# CITY OF SUBLIMITY
# TRANSPORTATION SYSTEM PLAN

Amended, May 1997

Draft: Pending Final Formal Review

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## DEFINITIONS

| | |
|---|---|
| ADT | Average Daily Traffic |
| Bicycle Facilities | Improvements which provide for the needs of cyclists, including bikeways and bike parking facilities. |
| Bikeways | A paved facility provided for use by cyclists. There are four types of bikeways: |
| Shared Roadway | A type of bikeway where motorists and cyclists occupy the same roadway area. |
| Shoulder Bikeways | A bikeway which accommodates cyclists on paved roadway shoulder. |
| Bike Lanes | A section of the roadway designated for exclusive bicycle use. |
| Bike Paths | Bike lanes constructed entirely separate from the roadway. |
| Intermodal | Connecting individual modes of transportation and/or accommodating transfers between such modes. |
| ISTEA | The federal Intermodal Surface Transportation Efficiency Act of 1991 which funds the national highway system and gives state and local governments more flexibility in determining transportation solutions. |
| LCDC | Land Conservation and Development Commission |
| Mobility | Being able to move easily from place to place. |
| Multimodal | Involving several modes of transportation. |
| Pedestrian Facilities | Improvements which provide for public pedestrian foot traffic including sidewalks, walkways, crosswalks and other improvements, such as lighting and benches which make it safe or convenient to walk. |
| TPR | Administrative rule (OAR 660-12) adopted in April 1991 by the Land Conservation and Development Commission in cooperation with ODOT to implement Statewide Planning Goal 12: Transportation. |

| | |
|---|---|
| TSP | Transportation System Plan: A plan for one or more transportation facilities that are planned, developed, operated and maintained in a coordinated manner to supply continuity of movement between modes, and within and between geographic and jurisdictional areas. |
| UGA | Urban Growth Area |
| UGB | Urban Growth Boundary |

## INTRODUCTION

Transportation planning focuses on the development of streets and the circulation network, addressing the movement of people and goods by a variety of modes. The transportation system serves existing land uses and encourages development as it is improved and extended throughout the community. (1987 Comprehensive Plan)

In April 1994 the city of Sublimity was awarded a grant from the Oregon Department of Transportation (ODOT). The grant was part of the Transportation and Growth Management Program (TGM), a federally funded program developed to assist local governments in meeting new state and federal requirements for transportation planning.

### State Legislation

In April 1991, with the concurrence of ODOT, the Land Conservation and Development Commission (LCDC) adopted the Transportation Planning Rule (TPR) (OAR 660-12-000 through 070) to guide regional and local governments in carrying out LCDC Goal 12 - Transportation: "to provide and encourage a safe, convenient and economic transportation system." The TPR committed all levels of government to the development of a coordinated statewide transportation planning program. The TPR also created a number of new requirements governing transportation planning and project development that cities must comply with by May 8, 1997. The rule outlines specific requirements for the State, Metropolitan Planning Organizations, counties, cities, and special districts providing transportation services. Each jurisdiction must prepare and adopt a Transportation System Plan (TSP) and implementing regulations. The Sublimity TSP must include the following:

1. A determination of transportation needs.
2. A road plan for arterials and collectors and standards for the layout of local streets and other important non-collector street connections.
3. A public transportation plan.
4. A bicycle and pedestrian plan.
5. An air, rail, water and pipeline transportation plan.
6. Policies and land use regulations for implementing the TSP as provided in OAR 660-12-045.

### Federal Legislation

The adoption of the TPR in Oregon preceded the Intermodal Surface Transportation Efficiency Act (ISTEA) which was signed into law on December 18, 1991. The federal act is intended to "...develop a National Transportation System that is economically efficient, environmentally sound, provides the foundation for the Nation to compete in the global economy and will move people and goods in an energy efficient manner." In addition to numerous other provisions of the ISTEA legislation is the requirement that states use a statewide planning process to develop transportation plans and programs.

Adoption of the TPR provided Oregon with a head start in complying with the new federal requirements, an effort it soon followed with the adoption of the Oregon Transportation Plan on September 15, 1992. The Oregon Transportation Plan defines a statewide transportation policy and a comprehensive, long-range plan for a multi-modal transportation system which encourages economic efficiency, orderly economic development, safety and environmental quality (Oregon Transportation Plan, Preface).

### Purpose

The objective of this grant project was to provide assistance to the city of Sublimity in the preparation of a Transportation System Plan (TSP) that meets the needs of the community and brings the city into closer compliance with the State Transportation Planning Rule and other State and Federal Regulations.

As defined in the TPR a Transportation System Plan is "a plan for one or more transportation facilities that are planned, developed, operated and maintained in a coordinated manner to supply continuity of movement between modes, and within and between geographic and jurisdictional areas."

## PLANNING PROCESS

In August of 1994 the city began the process of acquiring information, reviewing existing plans, policies and ordinances, and examining the current network of streets, bikeways and pedestrian facilities. City and Mid-Willamette Valley Council of Governments (MWVCOG) staff worked with the Planning Commission and interested citizens to insure that the plans and policies developed are consistent with the community's vision for the future. In addition to monthly transportation planning meetings, a public open house was held to review the plan, and surveys were distributed in an effort to gain additional insight on transportation issues. Further, the Oregon Department of Transportation (ODOT) and Marion County were consulted throughout the study in order to insure state and regional coordination.

The TGM work program targeted specific tasks intended to bring the city into closer compliance with the TPR. This plan, presented by the Sublimity Planning Commission, represents the combined efforts of the Planning Commission, city staff, community representatives and affected governmental bodies to provide the city with a framework for a "safe, convenient and economic transportation system." It is the responsibility of the city to carry through with the appropriate adoption process by the State's May 8, 1997 deadline.

### Review Existing Plans, Policies and Standards

The Transportation System Plan is based on the city's existing Comprehensive Plan which was originally prepared in 1977 by the Mid-Willamette Valley Council of Governments and updated in 1987 by John N. Morgan of Morgan, Ryan & Associates, Inc. Although

the existing plan contains a transportation element that is generally consistent with Statewide Planning Goal 12, this revision is necessary to update the plan and bring it into conformance with new state and federal standards for transportation planning.

In addition to a thorough review of the Comprehensive Plan, existing city ordinances and public works standards were studied to gain a clearer understanding of how future development is likely to occur. Based on that review, ordinance amendments have been recommended that provide for better integration of transportation and land use issues, and bring the city into closer compliance with state and federal requirements.

Further, this study entailed a review of all related regional and state plans including the following:

- Oregon Transportation Plan
- Oregon Highway Plan
- Oregon Bicycle and Pedestrian Plan
- Marion County Comprehensive Plan
- Marion County Preliminary Rural Road Classification Plans
- Marion County, Department of Public Works, Engineering Standards.

These resources were used to develop the policy framework within which the city's TSP was developed.

**Determination of Need**

In order to identify transportation needs relevant to the planning area and the scale of the transportation network being planned, Sublimity relied on a "Potential Development Impact Analysis (PDIA)" commissioned by ODOT. The PDIA report is based on the city's acknowledged comprehensive plan and zoning ordinance and presents estimates of existing and potential development for residential, commercial, and industrial land use. In addition, the city is involved in the Highway 22 Corridor Planning Process and the interchange improvements planned for Golf Club Road and Cascade Highway.

Land Use and Population Analysis: In order to evaluate future need for transportation facilities, and to determine whether existing and proposed facilities would be capable of supporting existing and planned land use, a thorough review of existing land uses, vacant lands and planned uses was required.

The PDIA study provided data that was utilized to describe likely development scenarios for the Sublimity Urban Growth Area. These projections form the basis for understanding future travel demand and gauging the need for transportation facility improvements.

The analysis used 1990 Census data and local land use regulations to estimate existing residential densities, vacant buildable land and maximum buildable densities.
The following is a summary of the information generated by the study:

**Residential**

Existing
478 residential units 100.3 acres residential

Projected Buildout
1,902 residential units 388.7 vacant residential acres

Maximum Buildout
2,380 residential units

**Commercial**

| Total Acres | Built | Buildable | |
|---|---|---|---|
| 47.9 | 29 | 18.9 | (approximately 369,272 square feet of leasable commercial space) |

**Industrial**

| Total Acres | Built | Buildable |
|---|---|---|
| 65 | 10 | 55 |

The study used a 30-year average of population growth as a percentage of Marion County population growth to estimate the city's growth between 1990 and 2012. Assuming Sublimity will continue to capture 1.0 percent of the County's population growth, Sublimity is projected to grow from a 1990 population of 1,491 to a 2012 population of 2,252, an increase of 761 residents. Assuming Sublimity's 1990 average household size of 2.6 persons remains relatively constant, the study estimates the need for approximately 296 additional dwelling units.

**Inventory Existing Transportation Systems**

Inventories were conducted for all arterial and collector streets **(Table 1, Page 11)**. The street inventory provides information on controlling jurisdiction, right-of-way width, pavement width, surface material, condition, number of lanes, curbs, and bicycle and pedestrian facilities. The inventory provides important information for street network planning, street design and improvement, and bicycle/pedestrian facility plans. At a minimum the city should coordinate with Marion County to maintain a current inventory of arterials and collectors, and for purposes of its own capital improvement planning should consider the development of a local street inventory.

Traffic volume data for key locations is shown in **Table 2, page 12**. This data, in association with historical information on traffic volumes, provided a valuable point of reference for considering current and future travel demand.

In addition to the street inventory, an inventory of public transportation facilities was completed for use in evaluating the supply and demand for public transportation services. (see Public Transportation, page 32)

## TABLE 1: ARTERIAL/COLLECTOR STREET INVENTORY

SUBLIMITY ARTERIAL/COLLECTOR STREET INVENTORY

| STREET | SECTION | FUNCTIONAL CLASS | LENGTH | JURISDICTION | ROW WIDTH | PAVEMENT WIDTH | SURFACE | CONDITION | NO. LANES | SIDEWALKS | | CURBS | | BIKEWAYS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Left | Right | Left | Right | Left | Right |
| Berry St/135th | Starr to City Limits | Collector | 2800 | Marion Co. | 50 | 40 | AC | GOOD | 2 | 25% | 20% | 25% | 20% | N | N |
| Cascade Hwy | S. City Limits to Division | Arterial | 800 | Marion Co. | 60 | 37-38 | AC | FAIR | 2 | Y | N | Y | N | N | N |
| Cascade Hwy | Division to Church | Arterial | 800 | Marion Co. | 60 | 41-46 | AC | POOR | 2 | Y | N | Y | N | N | N |
| Cascade Hwy | Church to Starr | Arterial | 1000 | Marion Co. | 60 | 44-43 | AC | POOR | 2 | Y | 50% | Y | 50% | N | N |
| Cascade Hwy | Starr to N. City Limits | Arterial | 1400 | Marion Co. | 60 | 43 | AC | GOOD | 2 | N | N | N | N | N | N |
| Church St | Cascade Hwy to Broadway | Collector | 525 | Marion Co. | 44 | 40 | AC | FAIR | 2 | N | N | N | N | N | N |
| Church St | Broadway to Pine | Collector | 1150 | Marion Co. | 44-50 | 35-33 | AC | FAIR | 2 | N | 20% | N | 20% | N | N |
| Church St | Pine to E. City Limits | Collector | 1700 | Marion Co. | 50 | 31-32 | AC | FAIR | 2 | 50% | N | 50% | N | N | N |
| Starr St | W. City Limits to NW Crater | Collector | 1800 | Marion Co. | 60 | 20-22 | AC | GOOD | 2 | 25% | 20% | 25% | 20% | N | N |
| Starr St | NW Crater to Cascade Hwy | Collector | 725 | Marion Co. | 60 | 38-39 | AC | GOOD | 2 | 10% | 50% | 10% | 50% | N | N |
| Starr St | Cascade Hwy to Broadway | Collector | 550 | Marion Co. | 60 | 30-33 | AC | GOOD | 2 | N | N | N | N | N | N |
| Starr St | Broadway to Pine | Collector | 1150 | Marion Co. | 51 | 40 | AC | GOOD | 2 | N | N | N | N | N | N |
| Starr St | Pine to Berry | Collector | 900 | Marion Co. | 51 | 32-35 | AC | GOOD | 2 | N | N | N | N | N | N |

* For a more expanded analysis, see Appendix A.

The level of service (LOS) on Cascade Highway (Center Street) is limited by its intersection with Starr Street. The 1996 LOS for both streets is "A". The LOS on Cascade Highway and Starr Street in 2016 is estimated to be "E".

The level of service on Berry Street (135th) is assumed to be "A" in 1996. LOS for 2016 is not calculated, but should remain at "C" or better.

## TABLE 2: TRAFFIC VOLUME DATA

TRAFFIC VOLUME DATA: SUBLIMITY AND VICINITY

| ROAD | MILEPOST | ADT* | DATE | SOURCE | COMMENTS |
|---|---|---|---|---|---|
| CASCADE HWY SE | 0.24 | 3895 | 08/24/92 | County | @ N Sublimity City Limits |
| | 0.61 | 3600 | 08/24/92 | Estimated | S of Triumph Road |
| | 0.65 | 3300 | 08/24/92 | Estimated | N of Triumph Road |
| S CENTER STREET | 1.63 | 6300 | 01/01/91 | Estimated | @ S Sublimity City Limits |
| | 1.93 | 6107 | 01/01/88 | County | S of Church Street |
| | 1.95 | 6200 | 01/01/90 | Estimated | N of Church Street |
| | 2.12 | 7800 | 07/10/96 | Estimated | S of Starr Street |
| E CHURCH STREET | 0.01 | 1075 | 01/01/89 | County | E of Center Street |
| COON HOLLOW RD S | 0.62 | 500 | 07/13/92 | Estimated | @ E Sublimity City Limits |
| W STARR STREET | 3.25 | 200 | 01/01/90 | Estimated | @ E Sublimity City Limits |
| UBLIMITY ROAD SE | 2.79 | 1900 | 10/19/92 | Estimated | E of Anderson Road |
| | 3.69 | 2333 | 08/24/92 | County | W of Cascade Hwy |
| 35TH AVE SE | 0.77 | 200 | 01/01/90 | Estimated | @ E Sublimity City Limits |
| | 0.78 | 200 | 01/01/90 | Estimated | N of Berry Street |
| | 1.12 | 152 | 01/01/89 | County | S of Triumph Road |
| RIUMPH ROAD SE | 0.01 | 336 | 01/01/88 | County | E of Cascade Hwy |
| | 0.49 | 300 | 01/01/89 | Estimated | W of 135th Ave |
| | 0.51 | 220 | 01/01/89 | Estimated | E of 135th Ave |

urce: Marion County Department of Public Works

S. Center Street updated in May, 1997.

ADT: Average Daily Traffic

## GOALS AND POLICIES

The following goals and policies have been developed from those identified in the 1987 Comprehensive Plan. They have been revised to reflect new state and federal legislation as well as the growth related changes that have occurred in the city over the past few years. These goals and policies represent the community's vision for a system of transportation facilities and services that provide for the needs of the community and maintain the city's commitment to managing growth and preserving the quality of life. The development of these transportation goals and objectives provided the overall guidance necessary to produce all other elements of the Transportation System Plan. These goals and polices have served as the criteria by which various alternative plan proposals, from street alignments to land development regulations, were evaluated.

GOAL: ESTABLISH A STREET SYSTEM WHICH IS CONSISTENT WITH ORDERLY GROWTH AND MINIMIZES CONFLICTS WITH ADJACENT LAND USES.

GOAL: PROVIDE A CIRCULATION SYSTEM WHICH IS SAFE AND EFFICIENT FOR BOTH VEHICLE USERS, PEDESTRIANS, AND BICYCLISTS.

GOAL: ENCOURAGE ENERGY CONSERVATION THROUGH EFFICIENT TRANSPORTATION PLANNING.

Policy: The City shall establish a system of transportation facilities and services adequate to meet identified local transportation needs and shall be consistent with regional and state Transportation System Plans.

Policy: Encourage the development of a public transportation service to meet the needs of those who are transportation disadvantaged.

Policy: Encourage the use of carpools, vanpools and other strategies to increase automobile and energy efficiency.

Policy: Bicycle and pedestrian facilities should be developed that provide safe and convenient access within and from new subdivisions, planned developments, shopping centers and industrial parks to nearby residential areas, transit stops, and neighborhood activity centers, such as schools, parks and shopping.

Policy: Seek means of minimizing on-street parking to accommodate the use of street right-of-ways for bicycle and pedestrian traffic where necessary and to facilitate the flow of traffic on arterials.

Policy: During building permit review, the City shall carefully review access points to assure that such points are limited in number and to only those locations that will minimize congestion and safety problems on the adjacent streets.

Policy: The City shall consider adoption of the State Highway Compatibility Guidelines and Model Ordinance when completed by the Oregon Department of Transportation.

Policy: Future streets should seek to facilitate access by residents to major transportation routes.

Policy: The major street network should function so that livability of neighborhoods is preserved and enhanced, and arterial streets should never penetrate identifiable neighborhoods. The acceptable level of service for arterial and collectors shall be "C" or better.

Policy: Promote new street development standards to encourage access to, and development of odd-shaped and land locked parcels.

Policy: Street design should consider the need for landscaping and noise reduction.

Policy: Give priority to street improvements which are necessary to achieve safety, lower maintenance costs and increased efficiency.

Policy: Identify streets, curbs and sidewalks that need repair/construction and then prioritize and program their improvement into a Capital Improvements Program.

Policy: The City should seek cooperation with government agencies, private developers and property owners to provide an equitable and cost-effective system of financing street development and improvement.

Policy: The City shall encourage the formation of local improvement districts to provide for the improvement of substandard streets.

Policy: Whenever possible, existing streets shall be extended to serve urban and urbanizable areas.

Policy: The City will require, when technically feasible, that streets within a proposed development connect to existing streets at more than one point.

Policy: The City shall designate future street locations and extensions of existing streets on the Comprehensive Plan Map and shall use this Map to help guide the design of future development.

Policy: Traffic movement on arterials shall be facilitated by controlling access wherever possible. Access control shall include restrictions on the number and location of individual encroachments and street intersections.

Policy: The City will encourage through access over cul-de-sacs and other dead end streets.

Policy: In those areas where the City has designated a future street location, the City will require that all structures and other permanent improvements be located outside the proposed street location and maintain the applicable setback from the proposed street.

**Implementation**: The goals and policies of the Sublimity Transportation Plan are implemented by the Sublimity Development Code and the Sublimity Public Works Standards.

## STREETS PLAN

### *TPR Requirements*

*OAR 660-12-020 Elements of Transportation System Plans*

*(2) (b) 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. Functional classification of roads in regional and local TSPs shall be consistent with functional classifications of roads in state and regional TSPs and shall provide for continuity between adjacent jurisdictions. The standards for the layout of local streets shall provide for safe and convenient bike and pedestrian circulation necessary to carry out OAR 660-12-145(3)(b). New connections to arterials and state highways shall be consistent with designated access management categories. The intent of this requirement is to provide guidance on the spacing of future extensions and connections along existing and future streets which are needed to provide reasonably direct routes for bicycle and pedestrian travel. The standards for the layout of local streets shall address:*

*(A) Extensions of existing streets;*

*(B) Connections to existing or planned streets, including arterials and collectors; and*

*(C) Connections to neighborhood destinations.*

streets are dominant regardless of mode.

As in most cities, the automobile is undeniably the dominant mode of transportation in Sublimity. Consequently, streets are the dominant transportation facility, and as such, represent a significant investment that must be protected and maintained. The streets plan element of the TSP accomplishes the following:

- Identifies a network of streets sufficient to meet current and future travel needs;
- Designates existing and proposed streets by functional classification;
- Recommends street design standards;
- Recommends access control guidelines.

**Street Network**

The development of the street network plan has been a process of evaluating how well alternative transportation facilities might serve existing and planned development. The evaluation process consisted of reviewing how the proposed network of streets achieved stated goals and objectives in light of the projected build-out of the urban area. Other criteria included environmental constraints, concerns of overlapping jurisdictions, impacts on rural/resource lands and financial feasibility.

The street network plan is intended to provide the city and developers direction for future street location, and to ensure a safe and efficient street circulation system. The street network plan should be used as a guide to assure the dedication or in some cases, the acquisition of adequate rights-of-way for streets and related facility improvements in appropriate locations.

The street system improvements planned for the Sublimity area **(Figure A, page 22)** include both improvements to the existing street network as well as key future streets. These improvements are listed and defined individually below.

**System Improvements:**

Cascade Highway/Center Street: Center Street is designated as county arterial and truck route. The highway is the city's only north/south throughway, serving as the primary route to the city of Stayton and State Highway 22. Because no other north/south routes exist, Center Street accommodates the majority of local trips and is the primary connection to the regional and state systems. Cascade Highway/Center Street provides access to surrounding urban areas including Silverton, Mt. Angel and Stayton and draws trips destined for Silver Falls State Park, the Santiam Canyon, and Central Oregon. Other issues effecting future traffic volumes on Center Street are ODOT plans to reconstruct the Cascade Hwy/Hwy 22 interchange and plans for the Silverton Arboretum which is expected to be a major regional attraction.

Marion County estimates the average daily traffic (ADT) on Center Street, just south of Starr Street, to be 7,800 in 1996. While this volume may suggest that Center Street is under capacity for an arterial street, it does not indicate that the highway also functions as Sublimity's commercial core. The highway provides access to a variety of commercial businesses and public services, providing on-street parking and accommodating the majority of pedestrian and bicycle traffic. A significant portion of the highway, within the commercial area has only three foot sidewalks and there are many utility poles located within the traveled roadway.

Planned improvements to the Cascade Hwy/Hwy 22 interchange, the Silverton Arboretum and projected population growth indicate that traffic volumes on Center Street will continue to increase. Because of complex city, county and ODOT issues, and important access/parking concerns, Center Street is recommended for refinement study. The city realizes that capacity may be increased by elimination of on-street parking but it also recognizes that the unique character of the commercial district may be threatened by such action. Redesign of the commercial portion of Center Street should be studied through a cooperative effort between the city of Sublimity, Marion County, ODOT and affected property owners. The limiting factor on Center Street is the four-way stop at its intersection with Starr Street. This is calculated to be at an LOS "E" by 2016. A refinement study should re-verify this projection. The remainder of Center Street is projected to function at a very high level. However, the stopped streets intersecting with Center will function at an ever increasing worse level of service as 2016 approaches. To improve the flow on those streets by placing additional stops on Center will drastically decrease the level of service on Center Street.

While a refinement study should consider the elimination of on-street parking, any recommendation should be based on the safety and convenience of all roadway users, and on the needs of adjacent businesses. Existing commercial development limits opportunity for expanding the right-of-way. The study should evaluate the impact of alternative north/south streets, especially the future development of a roadway along the western UGB. This is one alternative which may alleviate congestion on Center Street.

A refinement plan for the commercial portion of Center Street should also address the following issues:

- Maintain and improve the commercial core;
- Improve safety of roadway for pedestrians, bicycles and motorists (i.e. crossing improvements, turn lanes);
- Encourage development of an alternate truck route;
- Reduce and combine access where practical;
- Improve the pedestrian quality of the commercial district (i.e. wider sidewalks, lighting, benches, trash receptacles, street trees).

Johnson Street: Johnson Street, like a number of streets in Sublimity has substandard right-of-way, pavement width and sidewalks. Unlike other substandard streets, such as Clay Street, Johnson is expected to serve an increasing volume of traffic. In addition, Johnson is planned to extend south to Division Street. The proposed extension, as well as an expected increase in traffic volume, necessitate improvement to the existing portion of Johnson Street.

Johnson represents an important opportunity for the city to gain an additional north/south route for local traffic circulation. Johnson Street could serve as a partial frontage road for Center Street, providing access to City Hall, the park and the fire station one block west on Parker Street.

The city recognizes current limitations posed by existing development on Johnson Street. In recognition of those limitations the city proposes the following design standards:

> Existing Segments of Johnson Street: The city should, when practical, acquire a 60 foot right-of-way.
>
> In cases where acquisition of the preferred 60 foot right-of-way is not feasible, the city should acquire a minimum right-of-way of 45 feet. The street section for a 45 foot right-of-way should include a standard 34 foot roadway width including curb and 5 foot sidewalk on one side, and 5.5 feet for utilities (2' on sidewalk side, 3.5' on opposite side).
>
> Future Extension of Johnson Street: The proposed extension of Johnson Street south to Division Street should meet the city's typical design and construction standards for a local street.

**Future Streets:**

While exact alignments may require more detailed refinement studies, this plan identifies the general future alignments and connections that need to be made to provide a safe, convenient and economic transportation system with adequate access to all planned land uses.

The proposed street network plan has been designed to provide a complete and continuous network in order to insure satisfactory traffic movement within the city as well as access to and from the surrounding area.

NORTHEAST

Pine Street Extension: The proposed Pine Street extension between Starr Street and Cherry Street would provide a north/south access east of Center and west of Berry Street. This route provides the Meadow Terrace Subdivision with an alternative to Berry Street, improving emergency access and providing better bicycle and pedestrian access to the

school, park and commercial district. This street will have even greater importance as the residential property between Cherry and Starr Streets is developed.

East/West Street from Pine Street through Berry Street to UGB: While development of this single-family residential area will likely result in more than one access between Pine and Berry Streets, this proposal stresses the importance of that connection and alignment with a future street at the eastern edge of the UGB. This proposal is intended to protect the opportunity for a future linkage with Boedigheimer Road.

Broadway Extension/Connection: The proposed completion of Broadway between Starr and Crest Streets is consistent with the existing pattern development and planned extensions. This segment of Broadway will prevent vacant parcels from being landlocked and will insure good connectivity is achieved for this residential area.

SOUTHEAST

North/South Connector Street between Church Street and UGB: This proposed connection would be aligned with, and connected to, the existing Marian Estates access street. This street will provide additional access for the Center's employees, residents and visitors. In addition, this street will satisfy the future circulation needs of the undeveloped southeast portion of the city which is zoned for single-family residential development. The proposed street ends at the UGB. However, it may eventually provide a connection to a future east/west collector.

While it seems reasonable to assume an east/west street south of the UGB will be necessary some time in the future, the city recognizes that such a street is beyond the scope of its planning area. As such, the extension of 9th Street, to the southeast, is conceptual only. The city feels that a future alignment with 9th Street is logical given grade concerns on Cascade Highway/Center Street and limited opportunities to place a collector further north due to the existing location of Marian Estates. The city encourages Marion County to include the potential for a future street in this area in the County's TSP. Additionally, the city would like the opportunity to review any development proposals in this area.

East/West Connector Street between Center Street and Conifer Court: This local street provides and important access from Center Street through to Conifer Court. The street would provide access to adjacent properties and would provide an additional access to Marian Estates, alleviating some pressure on Division Street and improving emergency access. A portion of the right-of-way for this street has been dedicated and an easement for the sewer main already exists.

SOUTHWEST

Sublimity Blvd./Dalmatian Avenue North/South Extension (Industrial Area): This street proposal would provide for the planned extension of Dalmatian Avenue to the north and south. The northerly extension of Dalmatian Avenue serves a large undeveloped area zoned for residential development. In order to achieve objectives of connectivity and good emergency access it is essential that Dalmatian be extended north.

The city has some reservations about the proposed extension of Dalmatian Avenue south through the area planned for industrial development. This proposal will require further study when the industrial area is annexed. The city should be sensitive to the concerns of residents adjacent to Dalmatian Avenue who may be subject to excessive through traffic if Dalmatian connects with Sublimity Boulevard. At a minimum, potential truck traffic, to and from the industrial area, should not be allowed to enter the residential area to the north.

The city needs to remain flexible in the development of a circulation network that serves both the city and future industrial uses. Industrial traffic should not require northerly access to Dalmatian Avenue other than for employee commuting which may possible to accommodate with an accessway. The proposed street extension from the industrial area to the UGB is based on the probability of a future north/south street west of the existing UGB (West Perimeter Road). Although only conceptual at this stage, access to a west perimeter road would link the industrial area to the Golf Club Road interchange planned for reconstruction in 1995. This would be a valuable alternative to all trips accessing Center Street. Further, it is likely that development of the industrial area will include an additional access to Center Street north of Sublimity Boulevard.

West Perimeter Road: While it is reasonable to assume a north/south street west of the UGB will be necessary some time in the future, the city recognizes that such a street is beyond the scope of its planning area. As such, the potential for a road along the western UGB is conceptual only and not site specific. The city has considered the potential for such an alignment based on existing sewer lines, existing streets ending at the UGB, and the eventual need to alleviate demand on Center Street. Aside from Center Street the city currently has no north/south access. The city encourages Marion County to include the potential for a future street in this area in the county's TSP. Additionally, the city would like the opportunity to review any development proposals affecting this area.

WEST

The city is proposing a number of local streets in the area west of Johnson Street, north of 9th Street, and south of Main Street. The purpose of this local street network is to insure the provision of a well connected circulation system in this largely undeveloped area. The area has few options for good access. With the exception of Dalmatian Avenue, most potential connections to the existing street network would require access to substandard streets. Therefore, the city has planned a number of both north/south and east/west streets to reduce the volume of traffic on any single street. Because the city cannot depend on

the construction of the conceptual West Perimeter Road, it is important to plan a number of north/south alternatives. The street network plan indicates that most of the streets proposed for this area result in "T" intersections. The "T" intersections are intended to discourage through traffic and speeding in residential areas.

NORTHWEST

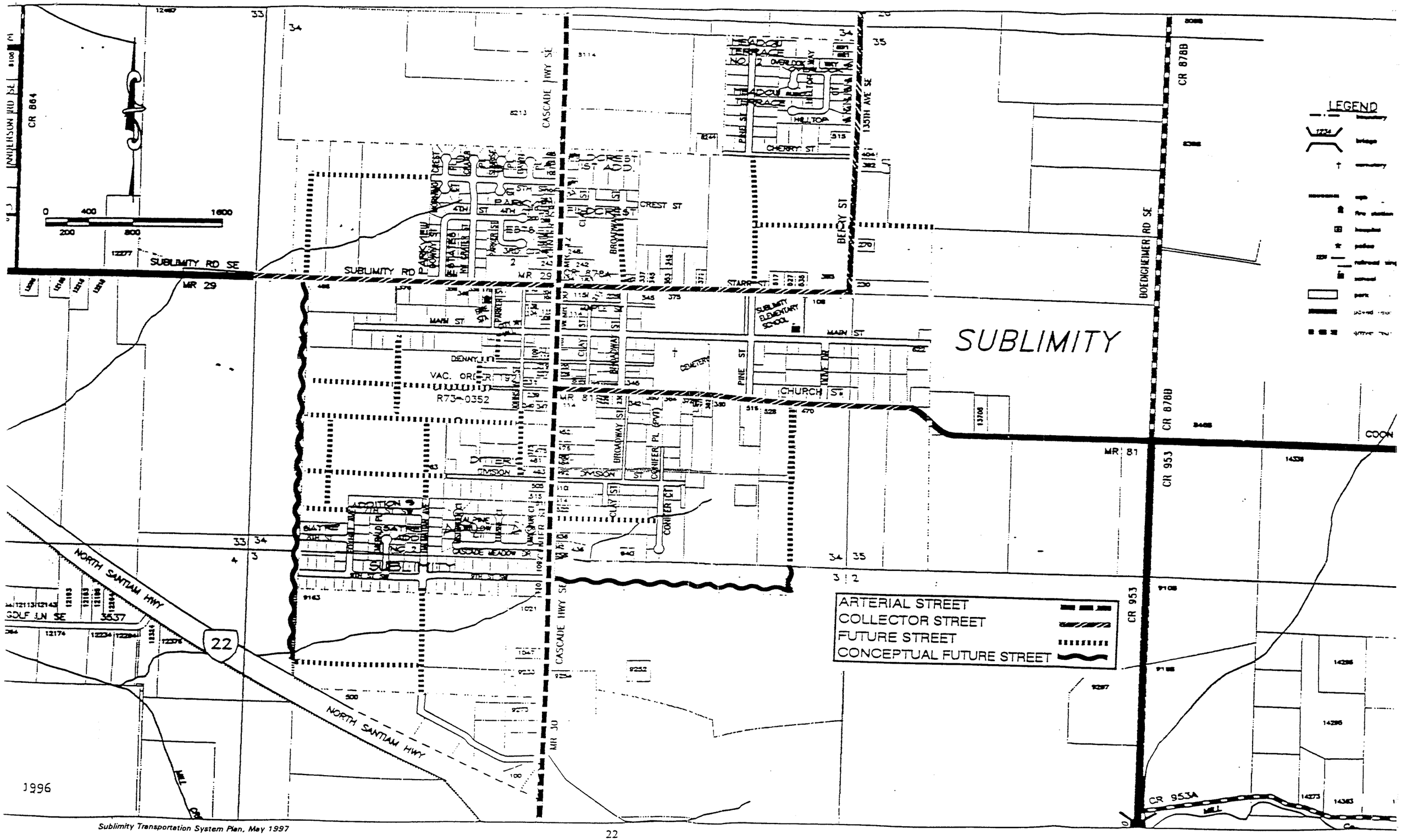
The planned westerly extension of 5th Street to meet a proposed southern connection to Starr Street is important to the future access needs of the entire northwest residential area. This street provides for the logical extension of 5th street and addresses concerns related to managing access on Starr Street and existing visibility problems identified by Marion County.

*The Marion County Department of Public Works reviewed these plans and conducted on-site surveys to examine planned connections to the county street system. Marion County determined that all proposed street intersections (including conceptual street proposals) provide adequate site distances at existing speed limits.*

**Connectivity**

While the street network plan identifies certain future streets of particular importance for traffic circulation, most local streets will be built as development occurs. It is important that the city require local streets to connect with existing and planned streets wherever possible. Many residential areas within Sublimity have only one primary access point which places them at risk in the event of major emergencies. Multiple access points, achieved through a well connected street network, is important to ensure that emergency services are not cut off and that local access is not eliminated or greatly lengthened in the event that one access is closed. Further, a well connected street network, with numerous alternative routes, reduces the volume of traffic on any one route and provides a more bicycle/pedestrian friendly environment. The objective of good connectivity is achieved through the application of standards contained in the city's development code.

## FIGURE A: STREET NETWORK PLAN



## Functional Classification

Streets serve a variety of needs ranging from transportation through an area to direct access to adjacent property. In order to serve this wide range of uses effectively streets should be designed to serve a primary function within a hierarchical network. As defined by the Federal Highway Administration, functional classification is "...the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide." The street network plan (Figure A) is based on the methodology developed by the Federal Highway Administration. This method of functional classification, which attempts to achieve a balance between the competing demands for mobility and access, has been tailored to suit the needs of the Sublimity urban area.

Because of its small size and the fact that no state highways lie within the urban growth area, Sublimity uses three general classifications to describe its existing and proposed network of streets. The following three functional classifications effectively differentiate the range of streets needed to satisfy local and regional needs:

Arterial: A street of considerable continuity which is used primarily for through traffic and interconnection between major areas of the city. An arterial is intended to provide for the majority of regional travel passing through an area as well as the majority of local trips entering and leaving the urban area. It should also provide continuity for all rural arterials which intercept the UGB and should include connections to all rural collectors. Arterials generally emphasize mobility over land access. Access to arterials should be managed to protect the mobility function of the street as much as possible.

Collector: A street supplementary to the arterial street system, used partly by through traffic and partly for access to abutting properties. A collector provides more emphasis on land access than an arterial serving the traffic circulation needs of surrounding residential areas. Collectors penetrate into all areas of a city, gathering traffic, and channeling it to arterials or rural collectors.

Local: A street intended primarily for access to abutting properties, but protected from "through" traffic. Local streets entail all those not otherwise defined as arterials or collectors. While connectivity is encouraged for all streets, through traffic movement is not the intended purpose of a local street.

The classifications presented in this plan are consistent with those proposed by Marion County. While the County has not yet completed a TSP, initial proposals for rural road classification have been made, and this plan identifies the appropriate connections to that proposed system.

There are no state highways within the UGB. The plans for state Highway 22, including proposed intersection improvements at Cascade Highway and Golf Club Road, have been reviewed to insure consistency between state and local roads. The functional classifications identified in **Table 1, page 11** and **Figure A, page 22** are based on each street's actual use, as well as the type of service they are best suited to provide, given existing and planned land use and connections to the local and regional street network.

The classifications presented are consistent with those proposed in the 1987 Comprehensive Plan with the following exceptions:

Starr Street between Center Street and Berry Street: The reclassification of this segment of roadway from local to collector is consistent with the functional classification of West Starr Street (Sublimity Road) and the reclassification of Berry Street. Starr Street provides an important east/west link, collecting traffic from residential areas, schools and a park and distributing traffic to Center Street and Triumph Road.

Berry Street between Starr Street and City Limits: The decision to upgrade the functional classification of Berry Street from local to collector was based on its connection with Starr Street and Triumph Road and the need for a good north/south connection to serve the future residential development planned for this portion of the UGA. While the current volume of traffic on the roadway is low (200 ADT), its future importance, in terms of traffic circulation and connectivity to the regional network, justifies it classification as a collector.

**Street Design**

Consistent with the identification of streets by functional classification is the need to develop design standards that differentiate between the three classes in terms of street dimensions and amenities. Street standards provide a city with a means of insuring consistency, safety and aesthetic quality in roadway design. In addition, design standards provide for ease of administration when new roadways are planned and constructed.

The street design standards proposed in this plan were developed through the consideration of a wide range of design alternatives from various street widths to curb vs. property-line sidewalks. The development of street standards utilized a wide range of policies and publications including the following:

- Best Management Practices for Transportation/Land Use Planning; Oregon Department of Transportation, Transportation Development Branch

- Recommendations for Pedestrian, Bicycle and Transit Friendly Development Ordinances; Oregon Chapter American Planning Association
- Traffic Engineering for Neo-Traditional Neighborhoods; Institute of Transportation Engineers
- A Policy on Geometric Design of Highways and Streets; AASHTO
- Guidelines for Residential Subdivision Street Design; Institute of Transportation Engineers
- Residential Streets, Second Edition; American Society of Civil Engineers, National Association of Home Builders, and the Urban Land Institute
- City of Salem, Transportation Plan; Street Design Standards

The following street design standards will help the city to achieve compatibility and consistency in the development of the street network. Although it is important to have recognized street design standards, major street projects often need to be evaluated on an individual basis. Strict adherence to these standards may not be practical in all situations considering existing development or other social, economic and environmental constraints. Furthermore, there are other considerations that need to be evaluated when designing specific streets including distance between intersections, access points and adjacent land uses.

**ARTERIAL:** A street of considerable continuity which is used primarily for through traffic and interconnection between major areas of the city. An arterial also serves to connect urban areas and state highways.

1. Access Spacing: Minimum spacing between access points (streets or driveways) is 250 feet centerline to centerline (+/- 20 % discretion). The city will encourage property owners to minimize arterial street access, encouraging combined access or access to local streets wherever practical.

2. Minimum Right-of-way: 60 feet

3. Minimum Curb-to-curb Width: 40 feet

4. Travel Lanes: two

5. On-street Parking: On-street parking should generally be prohibited on arterial streets. The elimination of on-street parking is a cost-effective means of increasing the capacity of a street.

   While the city realizes the capacity/mobility benefits that could be gained through the elimination of on-street parking on Center Street, it also realizes the unique character of the commercial district and the need for customer parking. The elimination of parking is just one alternative among many that should be studied to improve safety and traffic flow on Center Street. Redesign of the commercial portion of Center Street

should be studied through a cooperative effort between the city of Sublimity, Marion County and affected property owners. Any determination to eliminate on-street parking should be based on the safety and convenience of all roadway users and on the needs of adjacent businesses.

6. Sidewalks: Required, both sides, five-foot minimum width.

   Eight (8) foot sidewalks should be provided on Center Street for all contiguous commercial properties. Commercial uses generate a greater concentration of pedestrian traffic than most other uses and when grouped together create an even higher demand for pedestrian facilities.

7. Street Trees: Street trees shall be provided according to current standards of Sublimity Public Works as to planting location and species.

8. Bikeways: Bicyclists will be accommodated within the traveled roadway. If on-street parking is removed 6 foot bikelanes will be required.

**ADDITIONAL ARTERIAL STREET DESIGN CONSIDERATIONS:** Additional right-of-way and roadway improvements may be required at major intersections to provide for turn lanes. Where pre-existing patterns of land ownership preclude the application of the spacing standard the city will encourage property owners to share private drives or access local and collector streets whenever possible.

The above arterial street design standard reflects the constraints of existing development on Center Street, the city's only existing arterial. Future arterials, and possibly future reconstruction of Center Street, should consider more typical arterial street dimensions. Typical dimensions for a 3-lane arterial include: 60'-80' Right-of-way and 48' Curb-to-curb width (provides three 12' travel lanes and two 6' bikelanes).

**COLLECTOR:** A street supplementary to the arterial street system, used partly by through traffic and partly for access to abutting properties. Collectors provide links between an area or neighborhood and the arterial system.

1. Access Spacing: Access to collectors will be permitted from streets and private drives. The city will encourage property owners to minimize collector street access, encouraging combined access or access to local streets wherever practical.

2. Minimum Right-of-way: 51 feet

3. Minimum Curb-to-curb Width: 40 feet

4. Travel Lanes: Two (2)

5. Sidewalks: Required, both sides, five-foot minimum width (includes curbs).

6. Public Utility Easement: Required, both sides, 9.5 foot minimum width

*Please Note: The City Council voted to add the easement requirements to the Development Code.*

7. Options:
   1) On-street parking: One side or both sides, eight (8) foot minimum width, or
   2) Bikeways: Both sides, six-foot (6) minimum width.

**ADDITIONAL COLLECTOR STREET DESIGN CONSIDERATIONS:** Collector streets with less than 2000 Average Daily Trips (ADT) function more like local than collector streets and can effectively accommodate on-street parking and bicyclists on the roadway. If traffic volumes begin to exceed 2000 ADT the city should begin to study the need to eliminate on-street parking and provide designated bikelanes. This strategy provides the city with the flexibility to easily increase the capacity of a collector street at minimal cost.

As collector streets are re-striped to meet increased traffic volumes, additional right-of-way and roadway improvements may be needed at major intersections to install turn lanes.

**LOCAL STREET:** A street intended primarily for access to abutting properties, but protected from "through" traffic. Local streets serve traffic within neighborhoods and facilitate access between the collector system and land uses adjoining local streets.

1. Minimum Right-of-way: 45 feet

2. Minimum Curb-to-curb Width: 34 feet

3. Sidewalks: Required, both sides, minimum 5.5-foot width (includes curbs)

4. Public Utility Easement: Required, both sides, minimum 7.5-foot width.

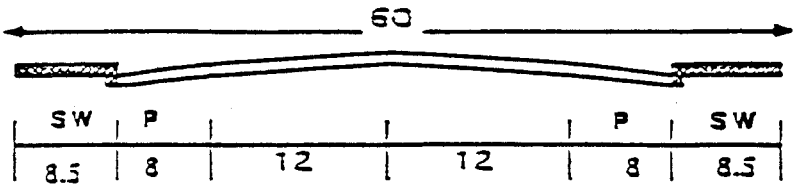
*Please Note: The City Council voted to add the easement requirements to the Development Code.*

5. Options:
1) On-street parking: One side or both sides, eight (8) foot minimum width, or
2) Bikeways: Both sides, six-foot (6) minimum width.

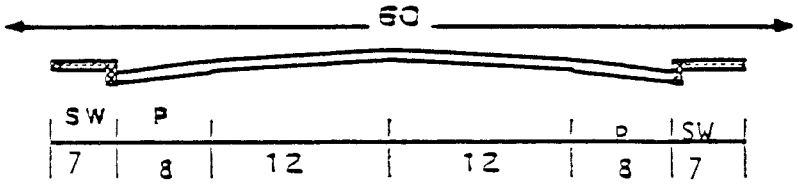
**ADDITIONAL LOCAL STREET DESIGN CONSIDERATIONS:** A well-connected local street network is important for convenient bicycle and pedestrian access. Cul-de-sac streets should be discouraged in favor of connection with existing or planned streets. Because local streets serve a wide range of uses, including neighborhood play areas, the city should explore options that discourage "through" traffic and speeds in excess of 25 mph. Local streets that include design features such as curves and "T" intersections may be a useful means of reducing conflicts and discouraging through traffic.

## FIGURE B: STREET DESIGN STANDARDS

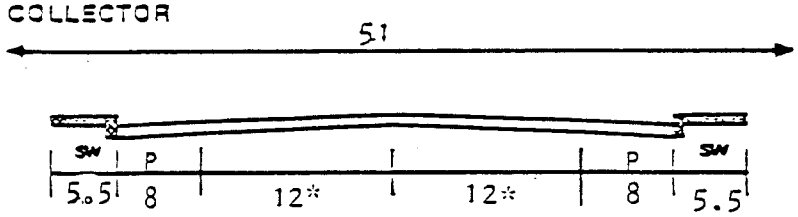
ARTERIAL (COMMERCIAL)




ARTERIAL (STANDARD)

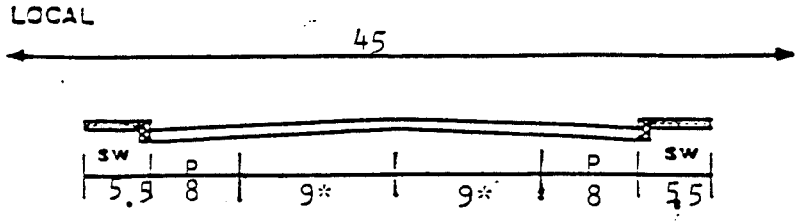



COLLECTOR




* Or options, see page 27.

LOCAL




* Or options, see page 28.

NOTE: Sidewalks larger than 6.5 feet include curb and gutter.



Note: Page 25 updated in May of 1997.

## Access Management

*TPR Requirements:*

*OAR 660-12-045 Implementation of the Transportation System Plan*

*(2) Local governments shall adopt land use or subdivision ordinance regulations, consistent with applicable federal and state requirements, to protect transportation facilities, corridors and sites for their identified functions. Such regulations shall include:*

*(a) Access control measures, for example, driveway and public road spacing, median control and signal spacing standards, which are consistent with the functional classification of roads and consistent with limiting development on rural lands to rural uses and densities;*

*(b) Standards to protect future operation of roads, transitways and major transit corridors;*

*(d) A process for coordinated review of future land use decisions affecting transportation facilities, corridors or sites;*

*(e) A process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities, corridors or sites.*

*(f) Regulations to provide notice to public agencies providing transportation facilities and services, MPOs, and ODOT of:*

*(A) Land use applications that require public hearings;*

*(B) Subdivision and partition applications;*

*(C) Other applications which affect private access to roads;*

*(g) Regulations assuring that amendments to land use designations, densities, and design standards are consistent with the functions, and capacities and levels of service of facilities identified in the TSP.*

The goal of access management is to protect a street for its intended function. In Sublimity, access management is primarily a tool that can be used to insure that objectives of mobility and safety are preserved for Center Street, the city's only arterial. Center Street presents important challenges related to balancing the historic development of the

roadway, as the city's "Main Street" commercial area, with its intended function of channeling traffic through the city. In light of these competing demands on the arterial, the city needs to work with adjacent property owners to develop creative approaches to access management.

Cascade Highway/Center Street is owned and maintained by Marion County. Although the County has jurisdiction over the highway itself, the city has control over land adjacent to the highway, and thus, has significant influence over access demands. Because of the overlapping jurisdictions, all development proposals that impact the roadway should be submitted for review by Marion County Planning and Public Works. The city, in cooperation with Marion County, can achieve the following objectives through a coordinated approach to access management:

- Maintain an acceptable level of service (good mobility).
- Minimize capital costs.
- Improve safety by minimizing potential conflict points.
- Improve bicycle/pedestrian mobility.

Guidelines for access management are defined in the recommended street design standards. The city achieves access management objectives through application of its development code.

While existing spacing may already vary from recommended guidelines, the city should require the proposed standards of all new development and encourage the consolidation of accesses wherever possible. As discussed previously, the city should commission a refinement study to consider access issues in the commercial area in greater detail.

The following are examples of access management techniques that can be used to accomplish the above objectives.

- Common driveways (sharing access with adjacent properties);
- Providing access to collector and local streets;
- Encourage connections between adjacent properties;
- Construct local service roads;
- Offset opposing driveways.

The city should remain flexible in its response to future development proposals on Center Street, considering creative access solutions but maintaining a firm commitment to negotiating agreements that uphold the objectives of safety and circulation. The city has adopted certain standards in its development code that provide the authority to manage access. These standards, in association with Marion County access permit requirements will assist the city to maintain a high level of service on its arterial and collector streets.

## PUBLIC TRANSPORTATION

*TPR Requirements*

*OAR 660-12-020 Elements of Transportation System Plans*

*(2) (c) A public transportation plan which:*

*(A) Describes public transportation services for the transportation disadvantaged and identifies service inadequacies.*

*(B) Describes intercity bus and passenger rail service and identifies the location of terminals.*

### Existing Services

Wheels of Joy, a not-for-profit organization, provides public transportation services to older adults and any physically challenged individuals in Sublimity, including Marion Estates' residents, Aumsville, Stayton, Turner and throughout the North Santiam Canyon. Services are provided on a dial-a-ride basis through a local call or 800 number. Wheels of Joy transportation services assist riders to access community services for their medical, nutritional, social, shopping and recreation needs. Funding of services is provided with payment from various sources - Medicaid, the Older Americans Act and private users. Wheels of Joy is also funded through donations and sponsors community fund raising events.

Southeast Marion County is served Monday through Friday by a bus route which begins in Salem and travels through Turner, Aumsville, Sublimity and Stayton. This vehicle returns to Salem at approximately 10 am. The vehicle leaves Salem again at 1:00 p.m. and returns to all am points. This service is set up to accommodate disabled people working in the Sublimity/Aumsville area.

While Sublimity has no intercity bus or passenger rail service of its own, the above mentioned services, and the city's proximity to Salem, provide residents with reasonable access to intercity transportation services. In addition, residents have easy access to a Park-and-ride facility located at the southeast corner of Highway 22 and Cascade Highway with a capacity of 30 to 40 vehicles.

### Future Services

The city should encourage the retention and expansion of existing public transportation services. The city can accomplish this by providing information on available services and by maintaining current information on existing funding sources. Further, the city should explore opportunities to coordinate public transportation services with the nearby city of Stayton. Because of the proximity of these two cities to each other, to Oregon State

Highway 22, and to the city of Salem, any efforts to pursue future inter-city bus service to Salem should be coordinated.

## BICYCLE/PEDESTRIAN SYSTEM

### *TPR Requirements*

*OAR 660-12-020* — *Elements of Transportation System Plans*

*(2) (d) A bicycle and pedestrian plan for a network of bicycle and pedestrian routes throughout the planning area. The network and list of facility improvements shall be consistent with the requirements of ORS 366.514.*

*OAR 660-12-045* — *Implementation of the Transportation System Plan*

*(6) In developing a bicycle and pedestrian circulation plan as required by 660-12-020(2)(d), local governments shall identify improvements to facilitate bicycle and pedestrian trips to meet local travel needs in developed areas. Appropriate improvements should provide for more direct, convenient and safer bicycle or pedestrian travel within and between residential areas and neighborhood activity centers (i.e. schools, shopping, transit stops). Specific measures include, for example, constructing walkways between cul-de-sacs and adjacent roads, providing walkways between buildings, and providing direct access between adjacent uses.*

This Plan Element is intended to respond to requirements of the State TPR, ORS 366.514 and ISTEA, as well as, applicable ADA requirements. The Oregon Transportation Plan and the Oregon Bicycle and Pedestrian Plan were consulted throughout the development of this element in an effort to ensure inter-jurisdictional consistency. Further, the city has combined planning efforts for both walking and bicycling because of recognized similarities in needs, service provision, and the economies of scale that can be gained through multi-use facilities.

The development of a bicycle/pedestrian plan reflects not only the city's commitment to encouraging reduced reliance on the automobile, but also a commitment to providing for the needs of all its citizens, including the transportation disadvantaged. The transportation disadvantaged includes a significant portion of the population who either does not have access to an automobile, cannot operate an automobile or choose not to use an automobile for any variety of reasons. Bicycling and walking provide a low-cost alternative available to all members of the population.

Further, bicycle/pedestrian facilities provide a particularly valuable resource to parents of school-age children who face increasing costs of bus service, limited school funding and increasing demands on their time.

## Background

In the 1987 Comprehensive Plan - Transportation Element, the city recognized the use of bicycles for more than simply recreational purposes. In recent years it has become even more clear that bicycling and walking provide a reasonable means of transportation for many local trips such as trips to school, various student activities and practices, visits to friends or relatives, work, errands and recreation. As stated in the 1987 Plan, "In small communities with open space amenities, a system of bikepaths and walkways can serve to tie the community's resources together within the community."

The 1987 Comprehensive Plan recognized that the community's small size and large open space resources provided an amiable environment for pedestrians and bicyclists. The plan also indicated the realization that this environment needed to be enhanced with appropriate bicycle and pedestrian facilities in order to encourage their use, both as a means of transportation and as a community resource. The Plan proposed minimizing on-street parking to accommodate the use of street right-of-ways for bicycle and pedestrian traffic in cases where doing so would improve circulation and safety.

## Current Conditions

While sidewalks are presently required on all streets concurrent with new development, there are many existing city streets that have either no sidewalks or sidewalks in discontinuous segments. **Table 1, page 11** provides an inventory of bicycle and pedestrian facilities on arterials and collectors and indicates the deficiencies in the current network of streets. In spite of deficiencies in the current system of pedestrian amenities, figures available from the 1990 census show that 25 people, or approximately 5% of the people working outside the home, walk to work. This compares fairly closely to the national average of 7%. Conversely, the census shows that only four people indicate bicycling as a means of transportation to work. This low figure may be explained, in part, by Sublimity's relative isolation from centers of employment.

In addition to the deficiencies on arterial and collector streets, Main Street, which provides an important east/west connection, linking parks and schools, has inadequate pedestrian facilities. Main Street's wide 60 foot right-of-way provides an excellent opportunity to provide bicycle/pedestrian improvements and still allows sufficient space for on-street parking if needed.

A bikepath running along Cascade Highway provides valuable access to the nearby city of Stayton. In addition, the Oregon Bicycle and Pedestrian Plan identifies Highway 22 as providing wide paved shoulders which can be used by recreational cyclists.

## Network

In association with the realization that bicycling and walking have more than recreational value, is the recognition that the best way to accommodate these modes of travel is on the existing road network. The regularly traveled roadway provides the best opportunity for an effective network of walkways and bikeways because it is already in place and it already connects the various activity centers within the urban area. In addition, streets are very pubic, highly visible places where individuals feel safer for both themselves and their children.

The primary goal of this network plan is to identify a network of bikeways and walkways that offer safe and convenient access to all areas of the city.

The bikeways identified in this plan are primarily "shared roadway" bikeways, roadways where bicyclists and motor vehicles share a travel lane. This type of facility is appropriate in Sublimity due to its small size and low traffic volumes. Other routes, such as Center Street, are identified as shoulder bikeways where bicyclists normally travel on the shoulder of the roadway which should be wide enough to comfortably and safely accommodate bicycle use. Current conditions indicate that minor improvements to arterial and collector streets would result in improved conditions for bicyclists without requiring the purchase of additional right-of-way. The Bicycle/Pedestrian Network Plan, **(Figure C, page 37)** represents the city's priorities for bicycle/pedestrian facility improvements. The low volumes on local streets will enable pedestrians and bicyclists to safely share streets with automobiles during the interim as the city pursues improvements.

## Related Projects

The goal of encouraging greater bicycle and pedestrian activity can be further supported through the provision of related facilities that encourage walking and bicycling such as well marked crossings and secure bicycle parking. Bicycle parking will be required, consistent with the requirements of the TPR, through the city's Development Code which specifies minimum standards for parking facility design. In addition, according to the requirements of the TPR, bicycle and pedestrian circulation issues will be addressed at the time of development review to insure consistency with the TSP at a project level.

Good street design is a proven method of encouraging greater bicycle and pedestrian use of the right-of-way. Street design standards, intended to provide the appropriate bicycle and pedestrian facility to match street functional classification, are shown in **Figure B, page 29**. The status of current bicycle and pedestrian development, as well as proposed improvements are analyzed in detail in Appendix A.

Education is another important means of encouraging bicycling and walking and of informing citizens of important safety issues. The city should encourage the development of educational programs promoting bicycle/pedestrian/motorist safety. The city could work with the school district and local police to promote safety and use.

## AIR, RAIL, WATER AND PIPELINE

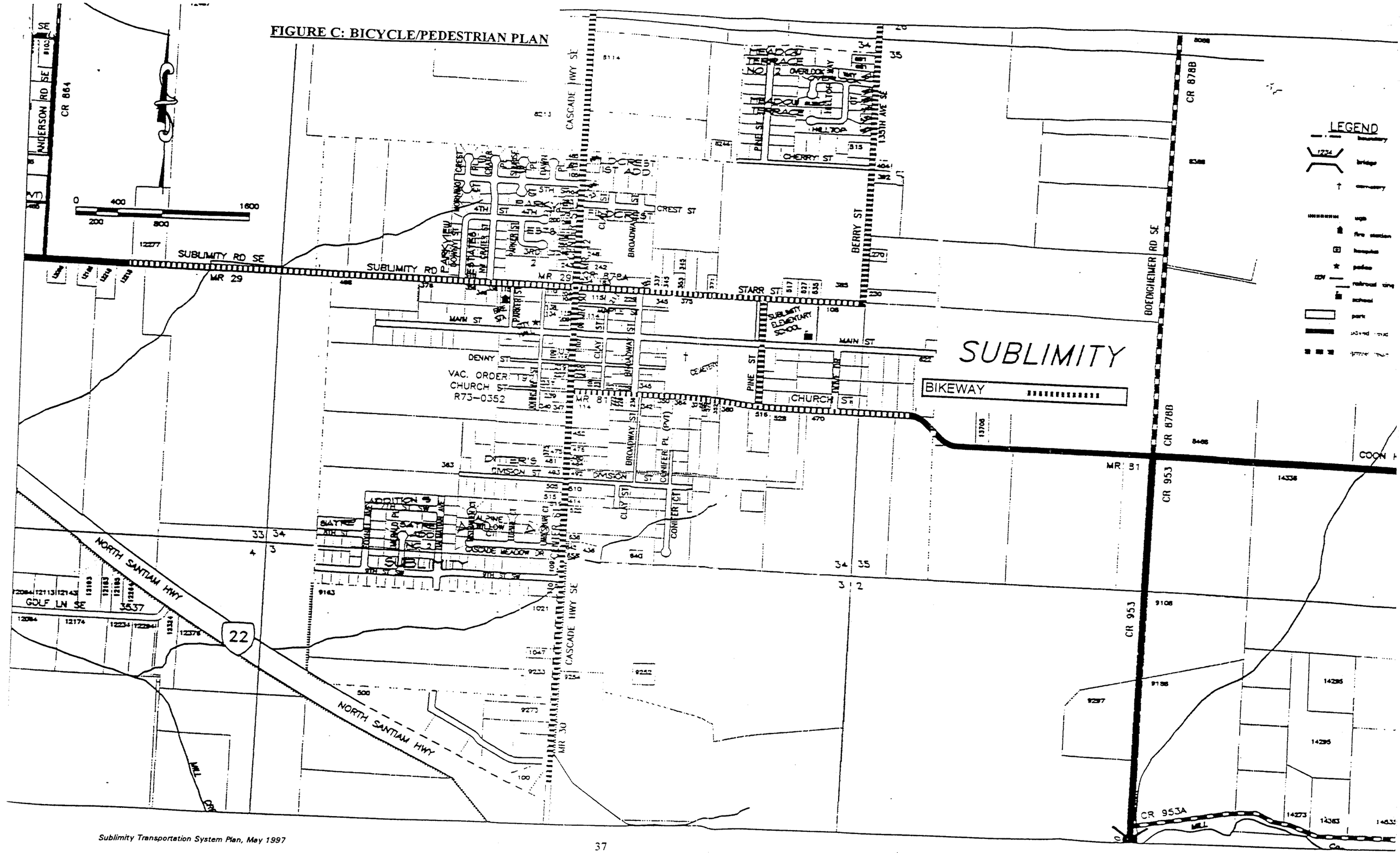
***Requirements***

*OAR 660-12-020* *Elements of Transportation Systems Plans*

*(2) (e)* ***An air, rail, water and pipeline transportation plan which identifies where public use airports, mainline and branchline railroads and railroad facilities, port facilities, and major regional pipelines and terminals are located or planned within the planning area. For airports, the planning area shall include all areas within airport imaginary surfaces and other areas covered by state or federal regulations.***

No significant aviation, rail, water or pipeline facilities exist within or adjacent to the Sublimity Urban Growth Area.

## FIGURE C: BICYCLE/PEDESTRIAN PLAN



# APPENDIX A
# FACILITY IMPROVEMENTS
# TABLES 1 - 14
# 2/12/97

**NOTE: All dollar estimates are based on estimated 1997 costs. At time of actual construction, costs will need to be adjusted for inflation and actual cost by consumer price index (i.e. City Public Works Standards and/or City Development Code Standards.**

Table 1 reflects an inventory of major streets within the City limits by section. Tables indicate current status of sidewalks, curbs/gutters, and bikeways, and include current Right-of-way, pavement widths, and street conditions. Roads listed on the inventory are ranked and prioritized by the Public Works Director, and scheduled for improvement in the TSP.

Tables 2 through 14 assess inventoried streets, section by section in rank order. The assessment determines need for additional rights-of-way and street improvements including; pavement, sidewalks, curbs/gutters, and bikeways based on information gathered from the inventory and compared to the City's develoment standards for each category. Standards used for categories are as follows:

| | |
|---|---|
| Travel Lanes: | 12-feet per lane, and 2-lanes per road, |
| Bikeways: | 6-foot width per bike lane, and 2-lanes per road, |
| Sidewalks: | 5-foot width per sidewalk and constructed sidewalks on both sides of the street |
| Curbs/Gutters: | 2-foot width per street frontage, |
| Pavement Width: | Minimum 36 feet (must accommodate 2 travel lanes and 2 bikeways) |
| right-of-way: | Minimum 50 feet (must accommodate 2 travel lanes, 2 bikeways, and 2 sidewalks complete with curb/gutter) |
| Improvements: | Based on road condition assessment listed on the inventory |

## TABLE 1: STREET INVENTORY

| Rank | Street | Section | Functional Class | Length | Jurisdiction | ROW Width | Pavement Width | Surface | Condition | No. Lanes | Sidewalks Left /Right | Curbs Left/Right | Bikeways Left/Righ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Cascade Highway | S. City limits to Division Street | Arterial | 800 | Marion County | 60 | 37-38 | AC | Fair | 2 | y/n | y/n | y/n |
| 2 | Cascade Highway | Division to Church | Arterial | 800 | Marion County | 60 | 41-46 | AC | Poor | 2 | y/n | y/n | n/n |
| 3 | Cascade Highway | Church to Starr | Arterial | 1000 | Marion County | 60 | 43-44 | AC | Poor | 2 | y/50% | y/50% | n/n |
| 4 | Cascade Highway | Starr to N City Limits | Arterial | 1400 | Marion County | 60 | 43 | AC | Good | 2 | n/n | n/n | n/n |
| 5 | Starr Street | NW Crater to Cascade Hwy. | Collector | 725 | Marion County | 60 | 38-39 | AC | Good | 2 | 10%/50% | 10%/50% | n/n |
| 6 | Starr Street | Cascade Hwy. To Broadway | Collector | 550 | Marion County | 60 | 33-38 | AC | Good | 2 | n/n | n/n | n/n |
| 7 | Church Street | Cascade Hwy. To Broadway | Collector | 525 | Marion County | 44 | 40 | AC | Fair | 2 | n/n | n/n | n/n |
| 8 | Church Street | Broadway to Pine | Collector | 1150 | Marion County | 44-50 | 33-35 | AC | Fair | 2 | n/20% | n/20% | n/n |
| 9 | Starr Street | W City Limits to NW Crater | Collector | 1800 | Marion County | 60 | 22-28 | AC | Good | 2 | 25%/20% | 25%/20% | n/n |
| 10 | Starr Street | Broadway to Pine | Collector | 1150 | Marion County | 51 | 40 | AC | Good | 2 | n/n | n/n | n/n |
| 11 | Starr Street | Pine to Berry | Collector | 900 | Marion County | 51 | 32-35 | AC | Good | 2 | n/n | n/n | n/n |
| 12 | Church Street | Pine to E. City Limits | Collector | 1700 | Marion County | 50 | 31-32 | AC | Fair | 2 | 50%/n | 50%/n | n/n |
| 13 | Berry Street | Starr to N City Limits | Collector | 2800 | Marion County | 50 | 40 | AC | Good | 2 | 25%/20% | 25%/20% | n/n |

Source: MWVCOG

## TABLE 2

**Ranking: #1**
Street: Cascade Highway
Section: South City Limits to Division (800 feet)

| | Current Coverage | Needed Coverage | Up to Standards | Extra coverage needed | Cost per Unit | Total Cost | Comments | Possible Funding Sources |
|---|---|---|---|---|---|---|---|---|
| ROW | 60 feet | 50 feet | Yes | None | | | | |
| Pavement | 37-38 feet | 36 feet | Yes | None | | | | |
| Sidewalks | | | | 4000 sf | $ 3.60/sf | $14,400 | | |
| Left: | 4,000 sf | 4,000 sf | Yes | | | | | |
| Right: | 0 sf | 4,000 sf | No | | | | | |
| Curb/Gutters | | | | 800 lf | $ 12.00/lf | $9,600 | | |
| Left: | 800 lf | 800 lf | Yes | | | | | |
| Right: | 0 lf | 800 lf | No | | | | | |
| Bikeways | | | | 9,600 sf | $ 2.40/sf | $23,040 | | |
| Left: | 0 sf | 4,800 sf | No | | | | | |
| Right: | 0 sf | 4,800 sf | No | | | | | |
| TOTAL | | | | | | **$47, 040+** | **+ possible improvements** | • ODOT Bikeway and Walkway Grants<br>• Economic Development Loan |

Source: MWVCOG

## TABLE 3

**Ranking: #2**
Street: Cascade Highway
Section: Division Street to Church Street (800 feet)

| | Current Coverage | Needed Coverage | Up to Standards | Extra coverage needed | Cost per Unit | Total Cost | Comments | Possible Funding Sources |
|---|---|---|---|---|---|---|---|---|
| ROW | 60 feet | 50 feet | Yes | None | | | | |
| Pavement | 41-46 feet | 36 feet | Yes | None | | | | |
| Sidewalks | | | | 4000 sf | $ 3.60/sf | $14,400 | | |
| Left: | 4,000 sf | 4,000 sf | Yes | | | | | |
| Right: | 0 sf | 4,000 sf | No | | | | | |
| Curb/Gutters | | | | 800 lf | $ 12.00/lf | $9,600 | | |
| Left: | 800 lf | 800 lf | Yes | | | | | |
| Right: | 0 lf | 800 lf | No | | | | | |
| Bikeways | | | | 9,600 sf | $ 2.40/sf | $23,040 | | |
| Left: | 0 sf | 4,800 sf | No | | | | | |
| Right: | 0 sf | 4,800 sf | No | | | | | |
| **TOTAL** | | | | | | **$47, 040+** | **+ Improvements** | • ODOT Bikeway and Walkway Grants<br>• Economic Development Loan |

Source: MWVCOG

## TABLE 4

**Ranking: #3**
Street: Cascade Highway
Section: Church Street to Starr Street (1,000 feet)

| | Current Coverage | Needed Coverage | Up to Standards | Extra coverage needed | Cost per Unit | Total Cost | Comments | Possible Funding Sources |
|---|---|---|---|---|---|---|---|---|
| ROW | 60 feet | 50 feet | Yes | None | | | | |
| Pavement | 44-43 feet | 36 feet | Yes | None | | | | |
| Sidewalks | | | | 2,500 sf | $ 3.60/sf | $9,000 | | |
| Left: | 5,000 sf | 5,000 sf | Yes | | | | | |
| Right: | 2,500 sf | 5,000 sf | No | | | | | |
| Curb/Gutters | | | | 500 lf | $ 12.00/lf | $6,000 | | |
| Left: | 1,000 lf | 1,000 lf | Yes | | | | | |
| Right: | 500 lf | 1,000 lf | No | | | | | |
| Bikeways | | | | 12,000 sf | $ 2.40/sf | $28,800 | | |
| Left: | 0 sf | 6,000 sf | No | | | | | |
| Right: | 0 sf | 6,000 sf | No | | | | | |
| **TOTAL** | | | | | | **$43,800+** | **+ Improvements** | • ODOT Bikeway and Walkway Grants<br>• Economic Development Loan |

Source: MWVCOG

## TABLE 5

**Ranking: #4**
Street: Cascade Highway
Section: Starr Street to North City Limits (1,400 feet)

| | Current Coverage | Needed Coverage | Up to Standards | Extra coverage needed | Cost per Unit | Total Cost | Comments | Possible Funding Sources |
|---|---|---|---|---|---|---|---|---|
| ROW | 60 feet | 50 feet | Yes | None | | | | |
| Pavement | 43 feet | 36 feet | Yes | None | | | | |
| Sidewalks | | | | 14,000 sf | $ 3.60/sf | $50,400 | | |
| Left: | 0 sf | 7,000 sf | No | | | | | |
| Right: | 0 sf | 7,000 sf | No | | | | | |
| Curb/Gutters | | | | 2,800 lf | $ 12.00/lf | $33,600 | | |
| Left: | 0 lf | 1,400 lf | No | | | | | |
| Right: | 0 lf | 1,400 lf | No | | | | | |
| Bikeways | | | | 16,800 sf | $ 2.40/sf | $40,320 | | |
| Left: | 0 sf | 8,400 sf | No | | | | | |
| Right: | 0 sf | 8,400 sf | No | | | | | |
| **TOTAL** | | | | | | **$124,320** | | • ODOT Bikeway and Walkway Grants<br>• Economic Development Loan |

Source: MWVCOG

## TABLE 6

**Ranking: #5**
Street: Starr Street
Section: NW Crater Street to Cascade Highway (725 feet)

| | Current Coverage | Needed Coverage | Up to Standards | Extra coverage needed | Cost per Unit | Total Cost | Comments | Possible Funding Sources |
|---|---|---|---|---|---|---|---|---|
| ROW | 60 feet | 50 feet | Yes | None | | | | |
| Pavement | 38-39 feet | 36 feet | Yes | None | | | | |
| Sidewalks | | | | 5,075 sf | $ 3.60/sf | $18,270 | | |
| Left: | 362.50 sf | 3,625 sf | No | | | | | |
| Right: | 1812.50 sf | 3,625 sf | No | | | | | |
| Curb/Gutters | | | | 1,015 lf | $ 12.00/lf | $12,180 | | |
| Left: | 72.50 lf | 725 lf | No | | | | | |
| Right: | 362.50 lf | 725 lf | No | | | | | |
| Bikeways | | | | 8,700 sf | $ 2.40/sf | $20,880 | | |
| Left: | 0 sf | 4,350 sf | No | | | | | |
| Right: | 0 sf | 4,350 sf | No | | | | | |
| TOTAL | | | | | | **$51,330** | | • ODOT Bikeway and Walkway Grants<br>• Economic Development Loan |

Source: MWVCOG

## TABLE 7

**Ranking: #6**
Street: Starr Street
Section: Cascade Highway to Broadway Street (550 feet)

| | Current Coverage | Needed Coverage | Up to Standards | Extra coverage needed | Cost per Unit | Total Cost | Comments | Possible Funding Sources |
|---|---|---|---|---|---|---|---|---|
| ROW | 60 feet | 50 feet | Yes | None | | | | |
| Pavement | 33-38 feet | 36 feet | No | 1,100 sf * | $ 2.40/sf | $2,640 | | |
| Sidewalks | | | | 5,500 sf | $ 3.60/sf | $19,800 | | |
| Left: | 0 sf | 2,750 sf | No | | | | | |
| Right: | 0 sf | 2,750 sf | No | | | | | |
| Curb/Gutters | | | | 1,100 lf | $ 12.00/lf | $13,200 | | |
| Left: | 0 lf | 550 lf | No | | | | | |
| Right: | 0 lf | 550 lf | No | | | | | |
| Bikeways | | | | 6,600 sf | $ 2.40/sf | $15,840 | | |
| Left: | 0 sf | 3,300 sf | No | | | | | |
| Right: | 0 sf | 3,300 sf | No | | | | | |
| **TOTAL** | | | | | | **$51,480+** | **+ Improvements** | • ODOT Bikeway and Walkway Grants<br>• Economic Development Loan |

Source: MWVCOG

* **Calculation is based on 2 extra feet for the entire length of 550 feet.**

## TABLE 8

**Ranking: #7**
Street: Church Street
Section: Cascade Highway to Broadway Street (525 feet)

| | Current Coverage | Needed Coverage | Up to Standards | Extra coverage needed | Cost per Unit | Total Cost | Comments | Possible Funding Sources |
|---|---|---|---|---|---|---|---|---|
| ROW | 44 feet | 50 feet | No | 3,150 sf | Current Land Value | ? | | |
| Pavement | 40 feet | 36 feet | Yes | None | | | | |
| Sidewalks | | | | 5,250 sf | $ 3.60/sf | $18,900 | | |
| Left: | 0 sf | 2,625 sf | No | | | | | |
| Right: | 0 sf | 2,625 sf | No | | | | | |
| Curb/Gutters | | | | 1,050 lf | $ 12.00/lf | $12,600 | | |
| Left: | 0 lf | 525 lf | No | | | | | |
| Right: | 0 lf | 525 lf | No | | | | | |
| Bikeways | | | | 6.300 sf | $ 2.40/sf | $15,120 | | |
| Left: | 0 sf | 3,150 sf | No | | | | | |
| Right: | 0 sf | 3,150 sf | No | | | | | |
| **TOTAL** | | | | | | **$46,620+** | **+ 3,150 sf of land purchase plus potential road improvements** | • ODOT Bikeway and Walkway Grants<br>• Economic Development Loan |

Source: MWVCOG

## TABLE 9

**Ranking: #8**
Street: Church Street
Section: Broadway Street to Pine Street (1150 feet)

| | Current Coverage | Needed Coverage | Up to Standards | Extra coverage needed | Cost per Unit | Total Cost | Comments | Possible Funding Sources |
|---|---|---|---|---|---|---|---|---|
| ROW | 44-50 feet | 50 feet | No | 3,450* | ? | ? | | |
| Pavement | 33-35 feet | 36 feet | No | 3,450* | $ 2.40/sf | $8,280 | | |
| Sidewalks | | | | 10,350 sf | $ 3.60/sf | $37,260 | | |
| Left: | 0 sf | 5,750 sf | No | | | | | |
| Right: | 1,150 sf | 4,600 sf | No | | | | | |
| Curb/Gutters | | | | 2,070 lf | $ 12.00/lf | $24,840 | | |
| Left: | 0 lf | 1150 lf | No | | | | | |
| Right: | 230 lf | 920 lf | No | | | | | |
| Bikeways | | | | 13,800 sf | $ 2.40/sf | $33,120 | | |
| Left: | 0 sf | 6,900 sf | No | | | | | |
| Right: | 0 sf | 6,900 sf | No | | | | | |
| **TOTAL** | | | | | | **$103,500+** | **+ 3,450 sf of land purchase plus potential road Improvements** | • ODOT Bikeway and Walkway Grants<br>• Economic Development Loan |

Source: MWVCOG

• A 3 foot width need was used for calculations

## TABLE 10

**Ranking: #9**
Street: Starr Street
Section: West City Limits to NW Crater Street (1800 feet)

| | Current Coverage | Needed Coverage | Up to Standards | Extra coverage needed | Cost per Unit | Total Cost | Comments | Possible Funding Sources |
|---|---|---|---|---|---|---|---|---|
| ROW | 60 feet | 50 feet | Yes | None | | | | |
| Pavement | 22-28 feet | 36 feet | No | 19,800 sf * | $ 2.40/sf | $47,520 | | |
| Sidewalks | | | | 13,950 sf | $ 3.60/sf | $50,220 | | |
| Left: | 2,250 sf | 9,000 sf | No | | | | | |
| Right: | 1,800 sf | 9,000 sf | No | | | | | |
| Curb/Gutters | | | | 2,790 lf | $ 12.00/lf | $33,480 | | |
| Left: | 450 lf | 1,800 lf | No | | | | | |
| Right: | 360 lf | 1,800 lf | No | | | | | |
| Bikeways | | | | 21,600 sf | $ 2.40/sf | $51,840 | | |
| Left: | 0 sf | 10,800 sf | No | | | | | |
| Right: | 0 sf | 10,800 sf | No | | | | | |
| **TOTAL** | | | | | | **$183,060** | | • ODOT Bikeway and Walkway Grants<br>• Economic Development Loan |

Source: MWVCOG

**• An 11 foot width need was used for calculations**

## TABLE 11

**Ranking: #10**
Street: Starr Street
Section: Broadway Street to Pine Street (1,150 feet)

| | Current Coverage | Needed Coverage | Up to Standards | Extra coverage needed | Cost per Unit | Total Cost | Comments | Possible Funding Sources |
|---|---|---|---|---|---|---|---|---|
| ROW | 51 feet | 50 feet | Yes | None | | | | |
| Pavement | 40 feet | 36 feet | Yes | None | | | | |
| Sidewalks | | | | 11,500 sf | $ 3.60/sf | $41,400 | | |
| Left: | 0 sf | 5,750 sf | No | | | | | |
| Right: | 0 sf | 5,750 sf | No | | | | | |
| Curb/Gutters | | | | 2,300 lf | $ 12.00/lf | $27,600 | | |
| Left: | 0 lf | 1,150 lf | No | | | | | |
| Right: | 0 lf | 1,150 lf | No | | | | | |
| Bikeways | | | | 13,800 sf | $ 2.40/sf | $33,120 | | |
| Left: | 0 sf | 6,900 sf | No | | | | | |
| Right: | 0 sf | 6,900 sf | No | | | | | |
| **TOTAL** | | | | | | **$102,120** | | • ODOT Bikeway and Walkway Grants<br>• Economic Development Loan |

Source: MWVCOG

## TABLE 12

**Ranking: #11**
Street: Starr Street
Section: Pine Street to Berry Street (900 feet)

| | Current Coverage | Needed Coverage | Up to Standards | Extra coverage needed | Cost per Unit | Total Cost | Comments | Possible Funding Sources |
|---|---|---|---|---|---|---|---|---|
| ROW | 51 feet | 50 feet | Yes | None | | | | |
| Pavement | 32-35 feet | 36 feet | No | 2,700 sf* | $ 2.40/sf | $6,480 | | |
| Sidewalks | | | | 9000 sf | $ 3.60/sf | $32,400 | | |
| Left: | 0 sf | 4,500 sf | No | | | | | |
| Right: | 0 sf | 4,500 sf | No | | | | | |
| Curb/Gutters | | | | 1800 lf | $ 12.00/lf | $21,600 | | |
| Left: | 0 lf | 900 lf | No | | | | | |
| Right: | 0 lf | 900 lf | No | | | | | |
| Bikeways | | | | 10,800 sf | $ 2.40/sf | $25,920 | | |
| Left: | 0 sf | 5,400 sf | No | | | | | |
| Right: | 0 sf | 5,400 sf | No | | | | | |
| **TOTAL** | | | | | | **$86,400** | | • ODOT Bikeway and Walkway Grants<br>• Economic Development Loan |

Source: MWVCOG

* An 11 foot width need was used for calculation purposes

## TABLE 13

**Ranking: #12**
Street: Church Street
Section: Pine Street to East City Limits (1,700 feet)

| | Current Coverage | Needed Coverage | Up to Standards | Extra coverage needed | Cost per Unit | Total Cost | Comments | Possible Funding Sources |
|---|---|---|---|---|---|---|---|---|
| ROW | 50 feet | 50 feet | Yes | None | | | | |
| Pavement | 31-32 feet | 36 feet | No | 8,500 sf* | $ 2.40/sf | $20,400 | | |
| Sidewalks | | | | 12,750 sf | $ 3.60/sf | $45,900 | | |
| Left: | 4,250 sf | 8,500 sf | No | | | | | |
| Right: | 0 sf | 8,500 sf | No | | | | | |
| Curb/Gutters | | | | 2,550 lf | $ 12.00/lf | $30,600 | | |
| Left: | 850 lf | 1,700 lf | No | | | | | |
| Right: | 0 lf | 1,700 lf | No | | | | | |
| Bikeways | | | | 20,400 sf | $ 2.40/sf | $48,960 | | |
| Left: | 0 sf | 10,200 sf | No | | | | | |
| Right: | 0 sf | 10,200 sf | No | | | | | |
| TOTAL | | | | | | $47, 040+ | + potential Improvements | • ODOT Bikeway and Walkway Grants<br>• Economic Development Loan |

Source: MWVCOG

* A 5 foot with need was used for calculation purposes

## TABLE 14

**Ranking: #13**
Street: Berry Street
Section: Starr Street to City Limits (2,800 feet)

| | Current Coverage | Needed Coverage | Up to Standards | Extra coverage needed | Cost per Unit | Total Cost | Comments | Possible Funding Sources |
|---|---|---|---|---|---|---|---|---|
| ROW | 50 feet | 50 feet | Yes | None | | | | |
| Pavement | 40 feet | 36 feet | Yes | None | | | | |
| Sidewalks | | | | 21,700 sf | $ 3.60/sf | $78,120 | | |
| Left: | 3,500 sf | 14,000 sf | No | | | | | |
| Right: | 2,800 sf | 14,000 sf | No | | | | | |
| Curb/Gutters | | | | 4,340 lf | $ 12.00/lf | $52,080 | | |
| Left: | 700 lf | 2,800 lf | No | | | | | |
| Right: | 560 lf | 2,800 lf | No | | | | | |
| Bikeways | | | | 33,600 sf | $ 2.40/sf | $80,640 | | |
| Left: | 0 sf | 16,800 sf | No | | | | | |
| Right: | 0 sf | 16,800 sf | No | | | | | |
| **TOTAL** | | | | | | **$210,840** | | • ODOT Bikeway and Walkway Grants<br>• Economic Development Loan |

Source: MWVCOG

**GRAND TOTAL FOR DEVELOPMENT OF ALL STREETS: $ 1,144,590.00**