussed before the extent that we are at the mercy of other jurisdictions.

Ultimately we hope all jurisdictions will reach a consensus. We have been hearing most often from agencies representatives who met at the May 11 Summit, as well as the public, that the Northern and Regional Bypass Alternatives are flawed, due to impacts on the environment, agriculture, housing as well as political constraints. We also have been hearing that the Southern Bypass Alternatives are the most feasible.

George Lewis, Dundee City Administrator, said that the Northern Bypasses would take out the existing water source and the City would need assistance with obtaining a new water source.

If Marion County makes a political decision, Yamhill County is burdened with all the regional problems. If we also prohibit an alternative, what is accomplished?

Goals, Existing and Future Conditions

Next, Dan described the Dundee Transportation System Plan (TSP) process to date. This committee has set goals against which the alternatives can be measured; identified priority issues suggested by the public; reviewed state, regional and local plans and policies for consistency with the TSP; and identified existing and future conditions. Recognizing the need to coordinate with the NDTIP, we are hoping to develop the framework of the transportation plan in September or October.

Next, Dan reviewed existing conditions of the Dundee transportation system, which were presented in Technical Memoranda #4 and #5 and reviewed at the last meeting. In terms of pedestrian access, sidewalks are adequate on Hwy 99W through the center of Dundee, but not outside the corridor, except where there is new development.

What is the ODOT standard for sidewalk width?

The minimum is five feet, but ODOT's goal is usually six to eight feet.

Hwy 99W and 5th Street have bicycle lanes, but they do not exist elsewhere in the City so there is absence of a network. The Oregon Highway Plan (OHP) requires a minimum volume (greater than 3,000 cars per day) before allowing a street to have bicycle lanes.

The City can have a stricter standard than the state.

Capacity deficiencies are identified on Hwy 99W and access to Hwy 99W from crossings is at a Level of Service (LOS) F in any mode. This is considered a failure in terms of mobility.

Another deficiency in the existing conditions is the storm drain utility system serving the highway and City. On the north end of town, this needs to be addressed. Also, along the highway is a fiber optic system.

On Hwy 99W virtually every intersection operates at a LOS F. The capacity is very deficient compared to state standards. Connectivity problems on local streets lead to a high dependence on the highway to get around in Dundee.

Alternatives Analysis

Dan then summarized Technical Memorandum #6, Alternatives Analysis, which addresses the alternatives available to address the transportation needs identified in the Existing and Future Conditions Memoranda. Three alternatives address the capacity limitations of Hwy 99W through Newberg and Dundee: the No Bypass Alternative, with either a No-Build or Transportation Management (TMA) option; the Mini-Bypass (One-way couplet) Alternative; and the Bypass Alternative (full, either north, south or regional). All include transit improvements.

Due to roadway and transit improvements, the TMA option of the No-Bypass Alternative would result in a 10% reduction of cars per day. This is more of a reduction than would result from the No-Build option. This alternative, with either option, cannot adequately meet transportation performance objectives established by the POST and has been discarded by the POST for further consideration.

The Mini-Bypass Alternative (One-way Couplet) is a mini-bypass that diverts traffic around Newberg, rejoining Hwy 99W north of Dundee, forming a one-way couplet through Dundee on Hwy 99W. Projected traffic volumes and peak hour operations are similar for both a north or south mini-bypass.

Are you assuming traffic will flow at the same speed?

Yes, we are assuming 55 mph on the new bypass, but typical urban speeds of 25 to 35 mph on the couplet.

The Bypass Alternative consists of three separate options: the Northern, Southern or Regional Bypass. All were evaluated with the assumption that Hwy 99W remains a three-lane highway.

The Southern Bypass would result in lower traffic volumes on Hwy 99W than the Northern Bypass, which is also complicated by difficult topography and increased travel time.

The Regional Bypass results in much higher traffic volumes on Hwy 99W than the Northern and Southern Bypasses.

The southern route doesn't really bypass Dundee. It just creates another road.

It bypasses Hwy 99W, allowing access only at three points (with an interchange between Newberg and Dundee included); in other words it is a limited-access facility.

It splits the community again. How would the traffic access other streets?

With a limited-access facility, we need to provide overpasses and/or underpasses to cross the bypass. Local circulation is still a big issue, regardless of the option chosen for improving Hwy 99W.

The Northern Bypass reduces existing traffic, but Hwy 99W would still need five lanes in Dundee to meet demand. This option could not meet OHP thresholds for a three-lane facility as per the POST objectives.

With the Regional Bypass, Hwy 99W still must be five lanes in Dundee, and Marion County passed a resolution to prohibit this option. Like the Northern Bypass, this option could not meet OHP thresholds for a three-lane facility as per the POST objectives.

The Southern Bypass with the interchange in-between Newberg and Dundee is the only option that meets the OHP threshold for a three-lane facility as per the POST objectives.

Are you assuming all three bypasses are built in the same configuration?

Yes, all are four lanes.

To address some of the objections I have heard about this alternative, the Southern Bypass should be a parkway with a lower speed limit.

The results in this memorandum are based on traffic on the bypasses traveling at 55 mph. A slower speed would change the results. The likely result would be reduced use of the bypass and increased traffic in Newberg and Dundee because there would be less incentive to use it. It would also be more difficult to control land use and access on a slower speed, at-grade facility.

Did you use the same model on all three routes?

Yes, we used a forecasting software and looked at all areas that affect internal and external trip generation.

Did you look at casinos?

We looked at special destinations, such as casinos and the coast, and the trends related to them.

Next, Elaine announced the upcoming public event on June 5 at Newberg High School and asked members their advice on the best time. It was generally agreed 6:30 to 9:30 would be best.

Public Comments

Marc Dochez said the problem with the bypass alternatives is that they go through a middle school and sports complex, as well as vineyards which are valuable and unique assets to the community. He asked members to consider the land resources that are very important to community and seem to be compromised for the sake of environmental protection. He also said the railway concept is still feasible and the tracks still exist. In Italy, they build tunnels to preserve vineyards.

In closing, Chair Ragsdale said the agenda for the next meeting will include a discussion of increasing community participation and committee process. He acknowledged community concern about Hwy 99W and said the committee needs to think about how other issues, such as land use, tie in to the transportation issues.

Meeting adjourned.

The next two DTAC meetings are scheduled for June 11th and June 25th, 7 to 9 pm.

DUNDEE TRANSPORTATION ADVISORY COMMITTEE (DTAC)
Meeting Summary
Meeting 5
City Conference Room
June 11, 2001

Attending

Committee Members: Mike Ragsdale, Chair; Hugh Cleary; Eugene Gilden; Pancho Hernandez; Terry Light; Steve Mikami; Ivon Miller; Mike Sherwood; Don Sundeen

Staff and Consultants: Terry Cole, ODOT; George Lewis, City Administrator; Dan Seeman Kittelson and Associates; Suzanne Roberts, Cogan Owens Cogan

Guests: Marc Dochez, Mona Harper, Janis Sander

Mike Ragsdale, Chair, opened the meeting. He said he sees the Transportation System Plan (TSP) as being very comprehensive and the bypass is a critical decision but the committee also has a responsibility to look beyond Hwy 99W and focus on livability and the land use process and all of the committee's products should reflect that. He suggested that members are not limited to the ODOT scope unless they choose to be. He asked each member to say what he or she perceives is the purpose of the committee what the results should be.

Discussion followed. Comments from Committee members and guests are in italics. Responses from staff and the consultants follow in regular print.

George Lewis, outgoing City Administrator, told members he wants to leave them with thoughts about the TSP. He said that it is a discussion not only about aspects of getting around the City. He said members should keep in mind that Dundee by itself is not able to fund all the improvements that are wanted. We would need partnerships with the County, ODOT and maybe even the federal government.

George also said the committee needs to look at how growth patterns affect how we get around. One-half of Dundee is developed now, imagine if the other half were developed. The highway cuts the town in half. If we are only one-half grown up, think of the town as a late teenager or young adult. Hopefully, as it grows, it will have all the necessary amenities as a result of the plan. He wished the committee the best of luck.

- ◆ *I appreciate the need for a TSP for Dundee and it should be long-term, but I am concerned about the level of uncertainty with regard to proposed changes to Hwy 99W and the possibility of bypasses and couplets. It may be premature to discuss connectivity within the City when there is so much uncertainty. I want the committee's proposals based on the outcome of what happens to Hwy 99W.*
- ◆ *I agree, Hwy 99W is the crux of the whole transportation system and what happens there is bound to what we do. For example, the Transportation Management Alternative would have*

a different outcome than would the various percentages of traffic that may be taken off the highway under various alternatives. It goes back to how much power we have to say what happens in Dundee. I have talked with residents who cannot decide whether to sell their houses because of the uncertainty. As a product I want a plan that deals with traffic over a long period of time (30-50 years) and bypasses seem fairly ineffective in the long-term.

- ◆ *I see the committee's goal as larger than a traffic plan for the City. Regardless of what happens with Hwy 99W, we have to be concerned about how citizens get around. We have to determine what we want the City to be in 20 years and how we want to get around it. No matter what help we get we need to plan ahead. For example, we need more traffic lights because emergency vehicles are currently not able to effectively move around the City.*
- ◆ *This committee has been in operation for almost one year. Let's not forget the work we have done so far, such as the goals we created. Think back to the beginning. We were set up to advise the City Council. We learn as we go. It seems the decisions come back to what ODOT and consultants think rather than a result of our input. We have now established the groundwork and are getting to the actual alternatives, which I have concerns about. This is a very important stage of the committee's process and I hope it will not be driven by the outside.*
- ◆ *I echo the concerns others have expressed. There have been some original options that have come up but are not being discussed now. Our challenge is to combine local and regional needs with land use needs, economic needs and other issues to make the community that we want. The result should be a comprehensive plan and hopefully will clearly express what we want to others that are involved in the regional project.*
- ◆ *To hear that it may be ten years before a solution is implemented is depressing, especially if we don't know what it is. The couplet would mess up the City as far as commercial access. If we could be sure of the alternative we could continue with our work. A traffic light on 9th or 10th would help tremendously. We have to address internal traffic flow but the highway is our biggest obstacle and we need to do something. How soon will ODOT make a decision about Hwy 99W?*

The alternative is expected to be chosen in 18-24 months and the project could be completed in three to five years, if funding can be found. The intention is to produce a Draft Location Environmental Impact Statement to identify a preferred alignment by January, 2002, work on refining that alternative, and produce a final Environmental Impact Statement by December, 2002. If it is done correctly, that should give us a clear indication of where we are going.

That is a long time to not be sure about what we want to do.

- ◆ *I realize there are outside influences but I feel it is my duty to represent Dundee citizens and to not sacrifice their interests for regional travelers.*
- ◆ *If there is no plan than we are not going anywhere. As a manager I want to know what everyone else is doing and why. It is important that, as a committee, we are all on the same page even if we disagree. We seem to be together so far. I understand the process won't*

happen overnight but it is important that we are always discussing and modifying if needed. There are a lot of things happening around Dundee and we should take it all in but not necessarily wait for it. Our goal should be to continue discussions and keep our options open so we don't become stale. We need to involve the public. We don't want to move too quickly because these decisions will affect us for a long time.

- ◆ *I went to the Newberg-Dundee Transportation Improvement Project (NDTIP) public symposium last week in Newberg and heard a lot of interesting input from Newberg residents on issues that we have not even thought about but that they are very clear on. It is good to talk to our neighbors, and to walk the routes to actually see the potential impacts of the proposed alternatives.*

Next, Mike Ragsdale asked that dots be placed on a map of Dundee to indicate where each of the members live. He pointed out that there are some underrepresented parts of town and we should be aware of the yet-to-be developed half of the City. He said that just solving the Hwy 99W issue does not take care of the entire City. Putting all of the traffic in one area of the City makes that area bad.

Mike said it would be good to have parallel routes in addition to the highway. He said we are constrained by the Urban Growth Boundary (UGB), otherwise it would be ideal to have five or six alternative routes to the highway. We need a system to disperse traffic through multiple options. So far we have been told the only option is to move the problem to where nobody is living now.

Mike encouraged members to try to determine what they want for Dundee and that all the answers are not included in the report on alternatives that was distributed at the last meeting. He encouraged them to come up with ideas rather than just react. He said that Dundee can do anything that it wants and the committee should make the best possible plan then figure out how to make it work. He recognized that the alternatives in the report are not the only to have come forward from this process.

Next, Mike began a discussion on how to address the apparent split among committee members about whether to resolve Hwy 99W or local connectivity first.

Terry Cole, ODOT, said the committee began this process with the knowledge that the other project (the NDTIP) was happening simultaneously. The intent has always been to develop contingencies relative to the NDTIP options and to coordinate the two processes as best as possible. It has always been expected that the City would adopt a TSP that addressed the independent local issues first and amend the TSP later when a final decision is made about the NDTIP. He said members should think of the alternatives report as a starting point for discussion of local alternatives and NDTIP contingencies. It provides the input that we have heard from residents and ideas that the contractor has developed for discussion.

Mike said that we have good results for the criteria that we have had so far but we can come up with our own criteria. He said he wants the committee to discuss how to address the alternatives, whether by Hwy 99W or local street issues or something else.

Terry said there is a misconception that ODOT has timeframe to push the project. The driving factor was the desire to have system development charges and local issues defined so that new development can be addressed properly, which necessitated moving as quickly as possible, but ODOT is flexible and can move at whatever pace the committee would like.

Dan Seeman, Kittelson & Associates, said this process can be an opportunity for Dundee to influence the regional project.

I want to see preliminary drawings of improvements that are possible. Then I can address the various impacts. I want to see something concrete.

- ◆ *The Northern Bypass is out of consideration due to topography impacts. The couplets don't make sense. The Southern Bypass does make sense. It gives us the desired flow while the Regional Bypass does not. I would start with the Southern Bypass and build around that. What about bypassing around Dundee and tying into Newberg?*

We looked at that and found that the Newberg street system would not be able handle its expected growth without expanding Hwy 99W to more than three-lanes in each direction. All the options have implications to communities.

- ◆ *Obviously nothing will be done right away and people will look for a shortcut to avoid the main roads if they are congested. I don't know many people who go from one side of the City to the other. People usually go north or south. I want to improve the road to travel north or south. Hwy 99W is less of an issue.*
- ◆ *The Northern Bypass is out of consideration. The Regional Bypass does not take enough traffic off the highway. I favor the Southern Bypasses with minimized agricultural impacts, and probably not the one with the northern interchange.*
- ◆ *The Northern Bypass is out of consideration due to topography. The Regional Bypass seems unfeasible due to environmental constraints. The decision will probably be one of the Southern Bypasses. This would work especially if ODOT limits access and acquires property on either side to prevent development so we are not growing.*

Mike said he favors a couplet through Dundee that has not yet been modeled. It has platform crossings. The volume around Dundee is hidden by walls. He wants an expressway with intersections and signals—this is a modification of the couplet alternative that disperses traffic through the City. It would have intersections with access to the river.

The operational characteristics of a suppressed six-lane highway would probably be similar to the couplet alternatives described in the report.

- ◆ *Lafayette does not have access to a bypass. It is a comfortable town even though it is right on Hwy 99W. I want Dundee to feel the same way. With the couplet we would still have trucks, which are the noisiest and most dangerous vehicles we have. Newberg is making it easier for trucks to travel on Hwy 99W. I favor the Southern Bypass. No matter what we do there will be some undesired impacts but this seems like the best long-term solution. The*

dispersal suggestion sounds feasible but I want to see drawings and other information so I can learn more about its potential impacts.

- ◆ *The Northern Bypass has no merit for consideration. I am skeptical of the Southern Bypass, though it still has possibilities. I like the idea of diffusing Newberg traffic through Dundee. Another possibility is to take the three lanes we have now and turn them into two lanes going one way during certain peak travel times as a short-term solution. We can see how this works and get an idea of how to site the other alternatives. The report is too limiting.*
- ◆ *An extraordinary downside to the diffusing idea is that it will move more traffic into residential areas. Traffic on Hwy 99W is the issue. I am less distressed by people getting around Dundee. I would like to explore a more efficient use of the current alternatives. I like the below-grade idea, or a tunnel with or without a roof. Doubling capacity in either direction at various times is also an idea worth discussing.*
- ◆ *Because other groups are attempting to reach consensus we should concentrate on establishing policy position statements that would improve our community, such as recommending alternatives that are friendly to commercial development. I don't feel we have the information yet to analyze the alternatives. I want to get away from the discussion of the highway and start discussing local traffic. In my heart I think the Regional Bypass is better than the Southern Bypass, which would cut off our access to the river, which would be very bad for our City.*

To sum up the discussion, Mike said he heard no support from members for the Northern Bypass.

One problem with it is the cost. It could have some benefits. I think the topography argument is uninformed.

George pointed out that the Northern Bypass routes would impact Dundee's major water source. He said this should be a driving issue that he has not yet heard mention of it in the regional process.

Terry said that the evaluation criteria used thus far to define the NDTIP alternatives have mostly been those addressing the National Environmental Policy Act (NEPA) process but that this would be a good piece of additional information.

Mike said that we know the Northern Bypass will come out of consideration and suggested that this committee make a recommendation against it to the City Council. He said this committee shouldn't let other groups make the decision without its input. He then initiated a discussion about local connectivity.

Traveling on 9th Street to the highway, people cut across or go up the hill to the signal to assure they can cross. I would like to reconfigure 9th, tie it into 10th and put in a signal there.

How can we connect 9th to 10th?

Figure 1 in your report diagrams this option. Dan has assumed this was already a done deal so it is included in the future analysis.

It does not take out major structures.

It may affect my property on 9th.

It would provide the opportunity for traffic control to a potentially large area of commercial development.

Do we want to move ahead with it? The committee generally agreed to make this first option to put on the table for further discussion.

George suggested modifying Alder Street so that it cannot extend all the way through, across the highway.

What is the goal?

To begin to address what happens to undeveloped public right-of-way.

We should look at what makes sense then look at impacts to right-of-ways. We can also look at corridors to the river that you want to protect. If they are in the TSP you protect against development.

I am not hearing much energy for this suggestion so we should move on.

Another option is a connection through the park, to provide a local network that reduces reliance on the highway. The idea of a route right next to City Hall was expressed at the April 9th public event.

I would be concerned about more traffic on 5th Street, right next to the school.

If we have 9th connecting into 10th, we could relieve traffic from 5th.

Mike said he feels we owe it to our children to have a new school that is modern and safely located.

There is a site being looked at by the school district that is outside the UGB, for either an new elementary or high school.

Mike said they will probably say they want to keep the old school, in addition to the new one. On the other hand, we can suggest to do away with the current old school building. He said the future of the town is the area to the southwest side of the City. He wants crossings, even if we have a couplet. We may want a connection with four platforms that would help with connectivity.

What will make me go over there?

If you want a community, you don't want a separator. The Southern Bypass would separate the community.

Terry urged the community to keep in mind that whatever configuration we talk about as an alternative to Highway 99W will amount to six lanes, total, through Dundee (or 4 in and 4 around, in the case of the Regional option). He reminded the committee that each option through Dundee will require under-crossings or over-crossings, whether it is the couplet, the suppressed option offered by Mike, or one of the bypasses. How these crossings are designed will determine whether or not the expanded highway will be a "separator" within the community. The bypasses can be designed to provide good crossing accesses for local residents, particularly if access to the new facility is limited to the interchanges north and south of Dundee.

The option near the City Hall does sound like it would work

I don't believe it will remove traffic, especially with what needs to be done.

Connecting 9th into 10th is more urgent to provide connections to people who need it.

We shouldn't take it off the table even if it is not necessary now. We need to look ahead.

There is now a right-of-way dedication to the City, between 5th and 7th that goes along the orchards.

We need a map to identify existing right-of-ways.

We can create them, with input from the City, and will provide them at the next meeting.

Mike said that in the next meeting, in addition to the right-of-ways, the committee would discuss policy for the development of Dundee, including for the undeveloped area to the southwest of the City. He said there are two basic philosophies of development to consider—arterial/quiet cul-de-sac subdivision and a street grid system.

Public Comments

Marc Dochez said there are three lots at 5th Street, none of which are occupied. He said this is a great opportunity to do something, maybe a tunnel, park and ride or train station. Unique farmland needs to be protected.

He also said the Lion's Gate Bridge in Vancouver, B.C. is a good example to look at. More information about this bridge will be provided to committee members.

Meeting adjourned.

The next meetings is scheduled for June 25th, 7 to 9 pm.

DUNDEE TRANSPORTATION ADVISORY COMMITTEE (DTAC)
Meeting Summary
Meeting 6
City Conference Room
June 25, 2001

Attending

Committee Members: Mike Ragsdale, Chair; Eugene Gilden; Pancho Hernandez; Anne Koch, Terry Light; Steve Mikami; Ivon Miller; Mike Sherwood; Don Sundeen

Staff and Consultants: Terry Cole, ODOT; Dan Seeman Kittelson and Associates; Suzanne Roberts, Cogan Owens Cogan

Guests: Marc Dochez

Mike Ragsdale, Chair, opened the meeting and initiated a discussion of connectivity for the portion of Dundee west of Hwy 99W.

Terry Cole, ODOT, told members he will mail them copies of Transportation System Plan (TSP) guidelines which had been requested by some members.

Dan Seeman, Kittelson & Associates, presented a map created by George Lewis, former City Administrator, showing the locations of the many right-of-ways (ROWs) available for new streets. The map notes which locations are undeveloped, vacated, or underdeveloped parcels. The undeveloped ROWs seem to be owned by the City. Dan had created a second map and had interpreted the data onto it, along with proposed routes and connectors.

Dan confirmed with members that at the last meeting they had recommended the 9th to 10th Street connection to Hwy 99W. Also last time members began discussing a parallel connection to Hwy 99W on its west side around 3rd, 5th, and 7th Streets. The ROW map indicates available ROW to accommodate such a connection between 5th and 7th.

Dan walked through the map of proposed road connections on the City's west side, explaining that the idea is to improve connectivity to lessen dependence on Highway 99W for inner-city travel movements, while guarding against the negative side effects of neighborhood cut-through traffic on the west side of the highway with some kind of grid system. A map with text describing these proposed routes will be distributed to members.

Discussion followed. Comments from Committee members and guests are in italics. Responses from staff and the consultants follow in regular print.

How do you improve connectivity from Fox Farm Road to other parts of town but discourage its use as an alternate to Hwy 99W? This is a residential road with no sidewalks.

We would have to be very sensitive to that when we are designing the connections, perhaps making them contingent upon improvements to the highway to reduce demand for an alternate

route. We also could consider traffic calming measures such as circular islands. There are many techniques to make a road less attractive to cut-through traffic.

People don't hesitate to use Fulquartz Landing Road even when it is congested. Drivers have the illusion of moving faster even if they are not. The residents on this road are not happy.

I am hearing objections to possible routes that may increase traffic on 5th Street. But we also are discussing a potential route to divert some traffic to 8th or 9th. It is important to think of the future and not limit our thinking about the impacts to one road without considering the impacts of all the routes we are proposing.

I agree. 9th Street seems like a good place for a light, then fewer people would use 5th Street. I also feel it is important to connect the two sides of town. Building for the sake of connectivity doesn't make sense because I don't see that there is a problem with getting around in Dundee, but I do appreciate connecting the new areas of Dundee to the old.

I see less value in the 5th to 7th Street connection than the 3rd to 5th Street connection. Drivers already have easy access from 5th to 7th Street. It would be much safer to extend off 3rd onto 5th. It is not the steep grade that is the problem, but the angle. 7th to 5th is not as good a use of road money.

Dan pointed out that there already is a signal at 5th Street and that the Fox Farm Road intersection with Hwy 99W warrants a signal under today's conditions. He told members that as they are considering where to locate collector streets, they should keep in mind that if Hwy 99W becomes a district highway given a scenario with a new bypass (thus, relegating the current highway to a lower priority than its current status as a statewide highway), a system of about quarter-mile spacing between signals along the highway will likely fit the towns future needs. He suggested that members think of Dundee collector system in such a way that its primary function is to provide key access points to the highway, probably eventually to be signalized, onto which traffic from local streets can funnel. He said that the Fox Farm location serves a regional need because it connects with a County connection to Newberg, much the same as Dayton Road. It supports the arterial-collector system.

I agree that connectivity is important in the future but I don't see that it is a problem now. The street system we have today has character, while the grid system, though acceptable, seems sterile. We will utilize developers to help street improvements too.

We need to have directives for developers to tell them whether we do or do not want a connection. I live on the corner of 1st and Alder and construction of the nearby proposed route would change the character of that area, for better or worse. There is the possibility for a connection through the undeveloped parcel near that intersection. The western part of Dundee needs to be connected and it is logical that 5th and 7th Streets be connected. How many homes will be added to this part of town?

There will not be too many homes added. There are a lot of development costs associated with environmental issues and the creek.

We should assume that someday it will be developed and that lot values will increase. What is the right way to develop? That is what a TSP is about.

I disagree. We don't know what will develop. As a resident of the west side of town, I don't agree with destroying a lot of land to save a few minutes in drive time. I don't see west side connections as a priority. We should look at connecting to the east side.

Even where the ROWs don't exist we should consider their needs. For example, Dogwood is not able to support the traffic it carries. Even if we modify it, it is not necessarily a good place to vacate and use to carry traffic because of its angle.

I have reconsidered my earlier position. I think that a signal at 10th is the most important thing to do to relieve the pressure in that area. I do not support connector routes that go through residential areas. The 10th Street light will help with getting traffic through the area, then we will have taken care of the west side of town. I am not sure whether this committee wants to diffuse traffic or not. We should make the improvements that require a minimum of effort, then see what is still needed.

I agree with putting a light and a connection at 10th Street. I'm not so sure about the Fox Farm extension. Nobody has mentioned 8th Street.

With Hwy 99W as a district highway, the spacing would allow 8th Street to remain a local street. Eighth Street would not be appropriate as a signalized intersection with Hwy 99W. There are many options there.

The 10th Street light is important. I would prefer a light on 9th where there is a lot of traffic, but it also makes sense at 10th, which is already a cross-street. We should make certain that no more cul-de-sacs are developed—if property is developed, a connection should be made through each parcel as it is developed.

With the realignment of 9th to 10th on the west side of Hwy 99W, 10th would be the most appropriate location for a future traffic signal. This new intersection would also line up with 10th on the east side of Hwy 99W, providing improved access to uses on that side of the highway.

I agree with that, but it doesn't mean they would be thoroughfares.

A TSP can designate what types of streets they should be.

If there is a light at 10th, does 9th still meet the highway? If a lot of trucks use 9th, ending the street would help relieve some of that traffic.

Dan said that a fundamental question members need to ask themselves is that if we connect Fox Farm Road to the northern perimeter of town, would we want to connect it somewhere else, maybe to Alder, to connect it to the rest of the system. Another consideration could be whether to designate some locations along the route for bicycles and walkers only.

The policy of connecting through development would mean a connection between 1st and 3rd and developers would have to take care of it.

To summarize what the Committee has said, 9th and 10th Street connections seem a top priority, as does 7th Street. With Hwy 99W, there seems to be agreement with a Fox Farm Road extension. For other roads, there seems to be agreement to hold onto ROWs and develop a connectivity policy to, for example, discourage cul-de-sacs and encourage through streets through new development. There is general agreement to build upon existing connectors but not to build more roads.

We need a connection from Fox Farm Road to the north to serve the west side of town, preferably designed so that it does not attract regional travelers, but allows our residents to travel to Newberg. Then we would have a west-to-west and east-to-east connection. Do we need a connector from Dundee's local street system to Fox Farm Road?

We certainly have the option of not connecting Dundee's local streets to Fox Farm. Such a connection would go along the backside of many cul-de-sacs.

It would be difficult to realign a collector from Fox Farm Road near the highway because of space requirements. Do you want another signal point there or should the City focus on 5th, 9th and Niederberger-Parks?

The Committee generally agreed to not realign a collector from Fox Farm Road.

Do you want the 3rd to 5th connection?

We cannot connect 3rd to Dogwood safely. If we want a connection, the only logical connection is 3rd to 5th Street.

I don't want to eliminate a part of the park or City Hall.

The connection will likely end up on City property because the community won't support elimination of park space.

Looking at it from a long-term perspective, if another school is built then the existing school building would be relegated to something else. Twenty years from now the school will likely not be on the highway. Therefore, citizens probably wouldn't mind a street here. This would be the cleanest option for a connection.

Would you support an option on this alignment with a provision to not remove park land?

Yes, and I would add to use Dogwood as a walking facility to the park.

I would add a provision to not increase traffic on 5th Street.

I am not sure if that is possible.

Is it possible to model the signal on 10th Street to see what impacts it would have? Will this make it more convenient for people going to 5th Street?

The Committee generally agreed on connecting 3rd to 5th, with the provision that the new road not be located on park land.

If the City Hall is moved, then the City center would likely be moved. What do you envision here?

Putting the City center across the highway would provide a good reason to connect the west with the east. Also, a city center is attractive to commercial development.

Next, the Committee began discussing the portion of Dundee east of Hwy 99W. Dan described the proposed new connectors to the area and that there is much undeveloped land.

That area could be a wetland.

Yes, it seems to be a wetland, so we probably want to go along the west side of it.

We want a better grid system. Maybe we should focus on collectors going towards 10th. We should build off the existing collectors: 5th, 10th, Park, Edwards Streets, to provide access. There are other options for parcels. There is much land that is outside the UGB, meaning we would need help with funding or would need to depend on developers to provide needed infrastructure.

There also is a designated park site north of 8th Street and east of Edwards Road.

There is a connector, where the river is, that could provide access to the river.

We will probably want to preserve the open space around the wetland and there is potential for a loop road parallel to the wetland, on the southwest side of it, possibly for housing.

There is school property designated to the southwest of the area you are referring to (outside of the UGB).

Do you want a river drive? Would you consider that an asset or liability?

We have talked about bicycle and pedestrian access to the river. There are floodplain problems.

We have talked about creating a destination area that provides recreational activities.

I would hate to see access as a public amenity cut off. I want a principle that nothing we do transportation-wise cuts off access to the river and that we enhance public access to the river.

A lot of cities with riverfront drives prevent private development along those drives. The kind of policy you decide upon is a major question. In other cities, the scenic route along the river is a great asset. If there is not some access and activity, that part of town can become dilapidated. Enough land should be left along the river to provide space for activity.

Does the City already have a floodplain policy?

Not that I know of.

I know of one example of a raised wooded path built to provide access across a waterway while protecting the sensitive plant and animal life in the area.

ODOT funded a similar project with the help of Federal Highway Administration funds.

Members discussed the location of the potential Southern bypass--likely between Hwy 99W and the drainage corridor.

We should be careful about being too prescriptive regarding the layout of streets in the undeveloped east side area, because we may unnecessarily restrict the flexibility of development of these large land-holdings. Instead, the TSP should prescribe policies and standards to guide development of streets in the eastside area.

The Southern Bypass looks like its route could go through the sewage lagoons.

The swath that is currently being considered for the southern bypass (along with all other bypass routes currently under consideration) is much wider than the actual roadway would be. Although the map may indicate that the sewage lagoons are in the swath, it is likely that the actual path of a new roadway, if this is the option that is eventually selected and constructed, would avoid the lagoons.

If we put in the bypass, won't it be wider later?

Our planning is with modeling 20 years from now, so we expect it to remain the same size for a long time.

I have heard that once the bypass is built traffic would be at the same level it is now.

In 2025 we project to have about one-half of today's daily traffic levels on the existing highway with the Southern Bypass.

Are there plans to expand the UGB? If so, that would impact some of our decisions.

Based on population forecasts and the amount of land available, the UGB is sufficient, except for industrial or commercial development.

The Committee directed Dan Seeman to summarize the intentions of the committee with respect to local street connections, and to return to the next DTAC meeting with this summary along with recommendations or suggestions regarding a collector system for the undeveloped area on the east side.

Next, Dan distributed materials on the reversible lanes of the Lion's Gate Bridge in Vancouver, British Columbia. His cover memo includes information on how the concept could apply to Dundee's transportation system.

Has anyone researched the bypass in Sacramento, California that was constructed over sensitive agricultural land? Such a structure may help eliminate environmental issues.

We have not researched it because Sacramento has different issues than Dundee and the ESA listings have created a different set of issues to deal with. But we can take the idea to the Newberg-Dundee Transportation Project Management Team.

Public Comments

Marc Dochez said he was pleased that the Committee seems to oppose the Northern Bypass Alternative. He distributed a letter to members describing the potential impacts of the Northern Bypass.

Meeting adjourned.

The next meetings is scheduled for Monday, July 16th, 7 to 9 pm.

DUNDEE TRANSPORTATION ADVISORY COMMITTEE (DTAC)
Meeting Summary
Meeting 7
City Conference Room
July 16, 2001

Attending

Committee Members: Mike Ragsdale, Chair; Hugh Cleary; Eugene Gilden; Pancho Hernandez; Steve Mikami; Ivon Miller; Mike Sherwood; Don Sundeen

Staff and Consultants: Terry Cole, ODOT; Dan Seeman and Jerilyn Wen, Kittelson and Associates; Suzanne Roberts, Cogan Owens Cogan

Guests: Dave Bishop, Mike Cowan, Debra and Tim Olberding, Jerome Rogers

Mike Ragsdale, Chair, opened the meeting.

Dan Seeman, Kittelson & Associates, presented a map displaying a compilation of DTAC recommendations to date for a connected transportation system throughout Dundee. He began with the vacant parcel in the vicinity of 1st Street and Alder, with options for north/south or east/west connections. Mike Ragsdale said that he thought there may be a development plan currently under application with the City on this parcel, and that any recommendations that we are making in the TSP should take such a plan into consideration. Dan suggested that it may be appropriate for the TSP to identify appropriate spacing and connections for local streets, then leave the creation of local streets to the development process. This approach would give greater flexibility to developers to meet the intended need of the local system, yet provide them with the ability to develop the property to its highest and best use.

The Committee discussed a development plan for the area near the proposed connector between 1st and 3rd Streets. Ivon Miller said that the current development plan does not have a street connection through it, but does have a pedestrian/bicycle trail that follows the water/sewer easement. This was pointed out as another example where the recommendations in the TSP should be consistent, where appropriate, with development proposals under consideration. Members agreed that it is important that their proposals are consistent with plans that are approved by the Planning Commission.

On the south part of town, Dan recommended that Alder be extended to the south and connect with Highway 99W at a 90-degree angle, completing a loop around the City. This recommendation also included the disconnection of Niederberger Road from Highway 99W, and instead having it "tee" into the extended Alder Street at a distance about 300 feet northwest of Highway 99W.

Next, Dan presented a map of his recommendations for a collector system in the portion of Dundee east of Hwy 99W.

He began by describing the swath of land that is currently being considered for the Southern Bypass. There is a natural drainage way separating the north from the south, leaving space for a loop road at the southern portion of this area. Dan said he wants to see continuation from the west side of town to serve the east side and proposed an east/west road (called "Hayfield Drive" for the purpose of discussion) that crosses the potential bypass. Hayfield Drive curves and eventually flows into a future five-way roundabout system where 10th Street intersects with Hwy 99W.

Dan explained that while access is needed from Newberg to the northern portion of this undeveloped eastside, exercising a potential option of building an urban road outside the UGB complicates the process. Instead he recommends extending 6th Street to create another collector. He acknowledged that this connection would load additional "collector level" traffic to what is currently a local street (6th Street east of Edwards).

Discussion followed. Comments from Committee members and guests are in italics. Responses from staff and the consultants follow in regular print.

What about creating a loop around the area (south of what Dan termed Soggy Bottom Drainage Area) rather than the two east/west streets that are recommended?

That is a possibility. The drainage area will remain and we should establish it as greenway to river.

What about the proposed school site further west? That should be included in our discussions.

What are the strengths and weaknesses of these recommended routes?

There are not many options for serving this area. We have generally agreed we do not want to create cul-de-sacs. A loop system makes sense, with local streets tying into it.

We may want to develop on both sides of the Soggy Bottom drainage.

Yes, we recommend local streets and development on both sides of it.

How can we assume that traffic will not flood into Edwards Road instead of going around the perimeter where the streets should be directed?

Assuming we want a grid system, maybe a rectangular perimeter could be created.

Edwards and Fulquartz Landing Roads will be primary facilities. The recommended Riverfront Drive (as Dan coined it along the drainage) will serve other purposes.

Fulquartz is not just used by local traffic—it serves as a regional road, used by through travelers to avoid traffic congestion on Highway 99W at peak times.

What if we have streets that go in but not through, from east to west?

We want a connected system for local commuters and emergency vehicles. Terry Cole, ODOT, pointed out that it is the objective of the bypass project, currently underway on a parallel and coordinated track, to resolve the problem of Highway 99W congestion, and thereby relieve the need for through travelers to want to cut-through on local streets to get through Dundee.

If we close the connection between Edwards and Fulquartz and make a collector from Fulquartz to Parks Road, it would discourage cut-through traffic.

Because of expected transportation system improvements, we do not anticipate that people will need to avoid the highway in the future, so we want to provide adequate connections throughout the city.

Maybe another connection could be created over the Soggy Bottom drainage, to the north.

For the area south of the Soggy Bottom drainage we should either consider a collector or write narrative in the TSP as to why we recommend a collector there.

For the TSP, we could have a conceptual idea of what it should look like but it does not need to follow an exact alignment.

The Committee agreed on the recommended perimeter road south of the drainage, slightly flatter and further from the Soggy Bottom drainage than currently drawn. Members also agreed to recommend a grid system and leave it to the development process. Cul-de-sacs may be practical where the topography does not lend itself to a grid system.

We should develop language that goes with the developable parcel.

A riverfront drive provides a reasonable access to the river, with a park along the water.

I am enthusiastic about the riverfront drive and the Committee establishing some standards for a park-like setting, with landscaping and tree lining, to create a scenic drive.

Is there any current active use? Is there any public ownership?

It is proposed that the County would develop this area as a park. There are large land owners in this area.

There is a 300-foot buffer from the edge of the floodplain and the road is drawn at the edge of developable land.

Does the comprehensive plan designate the land as residential?

It is primarily residential but there may be some commercial eventually.

Is there a possibility we will develop beyond our capacity?

Today's population is approximately 2,600 to 3,000. The size of the community is expected to double in 20 years to about 5,744. We expect to have adequate land supply for the next 20 years

but may use most of it up. If we continue to develop at the current pace we will achieve our target growth.

The Committee agreed to the riverfront drive and said it is the only way to protect the greenway along the drainage.

It makes sense to have an east-west collector near the north end of this eastern portion of Dundee to connect to the rest of the city's street system.

Why does the proposed Hayfield Drive extend to the five-way intersection rather than to 8th Street? There seems to be adequate spacing available. Then we would have a four-way roundabout, rather than the five-way.

What if we create a straight extension of 8th Street? I am bothered by the curves of the current recommended alignments.

What if we make the curve less drastic and make 6th Street go further out?

Members discussed an extension of 8th rather than Hayfield Drive.

Maybe Parks Road should be a collector street.

In the absence of any other east-west collectors, you would have a large area connected only with local streets causing the potential of a lot of traffic through neighborhoods.

Also, the existing recommendation provides for the potential of a town center or node of concentrated activity, where many of the streets join together at the five-way roundabout.

What is the possibility of the north side of 6th Street being annexed? There could be another double-sided collector if more development occurs. It is likely the UGB will expand 35 years from now.

We will want to consider whether that will be developable property or agricultural land.

I agree. There is a gentleman's agreement between the Cities of Newberg and Dundee that neither will expand the UGB towards the other.

If our population will be double in 20 years, that area will feel pressure for infill, unless a buffer is provided to establish a transition between residential and commercial development.

There is not such an agreement between Dundee and Dayton so it may be more reasonable to develop there.

Looking at apparent adequate land supply and questioning it would be counterproductive for us at this time.

I want to eliminate the 6th Street leg of Hayfield Drive and have it go straight to 8th Street.

That type of detail does not matter now, for the purpose of the TSP, because as developments are applied for on these properties east of Edwards Road they may propose collector streets that are different from what we are recommending, but that still meet the intent of the City's needs.

Members agreed that the upper connection to Hayfield Drive (from 5th Street) is not needed.

The Hayfield Drive location is yet to be determined but will likely be north of the park. We want it adjacent to the park. Maybe we could create a north/south route also adjacent to the park. This would protect the ability for the collector system to expand in the future.

Mike said the Committee will revisit this part of town and he will contact the property owners, inviting them to the Committee meetings. He said the TSP should contain text about preserving the greenway and establishing a scenic riverfront drive. We should establish a collector policy and recommend a connector but the rest of the streets will come out of the development process.

In the next meeting the Committee will discuss how these recommendations relate to the bypass options.

Next, Terry updated members on the latest decision made in the Newberg-Dundee Transportation Improvement Project (NDTIP). In summary, the Project Oversight Team (POST) decided, in its June 29 meeting, to remove the Regional Bypass and Northern Bypass Alternative from further study, leaving only variations of the Southern Bypass. However, in discussions that took place most of Monday, ending just before the DTAC meeting, ODOT's Environmental Services expressed concern that including only one corridor in the alternatives advanced section of the draft Environmental Impact Statement (EIS) would take away from the defensibility of the document, particularly given some likely environmental justice issues along the southern corridor in the Newberg area. There is also concern that the POST decisions have not yet been reviewed with the CETAS, which is a committee of representatives from various regulatory agencies and that they should have a chance to comment and advise, as well. Based on these concerns, and the more negative assessment that has been given to the Regional Alternatives by the CETAS and the POST, the ODOT Environmental Section has recommended that a northern alternative be included in the alternatives advanced section of the EIS.

Because a Northern Bypass alternative appears likely to be included in the draft document as an advanced alternative, Terry reviewed which alternatives would most likely be considered. Terry said that the previously studied Northern Alternative most likely to be included back into the advanced alternatives section of the draft EIS was the Northern Bypass Alternative with a couplet through Dundee (called Alternative 4B in previous material provided in the public meetings). The other possibility Terry described was a north/south alternative hybrid with a bypass that runs north of Newberg (as in Alternative 4B) then crosses Highway 99W between Newberg and Dundee and continues south on an alignment similar to the non-couplet southern bypass alternatives. Terry noted that this hybrid alternative would avoid raising the couplet issue again in Dundee, which would be more in line with the position taken by the POST to drop the Dundee couplet alternatives and the feedback from the public thus far, most of which has not favored the couplet. He then asked for any input that the DTAC would like to offer, stressing

that he was not asking for a decision or recommendation, but that he would like to be able to share their perspective with the project team and other committees involved with the process.

It is a very compelling idea with many assets but I am concerned that it will divide our community in much the same way that Hwy 99W is perceived as dividing the community. It will traverse through the future residential development we have been discussing.

Won't it go through the school property in Newberg?

It is difficult to avoid both residential and public property with the northern alignment. On the other hand, there is low income housing to the south of Newberg that would be affected by a Southern Bypass. This hybrid alternative seems to avoid the most negative impacts of the other alternatives.

I think it is insane to consider any alternative with a northern alignment, but we will discuss these options more at our next meeting.

Public Comments

It is ludicrous to do a Northern Bypass. It will blast through the middle of town. It will tie up the legal system for years. I think we should do the Regional Bypass. It seems like a waste of money to study alternatives that don't have community support.

We agree and feel that this seems like you are just trying to please the environmentalists. When will the local roads in Dundee be improved?

Mike explained that the DTAC is working specifically on the Dundee Transportation System Plan and making recommendations to the City Council. It does not receive funding to implement projects. The recommendations are scheduled to be made at the end of this year.

We attended the last public event [for the NDTIP] and did not learn anything that we didn't read in the newspaper. It felt as if we were just being appeased.

More information is available now than was at that time. More traffic analysis has been conducted. I encourage you to look at the project website and/or call ODOT or consultant staff for more information.

Meeting adjourned.

The next meetings is scheduled for Monday, July 30, 7 to 9 pm.

DUNDEE TRANSPORTATION ADVISORY COMMITTEE (DTAC)
Meeting Summary
Meeting 8
City Conference Room
July 30, 2001

Attending

Committee Members: Mike Ragsdale, Chair; Hugh Cleary; Pancho Hernandez; Anne Koch; Terry Light; Steve Mikami; Ivon Miller; Mike Sherwood; Don Sundeen

Staff and Consultants: Terry Cole and Bob Royer, ODOT; Dan Seeman, Kittelson and Associates; Dave Mayfield, URS; Suzanne Roberts, Cogan Owens Cogan

Guests: Mike Cowan, Darci Rudzinski

Mike Ragsdale, Chair, opened the meeting. He distributed a copy of proposed changes to the Dundee Transportation System Plan (TSP) schedule. He explained that the revised schedule is subject to securing additional funding from ODOT and Terry Cole will provide the Committee with regular updates. Also, this schedule is meant to coincide with that of the Project Oversight Team (POST), the decision-making body of the Newberg-Dundee Transportation Project.

In the next two meetings the DTAC will discuss the bypass alternatives and will come forward with conceptual recommendations for the bypass. Then members will discuss recommendations for Dundee's transportation system and how it relates to community development. The City Council and Planning Commission will meet together in September to review the DTAC recommendations, with the understanding that the public also will have input at two community meetings in mid-September. The Council will then review the community input and determine the City's perspective on the bypass to present to the POST, in October.

The DTAC will then turn its attention back to the TSP and begin discussing finance issues. Mike said the Committee should address such issues as funding and maintenance of the existing system. He asked members to keep in mind that the City is involved in periodic review, which means this Committee has the opportunity to make recommendations that involve future development, such as the location of the town center. He said these issues should be covered, along with the bypass, in the community meetings.

He then asked members for comments on the revised schedule.

Discussion followed. Comments from Committee members and guests are in italics. Responses from staff and the consultants follow in regular print.

Members agreed to reschedule the October 4 meeting to Monday, October 8, when more members are available.

Do you know the exact dates of the community meetings? If they are both on the same day of the week, it is likely the same people will not be able to attend either one.

They should be scheduled early enough to be sufficiently publicized in the City newsletter.

They should also be scheduled early enough to reserve the elementary school cafeteria, which is probably the best location for them.

Anne Koch is chair of the Dundee Community Center and said its publication is an ideal place to publicize the community meetings. She said an announcement that is ready for publication should be ready one and half weeks before publication and recommended that everything but the date be written ahead of time.

Terry said the dates of the community meetings should be decided by the August 27 DTAC meeting, after the August 24 POST meeting.

Presentation on the Newberg-Dundee Transportation Improvement Project (NDTIP)

Dave Mayfield, URS, project manager for the NDTIP, presented the DTAC with background and status of the project. Bob Royer, ODOT, is also a project manager and was present to help answer questions.

Dave began by thanking DTAC members for their input which is very important to both projects. He said that his involvement with the NDTIP started in 1996 when he was with the consulting firm CH2M Hill. The project team is now a combination of consultants and ODOT staff.

He explained that the project was stalled in 1997 because state funding was suspended. The end result at that time was a study comparing bypass and other improvement options. The outcome was to forward the Transportation Management Alternative (TMA) which included widening Hwy 99W and other transportation improvement components. Also forwarded were the Southern and Regional Bypasses.

Next, Dave outlined the NDTIP process saying that work is about to begin on the Draft Location Environmental Impact Statement, which will then go through a review stage. Next, the POST will select the best alternative to move forward. The impacts of the chosen alternative will then be examined in more detail. Also at this time, further collaboration with county and city plans and policies will occur. There will be many opportunities to respond to public input throughout the process.

Earlier in this process a transportation threshold was developed, which is the point where traffic conditions are considered to be failing. It was determined that the TMA didn't meet the minimum threshold and therefore, the POST decided to remove it, as a stand-alone alternative, from further study.

At the first Summit meeting in November, 2000, the National Marine Fisheries Service (NMFS) suggested that the Northern Bypass, the alternative route that is furthest from the river, be included in the study in light of recent Endangered Species listings. This is just one illustration of how many different groups, including various state and federal agencies, are making decisions and will have to come together during the process.

Our analyses show that a bypass in the southern corridor would relieve the traffic most effectively with the least amount of negative impacts. The Southern Bypass Alternatives under consideration differ in how they connect with Hwy 18 at McDougal Corner. One possible solution is an interchange with McDougal Corner, which has the advantage of being close to the railroad tracks, lessening agricultural impacts. In the other possible solution, the interchange is closer to Dundee than to Dayton and would take the place of McDougal Corner. Also, the Southern Bypass is being considered both with and without a Hwy 219 interchange.

For all alternatives, the POST recommended a more direct route between Newberg and Dundee and found that an interchange here would reduce the traffic on Hwy 99W through Dundee to less than half of what it is now.

The POST also recommends a low-speed facility. We are looking at two such facilities with at-grade intersections, so the bypass wouldn't be limited access, and there would be no way to toll commuters.

By eliminating the toll, aren't you eliminating one option to finance the bypass?

Yes, and that would be a disadvantage of this option.

There were two Northern Bypass options looked at and rejected by the POST but the environmental agencies have not approved dropping the Northern Mini-Bypass Alternative with a couplet from the study. A new alternative that has recently been added is the Northern Mini Bypass/Southern route hybrid as a way to bring back the northern corridor without a couplet, which was not favored by most people.

The hybrid is essentially the TMA. It brings traffic into the existing community.

The POST does not favor a couplet through Dundee because of its community impacts. Also, we heard at public meetings that people do not want more traffic in downtown Dundee and the POST has done what it can to respond. The hybrid alternative is a way to strengthen the study because it includes the northern corridor. It goes to the POST in August and we want to give the DTAC's input to the POST.

Isn't there already a project connecting Hwy 99W and Hwy 219 that the Northern Bypass can coordinate with?

The City has discussed a north arterial that ties into Hwy 99W on the north side of town about where the nursery is. I don't expect it to be part of the bypass but rather a local arterial. The arterial runs from College Street across undeveloped land to Crestview. The portion from College to Mountain View is funded; to Springbrook is yet to be funded and to Hwy 99W is purely conceptual.

Transportation Management concepts such as local connections, bus service, and park and ride lots will be part of any package, regardless of the bypass decision. Expect a high level of transit services and keep that in mind when giving input.

I want to be clear on where the bypass will enter Dundee. Why would the interchange between Newberg and Dundee reduce so much traffic in Dundee?

The map shows a conceptual interchange area with more space than will actually be used for the interchange. It is a worst case footprint to identify maximum impacts. Drivers coming from Newberg will use the bypass to go around Dundee. Less than 10% of Hwy 99W traffic is Dundee traffic. The rest is through-traffic.

Why are there four interchanges within such a small area? This makes it seem like an urban arterial rather than a bypass, and splits the future community.

The spacing is similar to most urban areas, in which spacing standards for an interchange are similar to that of a freeway. The POST tried to design a system that Dundee would like.

I could see support if it decreases traffic as much as you estimate.

An interchange at Fox Farm Road may be good given where development is now and is likely to be in the future.

Is the southern interchange near the Sokol Blosser Winery?

Yes.

How much flexibility do we have if we want to make recommendations about circulation?

With a direct alignment, the interchange has a larger footprint. East of the subdivision there is much latitude that the DTAC can work with to make recommendations. There is similar latitude on the south side. We have less latitude to the north because of the railroad track.

How much agricultural land do we miss if we go further west?

We are staying away from it. Our data tells us that the further away we are from the river, the less resources are impacted, but there is still flexibility.

What are the benefits of the southern interchange?

Our computer modeling has shown it to have the least impacts and the most significant impact on Dundee traffic.

How wide will the final configuration of the bypass be?

It will likely be one-half to one-third the width of the alignment shown on the map now—likely something fitting within a 100 foot corridor. The exact configuration will depend on design characteristics such as whether a separate bike path will be included. We want to make sure there is cross-connectivity with any arterials we recommend.

We have about three crossings now. How will they be designed in relation to the bypass?

They will probably go up and over the bypass. In most cases the bypass will likely be suppressed, with sound walls alongside it. It depends on what the issues are, for example, if pedestrians use an existing cross-street we may build the bypass above it to preserve that cross-street. That is the type of thing you will want to comment on during this process—to consider the trade-offs.

What does the configuration look like?

In existing and future residential areas there will be sound walls. This may increase the width of the corridor. Drainage also needs to be considered. When we get to the design level of the study the community may have a preferred concept and a lot of design issues could be addressed ahead of time.

I have heard comments about a wealthy property owner who would fight anything going on his land. How much can a well-funded party determine the fate of this project? I am concerned that those with more money have more say in this project.

No matter where the bypass is located, it will impact someone. An opponent can tie the decision up in court but it all basically depends on how well the Environmental Impact Statement is written. We need to cover all our legal bases. We haven't had many such problems in the past. The magnitude of potential impacts is high and it is important that all the involved organizations work together.

Which potential impacts are greater—those to agriculture or those to people?

There is no formula to make that determination.

Mike said that this project will be difficult to fund, especially if anyone opposes it. He asked members to say if they oppose the Southern Bypass because he is proceeding with the assumption that it will go through.

It would keep the focus on what we want in the City. Maybe we should recommend that the bypass be below-grade. We need to consider what we want as a city—how will this project go through and how we maintain our livability.

Public Comments

Darci Rudzinski, Field Representative, Department of Land Conservation and Development, commended the Committee for discussing land use and transportation at the same time. She said that policy questions such as those about the park and river and where the city center is going to be need to be pinned down and that Newberg has a head start with their plans.

Mike said that the Committee will give more consideration at the next meeting as to where the city center and main crossroads should be.

Assuming the Southern Bypass removes a lot of traffic from Hwy 99W, what type of street does Hwy 99W become?

It likely would still be owned by ODOT but many decisions may be delegated to the City.

It is in the purview of this Committee to address it and make comments about what it should be.

Dave ended by inviting members to contact him if they need more information or want the project team to address a group.

Meeting adjourned.

The next meetings is scheduled for Monday, August 13, 7 to 9 pm.

DUNDEE TRANSPORTATION ADVISORY COMMITTEE (DTAC)
Meeting Summary
Meeting 9
City Conference Room
August 13, 2001

Attending

Committee Members: Hugh Cleary, Eugene Gilden, Anne Koch, Steve Mikami, Ivon Miller, Don Sundeen

Staff and Consultants: Terry Cole, Oregon Department of Transportation (ODOT); Kirstin Greene, Cogan Owens Cogan; Dan Seeman, Kittelson and Associates

Guests: Mr. and Mrs. Tom Edwards. Michael Gunn signed in but did not stay for the meeting.

The meeting was scheduled to begin at 7 pm. At 7:15, as Chair Mike Ragsdale was still not present, the Committee considered whether to reschedule the meeting or continue with the discussion about the Newberg Transportation Improvement Project, (NDTIP). Terry Cole, ODOT, reviewed the recommended near-term project timeline that was attached to the July 30 meeting summary. He said that Mayor Worrall requested of the POST that the City be allowed additional time to gather citizen input regarding the remaining alternatives in the context of the Dundee Transportation System Plan. The Committee discussed delaying the meeting. Dan invited comments from Committee members. A summary of this discussion follows.

Comments from Committee members and guests are in italics. Responses from staff and the consultants follow in regular print.

I would like to delay the meeting. Mike understands this project and the role of the City's visioning. I have evening meetings, however, every night this week.

Dan Seeman and Don Sundeen said that they would not be available for a meeting the following Monday. Dan offered that the Committee could meet without him.

What additional information were we supposed to receive this meeting that we didn't hear last week?

We have had some additional input from the consultant team and ODOT regarding the bypass options.

Dan said that Mike had asked him to prepare enlargements of the Southern Bypass route(s) for Committee members to consider. He had these at the meeting. Dan then reviewed the process that had been going on for about one year regarding the "bypass", decision-making and the Project Oversight Steering Team (POST). He said that the POST, which includes representation of the City of Dundee (by Mayor Roger Worrall),

has been the guiding force in making the project decisions. They have been considering input from the public, the consultant team and others, and have been narrowing the alternatives that seem to be most viable. It is in this context that Mayor Worrall had asked for some additional time. Mayor Worrall wanted the DTAC to develop a clear position regarding the process so that he, as representative, can go back to the POST at their August 24 meeting asking that the Draft Location Environmental Impact Statement (Draft LEIS) process be put on a two-month hold to allow Dundee to hold additional community-level discussions. Terry said that he expects that the POST will accept this request, but they need to give the go-ahead.

Terry clarified that the Mayor would like to ask the POST to allow enough time to have a couple of DTAC and public meetings – the public meetings are expected to be held the weeks of September 17 and September 24. Terry explained that the purpose of the extended schedule and additional meetings would be to allow the citizens of Dundee time to consider what its future development would look like and where it would be. Part of this discussion would also finalize which Oregon 99W alternative the City would advocate for at the POST. Terry explained that the Mayor and Mike Ragsdale still expected both couplet or “in-town” alternatives, including the sunken facility Mike described at the June 11 DTAC meeting, and the Southern bypass alternatives to be considered.

Terry said that, at the previous meeting, the Committee heard a presentation by NDTIP consultant team project manager David Mayfield regarding the bypass options. At this meeting, they were supposed to have a discussion on the alternatives. He reviewed the schedule again and said that the POST needed to be comfortable with this delay in their schedule, to allow additional time before they close the scoping, or comment period and forward the draft alternatives to the writing of the Draft LEIS. After the LEIS is released, there will be an additional public comment period.

Dan asked the Committee to be thinking about dates and locations for the September public meeting. Committee members agreed to find some locations and times to conditionally schedule these meetings. They agreed that details about the meeting would not be publicized until the POST makes its decision August 24th. Two different times will be offered, with the same format, so community members will have a greater chance of being able to make one of the meetings.

After the presentation of the alternatives at the last meeting, I felt that this Committee does not have a lot of say or influence in the alternatives – but more now in recommending where adjustments could be made to the Southern alignment. From a local perspective, Dundee will want to address the concerns of Dundee residents. If the community intends to protect “flow” and “connectivity”, we should be alert to design aspects that would address the concern(s) of Dundee residents, such as building a sub-grade facility to minimize noise impacts. Now that we have an alignment, the Committee and community must decide what should be done to address the needs of the city.

Terry said that was a logical assessment and said that there is still the potential that one of the Northern alternatives could come back on the table. This could be either the Northern alignment with a couplet in Dundee (4B) or a modified "hybrid" Northern bypass, a combination of the short Northern bypass in Newberg and the Southern alignment in Dundee. He said that if the Committee and community do not want to revisit the question of another alternative to the Southern option, such as a couplet, the discussion can focus on how to build the community with the Southern corridor in mind – with issues such as the placement of a community or town center, connectivity, etc.

But those details aren't needed for the POST meeting (August 24), isn't that right?

Correct. The Mayor just needs to take the message that you as a city need to have an internal discussion about the alternatives and some of the policy details to be considered in the Transportation System Plan (TSP). That is, a formal Dundee recommendation is not needed yet if the POST delays beginning the draft LEIS.

The last time we had a public meeting, the Regional Bypass and a couplet through town were alternatives. Now they are not and we have not had a conversation since then.

That is correct. Since that time the POST recommended not forwarding the Regional option due largely to environmental, cost and performance issues. None of the couplet options were advanced from the last POST meeting.

We would have had to fight NMFS (National Marine Fisheries Service) regarding threatened and endangered species also.

Where would the money for the additional meetings come from?

ODOT and the City, if they can contribute.

After additional discussion among committee members about the possibility of rescheduling this meeting, they decided to continue their discussion that evening as they were not expecting any new information and primarily needed general direction for the Mayor for the POST meeting.

As the ensuing discussion began, Terry asked if the committee wanted to provide clarification with regard to a preference for a Oregon 99W alternative corridor. He again noted that a couplet of some kind could be back on the table as a part of re-introducing a Northern alternative (which ODOT believes would strengthen the LEIS) or if Dundee now believes such an alignment is preferable to a Southern alignment.

After some discussion of the advantages and disadvantages of an "in-town" or Oregon 99W corridor area alignment versus an alignment outside of the existing built city in the undeveloped area, each committee member agreed to continue to consider the southern alignment alternatives, and rejected the couplet or "in-town" alternatives. They

concluded that they would recommend this approach to the Planning Commission and City Council.

We should make sure to acquire enough land so that there is room for expansion and adequate buffers (including landscaping), even if we have to expand.

It could be partially submerged, partially raised (bermed) up on the side(s).

Do we have input on the design level details?

With a general corridor defined, you can start to name the design-level policy statements in your TSP, e.g., how to integrate this into the long-range plans for your community.

What else do we need to provide to the Mayor for the (August 24 POST) meeting?

Nothing, if you are comfortable with your recommendation.

There may be another alignment concept considered, that of a lower-speed corridor, with lower speeds, (35-45 miles per hour) in some areas.

Is that possible?

The consultant team has been asked to look at this at a technical level. The POST may recommend including this in the LEIS if it meets the transportation threshold(s).

Why consider a lower-speed alternative?

This has been requested--the thought being that such an alternative would be less attractive for commuters or spurring ancillary growth, such as in McMinnville. It may also be less effective at pulling people off Oregon 99W.

Who is proposing that?

1,000 Friends of Oregon suggested this alternative last spring. The FHWA (Federal Highway Administration) may be less likely to financially support such an alternative if it does not serve its intended purpose of relieving congestion in the corridor or along existing Oregon 99W.

One of the options (Decision #2) affects the property of some of the folks in the audience (Mr. and Mrs. Edwards). I would like to hear what they have to say.

While we would rather it did not impact our property, we also want to do what is in the community's best interest. Of the southern alternatives shown, we prefer the orange (minimize agricultural impacts) route. It would have the least impact to other property owners who want to hold their land intact. Mr. Edwards explained the location of his property, that of Mr. Pamplin to the north and Mr. Linquist to the south. Leaving the

larger part of the property intact is very important to us. What are the roads criss-crossing the property?

Those are lines to show possible future roads within the undeveloped Urban Growth Area. They are a draft element of the Dundee Transportation System Plan. They are, however, highly conceptual and meant to illustrate what collector roads would look like.

We are not objecting to the project. We have been observing it for a long time. It needs to be done for the welfare of the city.

Mr. Edwards then said that he and Mr. Linquist have developed a master plan for developing their properties. The committee asked if those plans could be shared so that they could be considered in the discussion of how the City will grow around the bypass. Mr. Edwards agreed to bring the plans and share them with the TAC on August 27.

Haven't some communities lowered their freeways?

Yes. It can be raised or lowered. This type of question will be discussed in more detail during the design-level Environmental Impact Statement (EIS). You can do these things to mitigate impacts. At some point, e.g., raising the entire facility, things become cost-prohibitive. These are the kinds of recommendations you can make, however, in your policy statements in your TSP.

Do we still need another meeting?

That is up to you. We will support whatever decision you wish to make.

Let's make our recommendation and go with it.

I agree. I think one of the issues is where we want the city center to be and this does not need to be decided before the August 24 POST meeting.

Whatever we do, the facility will impact our community. This seems a logical point where the center of town to shift. The location of the bypass will impact the kind of development and activities we want in the surrounding area.

These are the kinds of questions we can ask in the community meetings.

It sounds like we have decided that everyone is not in favor of the couplet, or six lanes through the center of town. We can work with the options that are there now.

I agree. My fear is that we end up considering a version of the Northern or couplet alternative(s) and that gets selected, even if not preferred now.

The Northern option still has a lot of problems. Just because it is advanced in the draft document does not make it any better than it was before. ODOT's environmental staff

just thinks it gives a better range of alternatives to consider before a final corridor preference is determined.

In essence I agree. I am concerned, however, that we'll have succeeded in cutting Dundee not in half, but in quarters.

Keep in mind that it is design that will ultimately determine whether the town is cut in half, regardless of the option chosen. With the option you are choosing to recommend you will have an opportunity to lower the classification on Oregon 99W to a district highway. This, and the much lower traffic volume, will give Dundee the opportunity to do some redevelopment, streetscaping and other improvements that make for a more pedestrian-friendly environment.

Since we are only looking at 20 years of growth, what will happen in 40 years?

Forty years is a really long time. There can be major changes in that time in the way people live, work and travel. For that reason, and because it is the legal planning horizon in Oregon, we do not normally go out past 20 or 25 years in planning a highway improvement. These improvements must be based on existing land use plans and we cannot speculate too far beyond the planning horizon.

This discussion has already been going on 30 years and now some of our options are no longer possible. I do not want that to happen any more. The longer we wait, the more expensive things get.

Dan summarized a Committee consensus for recommending the Southern route that minimizes agricultural impact. He identified issues for discussion at upcoming TAC meetings including noise and visual buffers, landscaping, community connectivity, and "main street" type design options for existing Oregon 99W. These issues can be addressed in the DTSP policy section and guide future planning work during the design level study.

Instead of a problem, we should see this as an opportunity.

The Committee agreed to meet next on August 27 after the POST meeting and asked Dan and Terry to take these messages to Mike Ragsdale and Mayor Worrall.

DUNDEE TRANSPORTATION ADVISORY COMMITTEE (DTAC)
Meeting Summary
Meeting 10
City Conference Room
August 27, 2001

Attending

Committee Members: Mike Ragsdale (Chair), Eugene Gilden, Anne Koch, Terry Light, Steve Mikami, Ivon Miller, Don Sundeen

Staff and Consultants: Terry Cole, Oregon Department of Transportation (ODOT); Suzanne Roberts, Cogan Owens Cogan; Gary Katsion, Kittelson and Associates

Guests: Floyd Aylor, Kay and Tom Edwards, John Ekman, Allen Holstein, Mayor Roger Worrall

Note: In the summary of the August 13 meeting, Steve Mikami was inadvertently omitted from the list of attendees. The summary will be revised to reflect that he was in attendance.

Chair Mike Ragsdale opened the meeting and apologized to members for missing the August 13 meeting. He said that he has had conversations with the Planning Commission about what the DTAC is doing and has suggested that the Commission should be thinking about the type of development they want in Dundee. Next, he wants the Committee to discuss how to talk to the community at the upcoming community meetings.

Mayor Roger Worrall updated members on the outcome of the August 24 meeting of the Project Oversight Team (POST) of the Newberg-Dundee Transportation Improvement Project. He reported that the northern route has been included back in the study, as part of a hybrid solution which involves combining with the Southern Bypass, which travels south of Dundee. There was much discussion about giving Dundee more time to make a decision, particularly about including a bypass route through central Dundee. Gary Katsion, Kittelson & Associates, who attended this DTAC meeting in place of Dan Seeman, added that the DTAC's input on the Central Dundee Bypass route is very important to the POST.

Mike announced that two community meetings have been scheduled for September 20 and 24 at the fire station. The purpose of these meetings will be for the community to provide input on the DTSP proposals and the bypass routes under consideration. Mayor Worrall will help organize an outreach effort. Following these meetings will be a City Council presentation to report the results. The Council meeting is on October 1, then the POST meets on October 5.

Mike said that a meeting was held the previous week of property owners from the east side of Dundee. He said it is important to discuss proposed routes with those whose property is directly affected.

Mike said that he finds the proposed sound barriers around the bypass bothersome as they create another division and that he wants people to look at other options. He talked about the potential for building the bypass between Hwy 99W and the railroad tracks.

Some of the property owners that attended last week's meeting then addressed the DTAC with their concerns.

Comments from Committee members and guests are in italics. Responses from staff and the consultants follow in regular print.

Floyd Aylor of Columbia Empire Farms owns property from Edwards Street to the river. He said he wants to continue to farm on his property and that a bypass through his property would destroy the farm. He said that the future of recreation is to the east of Dundee, along the river and that the Southern Bypass would create another barrier to the river and that he does not favor it. It would also be in the path of processing plants, homes, and a labor camp in the area.

Floyd's property is outside of the UGB and he said that he would benefit from being inside the UGB because he would have a say about what he could do with his property. He wants assistance with getting his property moved into the UGB so his land value could be the same as other land that is affected by the bypass routes.

Floyd added that the Southern Bypass would break up an economic unit by splitting the farm. Since some of the land is in the floodplain it cannot be farmed, therefore a much bigger chunk of usable farmland may be impacted.

Next, Tom Edwards described his land and development just south of Floyd's property. He favors Floyd's position to bring the land into the UGB. He owns about 55 acres of land, some of which is also in the floodplain. Tom explained that the land adjacent to his is owned by Stu Lindquist, who is planning a golf course and marina on his 250 acres.

I believe there is some undeveloped park land in that area. Is that correct?

Tom said that the Chehalem Park and Recreation District does have land in this area and that the Southern Bypass would cut across all their property. He said that landowners understand there needs to be a bypass, but that it should go on the east side of the railroad tracks.

I don't see how there is room for a bypass east of the tracks.

How many single-family units exist in the Edwards/ Lindquist planned development?

There are 420 single-family units and 550 multi-family units.

At one point the City considered this area for residential development.

Tom said that the location of the proposed golf course is near the floodplain, which would not be appropriate for residential property.

You eliminate a certain set of the population. The decision will be based in part on how it wants the City to develop from a socioeconomic perspective.

The average household in Dundee is just over three. I personally think Lindquist's idea looks good but the Planning Commission is currently involved in periodic review and land inventory. If this project were a given, it would impact the inventory.

I see many advantages to Lindquist's idea and the idea of a bypass near the railroad tracks is compelling but also has real ramifications. We have something concrete to talk about but periodic review does not allow us to talk about it. This plan needs to be presented to the Planning Commission.

The plan would be appropriate given what we have proposed so far for the DTSP.

It doesn't suggest as the possibility of a civic center or recreational complex. For example, in Kathlamet, they created a community swimming pool then developed their community around the pool, which serves as a civic center. We need to serve all of the population. Dundee has a lot of families and we don't have enough activities for the children and teens. It leaves out those who are not wealthy and those who do not have access to transportation.

If Lindquist's plan is accepted it brings credence for bringing Floyd's property into UGB to provide more land to develop.

Mayor Worrall said that given that Dundee has an overabundance of undeveloped land and that regulations do not allow for bringing land into the UGB to facilitate creating transportation facilities, bringing additional land into the UGB because of the bypass does not seem feasible.

Perhaps it could be included as a 20-year goal, and available land could be shifted.

Gary said that state law no longer allows golf course development in rural areas as they are considered an urban activity. It would have to be designated as a destination resort.

Floyd's land borders Newberg on the northeast side and the UGB--isn't that a no-man's land that neither Newberg nor Dundee will extend into?

I think there is such an agreement, at least a verbal one. Maybe we should look into this.

Next, Allen Holstein of Argyle Winery said that his business has decisions to make regarding investment of property and is inclined to leave the area if the bypass forces them out of their current location. He said that this is a defining moment to decide what Dundee wants to look like and that the winery business has been an important aspect of the City's vision. He said that a couplet would likely turn the area into a retail strip that would be inappropriate for a winery, which is more industrial, with a commercial front.

Allen said he attended the June 29 POST meeting in which the decision was made to study only the Southern Bypass routes, and he didn't understand why the Committee is now discussing commercial development.

Terry explained that, because of environmental and constraints the Regional and Northern Bypass routes were removed from the study. But that a northern route has been added because more investigation is needed on issues of environmental justice and impacts to low-income residents.

Allen said that Dundee needs to decide what it wants to be when it grows up and that it has different values to weigh.

Floyd said that it is not such a simple process as weighing one type of business against another.

Dundee is lacking commercial and light industrial property. We need more of this. Residential development alone does not provide us with the revenue that we need.

That is why we need to coordinate with the Planning Commission but we are being driven by the bypass process. The City needs to decide what it wants to be when it grows up.

The Committee and guests generally agreed that the proposed Central Dundee Bypass is still a couplet, disguised with a different name.

Terry explained it is not a couplet, but a suppressed, in-town, separated facility.

Even if suppressed, it is still a freeway through the center of town; but trees and other design would improve it.

I am concerned about flooding problems with a suppressed roadway.

Extensive drainage will need to be done no matter what type of road we decide to build.

Mike said he wants to hear the community's opinion about the different bypass alternatives. He initiated discussion on how to design the community meetings.

How much of the information and viewpoints that this Committee has received, such as from the developers who are here this evening, will be presented? How much additional information will the public receive to allow them to do more than they have so far in this process?

We can show the aerial map which includes the bypass routes under consideration; the operations analyses that have been done; the connections we have proposed for the DTSP; and the design of the proposed Central Dundee Bypass route that differentiates it from a couplet, so people can visualize it.

Why didn't the computer analyses done earlier come up with the Central Dundee Bypass Alternative?

Those analyses were done in response to constraints that were programmed into it. The Central Dundee alternative was a more deliberate decision based on impacts such as on businesses and residences.

We have heard from the community that they do not want a bypass through the middle of town.

Mike said that we have heard that the community wanted a regional bypass, but he wants the community to discuss the pros and cons of the a new set of options that are on the table.

The community should know why the Regional Bypass is no longer in the study.

I want to ensure that all the issues are presented. Maybe we could present sketched road maps with the alternatives drawn on them. Below could be text describing the input we have received, such as pros and cons of each alternative. This material could also be made into handouts.

Mike said there will be a presentation at the beginning of the first community meeting to explain the DTSP process and its current status. The presentation will include pros and cons and the input this Committee has received. Then there will be a facilitated discussion which will continue into the second meeting. The facilitators will ask participants to discuss the bypass alternatives, within the context of how they want the community to develop in the future. Facilitators should emphasize that this is Dundee's opportunity to influence the NDTIP.

I thought the two meetings were going to be identical.

Mike said that to have two meetings ensures that there will be a full discussion. He said that at the beginning of the second meeting facilitators can ask which participants were not at the first meeting. He also said that the meetings should be advertised as Parts 1 and 2. He expects that the majority of the discussion to be about the bypass alternatives, with relatively less discussion about the DTSP.

There seems to be confusion about which is more important, the bypass or the DTSP, with regard to long-term development.

Later in this process we will talk more about the DTSP and its relationship to development.

It seems we are focusing on the bypass alternatives rather than the DTSP but how the town grows up is important.

The Joint Planning Commission/ City Council meeting is scheduled for September 10. The consultants will prepare materials and Mike and Mayor Worrall will deliver the presentation. All DTAC members are welcome.

Mike said he is comfortable saying we are not yet to the point of making recommendations.

Gary summarized that he was hearing the Committee wants further discussion about the perimeters of the Central Dundee alignment and how it fits with the community vision in terms of existing and future commercial, industrial, and residential development.

We should give the community the choice between the Southern and Central Dundee Bypass routes. It would validate our work.

The Committee agreed to reschedule it's next meeting from September 12 to September 11 because Mike is unavailable on the 12th. Members will continue discussion on the format for the community meetings.

There will be another City Council presentation on October 1 in preparation for the October 5 POST meeting. At the October 8 DTAC meeting we will discuss more details of the TSP, including financing and how we want local roads to look, in policy terms. The draft TSP is expected to be completed by November 9.

Mike said that if the DTAC has not come to a decision about the bypass, the City Council is free to choose a solution. It is possible that the TSP will be adopted with holes to be filled in at a later date as the bypass process continues.

The Committee will meet again on Tuesday, September 11.

DUNDEE TRANSPORTATION ADVISORY COMMITTEE (DTAC)
Meeting Summary
Meeting 11
City Conference Room
October 8, 2001

Attending

Committee Members: Mike Ragsdale (Chair), Anne Koch, Ivon Miller, Mike Sherwood, Don Sundeen

Staff and Consultants: Terry Cole, Oregon Department of Transportation (ODOT); Suzanne Roberts, Cogan Owens Cogan; Dan Seeman, Kittelson and Associates

Guests: Eve Foote, City Administrator; Resource Team member Darci Rudzinski, Department of Land Conservation and Development

After Chair Mike Ragsdale opened the meeting, Terry Cole reported on the October 5 meeting of the Project Oversight Steering Team (POST) of the Newberg-Dundee Transportation Improvement Project. At that meeting, Mayor Roger Worrall had given a brief overview of the two community meetings held in Dundee in which participants expressed support for the Southern Bypass, especially with the route as close to the river as possible. Based on this and other public and agency input, the POST decided that the Southern Bypass will remain in the study while the Central Dundee option will not.

The POST also decided to modify the Northern route of the North/South Hybrid Bypass so that it is further away from a school in the area. The modified route is now essentially the original alignment, which is a longer route than that which had been discussed at recent meetings.

Comments from Committee members and guests are in italics. Responses from staff and the consultants follow in regular print.

What happens to the Dayton interchange?

That is still undecided.

It would seem that the further east the interchange is located, the more likely traffic is to stay on Hwy 99W.

That is probably true. Having no connection there is another option.

Would we then be dropping some inches? Maybe we could have a toll road?

There is a whole series of options. The only certainty is that we will have both a northern and southern interchange. Combined, the proposed interchanges are expected to reduce traffic by 5,000 trips per day in Newberg and 12,000 trips per day in Dundee. On the other hand, interchanges take up land and require work to be maintained. If the bypass is built without connections to Hwy 99W, there still will be significant congestion on Hwy 99W.

I don't see how not having an interchange would increase traffic on Hwy 99W when 95% of the highway's traffic is through traffic (from outside of Newberg and Dundee).

Terry explained the modeling process that forecasts traffic under various scenarios. Attractions and their relationships to each other are factored in. He explained that the model assumes drivers will not travel around the area to enter at the other side. Modeling also considers trip lengths and travel times.

Mike described the remaining TSP schedule and expressed concern that there would be time to complete the work. He asked members whether they wanted to complete the existing schedule as is, or find a way to continue, in order to address more details that could not be addressed in the current schedule.

Dan Seeman said the TSP will include an implementation element to propose recommendations on how to deal with transportation in the next 20 years—the interim between now and when the TSP projects will take place. He said he would like to create a five-year increment plan that addresses Hwy 99W and prioritizes improvements to local streets.

Terry said we already have identified some improvements to local circulation but some issues, such as how much restriping can be done, should be considered on their own merit and we may want to raise them as interim issues in the regional project. The Transportation Planning Rule calls for a refinement plan to deal with interim issues.

Mike asked members whether they want to address financial issues with the time that is left or work more on the details of the transportation issues--then try to find time to discuss financing.

I want to see this process all the way through—to just get to the bypass but make no decisions about Hwy 99W seems like a failure. Maybe some subset of this committee could move on to a new phase. (Two additional members agreed.)

ODOT has an on-call contract with the consultant that could help the process continue. At the very worst, it would continue in the next biennium. In other words, completion would be more short-term than long-term.

It is my understanding that we are developing a local TSP. The bypass has been a complication. A benefit to completing the plan sooner rather than later is that we could then implement System Development Charges (SDCs). We have gone through the local analysis and I want to see that put into the plan to be locally adopted. Other recommendations can be added into the plan later.

Dan said the rest of this meeting as well as the next meeting would be needed to complete the financial discussion.

So far, ODOT still owns Hwy 99W. How much of our recommended plan is dependent on ODOT having the money to implement it?

Dan said that question will be answered during the financing discussion. He will explain the proposed improvements and whether they are to be financed by ODOT, the City or developers.

If the City wants certain improvements immediately and does not want to wait for development to occur and for developers to pay for the improvement, the City can choose to pay.

The Committee decided to reschedule their next meeting (from October 30) to October 29, by which time members will have received a draft TSP, and to add one more meeting to its schedule—for November 19. The TSP will acknowledge that more work is needed. The Planning Commission and Community Open House Meeting scheduled for November 20 will be a regular Planning Commission meeting in which feedback will be solicited on the TSP. (*Note: After the October 8 meeting, the City decided that the DTAC will not meet again until after the City completes more work on its Strategic Plan.*)

Financing

Dan summarized the collector and arterial system that has been proposed by the DTAC. He explained that many improvements will be left to developers as the City develops.

What do we do with that part of the TSP—say that it is incomplete?

In concept we say that we recommend certain improvements but acknowledge that the purchase of property needs to take place.

How do we address the wells that are under the street?

We can recommend they be addressed in the design phase. Dan said he plans to meet with the Public Works director to learn more about the City's infrastructure.

Next, Dan described future locations of signal lights: at Fox Farm Road and Hwy 99W; at 10th Street; and at the Niederberger/Parks intersection with Hwy 99W.

Why are we not proposing a signal on 1st Street and Hwy 99W?

With a bypass and an interchange, Hwy 99W traffic will decrease so we don't anticipate the need for a signal on 1st Street.

Fox Farm Road is outside the City limits so the City can't do anything about it.

We can still make recommendations about it.

In the interim, with traffic increasing, what do we do if we need a signal?

ODOT does not like to build "throw-away" improvements. It is hard to build an improvement then take it away. This is the kind of question for us, as a committee, to address.

The discussion we had previously was that a signal at Fox Farm makes more sense than one at 1st Street. Fox Farm is the only location to warrant a signal today due to traffic conditions. It also would facilitate connections to regional facilities such as Dayton Avenue. It is a logical location because it is in between Newberg and Dundee.

Dan continued to describe the proposed street improvements, with Edwards as the outer belt on the east side. The grid of streets is subject to adaptation when developers come up with proposals.

I want to see 200-foot paths drawn out so I can see how disruptive these proposed streets will be.

Dan then presented sketches of recommended street designs with varying accommodations for bike lanes, street parking and planting strips within the 60' swath the City requires for a road. These will be implemented over time, mainly with new development. The riverfront drive cross-section is a different scenario—it is a 90' swath and includes a multi-purpose path on the river side.

He then discussed estimated costs and funding sources for the proposed street collectors on the west side of the City. About 75% of this area is already developed so developers would pay roughly 25% while the City would pay 75%. The total cost would be about \$2.8 million, not including right-of-ways.

Exactions or SDCs are possible funding sources, although the latter would be less beneficial to the City because credits are taken out and returned to developers.

In some places there was a condition that development would pay for the road—through non remonstrance agreements.

Next, Dan presented cost estimates for collector street improvements. That total is \$9 million. In cases where the road is outside the City, the City would recommend the improvements to the County.

Paving Worden Hill Road should be included on the list.

Terry asked if the list includes the cost of signalization. He said this cost should be shared with ODOT.

Dan said the bypass also is included in the TSP, with the cost to be determined.

Darci Rudzinski noted there will be improvements needed to Hwy 99W, so these should be included as a line item (as a place holder).

Next, Dan presented estimated costs for infrastructure improvements, including signals, at about \$600,000 and railroad crossings at about \$1,800,000. These are costs that are shared with ODOT and developers. He said that railroad crossing gates will be needed as east Dundee develops. The total estimate for infrastructure improvements is about \$2.7 million.

Shouldn't the railroad help with the cost of the crossings?

Railroads don't typically help pay for crossings.

Dan presented estimated costs for sidewalks, which fall under three categories—those along existing development, those that may occur with development (are currently adjacent to vacant

land) and those that may occur with future road construction. The last two categories would be financed by the City. Total cost for sidewalks would be \$2,175,000.

Overall, the total cost for all improvements is \$20 million.

Can the City assess property owners for road improvements?

The City's current budget allocates \$300,000, about half of which goes to maintenance and the other half to a selected street improvement.

There was a discussion about using utility funds, which typically are not used as a transportation funding source.

Has deferred maintenance been considered?

Dan said he would discuss this with the Public Works director.

We need to identify to the City Council what they have in maintenance costs—there is a lot that needs to be done. At a certain point, a maintenance need is treated as a new project (a capital line item). We need a list of maintenance needs along with our list of projects.

The Committee should look at all possible funding sources, such as a local gas tax, a street utility fee and SDC's.

Next, Dan said he would provide members with graphics and information regarding funding sources, by mail.

Have you considered using meter devices—maybe in locations where there is a large amount of incoming through traffic?

Ramp metering is effective on highways, but not necessarily on other facilities. Five or six storage lanes would be needed. It becomes a capacity issue. Also, Hwy 99W is a statewide facility that is meant to facilitate the flow of statewide traffic.

Meeting adjourned.

DUNDEE TRANSPORTATION ADVISORY COMMITTEE (DTAC)
Meeting Summary
Meeting 12
City Conference Room
April 8, 2002

Attending

Committee Members: Mike Ragsdale (Chair), Poncho Hernandez, Anne Koch, Steve Mikami, Ivon Miller, Don Sundeen

Staff and Consultants: Terry Cole, Oregon Department of Transportation (ODOT); Kirstin Greene, Cogan Owens Cogan; Dan Seeman, Kittelson and Associates

Guests: Eve Foote, City Administrator; Todd Mobley

Chair Ragsdale opened the meeting and asked Dan Seeman to review the packet of materials Committee members had received.

Dan said that these were *draft* technical memoranda regarding four elements of the Transportation System--the street system, the pedestrian and bicycle system, transit, and maintenance. He said that he would also like the Committee to consider the future interim treatments of ORE 99W during the transition period before a bypass could be constructed and when ORE 99W could be downgraded from its current highway designation. He said that he and Terry had a meeting earlier in the day with the Transportation System Plan (TSP) Resource Team. Key comments from that meeting were listed on a flipchart on the wall and would be discussed during the course of the DTAC meeting. Dan asked Terry to give an update on the Newberg Dundee Transportation Improvement Project (NDTIP).

Terry reported that the NDTIP Project Advisory Committee (PAC) would be meeting during the next few months to test the alternative evaluation criteria and give feedback on the measures. They will go through a technical and quantitative analysis of the eight bypass alternatives and will forward these recommendations to the Project Oversight Steering Team (POST). The POST will then forward its recommendation, after a 45-day public comment period, to the Oregon Transportation Commission (OTC). Terry mentioned that, of the eight alternatives under consideration, one is a new alternative requested by the OTC. This alternative does not have any interchanges between Newberg and Dundee. Terry also said that the operational effect of the absence of an interim interchange is that ORE 99W would need to be widened to five lanes within Dundee.

Discussion followed. Comments from Committee members and guests are in italics. Responses from staff and the consultants follow in regular print.

Can we see these alternatives on the project website?

Soon the ODOT Region 2 NDTIP project website will be updated with the assistance of Yamhill County. The website address is: www.odot.state.or.us/region2public/newbergdundee.htm.

Dan then reviewed the progress made to date on the DTSP document on a flipchart titled *Proposed Approach*. He said that he would like to discuss how to finance these various improvements at the next meeting. He then moved to a map of the draft arterial streets and collectors. Chair Ragsdale asked him to walk the Committee through each document.

The Committee considered the Draft Street System Plan in considerable detail, per Figure 1 in the draft Technical Memorandum, the Street Classification Map. The NDTIP alternative alignments in this area include: 1) avoid agricultural lands with an intermediate connection¹; 2) avoid residential lands with intermediate connection²; and 3) avoid residential lands with no intermediate connection³. He reminded Committee members about the “avoid housing impacts” solution that moves the bypass location corridor as close to the floodplain as possible. He said that there are really two “avoid housing” alternatives—one with an intermediate interchange sliver that extends slightly further to the west and connects back to the highway. The other stays closer to the river.

Is the proposed interchange outside the City's urban growth boundary (UGB)?

Yes.

Is that a good thing?

It is good in terms of minimizing impacts to houses, and minimizing impacts overall. The other alternative is a “minimize impacts to farmland” alternative.

Dan then reviewed the collector system in the newly developing area in the southeast portion of the Dundee UGB. He asked Committee members to consider whether they wanted to designate actual roads through this area of town, or leave the road system identified in narrative only, with the caveat that there should be policies and specifications about how to serve the area in contrast to identifying specific routes. Members generally agreed to identify these facilities on the map, noting that they are conceptual.

Terry called Committee members' attention to page 15 of the Technical Memorandum—that collectors should be spaced approximately one quarter of a mile apart; that they should access all newly developing areas east of Edwards Road; that they should be connected to the existing grid; and they should provide good access to River Front Drive. He said that the Committee may want to designate the others more conceptually, but identify River Front Drive as a planned facility on the map. The other method would be to designate the locations with arrows.

Which method is preferred?

It's really up to the Committee. Either can work just fine. If the Committee decides to show these locations, it would be entirely appropriate to include a disclaimer that these are

¹ NDTIP alternatives 3C, 3D, 3G, 3H, 3I, and 4C

² NDTIP alternative 3J

³ NDTIP alternative 3K

approximate locations to be refined as specific development is planned. The Committee is basically saying that this is how the collector system could be rather than how it should be and including the criteria.

Dan then reviewed the functional classification descriptions in the first section of the draft Technical Memorandum on the Street System. The classifications for Dundee are: statewide expressway (the bypass); arterials; collectors; River Front Drive and local streets. He said that out of the five, the top two classifications are not City-owned transportation facilities. He said that one of the comments from the Resource Team was that all collector crossings should be grade-separated.

Can we say in the TSP that the collectors would be below-grade rather than over?

You could. However, there has been a lot of talk about depressing the main road, which would require that the collectors cross over.

Regarding the alternative that is further away from the City, closer to the river--if we are going to have that in policy, I would like to see the collectors be below grade.

You could recommend in the TSP that the collectors be below grade. We can come back to that later.

Dan pointed out that the only arterial in town is ORE 99W, which is currently an ODOT-owned facility. Another comment from the Resource Team is to specify the right-of-way widths and include that information in the chart.

The only other roads that could be arterials are 9th and 10th Streets.

According to the transportation forecasts, neither of those streets will exceed the 3,000 car-per-day threshold that may indicate the need for arterial designation in the 20-year planning horizon.

Committee members then reviewed the draft cross-section maps, (Figures 2a, 2b and 2c). Dan said that these drawings reflect what the Committee had said about using a 60' right-of-way for a 36' collector. In contrast, River Front Drive would then have more of a "scenic drive" orientation with a 52' curb-to-curb section, wide planter strip and a multi-use path on the river side, and a 90' right-of-way.

After discussion about including a planting strip between the sidewalk and the street on collectors and local streets, the Committee decided not to carry this design element forward due to maintenance costs and the burden of responsibility on the adjacent property owner. The Committee decided to eliminate this feature and instead locate the sidewalk immediately adjacent to the street on collectors and local streets, relegating the area that would have been dedicated for a 6' planting strip to instead be designated as a utility easement adjacent to the neighboring property. For collectors, the Committee also discussed the options of either dedicated striped bike lanes or signed bike lanes that would also provide flexibility for on-street parking. The committee decided that, at the cost of on-street parking, the dedication of striped

bike lanes would not be in the City's best interest. Dan said that the standard highway travel lane is a minimum of 12' wide.

Terry mentioned another item brought up by Department of Land Conservation and Development (DLCD) representative Darci Rudzinski. It is the Department's objective to see a minimum of urban space devoted to the automobile. They are looking for jurisdictions to adopt "skinny street" standards. This would be an approximately 28' cross-section and economizing parking, keeping it on one side of the street where possible.

Would "skinny streets" include designated bike lanes?

No, not specially designated lanes. With a lower traffic volume, local streets are not expected to have many conflicts.

On skinny streets, what about problems with emergency services such as the Dundee Fire Department?

We have heard that concern from more than one jurisdiction. This is a matter of local policy. The fire chief should be consulted on this matter.

Terry said that DLCD will try to ensure that the skinny street standards are included in each TSP as at least an option. This is something the Committee will have to discuss and decide how they're going to implement, if they so choose.

Returning to the collector system cross-section, Dan said that it is possible to mark bicycle routes with signs rather than striping the entire length of the collector.

When DLCD provides this kind of "strong recommendation" (regarding the need for the City to include the option for developers to construct skinny streets), do they also provide some strong financial incentives?

No. They did take Douglas County to court on this point, if legal costs are any kind of incentive.

Does topography make a difference?

You could acknowledge topography as one impediment. The length of block sections could be another.

I didn't know DLCD was pressing this hard on this point.

The Committee then considered the cross-section of River Front Drive. Dan said that the 90' cross-section allows for more space to accommodate all modes of travel. Under the current plan there is a 12' planting strip on the River Side and a 10' multi-use path.

What about making the multi-use path 16'?

By expanding the multi-use path to 12-13', its cross-section would provide a very robust, comfortable walking and bicycling path for recreational users. Sixteen feet ends up looking like a road.

How about, from the river: a 12' multi-use path, a 10' planting strip, no parking or bike lane, two 12' travel lanes, 8' on-street parking, a 6' planting strip and a 6' sidewalk? The Committee agreed upon this design.

Dan then referred Committee members to Table 4, local street improvement costs. A Committee member noted that, since the drafting of this table, two facilities had been built, numbers 9 and 10 (the Viewcrest Drive extension and the Falconcrest Drive extension). These correspond to Map 3a and 3b.

I recommend also tying the new street between 5th and 7th to the east, running perpendicular to ORE 99W.

Dan noted the total collector improvements as \$12 million. He said that of this, the City would be responsible for \$1 million. He said that projects 26 and 27 (Fox Farm to Dayton and Edwards to Fox Farm extension) are outside the UGB.

A 5th Street signal already exists.

Please describe the street project that you have programmed on the east extension of Dayton Road.

Dan said that the street needs to be realigned slightly near its intersection with ORE 99W, i.e., rebuild about 260 feet of road.

Another Resource Team comment is that these signals not be constructed until warranted.

The Fox Farm signal is warranted today.

Technology exists today to allow us to bury these wires. We do not have to have them above ground where they are unsightly. Can we define this in the TSP narrative?

You could certainly state your preferences in the TSP.

Dan said that he proposed railroad crossing gates at each of the four planned collector crossings of the WPRR. He said that technology exists to bury the wires which interconnect the crossing gates to the ORE 99W traffic signals.

County Public Works will probably have to say something about making/keeping connection.

Dan again raised the concept of the "eventual" ORE 99W. He said that after the NDTIP scenarios are settled, the City could come back and finish some of the details in a refinement plan.

What about designation as a Special Transportation Area (STA)? Would this be part of the plan and what would it do for us?

You could designate a portion of ORE 99W as an STA, which would imply a tolerance of a higher level of congestion than you have now. It is something you can consider at any stage of the process.

The Committee then went through the plan section by section.

This Committee wanted to recommend that we want access to the expressway. I don't think the issue has been adequately discussed.

It was clarified by Terry Cole that the connection to the statewide expressway, while being located outside of Dundee, will serve Dundee. He said further that if you do not have that connection, you get five lanes through Dundee.

The functional classification descriptions on page 2 should eliminate reference to River Front Drive as a category of street, and should instead have a functional category called something like "parkway collector."

You can do that; it is essentially a collector but with a different emphasis on parkway elements.

Dan asked the Committee to consider the final paragraph on page 3 that discussed the "avoid residential alignment."

I think it is fine--a representation of what we have said previously.

What about the reference to "restricted on-street parking" in the arterial functional classification description (Table 1)?

There is none allowed on ORE 99W today, and it would likely still be prohibited.

We could defer this until the "after the bypass is built" discussion when it might be more appropriate to discuss, for example, in the context of redesignating the facility as an arterial.

Right-of-way widths may vary. In some places, it would be restricted. The goal might be to provide on-street parking where appropriate and where sufficient right-of-way exists.

How about changing the language to read "allows on-street parking under appropriate conditions"?

What about street access and limiting access?

We would defer to ODOT and State Highway Plan standards for each of these functional classifications.

I don't want to commit to closing off access at this time.

For a district highway, current street spacing would be appropriate. Where there are driveways between streets, ODOT would take a look at closing some of those as development applications or major street improvements are introduced.

Even though the driveways already exist?

This would take place when redevelopment occurs. The City may want to reorient the access to local streets.

Are the district vs. state highway facility standards different?

Yes. The district standards allow higher volume-to-capacity (v/c) ratios. Special Transportation Areas allow this v/c ratio to increase even higher, allowing a greater level of congestion.

Would access management happen with a district-level, rather than a state-level facility?

It could, though this would be a negotiated process.

How would this occur?

Through a jurisdictional transfer of the facility back to the City. Maintenance responsibility would come with such a transfer.

Would ORE 99W as we know it disappear? (Put another way, is it possible that ORE 99W might be deeded back to the City?)

It could be redesignated. A jurisdictional transfer is not out of the question. An example of this took place on Highway 20 between Corvallis and Newport.

Could the ownership be segmented?

Yes, though we wouldn't want to disconnect the system. It is not a simple process.

In the next 20 years, traffic volume will still be substantial.

I suggest two changes on page 2--to delete "not stopping in Dundee" at the end of the description of the Statewide Expressway, and to delete the word "some" in the collector description.

Other Committee members offered additional comments, including pulling out River Front Drive to be shown in a unique row. Dan was asked to check the descriptions according to the map designations.

“Westward” should be “eastward” in the middle of page 3 regarding the bypass alignment.

Dan explained that another comment from the Resource Team is that, in the eastern undeveloped portion of Dundee, the collector system be illustrated for information only and refer back to the policy section.

I would like to show it on the map with the caveat that this is our best guess at the time. I do want to see the collectors designated in the document.

A developer may come in with a different layout but if it meets the criteria, it should be allowed.

What about connecting NE Filbert Drive?

Is this a developable area?

The Committee agreed to leave Filbert Drive off the map.

Could there be a road on the north side of the Rolling Acres subdivision to serve as an extension of 5th Street, thereby eliminating the need for the 8th Street extension?

Dan pointed out that such an extension of 5th Street would extend outside the UGB, and that the likelihood of getting its approval would be questionable.

Dan recapped this portion of the discussion, that the Committee agreed not to extend 5th Street into the properties outside of the UGB.

We do want a couple of east-west connections.

You could take the north-south stub straight to the UGB and leave the connection open for now. Dan said he would take a look at that.

The Committee then discussed the street design standards beginning on page 6. Comments included:

- *Change River Front Drive to a more generic classification designation, e.g., Parkway Collector.*
- *Regarding skinny street standards, keep the range open from 40 to 56 feet right-of-way. If streets become too narrow, they become dangerous.*

Regarding skinny street standards, these come from a school of thought aligned with “New Urbanist” concepts to increase utilization of space in urban areas. Other features include using alleyways, parking in the rear of buildings and retrofitting neighborhoods to become more walkable and pedestrian-friendly.

The Committee agreed to ask the Planning Commission to set standards regarding local streets and skinny street designations, possibly through a variance process. Terry advised that these

standards would eventually need to be linked to the City's development code. He said that if the City did not make some effort toward these type of standards, DLCDC could make the argument that the City was out of compliance with the objectives of the statewide Transportation Planning Rule. The Committee decided to acknowledge "skinny street" design types allowed with a variance to the local street standards as determined by the Planning Commission.

Regarding the street cross-sections for Dundee collectors (Figure 2a), the changes the Committee decided upon would be more flexible for a variety of uses, including bicycles. If later, the City decided to stripe a bike lane, they could do so, in lieu of on-street parking. The Committee decided to omit the planting strip from the design of both local and collector streets due to the maintenance burden on property owners. This 6' would be left as a utility easement adjacent to the neighboring property.

Regarding the River Front Drive cross-section, what about a median down the center?

Medians do make nice pedestrian refuges for crossing the street.

The Committee decided to keep the planting strip at 10' on this cross section, and to allow for a 12' multi-use path. They omitted the on-street parking on the river side, as well as the bike lane on either side for an 80' right-of-way. In that the Drive included two travel lanes instead of four, the center median was determined unnecessary.

The local street cross-section without the planting strip was preferred by the Committee. A center planted median could be installed on a case-by-case basis with the approval of the planning commission, as long as maintenance requirements are prescribed as part of a homeowners agreement.

The Committee then discussed the narrative in the Dundee Development Code section and the driveway spacing standards of 370' on local streets. District level highways require a 325' space between access points. Access management plans could be developed to resolve any outstanding issues.

The Committee changed section B to read that "*Development proposals shall provide for the continuation of existing streets to promote traffic circulation and connectivity for new streets in the vicinity of the development.*" They noted that developers still have the right to apply for a variance to these standards.

Dan said that they would focus more on the cost estimates and prioritization at the next meeting. Dan will check items 9 and 10 as well as 14-17 regarding the creek drainage and terrain issues. In that these would be evaluated more closely upon development, the Committee decided to designate these with arrows rather than specific locations.

How about paving Worden Hill Road? It would get a lot more use if it were paved.

Dan said that he would take a quick look at this to see if it would make a difference.

Regarding maintenance of existing streets in the TSP (table 6), the City should develop a continuing deferred maintenance program, as well as a paving program. Dan said that this would get more treatment in the Maintenance Plan Draft Technical Memorandum that they would discuss at the next meeting.

How about including the idea of a roundabout on Table 7 as a conceptual idea?

Aesthetics should be addressed in the Development Code, not in the TSP.

When you do a Refinement Plan for ORE 99W once the bypass is constructed, you'll want to look at the design level issues a lot more closely.

Regarding the interim treatments of ORE 99W prior to bypass construction, Dan said the choices include:

- leaving it "as is" (three lanes with a bike lane);
- converting it to a four-lane facility and redesignating the bike lane to another street (this option includes prohibiting left turns and building the "local loop connections" or prohibiting left turns during peak periods of travel;
- building a one-way couplet; or
- widening it to five lanes (with or without bike lanes).

He then briefly reviewed some concepts for a loop system as one interim treatment to ameliorate traffic congestion under the four-lane option. It could provide some benefits from a traffic operation standpoint. This would receive more examination in a Refinement Plan. One concern noted including the creation of improvements that Dundee would not want to live with forever, so-called "throw-away" improvements such as a couplet. The four-lane/loop option could be accommodated with the existing road system, although it would require minor improvements to the local street system that would serve Dundee after the interim project is needed. If no changes are made from the status quo, there will be increased congestion. Terry said that this is a discussion Dundee would want to have with their community.

What about the costs to build this kind of system?

Some of these costs could be part of the greater NDTIP phased funding package. The question to ask the community and local businesses is whether this would be more desirable than what exists now.

Committee members agreed to meet again on April 22. The agenda will include reviewing the other modal plans and financing strategy.

Meeting adjourned.

DUNDEE TRANSPORTATION ADVISORY COMMITTEE (DTAC)

Meeting Summary

Meeting 13

City Conference Room

April 22, 2002

Attending

Committee Members: Mike Ragsdale (Chair), Poncho Hernandez, Anne Koch, Terry Light, Steve Mikami, Ivon Miller, Mike Sherwood, Don Sundeen

Staff and Consultants: Terry Cole, Oregon Department of Transportation (ODOT); Suzanne Roberts, Cogan Owens Cogan; Dan Seeman, Kittelson & Associates; Eve Foote, City Administrator

Chair Ragsdale opened the meeting and reviewed the evening's agenda.

Terry Cole said that Department of Land Conservation and Development (DLCD) representative and Resource Team member, Darci Rudzinski, had expressed concern about the DTAC's approach on skinny streets after reading the summary of the April 8 meeting. He asked Committee members for clarification of what they had agreed upon for a skinny streets policy during that meeting.

Members agreed that they did not see why they had to go through a complicated code revision instead of simply saying that the Planning Commission can use its discretion. They said the TSP can support the principle and the planning commission can review projects on a case-by-case basis, considering connectivity and access, particularly for emergency vehicles.

Comments from Committee members and guests are in italics. Responses from staff and the consultants follow in regular print.

I suggest saying that the City recognizes the principle on skinny streets, otherwise there is room for misinterpretation. It is not necessarily the case that the City supports the principle but recognizes it is an option.

The Committee agreed.

Dan and Terry said that if the Committee can complete discussion on the modal plans and financing during this meeting, they will be done. There would be one more DTAC meeting, on May 13, to provide a final technical report, based on the Committee's comments. The full TSP should be complete approximately June 17.

Each technical document the Committee has revised will be a chapter in the final plan. The entire plan will be distributed at the May 13 meeting.

Modal Plans

Pedestrian System

Referring to the draft Pedestrian and Bicycle Plan memo, Dan explained that the no-build alternative consists of existing sidewalks, those that will occur with development or road construction, and those that will occur with future roadway extensions. This alternative is shown in Figure A. If the City chooses to construct any additional sidewalks, it does so at its own cost.

Figure B shows the Minimal Build Alternative, which focuses on providing a sidewalk system on one side of collector streets, and the Medium Build Alternative, with sidewalks on both sides. If there is minimal space or right of way available, a sidewalk would be built only on one side.

For example, on 9th and Alder, sidewalks are shown from development on the east side. We want the sidewalk system continuous on one side of the street. On the west side of Alder is an opportunity for a continuous system. Under the Medium Build Alternative, both sides of Alder would have sidewalks.

I don't feel compelled to say we will do the whole system.

It can be looked at on a case-by-case basis. For example, a sidewalk is needed on both sides of Dogwood, but not on 1st and other streets. There are places they are needed for safety.

Sidewalks should be required on Dogwood. Between 5th and Upland, they will be developer-built on both sides. From 1st to Upland is dangerous.

Do you want to be sure there is a system from 5th and Dogwood to Alder?

Alder is heavily walked.

Dogwood from 1st to Upland is narrow.

A sidewalk on Dogwood, from 7th to 9th, needed.

This will be developer-built. From Upland to 7th is a question.

If you create something, perhaps a loop, that is not as expensive for the City, you provide a workable system.

What is the City planning for 10th? Will it be widened to collector standards?

Yes.

Then the street and sidewalks should be upgraded to collector standards.

Is the corner of ORE 99W and 10th going to be developed? That is a likely location for a sidewalk.

It depends on whether the developers ask for a sidewalk designation.

It is your choice whether to designate that certain streets receive sidewalks from the City as funds are available or to say efforts should be made for funding to complete an entire system.

Chair Ragsdale said he assumes there will not be sidewalks on both sides of every street, so Committee members should look at projects in Figure B and determine what they want—thinking in terms of funding.

Although you will have priorities, you still can create an inventory for others to get done—it just depends on where you put the emphasis.

The City plans to build sidewalks on 11th this summer.

Other cities have been able to build sidewalks in advance of development, and still add the cost to development.

Committee members described the sidewalk system they would like, including which segments should be developer-built. They agreed to say that as development occurs, consideration should be given to cost-effectiveness and connectivity.

The plan should be flexible, providing minimum requirements and leaving other decisions to the Planning Commission.

The Planning Commission does need some direction.

Many people I have talked to are not interested in sidewalks on both sides, but say the system should be continuous.

What about picking up a piece of the park at 3rd to provide park access? We will have more traffic there with the proposed cross street.

It needs to be improved before we put in sidewalks.

Do you want to do something on the corner of Edwards and 5th?

Keep a sidewalk on the same side of the street to 5th.

Between Dogwood and Upland to the park, do you want to close the gap on the south side?

I think there will be more developer-built sidewalks than are shown. Close that gap with the exception of one house, around which there is a sidewalk that is City-constructed.

There are many City improvements that we did not pick up.

The only one that may be beneficial is from 9th to 11th on the east side of Alder.

All of Alder needs to be rebuilt. This is planned so we should show it.

We should designate what we want to see on Parks Rd. and ORE 99W in the event of reconstruction.

We have a hierarchy—three tiers of priorities. The second tier includes Parks, 3rd, and Alder from 9th to 11th.

The first tier should include connecting the park to just behind the City Hall.

You would not have a direct way into the park.

If a road replaces the current City Hall building, the property goes to the park. We should deed them to create a sidewalk going to the park.

I am not sure the City gets it.

Committee members continued to list which projects fall under which tier.

We should add a caveat to not delay construction of sidewalks while waiting for development. Local improvement districts, or sidewalk improvement districts are strategies we can cover later. We should make sure that we can get the sidewalks we need regardless of whether development occurs.

The Committee agreed that tier 1 projects should be funded as quickly as possible. Tier 2 projects also are priorities, to be done as soon as possible, or as development occurs. Tier 3 projects should be done as there are opportunities.

Bicycle Paths

Dan described the existing bicycle system and suggested focusing on the east side of Dundee. He explained that creating a bicycle lane results in a loss of on-street parking. The Committee decided to leave the plan open for either option.

What will happen if we do not go with any new bicycle lanes?

Volume and attractions are typical draws for additional bike lanes and forecasts show that only ORE 99W will have the volume of traffic to warrant bicycle lanes.

Fifth and 10th will eventually lead to the new waterfront area.

We will have a riverfront drive with an all-purpose path. Some connection here makes sense.

Fifth and 10th currently connect to undeveloped land on the east side of the highway. With all of the proposed collectors, we will need additional bicycle facilities.

When asked if they want a connection further towards the existing part of town on the west side of the highway, Committee members answered no.

Dan explained that there are various approaches to providing additional bicycle facilities (such as bike racks; showers at places of employment). One option is to require new major employers to provide them.

We do not have a need for such facilities, particularly because workers drive in from all over.

The Committee agreed.

Transit

Dan described how the existing transit service consists of a link system, using ORE 99W and ORE 18, between Sherwood and Dayton; and a dial-a-ride service for seniors and handicapped citizens. He said in the mid-term future, we can expect transit provisions in the Newberg-Dundee Transportation Improvement Project (NDTIP), including express bus service.

Few people in Newberg and Dundee rely on the existing transit system.

Several alternatives—from low to high cost—are listed in the technical memo. The no-build and future transit improvements are expected to have no cost to the City. Dundee local transit could have a different route on weekends, for tourists, than on weekdays. That is entirely up to the City. The cost for Dundee local transit would be \$160,000 per year.

We don't address intercity transit. McMinnville is the County seat and provides many services. We do not have a link to accommodate this.

We should recommend the Future Transit Improvement Alternative, because it does not cost anything.

Someday we will be a part of an urban area, but we currently do not have the size or funds to accommodate more options.

It would be good to explore local transit. Maybe the wineries could help with funding, as the route would likely accommodate tourists.

I support that idea, but not as part of our plan. Maybe the City Council or Chamber of Commerce could discuss it.

The plan should illustrate what was considered by this Committee, putting it in the context of what is and is not appropriate. In the event of a larger County system, your feedback indicates linkages to McMinnville are more important than to Newberg.

I want Dundee to be in the middle of a Newberg-McMinnville system.

You might want to look at transit as a public service. You have to make a decision the public will support. We could add wording that as new construction takes place on ORE 99W, we should consider additional bus stops.

The Committee generally agreed they are not interested in locating a transit center in Dundee.

Maintenance

Dan explained that overall maintenance costs will be lower if roads are continually maintained.

Our biggest problem is a tight budget.

Dan said he has met with Dundee's Public Works director, who knows which roads are in disrepair and what the priorities are. The two of them identified six or seven cross sections that are in need of maintenance and those that are covered in the capital budget. The TSP would illustrate the Pavement Management System, which assures that all maintenance needs are systematically identified with associated cost estimates to allow the prioritization of maintenance activities in accordance with the goals and objectives of the community.

Next, members discussed a table showing the City's deferred maintenance costs.

What about Dogwood between Viewpoint and Upland?

We are working now to improve that section of Edwards on the north side. The developer has to pay. The money will be put into repair.

The City needs to look at projects in terms of cost-effectiveness. I want to consider a list of high priorities for funding that we can take to the City Council.

Including prioritizing projects into the capital improvement plan makes a statement.

Dogwood is critical, Edwards is less so. I see three levels of priorities.

You could make a strong, separate recommendation to the Council that the Edwards extension be done.

The table would be better without the years included.

Should we break up the improvements to Dogwood into separate portions?

It would be more practical to implement improvements to the whole length of a road. Dividing the road into sections does not cut the cost.

The Committee continued discussing which roads go into which priority levels. Those in the third level are left to the Pavement Management System.

This means we will rate roads on condition, factor in use in volume and weight, put all projects into the maintenance program and match them to revenues the City has to maintain roads.

Meeting adjourned. The next meetings were scheduled for April 29 and May 13.

Appendix C

Existing Conditions Operational
Results

Appendix C Detailed Intersection Operations Results (Existing Conditions)

**TABLE C-1
 EXISTING LEVELS-OF-SERVICE, WEEKDAY P.M. PEAK HOUR**

Intersection	Two-Way Stop Controlled				Signalized		
	Critical Approach	Critical V/C	Movement Delay (sec)	Movement LOS	V/C	Avg. Delay (sec)	LOS
Fox Farm Road-Dayton Avenue/ Ore 99W	WB	0.78	>50.0	F			
1 st Street/Ore 99W*	EB	0.17	>50.0	F			
9 th Street/Ore 99W*	EB	0.43	>50.0	F			
10 th Street/Ore 99W*	EB	0.06	>50.0	F			
Niederberger Road-Parks Road/ Ore 99W*	EB	0.43	>50.0	F			
5 th Street/Edwards Road	EB	0.01	8.7	A			
5 th Street/Ore 99W					0.81	14.5	B

v/c = volume-to-capacity ratio, LOS = level-of-service, NB = northbound, SB = southbound, EB = eastbound, WB = westbound, LT = left turn

Appendix D

Signal Warrant Analysis
Worksheets

MUTCD Signal Warrant Analysis

Project #: [Redacted]
 Project Name: [Redacted]
 Analyst: [Redacted]
 Intersection: [Redacted]
 Scenario: 2000 Eastman Street, Wednesday P.M. Peak Hour
 Date: 7/14/2002
 File: H:\profile\4083\tsp\sigwarrants\{00ex-99FF.XLS}Main



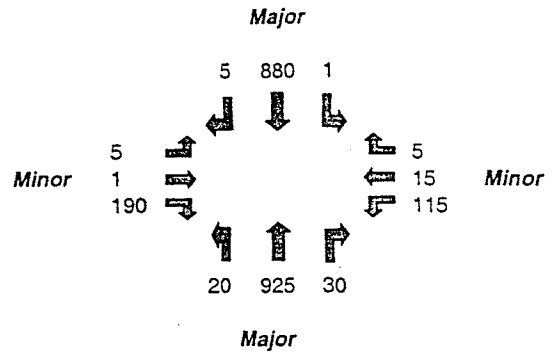
KITTELSON & ASSOCIATES, INC.
 610 SW Alder, Suite 700
 Portland, Oregon 97205
 (503) 228-5230
 Fax: (503) 273-8169

Input Data:

North-South Approach =
 East-West Approach =
 Major Street Thru Lanes =
 Minor Street Thru Lanes =
 8th Highest/Peak Hour (Major) =
 8th Highest/Peak Hour (Minor) =
 Speed > 40 mph?
 Population < 10,000?
 Warrant Factor



Turning Movement Volumes:



Signal Warrant Analysis Results

Warrant	Approach	Actual Volumes	Required Volumes	Met?
1 - Minimum Vehicular Volume	Major Street	1303	350	Yes
	Minor Street	137	105	
2 - Interruption of Continuous Traffic	Major Street	1303	525	Yes
	Minor Street	137	53	
11 - Peak Hour Volume	Major Street	1861	1861	Yes
	Minor Street	196	75	

MUTCD Signal Warrant Analysis

Project #: [Redacted]
 Project Name: [Redacted]
 Analyst: [Redacted]
 Intersection: [Redacted]
 Scenario: 200 E. ... P.M. Peak Hour
 Date: 7/14/2002
 File: H:\profile\4083\tsp\sigwarrants\00ex-991st.XLS>Main



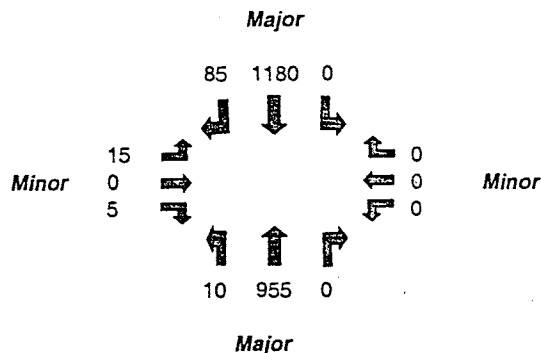
KITTELSON & ASSOCIATES, INC.
 610 SW Alder, Suite 700
 Portland, Oregon 97205
 (503) 228-5230
 Fax: (503) 273-8169

Input Data:

North-South Approach =
 East-West Approach =
 Major Street Thru Lanes =
 Minor Street Thru Lanes =
 8th Highest/Peak Hour (Major) =
 8th Highest/Peak Hour (Minor) =
 Speed > 40 mph?
 Population < 10,000?
 Warrant Factor



Turning Movement Volumes:



Signal Warrant Analysis Results

Warrant	Approach	Actual Volumes	Required Volumes	Met?
1 - Minimum Vehicular Volume	Major Street	1561	350	No
	Minor Street	14	105	
2 - Interruption of Continuous Traffic	Major Street	1561	525	No
	Minor Street	14	53	
11 - Peak Hour Volume	Major Street	2230	2230	No
	Minor Street	20	75	

MUTCD Signal Warrant Analysis

Project #: 4083
 Project Name: Bridge St
 Analyst: JLB
 Intersection: SW 17th
 Scenario: 2004 Signal Warrant Analysis - Wednesday P.M. Peak Hour
 Date: 7/14/2002
 File: H:\profile\4083\tsplsigwarrants\00ex-9910th.XLS>Main



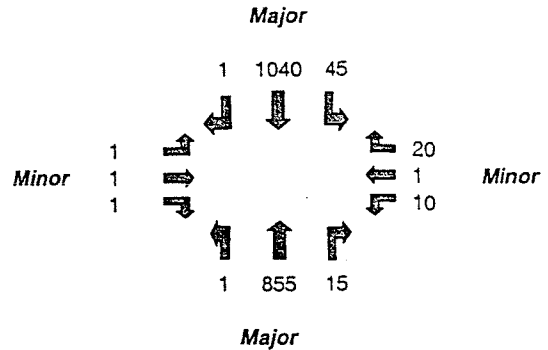
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 Portland, Oregon 97205
 (503) 228-5230
 Fax: (503) 273-8169

Input Data:

North-South Approach =
 East-West Approach =
 Major Street Thru Lanes =
 Minor Street Thru Lanes =
 8th Highest/Peak Hour (Major) =
 8th Highest/Peak Hour (Minor) =
 Speed > 40 mph?
 Population < 10,000?
 Warrant Factor



Turning Movement Volumes:

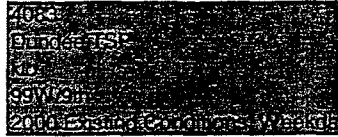


Signal Warrant Analysis Results

Warrant	Approach	Actual Volumes	Required Volumes	Met?
1 - Minimum Vehicular Volume	Major Street	1370	350	No
	Minor Street	22	105	No
2 - Interruption of Continuous Traffic	Major Street	1370	525	No
	Minor Street	22	53	No
11 - Peak Hour Volume	Major Street	1957	1957	No
	Minor Street	31	75	No

MUTCD Signal Warrant Analysis

Project #:
 Project Name:
 Analyst:
 Intersection:
 Scenario:
 Date:
 File:



P.M. Peak Hour



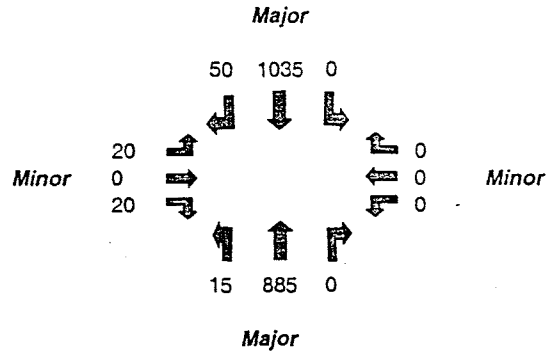
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 Fax: (503) 273-8169

Input Data:

North-South Approach =
 East-West Approach =
 Major Street Thru Lanes =
 Minor Street Thru Lanes =
 8th Highest/Peak Hour (Major) =
 8th Highest/Peak Hour (Minor) =
 Speed > 40 mph?
 Population < 10,000?
 Warrant Factor



Turning Movement Volumes:



Signal Warrant Analysis Results

Warrant	Approach	Actual Volumes	Required Volumes	Met?
1 - Minimum Vehicular Volume	Major Street	1390	350	No
	Minor Street	28	105	
2 - Interruption of Continuous Traffic	Major Street	1390	525	No
	Minor Street	28	53	
11 - Peak Hour Volume	Major Street	1985	1985	No
	Minor Street	40	75	

MUTCD Signal Warrant Analysis

Project #: 4083
 Project Name: Dundee TSP
 Analyst: Kib
 Intersection: 99W Niedermeyer Park
 Scenario: 2000 Existing Conditions - Weekday P.M. Peak Hour
 Date: 7/14/2002
 File: H:\profile\4083\tsp\sigwarrants\00ex-99Nie.XLS]Main



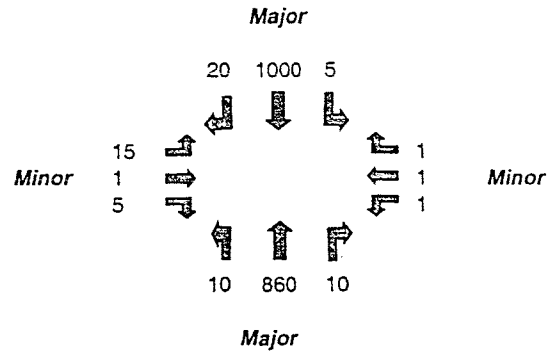
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 (503) 228-5230
 Fax: (503) 273-8169

Input Data:

North-South Approach =
 East-West Approach =
 Major Street Thru Lanes =
 Minor Street Thru Lanes =
 8th Highest/Peak Hour (Major) =
 8th Highest/Peak Hour (Minor) =
 Speed > 40 mph?
 Population < 10,000?
 Warrant Factor

Major
 Minor
 70%
 70%
 No
 Yes
 70%

Turning Movement Volumes:



Signal Warrant Analysis Results

Warrant	Approach	Actual Volumes	Required Volumes	Met?
1 - Minimum Vehicular Volume	Major Street	1334	350	No
	Minor Street	15	105	
2 - Interruption of Continuous Traffic	Major Street	1334	525	No
	Minor Street	15	53	
11 - Peak Hour Volume	Major Street	1905	1905	No
	Minor Street	21	75	

Appendix E

Queuing Analysis Worksheets

QUEUING ANALYSIS WORKSHEET

Project Name: [REDACTED]
 Project Number: [REDACTED]
 Analyst: [REDACTED]
 Date: 7/14/2002
 Filename: H:\profile\4083\sp\queue\tr hwy99 queue.XLS\SIGQUEUE

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 Fax: (503) 273-8169

Intersection: [REDACTED]
 Conditions (yr, alt., etc.): [REDACTED]

GENERAL INPUT PARAMETERS:

Cycle Length:	80	sec
Confidence Level (C.L.):	95	
Storage length/vehicle:	20	feet

	APPROACH/MOVEMENT							
	#1	#2	#3	#4	#5	#6	#7	#8
IN-Street / Out-Street / Lane								
INPUT PARAMETERS:								
Volume (pre-PHF) (vph):	65	60	5					
G/C for movement:	0.00	0.00	0.00					
Number of lanes:								
CALCULATIONS:								
Length of red interval (sec):	180.0	180.0	180.0					
Average total queue (veh):	3.3	3.0	0.8					
Maximum total queue (veh):	6	6	2					
Total queue length (feet):	150	150	50					
Required storage/lane (feet):	150	150	50					
PERMITTED LEFT TURNS:								
Opposing volume (pre-PHF):								
Opposing sat. flow rate:								
CALCULATIONS:								
Opposing flow ratio (Yo):								
Unblocked G/C:								
Effective red interval (sec):								
Average total queue (veh):								
Maximum total queue (veh):								
Total queue length (feet):								
Required storage/lane (feet):								

METHODOLOGY AND FORMULAS USED:

Length of red interval = $(1 - G/C) * \text{Cycle length}$

Average queue/lane = $\text{Volume} * \text{Red interval} / 3600$

Maximum queue: Random arrival/Constant service

Random arrivals behave according to a Poisson distribution.

There is a probability equal to the confidence level desired (e.g. 95%)

that the queue formed during each red interval will be less than

or equal to the maximum queue.

(Prob. of arrivals = N) = $(\text{Red interval})^N * \exp(-N) / N!$ (the Poisson distribution)

(Prob. of arrivals >= N) = $1 - \text{Sum of probabilities for vehicles } 0, 1, \dots, N-1$

Max N: Highest N such that the sum of probabilities > (1 - confidence level)

Queue length = $\text{Maximum queue} * \text{Storage length per vehicle}$

Required storage per lane = $\text{Queue length} / \text{Number of lanes}$, rounded up to the next highest whole vehicle

Opposing flow ratio Yo = $\text{opposing volume } v_o / \text{opposing sat. flow rate } s_{op}$

Unblocked G/C (gu/C) = $(g/C - Y_o) / (1 - Y_o)$

SIGNALIZED QUEUE WORKSHEET

Project Name: [REDACTED]
 Project Number: [REDACTED]
 Analyst: [REDACTED]
 Date: 7/14/2002
 Filename: H:\projfile\4083\sp\queue\5th hwy99 queue.XLS\SIGQUEUE

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 Portland, Oregon 97205
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 Fax: (503) 273-8169

Intersection: [REDACTED]
 Conditions (yr, alt., etc.): [REDACTED]

GENERAL INPUT PARAMETERS:

Cycle Length:	60 Sec
Confidence Level (C.L.):	95%
Storage length/vehicle:	75 feet

	APPROACH/MOVEMENT							
	#1	#2	#3	#4	#5	#6	#7	#8
INPUT PARAMETERS:								
Volume (pre-PHF) (vph):	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
G/C for movement:	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Number of lanes:	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
CALCULATIONS:								
Length of red interval (sec):	101.2							
Average total queue (veh):	0.9							
Maximum total queue (veh):	3							
Total queue length (feet):	75							
Required storage/lane (feet):	75							
PERMITTED LEFT TURNS:								
Opposing volume (pre-PHF):	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Opposing sat. flow rate:	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
CALCULATIONS:								
Opposing flow ratio (Yo):	0.06							
Unblocked G/C:	0.02							
Effective red interval (sec):	108.2							
Average total queue (veh):	1.0							
Maximum total queue (veh):	3							
Total queue length (feet):	75							
Required storage/lane (feet):	75							

METHODOLOGY AND FORMULAS USED:

Length of red interval = (1 - G/C) * Cycle length

Average queue/lane = Volume * Red Interval / 3600

Maximum queue: Random arrival/Constant service

Random arrivals behave according to a Poisson distribution.
 There is a probability equal to the confidence level desired (e.g. 95%)
 that the queue formed during each red interval will be less than
 or equal to the maximum queue.

(Prob. of arrivals = N) = (Red Interval)^N * exp(-N) / N! (the Poisson distribution)

(Prob. of arrivals >= N) = 1 - Sum of probabilities for vehicles 0, 1, ..., N-1

Max N: Highest N such that the sum of probabilities > (1 - confidence level)

Queue length = Maximum queue * Storage length per vehicle

Required storage per lane = Queue length / Number of lanes, rounded
 up to the next highest whole vehicle

Opposing flow ratio Yo = opposing volume vo / opposing sat. flow rate sop

Unblocked G/C (gu/C) = (g/C - Yo)/(1-Yo)

Appendix F

Crash Data

ACCIDENT ANALYSIS

Project Name: Dundee Transportation System Plan
 Project Number: 4083
 Analyst: kb
 Date: 07/14/2002
 Filename: H:\profile\4083\sp\accident\ DundeeTSP-crash.xls

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 Fax: (503) 273-8169

INTERSECTION ANALYSIS

<p>Intersection: Highway 99W/Fox Farm Rd Mile Post</p> <p>Vehicles Entering Intersection = 21,950 Number of Accidents = 0 Time Period = 3</p> <p>Accident Rate = $\frac{0}{21,950} \times \frac{1,000,000}{365} = 0$</p>	<p>0.00 Accidents / mev</p>
<p>Intersection: Highway 99W/1st St Mile Post</p> <p>Vehicles Entering Intersection = 22,500 Number of Accidents = 4 Time Period = 3</p> <p>Accident Rate = $\frac{4}{22,500} \times \frac{1,000,000}{365} = 0.16$</p>	<p>0.16 Accidents / mev</p>
<p>Intersection: Highway 99W/5th St Mile Post</p> <p>Vehicles Entering Intersection = 22,100 Number of Accidents = 10 Time Period = 3</p> <p>Accident Rate = $\frac{10}{22,100} \times \frac{1,000,000}{365} = 0.41$</p>	<p>0.41 Accidents / mev</p>
<p>Intersection: Highway 99W/9th St Mile Post</p> <p>Vehicles Entering Intersection = 20,250 Number of Accidents = 3 Time Period = 3</p> <p>Accident Rate = $\frac{3}{20,250} \times \frac{1,000,000}{365} = 0.14$</p>	<p>0.14 Accidents / mev</p>
<p>Intersection: Highway 99W/10th St Mile Post</p> <p>Vehicles Entering Intersection = 20,000 Number of Accidents = 1 Time Period = 3</p> <p>Accident Rate = $\frac{1}{20,000} \times \frac{1,000,000}{365} = 0.05$</p>	<p>0.05 Accidents / mev</p>
<p>Intersection: Highway 99W/Niederberger Rd Mile Post</p> <p>Vehicles Entering Intersection = 19,350 Number of Accidents = 0 Time Period = 3</p> <p>Accident Rate = $\frac{0}{19,350} \times \frac{1,000,000}{365} = 0$</p>	<p>0.00 Accidents / mev</p>

Appendix G

Glossary of Transportation Terms

Appendix G

Glossary of Transportation Terms

Access

A means of approach to provide vehicular or pedestrian entrance or exit to a property. This may not necessarily include all movements.

Access Management

The process of providing and managing access to land development while preserving the regional flow of traffic in terms of safety, capacity and speed.

Access Spacing

The distance between access locations, measured from the closet edge of pavement of the first access to the closest edge of pavement of the second access along the edge (either side) of the traveled way.

ADT

Average Daily Traffic volume

AM Peak Hour

Traffic volume measured during the highest hour in the a.m. peak period which is generally considered between the hours of 6:00-9:00 a.m. Traffic is generally counted in 15-minute increments, and hence, the peak hour is considered the time in which the highest four consecutive 15-minute intervals occur. Thus, if the highest hourly volume within the three hour peak period occurs at 7:00-8:00 a.m., then this is considered the a.m. peak hour volume.

Arterial

This classification of roadway provides for through traffic movement between areas and across the city with direct access to abutting property. It is subject to required control of entrances, exits, and curb use.

AWDT

Average Weekday Traffic volume

Buildout

A condition on which the maximum allowed land use intensity exists (or is assumed to exist) on every available land parcel within the study area.

Capacity

The maximum hourly rate at which persons or vehicles can reasonably be expected to traverse a point or uniform section of a lane or roadway during a given time period under prevailing roadway, traffic, and control conditions.

Delay

The time lost while traffic is impeded by some element over which the driver has no control

Directional Distribution

The directional split of traffic during the peak or design hour, commonly expressed as percent in the peak and off-peak flow directions.

DLCD

Department of Land Conservation & Development

Fixed-Route Transit

Fixed route transit is the technical term used to describe what typically is thought of a “bus route”. Fixed route transit operates on a defined, published route with a described schedule. In comparison, *demand-responsive transit* operates within a defined area responding to the call of the transit rider; “dial-a-ride” is an example of demand-responsive transit service and taxis are a private-sector example of demand-responsive transit.

Flow Rate

The equivalent hourly rate at which vehicles pass over a given point or section of a lane or roadway during a given time interval less than one hour, usually 15 minutes.

Frontage Road

A public or private drive that generally parallels a public street between the right-of-way and the front building setback line. The frontage road provides access to private properties while separating them from the arterial street.

Functional Classification

A system used to group public roadways into classes according to their purpose in moving vehicles and providing access.

Grade Separation

A crossing of two highways, or a highway and a railroad, at different vertical levels. This may include an *overpass*, in which the subject facility passes over an intersecting highway or railroad; and an *underpass*, in which the subject facility passes under an intersecting highway or railroad.

HOV

High occupancy vehicle.

Interchange

A system of interconnecting roadways in conjunction with one or more grade separations, providing for the movement of traffic between two or more roadways on different levels.

Intersection

The general area where two or more highways join or cross, within which are included the roadway and roadside facilities for traffic movements in that area.

Joint Access (or Shared Access)

A driveway connecting two or more contiguous sites to the public street system.

Land Use

The type of activity associated with a specific geographic area. Land use categories can be broad (e.g., residential, retail, office, industrial, and recreational) or they can be very specific (e.g., single family residential, convenience market, or elementary school). In order to estimate trip generation characteristics for a specific geographic area, it is necessary to know both the type and intensity of land use (e.g., single family residential land use at a development intensity of eight units per acre).

LCDC

Land Conservation & Development Commission

Level of Importance

In the Oregon Highway Plan, state highways have been classified in terms of their function in the state system. The lowest level of importance is a *district* level, implying that the facility serves a smaller area and for shorter length trips. In contrast, the highest level of importance is a *statewide* level, connoting that the facility serves longer distance trips and serves a greater area.

Level of Service

A qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A level of service definition generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Six levels of service are defined with letter designations, from A to F. Level of service A represents the best operation conditions and level of service F the worst. Level of Service D represents the level that is normally considered, for signalized intersections, near the minimum acceptable for an urban area, level of service E represents operating conditions at or near the capacity level, and level of service F is used to define forced or breakdown flow conditions. See appendix for full definitions of level of service.

Local Street

The classification of roadway provides for direct access to abutting land for local traffic movement.

Merging

The converging of two or more separate streams of traffic into a single stream.

Modal Split

The allocation of travel between modes of transportation (i.e. passenger cars, bus, pedestrian, bicycle).

Mode

The means by which travel is accomplished. Alternative modes of travel include walking, bicycling, auto, bus, and light rail.

Multi modal

Including more than a single mode of transportation, including passenger cars, transit, bicycles, pedestrians, trucks, etc.

NDTIP

Newberg-Dundee Transportation Improvement Project

Nonrestrictive Median

A median or painted centerline that does not provide a physical barrier between traffic traveling in opposite directions or turning left, including continuous center turn lanes and undivided roads.

ODOT

Oregon Department of Transportation

OHP

Oregon Highway Plan

Passenger Car Equivalence

The representation of larger vehicles, such as trucks and buses, as equal to a quantity of passenger cars for use in level of service and capacity analyses. The magnitude of the equivalency is dependent upon vehicle size and weight, vehicle operating characteristics, vehicle speeds, and roadway characteristics such as grade.

PHF

Peak Hour Factor. This is a measure of how peaked traffic volumes are within the peak hour. Peak hour factor is defined as the ratio of total hourly volume to the maximum 15-minute of flow within the hour.

PM Peak Hour

Traffic volume measured during the highest hour in the p.m. peak period which is generally considered between the hours of 3:00-6:00 p.m. Traffic is generally counted in 15-minute increments, and hence, the peak hour is considered the time in which the highest four consecutive 15-minute intervals occur. Thus, if the highest hourly volume within the three-hour peak period occurs at 4:30-5:30 a.m., then this is considered the a.m. peak hour volume.

Recreational Vehicle

A heavy vehicle, operated by a private motorist, and involved in the transport of recreational equipment or facilities.

Ridesharing

A broad category of transit which involves increasing the *ACO* for small capacity vehicles (2 through 20 passenger capacity) through matching passengers with similar travel requirements with drivers who regularly make trips matching those requirements. Ridesharing includes carpooling (a driver and one or more passengers in a automobile) and vanpooling (a driver and 7 or more passengers in a passenger van or mini-bus).

Right-of-Way

A publicly-owned strip of land within which the entire road facility (including travel lanes, medians, shoulders, sidewalks, planting areas, bicycle lanes, and utility easements) must reside. The right-of-way is usually defined in feet, and it is not necessary that the paved roadway be centered within this strip of lane.

Roadway Conditions

The geometric characteristics of the street or highway, including: the type of facility and its development environment, the number of lanes (by direction), lane and shoulder widths, lateral clearances, design speed and horizontal and vertical alignments.

Service Flow Rate

The maximum hourly rate at which persons or vehicles can reasonably be expected to traverse a point or uniform section of a lane or roadway during a given time period under prevailing roadway, traffic, and control conditions while maintaining a designated level of service. As to capacity, the service flow rate is generally taken for a 15-minute time period.

Speed

A rate of motion expressed as distance per unit time, generally as miles per hour or kilometers per hour. In characterizing the speed of a traffic stream, some representative value must be used, as there is generally a broad distribution of individual speeds that may be observed in the traffic stream. The speed measure that is normally used in this regard is *average speed*. Average travel speed is computed by dividing the length of the highway or street segment under consideration by the average travel time of vehicles traversing the segment.

TDM

Transportation Demand Management. TDM describes an approach, which may include a multitude of measures to reduce vehicle demand on the transportation system. These measures may include: provision of bicycle facilities, transit-incentives, providing walking shoes to walkers, etc.

TPR

Oregon's Transportation Planning Rule

Traffic Analysis Zone

A geographic area that is relatively homogeneous with respect to the type of land use activities that exist or are allowed. Taken together, traffic analysis zones define all land area within the study area. The boundaries of traffic analysis zones can be defined somewhat arbitrarily. However, they are usually similar in size to one another, and they are typically not bisected by significant roadways or transportation barriers (e.g., rivers or lakes). In a traffic analysis zone, an area of aggregate land uses is identified for the purpose of determining trip generation in a travel forecasting model. Zones group together a number of housing units or employees (by type) in an area instead of single trip generators (one dwelling unit, an office building, shopping center, etc.).

Travel Demand Forecasting

The practice of predicting the future demand for travel on a particular physical transportation system. To be useful, these forecasts must incorporate estimates of the *amount* of travel that will occur (i.e., the trip generation potential), the *distribution* of that travel (i.e., the ultimate destination of each generated trip), and the *mode* by which the travel occurs (i.e., auto, bus, light rail, or walking/bicycling).

Trip Assignment

The allocation of all travel between a particular origin and a particular destination to the alternative available travel routes. Usually, trip assignment procedures attempt to assign traffic to the most direct route between a specific origin and destination pair that minimizes total travel time and avoids significant congestion.

Trip Distribution

The allocation of generated trips among all possible destinations.

Trip End

A one-way vehicular movement between a single destination. Thus, for example, a round trip between home and a shopping center would consist of two trip ends: one trip end is defined by the vehicular travel from home to the shopping center, and the other trip end is defined by the vehicular travel from the shopping center to home.

Trip Generation

The number of vehicle trip ends produced by a specific type and intensity of land use. Normally, trip generation characteristics are estimated on a daily and/or a peak hour basis.

Trucks (Heavy Vehicles)

Any vehicle with more than four tires on the roadway that is not otherwise classified as a recreational vehicle or a bus.

TSP

Transportation System Plan

Urban Growth Boundary (UGB)

The politically-defined boundary around a metropolitan area outside of which no urban activities may occur. It is intended that the UGB be defined so as to accommodate all projected population and employment growth within a twenty-year planning horizon. A formal process has been established for periodically reviewing and updating the UGB so that it accurately reflects projected population and employment growth.

Volume

The total number of vehicles that pass over a given point or section of a lane or roadway during a given time interval; volumes may be expressed in terms of annual, daily, hourly or sub-hourly periods.

Appendix H

Ordinance 411-2003

Appendix H

Ordinance 411-2003

An Ordinance Adopting the Dundee Transportation System Plan by Amending the Dundee Development Plan, Ordinance No. 197, and Dundee Development Ordinance No.

ORDINANCE 411-2003

An Ordinance Adopting the Dundee Transportation System Plan by Amending the Dundee Comprehensive Plan, Ordinance No. 197, and Dundee Development Ordinance No. 324.

WHEREAS, on February 19, 2003, the Planning Commission conducted a public hearing to consider the proposed Transportation System Plan, amending provisions of the Dundee Comprehensive Plan and Dundee Development Ordinance, and identified as Planning File Case No. 03-02; and

WHEREAS, notice of the said public hearings were duly given pursuant to the Dundee Development Ordinance and the public was given a full opportunity to be present and heard on the matter; and

WHEREAS, on February 19, 2003, the Planning Commission opened the hearing, heard testimony and voted to continue the matter until March 19, 2003; and

WHEREAS, on March 19, 2003, the Planning Commission re-opened the hearing and met to consider the proposed action, received the recommendation of City staff and additional testimony and voted to recommend City Council approval of the proposed Transportation System Plan; and

WHEREAS, on April 8, 2003, the City Council of the City of Dundee conducted a public hearing on the matter; and

WHEREAS, notice of the said public hearings were duly given pursuant to the Dundee Development Ordinance; and

WHEREAS, on April 8, 2003, the City Council met to consider the proposed action, received the recommendations of the Planning Commission, testimony by the public and considered the information provided by City staff.

NOW, THEREFORE, THE CITY OF DUNDEE, OREGON ORDAINS AS FOLLOWS:

Section 1. The City Council of the City of Dundee does hereby adopt those certain findings of fact in support of the decision attached hereto as EXHIBIT "A" and by this reference made a part hereof.

Section 2. The City Council of the City of Dundee does hereby APPROVE the proposed amendments to the "Transportation" Element of the Dundee Comprehensive Plan attached hereto as EXHIBIT "B" and by this reference made a part hereof.

Section 3. The City Council of the City of Dundee does hereby APPROVE the proposed amendments to the "Transportation" Element of the Dundee Comprehensive Plan establishing Transportation related policies and attached hereto as EXHIBIT "C"

and by this reference made a part hereof.

Section 4. The City Council of the City of Dundee does hereby APPROVE the proposed amendments to the Dundee Development Ordinance attached hereto as EXHIBIT "D" and by this reference made a part hereof.

Section 5. **This Ordinance shall take effect within 30 days of adoption.**

PASSED by the Council and SIGNED by the Mayor this 2nd day JUNE, 2003.


Roger Worrall, Mayor

Attest:


Eve L. Foote
City Administrator/City Recorder

EXHIBIT "A"
FINDINGS - Transportation System Plan
Planning File No. 03-02 (Periodic Review Task 6)

I. NATURE OF THE APPLICATION

This matter comes before the Dundee City council on the application of the City of Dundee to amend the Dundee Comprehensive Plan and Dundee Development Ordinance, establishing and implementing the Transportation System Plan consistent with State Transportation Planning Rule.

II. BACKGROUND INFORMATION

The purpose of the proposed amendments is to adopt a Transportation System Plan for the City of Dundee. This action will amend the Dundee Comprehensive Plan, and the Dundee Development Ordinance.

The specific Transportation System Plan is included as Exhibit "B." This document replaces the existing "Transportation" Element of the Comprehensive Plan. Amendments establishing new Comprehensive Plan policies are included as Exhibit "C" and amendments to the Dundee Development Ordinance are included as Exhibit "D."

III. PUBLIC HEARING

A. Planning Commission Action

A public hearing was duly held on this application before the Dundee Planning Commission on February 19, 2003. At that hearing, Transportation System Plan File 03-02 was made a part of the record. Notice of the hearing was published consistent with the requirements in Section 3.202 of the Dundee Development Ordinance. No objection was raised as to jurisdiction, conflicts of interest, or to evidence or testimony presented at the hearing. The Commission received the staff report. After receiving public testimony, the Commission agreed to continue the matter until March 19, 2003 to receive additional testimony.

The hearing was reopened on March 19, 2003. Staff submitted an addendum report and additional verbal and written testimony was submitted. At the conclusion of the hearing, the Planning Commission deliberated on the issue and adopted an Order recommending the City Council adopts the proposed amendments to the Dundee Comprehensive Plan and Dundee Development Ordinance. The Commission found the proposed amendments consistent with the applicable decision criteria.

B. City Council Action

A public hearing was duly held on this application before the Dundee City Council on April 8, 2003. At that hearing, Transportation System Plan File 03-02 was made a part of the record. Notice of the hearing was published consistent with the requirements in Section 3.202 of the Dundee Development Ordinance. No objection was raised as to jurisdiction, conflicts of interest, or to evidence or testimony presented at the hearing. The Council received the staff report and heard testimony regarding the proposal.

At the conclusion of the hearing, the City Council deliberated on the issue and voted to adopt the proposed Transportation system Plan. The Council found the proposed amendments consistent with the applicable decision criteria. The Council further directed City staff to return with an adoption Ordinance for the May 6, 2003 hearing.

IV. FINDINGS OF FACT-GENERAL

The Dundee City Council, after careful consideration of the testimony and evidence in the record, adopts the following General Findings of Fact:

1. The applicant is the City of Dundee.
2. The proposed amendments will implement the Transportation Planning Rule by establishing a Transportation System Plan for the City of Dundee.
- C. This action will amend the Dundee Comprehensive Plan, and the Dundee Development Ordinance. The specific Transportation System Plan is included as Exhibit "B." This document replaces the existing "Transportation" Element of the Comprehensive Plan. Amendments establishing new Comprehensive Plan policies are included as Exhibit "C" and amendments to the Dundee Development Ordinance are included as Exhibit "D."
- D. Approval or denial of the request will be based on compliance with the Statewide Land Use Goals, OAR 660-12 and the Dundee Comprehensive Plan.

V. APPLICATION SUMMARY

- A. Statewide Land Use Planning Goal 12 establishes the objectives regarding transportation planning. The policy objectives contained in Goal 12 are implemented through the Transportation Planning Rule (TPR) [OAR 660-12-000 through 070]. The TPR commits all levels of government to the development of a coordinated statewide transportation planning program. Each jurisdiction must prepare and adopt a Transportation System Plan (TSP) and implementing regulations.

B. The purpose of the proposed amendments is to adopt a Transportation System Plan for the City of Dundee. This required changes to the Comprehensive Plan which incorporates the background information into appropriate goals and policies, and to the Development Ordinance, which implements Plan policies. A brief summary of the material is noted below.

1. Comprehensive Plan (Exhibits "B" and "C") - The "Transportation" element of the Plan will be replaced in its entirety by the new Transportation System Plan ("B"). The TSP, in effect, provides the necessary background information in support of new Plan policies ("C"). Proposed Plan policies will provide greater definition to the City's relationship with the Newberg-Dundee Bypass improvements, support coordination among affected agencies with regard to transportation issues, encourage vehicle and pedestrian links and encourage greater use of public transportation.
2. Development Code (Exhibit "D") - Several sections of the Development Code are revised. A summary of these proposed changes follows:
 - a. Definitions - New transportation-related definitions are included.
 - b. Bike/Pedestrian Improvements - New development will be required to provide bike and pedestrian improvements such as walkways to connect adjoining commercial buildings and pedestrian/bicycle connections are required for subdivisions in certain circumstances.
 - c. Street Standards - Street standards are modified to include provisions for pedestrian walkways and bicycle paths. Bikeways are also included in the collector street and arterial street design. Narrower streets are also permitted under certain circumstances.
 - d. Land Divisions - Regulations will encourage improved connectivity between new subdivisions and adjacent land uses. Where appropriate, provisions must be made to include pedestrian and bicycle access and connections with nearby development. Design standards relating to these requirements were also established.
 - e. Site Development Review - Site plans must include bicycle access information and will be evaluated with regard to these standards.
 - f. Notice - Where appropriate, the City will be required to coordinate development with ODOT or Yamhill County Public Works.

VI. COMPREHENSIVE PLAN & DEVELOPMENT ORDINANCE

- A. Section 3.101.04 of the Development Ordinance states that an amendment to laws or policies is subject to the procedural process for Type IV actions. This type of action must be initiated by City staff, Planning Commission, or City Council. Section 3.207.02 requires hearings to be held before both the Commission and Council, with the Commission having an advisory role and the final decision rendered by the Council. This action is part of Periodic Review Task 6, to develop a Transportation system Plan.
- B. The City is required to adopt a Transportation System Plan. This action requires amendments to both the Comprehensive Plan and Development Ordinance. However, the Development Ordinance does not establish specific criteria to amend either the Plan or the Ordinance. Therefore, the TSP must ultimately comply with the provisions in OAR 660-12 for the City to adopt the Plan and Ordinance amendment.

VII. OAR 660-12

- 1. Oregon Administrative Rule 660-12 establishes the basis for developing Transportation System Plans. The entire TSP process was supervised by the Oregon Department of Transportation and the Department of Land Conservation and Development. This oversight, as well as the City's process, conformed with the applicable provisions in OAR 660-12-0015 regarding preparation and coordination. Further, this document will be adopted as part of the City's Comprehensive Plan and specific implementing measure will be placed in the Development Ordinance.
- 2. The Dundee TSP includes all the elements identified in OAR 660-12-0020. Compliance with these provisions was effectively monitored as part of the TSP process.
- 3. All TSPs must conform to the Statewide Planning Goals (OAR 660-12-0025). Findings to that effect are contained in the document and summarized below:

Goal 1, Citizen Involvement: Public input was sought throughout the process and identified within the final document. Public hearings on the proposed amendments will be held before both the Planning Commission and City Council. This is consistent with City procedures and the intent of the Goal.

Goal 2, Land Use Planning: The proposal does not involve exceptions to the Statewide Goals. Adoption actions are consistent with the acknowledged Development Ordinance.

Goal 3, Agricultural Lands: The proposal does not involve or affect farm land. An

exception to this goal is not required.

Goal 4, Forest Lands: The proposal does not involve or affect identified forest lands. an exception to this goal is not required.

Goal 5, Open Spaces, Scenic and Historic Areas, and Natural Resources: Identified historic, cultural, or natural resources are not affected by the proposed changes.

Goal 6, Air, Water and Land Resource Quality: Overall the proposed change does not establish uses or activities which will adversely affect the environment. Some improvement in air quality is anticipated as alternative (non-automobile) forms of transportation will be encouraged through Plan policies and parking requirements.

Goal 7, Natural Hazards: Development requirements for activities within the flood plain or on steep slopes would remain unaltered.

Goal 8, Recreational Needs: The proposed changes do not involve land or create uses which would adversely impact recreational opportunities. Opportunities may actually expand through improved access for bicyclists and pedestrians.

Goal 9, Economic Development: The proposed Plan policies and amendments neither promote nor restrict economic activity. It is anticipated that the proposed improvements and greater connectivity will improve commercial opportunities.

Goal 10, Housing: The proposed Plan revisions and amendments do not directly involve the supply or location of needed housing.

Goal 11, Public Facilities and Services: The proposed changes do not involve public facilities or create uses or activities that will impact existing public facilities.

Goal 12, Transportation: The proposed amendments address implementing measures in the Transportation Planning Rule and are therefore consistent with Goal 12.

Goal 13, Energy Conservation: The amendments are generally neutral with regard to energy conservation. However, the encouragement of multi-modal methods of transportation is expected to reduce the reliance on the automobile and, in turn, the use of fossil fuels.

Goal 14, Urbanization: The proposal relates to design requirements for permitted uses and does not limit development of urban uses within an urban area.

Goals 15 to 19, Willamette River Greenway, Estuarine Resources, Coastal Shores,

beaches and Dunes, Ocean Resources: The proposals does not involve land within the Willamette Greenway nor impact coastal areas. However, proposed policies will ensure access to the Willamette River will remain.

In general, the proposed amendments to the Comprehensive Plan and Development Ordinance are either entirely consistent with the intent of the Statewide Goals, or, the amendments do not directly affect issues addressed by the Goals.

4. The local TSP process focused on the planning needs of the community and considered all potential impacts, both local and regional. This is consistent with OAR 660-12-0030. The evaluation of alternatives was considered in conformance with OAR 660-12-0035 and includes a financing program consistent with OAR 660-12-0040.
5. Implementation of the program is through both Plan policies and Ordinance amendments (OAR 660-12-0045). The Plan policies serve as guidelines to implementation and reflect the findings developed as part of the TSP. Ordinance amendments implement these polices through a variety of regulations: opportunities for narrower streets, new definitions consistent with the TSP program language, improved connectivity in subdivision design, bicycle and pedestrian improvements for new developments, limitations on vehicle parking, and increased coordination with effected agencies.

VIII. CONCLUSION

The City Council concludes the proposed amendments to the Comprehensive Plan and Development Ordinance are consistent with the applicable decision criteria.

EXHIBIT "B"
TRANSPORTATION SYSTEM PLAN

The Dundee Transportation System Plan (TSP) shall replace the "Transportation" Element of the Dundee Comprehensive Plan.

EXHIBIT "C"
COMPREHENSIVE PLAN TEXT AMENDMENTS

TRANSPORTATION

GOAL

To provide and encourage a safe, convenient, aesthetic and economical transportation system, addressing the needs of all citizens within the community.

OBJECTIVES

- A. The development of a well-connected street network that is safe, accessible and efficient for motorists, pedestrians, bicyclists and the transportation disadvantaged.
- B. Preserve the aesthetic quality of the community.
- C. The construction of a safe, continuous and direct network of streets, accessways, and other improvements, including bikeways, sidewalks, and safe street crossings to promote safe and convenient bicycle and pedestrian circulation within Dundee.
- D. Develop policies for the location and improvement of arterials, collectors, local streets and sidewalks.
- E. Improve the transportation links within the region as well as other regions of the state, while encouraging alternative transportation mode for commuters.

POLICIES

A. General Transportation Network

- 1. The designated arterial and collector streets of the street network will be used to assist in prioritizing street development and maintenance.
- 2. The City of Dundee shall protect the function of existing and planned roadways identified in the Transportation System Plan (TSP). New development shall comply with the location of new streets and related improvements in the TSP subject to final engineering and design and compliance with federal, state and local environmental law. Prior to construction of a new street for the right-of-way between 3rd and 5th Street, a special study shall be provided to determine whether the location of the new street is appropriate. The special study shall consider

alternative locations considering engineering design, cost and the protection of natural resources.

3. All development proposals, plan amendments, or zone changes shall conform with the adopted Transportation System Plan.
4. The City of Dundee shall include a consideration of their impact on existing or planned transportation facilities in all land use decisions.
5. Transportation facility siting and design shall be done in a manner that will minimize adverse effects on the existing land uses and natural features.
6. The City of Dundee shall protect the function of existing or planned roadways or roadway corridors through the application of appropriate land use regulations, exactions, voluntary dedication, or setbacks.
7. New direct access to Highway 99W shall be granted only after consideration is given to Oregon Department of Transportation access management standards, land use and traffic patterns in the area of development, and not just at the specific site. Common driveways and other access management techniques shall be encouraged to coordinate traffic and land use patterns and these shall be implemented wherever feasible.
8. The City shall coordinate development and revisions of its transportation systems plan with the Oregon Department of Transportation and Yamhill County. Improvements listed in ODOT's Statewide Transportation Improvement Program that affect Dundee shall be consistent with the City's Transportation System Plan and Comprehensive Plan.
9. Off-street parking shall be provided by all land uses to improve traffic flow, promote safety, and lessen sight obstruction along the streets.
10. The City shall develop a Capital Improvement Program to identify and prioritize transportation projects.
11. All City streets shall operate at a Level of Service standard "D" or better during the 20-year planning period. When the LOS drops to "E," actions will be initiated to return the street to LOS D.
12. The City of Dundee shall work with Oregon Department of Transportation on a continual basis to have a traffic signal installed at the Parks Road/Highway 99W and 10th Street/Highway 99W intersections as soon as possible.

13. Through the refinement plan process, the City of Dundee will investigate the potential of developing a unique streetscape plan for the community's downtown, including the potential for establishing a Special Transportation Area or inclusion of appropriate elements of an STA consistent with ODOT regulations.

B. Newberg-Dundee Bypass

1. The City shall coordinate with the Oregon Department of Transportation, Yamhill County and other affected agencies regarding the location and construction of the Newberg-Dundee Bypass.
2. The City shall encourage the selection of a bypass alternative that ensures sufficient traffic is diverted from Highway 99W through Dundee to allow the remaining traffic to be served by two travel lanes within the Transportation Plan's planning horizon.
3. The City shall encourage the new by-pass design to provide adequate public access - including pedestrian, bicycle, vehicle and recreational - to the Willamette River. This could potentially be achieved by using SE 8th Street existing private road.
4. The City shall encourage the new bypass design to incorporate adequate buffering and physical separation between the new highway, and, public access to the Willamette River and existing residential neighborhoods.
5. Improvements for street connectivity within the City, including alternative linkages to adjacent communities, shall not occur until such time the bypass is in operation.
6. The land use decisions regarding the location of the proposed Newberg-Dundee Bypass shall be made through a subsequent amendment to the Dundee TSP. As part of this process, the City recognizes Newberg and Yamhill County will need to amend their TSPs to authorize a bypass corridor, and, Yamhill County must take an exception to Statewide Planning Goal 12 to authorize a new transportation facility in rural lands.

C. Pedestrian and Bicycle Facilities

1. In areas of new development the City of Dundee shall investigate the existing and future opportunities for bicycle and pedestrian accessways.

Existing accessways such as user trails established by school children distinguish areas of need and should be incorporated into the transportation system.

2. Bikelanes and/or sidewalks shall be included on all new arterials and collectors within the Urban Growth Boundary, as referenced by the Transportation System Plan.
3. Sidewalks shall be included on all new streets within the Urban Growth Boundary, as referenced by the Transportation System Plan.
4. Where feasible, bikeways and pedestrian accessways shall connect to local and regional travel routes.
5. Bikeways and pedestrian accessways shall be designed and constructed to minimize potential conflicts between transportation modes. Design and construction of such facilities shall follow the guidelines established by the Oregon Bicycle and Pedestrian Plan.
6. Maintenance and repair of existing bikeways and pedestrian accessways (including sidewalks) shall be given equal consideration to the maintenance and repair of motor vehicle facilities.
7. To achieve a safe, continuous and direct network of sidewalks and bikeways, one of the City's priorities is to construct these facilities on the streets depicted on the Pedestrian/Bicycle Plan Map as incorporated within the Transportation System Plan.
8. The City of Dundee shall consider the potential to establish or maintain accessways, paths, or trails prior to the vacation of any public easement or right-of-way.
9. Where possible and financially feasible, the City will upgrade existing substandard sidewalks.

D. Public Transportation

1. The City shall encourage the creation of a customer-based and oriented regionally coordinated public transit system that is efficient, effective, and founded on present and future needs.
2. Promote regional planning of public transportation services and

encourage the use of innovative technology to maximize efficiency of operation, planning and administration of public transportation.

3. The City encourages the development of a daily transit shuttle service to the major activity centers in Newberg and McMinnville as well as the Portland and Salem metropolitan areas.

E. Rail and Pipeline Transportation

1. The City shall coordinate land use planning adjacent to the Willamette and Pacific Railroad facilities in order to promote industrial development with rail access.
2. The City will work with the local rail operator, the Oregon Department of Transportation and other affected agencies or businesses to improve the at-grade railroad crossings within the community.
3. The City supports the concept of commuter rail service serving the West Valley and providing connections with the Portland metropolitan area. If passenger rail service does become a reality, the City will encourage the development of a passenger rail depot in Dundee, including necessary Development Ordinance revisions to permit construction.
4. The City supports activities that maintain adequate pipeline operations such as natural gas service into, within and through Dundee.

EXHIBIT "D"
DEVELOPMENT ORDINANCE AMENDMENTS

I. Section 1.200 DEFINITIONS

New definitions will be included in Section 1.200. Those terms in **bold** amend existing definitions with the new language underlined and the old language ~~stricken~~.

Access: The way or means by which pedestrians, bicycles, and vehicles shall have safe, adequate and usable ingress and egress to property.

Access Management: Measures regulating access to streets, roads, and highways from abutting public or private property.

Accessway: An easement or right-of-way, not located within a street or road right-of-way, designated for pedestrian and / or bicycle passage. May also be called a multi-use path.

Adequate Access: Direct routes of travel between destinations.

Adequate Area: Space sufficient to provide all required public services to standards defined in this code.

Bicycle Facilities: Facilities which provide for the needs of bicyclists, including bikeways and bicycle parking.

Bikeway: A designated area located within and parallel to a street or road right-of-way for the primary use of bicycles; generally located abutting the roadway curb or shoulder.

Carpool: Two or more persons each with a valid driver's license commuting in a single vehicle.

Multi-use Path: See accessway.

Nearby Uses: Activities or uses within ¼ mile which can be reasonably expected to be used by pedestrians, and within 1 mile which can be reasonably expected to be used by bicyclist.

Neighborhood Activity Centers: Schools, parks, and other like sites.

Park and Ride Lot: Parking spaces, dedicated or shared use, that are provided for motorists who transfer to and from single occupancy vehicles to public transportation vehicles or to a carpool or vanpool operation.

Parking Space: An enclosed or open unenclosed surfaced area, exclusive of maneuvering and access area, permanently reserved for the temporary storage of an automobile and connected with a street or alley by a surfaced driveway which affords ingress and egress for automobiles. The following are not considered parking spaces for the purposes of OAR 660-12-045(5)(c): park and ride lots, disabled parking, and parking for carpools and vanpools.

Pedestrian Connection: A continuous, unobstructed, reasonably direct route intended and suitable for pedestrian use between two points. Pedestrian connections include but are not limited to sidewalks, walkways, accessways, stairways and pedestrian bridges.

Pedestrian plaza: A small semi-enclosed area, usually adjoining a sidewalk or a transit stop, which provides a place for pedestrians to sit, stand, or rest.

Street:

5. Dead-end Street: A street which terminates without a turn-around area and is intended to continue at some time in the future. (Note: the remaining sections will need to be renumbered.)

Vanpool: More than five persons each with a valid driver's license commuting in a single vehicle.

II. Chapter 2.1 - ZONE DISTRICT AMENDMENTS

Park and ride lots will either be conditionally permitted or permitted uses in the following zones:

2.106 COMMUNITY COMMERCIAL ZONE (C)

2.106.03 Conditional Uses

- O. Park and ride lot; parking spaces cannot count as required parking or be used for vehicle storage

2.107 CENTRAL BUSINESS DISTRICT (CBD)

2.107.03 Conditional Uses

- D. Park and ride lot; parking spaces cannot count as required parking or be used for vehicle storage

2.108 COMMERCIAL DESTINATION RESORT DISTRICT (CDR)

2.108.03 Conditional Uses

- D. Park and ride lot; parking spaces cannot count as required parking or be used for vehicle storage

2.109 LIGHT INDUSTRIAL ZONE (LI)

2.109.02 Permitted Uses

- F. Park and ride lot; parking spaces cannot count as required parking or be used for vehicle storage

2.110 PUBLIC ZONE (P)

2.110.02 Permitted Uses

- F. Park and ride lot; parking spaces cannot count as required parking or be used for vehicle storage

III. Section 2.201.03 APPLICATION OF PUBLIC FACILITY STANDARDS

The "Table" within Section 2.201.03 shall be replaced with the following new language incorporating requirements for transportation facility improvements:

Public Facilities Improvement Requirements Table

Use	Fire Hydrant	Street Improvement	Water Hookup	Sewer Hookup	Storm Drain	Street Lights	Bike & Pedestrian
Single Family Dwelling & Duplex	No	C-2	Yes	Yes	Yes	No	No
Multifamily Dwelling	C-1	Yes	Yes	Yes	Yes	Yes	Yes (4+ units)
New Commercial Building	C-1	Yes	Yes	Yes	Yes	Yes	Yes
Commercial Expansion	C-1	C-3	Yes	Yes	Yes	Yes	No
New Industrial Building	C-1	Yes	Yes	Yes	Yes	Yes	Yes

Industrial Expansion	C-1	C-3	Yes	Yes	Yes	Yes	No
Partition, Subdivisions, PUD, and Manufactured Home Park	C-1	Yes	Yes	Yes	Yes	Yes	Yes

IV. Section 2.202 STREET STANDARDS

Section 2.202.01 shall be replaced with the following new language:

2.202.01 Purpose

- A. To provide for safe, efficient, convenient multi-modal movement in the City of Dundee.
- B. To provide adequate access to all proposed developments in the City of Dundee.
- C. To provide adequate area in all public rights-of-way for sidewalks, bikeways, sanitary sewers, storm sewers, water lines, natural gas lines, power lines and other utilities commonly and appropriately placed in such rights-or-way.
- D. For purposes of this section:
 - 1. "Adequate access" means direct routes of travel between destinations; such destinations may include residential neighborhoods, parks, schools, shopping areas, and employment centers.
 - 2. "Adequate area" means space sufficient to provide all required public services to Standards defined in this code or the City's most current public works standards.

Subsections in Section 2.202.02 shall be replaced with the following new language:

2.202.02 Scope

- A. The creation, dedication or construction of all new public or private streets, bikeways, or accessways in all subdivision, partitions or other developments in the City of Dundee.

- C. The construction or modification of any utilities, sidewalks, or bikeways in public rights-of-way or street easements.

Subsections in Section 2.202.03 shall be replaced with the following new language:

2.202.03 General Provisions

The following provision shall apply to the dedication, construction, improvement or other development of all public streets in the City of Dundee. These provisions are intended to provide a general overview of typical minimum design standards. All streets shall be designed in conformance with the specific requirements of the City's most current Public Works standards. In the event of discrepancies between these provisions and the design standards, the Design Standards shall apply.

The standard sections contained in the Engineering Design Standards are minimum requirements only and shall not be construed as prohibiting the City Engineer from requiring thicker sections or engineer designed pavement sections in lieu of standard sections where conditions warrant.

- B. Where feasible, development proposals shall provide for the continuation of all streets, bikeways and accessways within the development and to existing streets, bikeways, and accessways outside the development.
- C. Alignment: Alignment: All streets other than local streets or cul-de-sacs, as far as practical, shall be in alignment with existing streets by continuation of the centerlines thereof. The staggering of street alignments resulting in "T" intersections shall, wherever practical, be avoided. If unavoidable, the "T" intersection shall leave a minimum distance of 200 feet between the center lines of streets having approximately the same direction. A "T" intersection having less than a 200foot separation from the center line of another street shall be subject to the review and approval of the City Engineer.
- D. Future extension of streets: Where necessary to give access to or permit a satisfactory future development of adjoining land, streets, bikeways and accessways shall be extended to the boundary of a tract being developed and the resulting dead-end streets may be approved without turn-a-rounds. Reserve strips and street plugs may be required to preserve access.

Section 2.202.04 shall be replaced with the following new language:

2.202.04 General Right-of Way and Improvement Widths

The following standards apply to public streets, bikeways and sidewalks in the City of Dundee. These standards shall be the minimum requirements, except where modifications are permitted under Subsection 2.204.05.

Street Classification	Minimum R-O-W (a)	Median Type	Street Improvement (ft)	Travel Lanes	Bike Lanes	Sidewalk	On-Street Parking	Planter Strip
Statewide Expressway (b)	120-150	Separated		4	Yes	No	No	ODOT
Arterials	ODOT	CL or Median	ODOT	ODOT	Yes	Yes	ODOT	ODOT
Collectors	60	Median, no CL	36	2	Yes	Yes	(c)	(c)
Parkway Collector (d)	70	No median	48	2	Yes	Yes	One-side	Yes
Local - I (e)	50	No median	26	2	No	Yes	One -side	No
Local - II (e)	60	No median	34	2	No	Yes	Yes	No
Cul-de-sacs	50	No median	34	2	No	Yes	Yes	No
Turnaround Radii	45	No median	38	NA	No	Yes	Yes	No
Alleys	15	No median	12	NA	No	No	No	No

- (a) Additional right-of-way may be necessary due to topographical constraints or to accommodate additional left- or right-turn lanes at intersections
- (b) This classification reflects the design elements currently under consideration in the NDTIP process.
- (c) Improvements shall comply with provisions in the Dundee TSP. Where on-street parking is provided, the bicycle lane shall be shared with the traffic lane. Planter strips shall be installed when no on-street parking is provided.
- (d) This classification shall reflect the design element contained in the Dundee TSP.
- (e) The Local I shall be the standard for the City of Dundee, and shall be subject to the following:
 - i. The subject local streets shall connect with other streets and not terminate in a cul-de-sac. The street may "dead-end" provided there is potential to continue the connection through the adjacent property.
 - ii. Subdivisions and other developments using these standards shall be limited to blocks with a maximum of 400 feet in length.

- iii. The street grade shall not exceed 4% for the length of the street.
- iv. The Dundee Fire Chief shall determine the street design does not reduce the ability of vehicles to provide necessary emergency services.
- v. The narrower street shall not be used to extend existing streets that contain wider right-of-ways and/or street improvements.

The developer shall construct the street to a Local II standard if the proposed local street improvement cannot meet all of the requirements noted above.

ODOT = This is an ODOT facility and the final design authority rest with ODOT.
 NA = Not applicable.
 CL = Center Lane

Section 2.202 shall be amended with the addition of the following new subsection:

2.202.08 Access Management

Driveway, street, and alley access to streets shall be separated by the following distances:

Street Classification	Access Spacing
Arterial	150 feet (+/- 20%)
Collector	75 feet
Local	15 feet

V. Section 2.203 OFF STREET PARKING AND LOADING

Section 2.203.05 shall be amended with the addition of the following new section:

B. Bicycle Parking

- 1. Minimum Space Requirements. The following bicycle parking standards shall apply. Installation of the spaces shall correspond with the required installation of new, or additional, vehicle parking improvements.

Bicycle Parking Spaces

Type of Use	Minimum Number of Spaces
Single Family Residential or Duplex	0

Multifamily	1 space per two dwelling units
Hotel, motel	1 space per 20 guest rooms
Club, lodge	1 space per 20 vehicle spaces
Hospital, nursing facility	1 space per 20 vehicle spaces
Church, auditorium	1 space per 20 vehicle spaces
Elementary, middle school	8 spaces per classroom
High school	2 spaces per classroom
Retail, office, government offices	1 space per 20 vehicle spaces
Bowling alley, rink, community center	1 space per 20 vehicle spaces
Eating and drinking establishment	1 space per 20 vehicle spaces
Service retail, retail involving bulky merchandise (furniture, lumber)	1 space per 30 vehicle spaces
Industrial, warehousing	1 space per 30 vehicle spaces
Other uses	Requirements for uses not identified shall be determined by the decision authority based upon requirements of comparable uses in this Section.

2. Minimum Development Requirements: At a minimum bicycle parking facilities shall be consistent with the following design guidelines.
 - a. Location: All bicycle parking shall be within 100 feet from a building entrance; located within a well-lighted area; and clearly visible from the building entrance.
 - b. Bicycle parking shall be convenient and easy to find. Where necessary, a sign shall be used to direct users to the parking facility.
 - c. Each bicycle parking space shall be at least 2 feet by 4 feet with a vertical clearance of 6 feet
 - d. An access aisle of at least 5 feet in width shall be provided for each bicycle parking facility.
 - e. Bicycle parking facilities shall offer security in the form of a lockable enclosure in which the bicycle can be stored.

stationary object, i.e., a "rack," upon which the bicycle can be locked. Structures that require a user supplied lock shall accommodate both cables and U-shaped locks and shall permit the frame and both wheels to be secured (removing the front wheel may be necessary.)

- f. Where bicycle parking is provided for employees on a "work shift," it shall be sheltered, i.e., covered, from the weather or employees shall be provided access to a secure room within a building for bicycle parking.

VI. Section 2.208 LAND DIVISIONS

Section 2.208.4 shall be replaced with the following:

2.208.04 Standards for Blocks

- A. General: The length, width, and shape of blocks shall be designed with regard to providing adequate building sites for the use contemplated; consideration of needs for convenient access, circulation, control, and safety of street traffic - including pedestrian and bicyclist; and recognition of limitations and opportunities of topography.
- B. Sizes: Blocks shall not exceed 1,000 feet in between street lines - the preferred length is 500 feet, excepts blocks adjacent to arterial streets, or unless the previous adjacent development pattern or topographical conditions justify a variation. The recommended minimum distance between collector street intersections with arterial streets is 1,800 feet.
- C. Traffic Circulation. The subdivision shall be laid out to provide safe, convenient, and direct vehicle, bicycle and pedestrian access to nearby residential areas; neighborhood activity centers (e.g., schools and parks); shopping areas; and employment centers; and provide safe, convenient and direct traffic circulation. At a minimum, "nearby" means the distance from the subdivision boundary - ¼ mile for pedestrians, and one mile for bicyclists.
- D. Connectivity. To achieve the objective in C. Traffic Circulation, above, the Planning Commission may require the following:
 - 1. Stub Streets: Where the potential exists for additional

residential development on adjacent property.

2. Accessways: Public accessways to provide a safe, efficient and direct connection to cul-de-sac streets, to pass through oddly shaped or unusually long blocks, to provide for networks of public paths creating access to nearby residential areas, neighborhood activity centers (e.g., schools and parks); shopping areas; and employment centers.
- E. Collector and Arterial Connections. Accessway, bikeway, or sidewalk connections with adjoining arterial and collector streets shall be provided if any portion of the site's arterial or collector street frontage is over 600 feet from either a subdivision access street or other accessway. If natural features (e.g., adverse topography, streams, wetlands) exist, the provisions of accessways may be limited.
- F. Design Standards. Pedestrian / bicycle accessways shall meet the following design standards:
1. Minimum dedicated width: 20 feet
 2. Minimum improved width: 10 feet
 3. Maximum length: 250 feet, with a clear line of vision for the entire length of the accessway shall be required.
 4. When an accessway is in excess of 100 feet in length, then pedestrian scale lighting fixtures shall be provided and lighted to a level where the accessways can be used at night.
 5. The accessway shall be designed to prohibit vehicle traffic.
 6. If the accessway is not owned by the public, the developer or home owners association shall be responsible for maintenance, lighting, and improvements

VII. Section 3.105 SITE DEVELOPMENT REVIEW

Section 3.105.05.A.1. shall be amended with the addition of the following new subsection:

- h. Existing and proposed streets, bikeways, and pedestrian facilities within 200 feet.

The following subsections in Section 3.105.05.A.2., shall be replaced with the following new language:

- 2. Site Plan
 - c. Vehicular, bicycle, and pedestrian circulation patterns, parking, loading and service areas;
 - d. Proposed access to public roads, highways, bikeways, pedestrian facilities, railroads or other commercial or industrial transportation systems;

Section 3.105.06 shall be amended with subsection "E." replaced and a new subsection "I." added:

- E. Traffic safety, internal circulation and parking, connectivity of internal circulation to existing and proposed streets, bikeways and pedestrian facilities;
- I. Connectivity of internal circulation to existing and proposed streets, bikeways and pedestrian facilities.

VIII. Section 3.106 PARTITIONS

Section 3.106.03.B.3., shall be replaced with the following new language:

- e. All roads, bikeways, pedestrian facilities, public or private, easements or right-of-way to, or within the subject property, including name and road width, where applicable.

IX. Section 3.201 GENERAL PROCEDURES

Section 3.201.01.E., shall be replaced with the following new language:

- E. Referrals will be sent to interested agencies such as City departments, police and departments, school district, utility companies, and applicable state agencies. If a county road or state highway is impacted, referrals should be sent to the appropriate agency responsible for the road or highway.

Section 3.201.02.C., shall be replaced with the following new language:

- C. Referrals will be sent to interested agencies such as City departments, police and departments, school district, utility companies, and applicable state agencies. If a county road or state highway is impacted, referrals should be sent to the appropriate agency responsible for the road or highway.

X. Section 3.202 PUBLIC NOTICE REQUIREMENTS

Section 3.202.01.B., shall be replaced with the following new language:

- A. Applicants shall be responsible for providing a certified list of property owners within the notice area prepared by Yamhill County or a title company. The list must be current within the last 30 days. Written notice of any Type I-B action shall be mailed to the owners of property, including county and state agencies responsible for roads and highways, within 100 feet of the boundaries.

Section 3.202.02.B., shall be replaced with the following new language:

- B. Applicants shall be responsible for providing a certified list of property owners within the notice area prepared by Yamhill County or a title company. The list must be current within the last 30 days. Written notice of the initial public hearing shall be mailed at least twenty (20) days prior to the hearing date to the owners of property, including county and state agencies responsible for roads and highways, within 100 feet of the boundaries of the subject property.