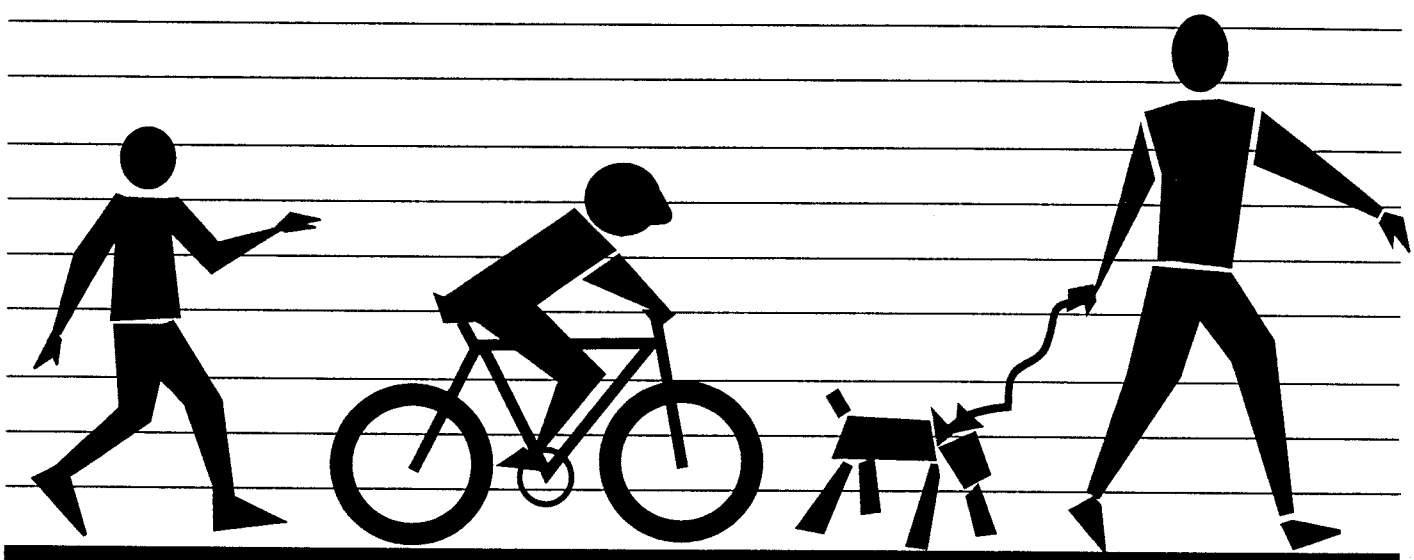
CITY OF MYRTLE POINT



Pedestrian and Bicycle Plan

May 1995

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The contents of this document do not necessarily reflect views or policies of the state of Oregon.

City of Myrtle Point
Pedestrian and Bicycle Plan

SUMMARY

- ✔ The City's Pedestrian and Bicycle Plan coordinates with state and federal plans. It describes a system that can be implemented over 20 years. The Plan is guided by the Myrtle Point Pedestrian and Bicycle Advisory Committee.

- ✔ The City's existing plans establish the need and desire for improved pedestrian and bicycle systems. However, City ordinances do not address pedestrian and bicycle needs adequately. The goals of the Pedestrian and Bicycle Plan are to include these transportation modes in overall planning, provide comprehensive walkway and bikeway systems, promote them, and develop systems consistent with the Americans with Disabilities Act.

- ✔ Myrtle Point is a compact city with most destinations under a mile. Pedestrian and bicycle use is high among small cities in Oregon but still underutilized.

- ✔ Several barriers inhibit walking and cycling: the State highway, missing links in the walkway and bikeway systems, the topography, and maintenance. Barriers can be minimized by changes in planning, facilities and upkeep. Regular maintenance is the easiest and cheapest action.

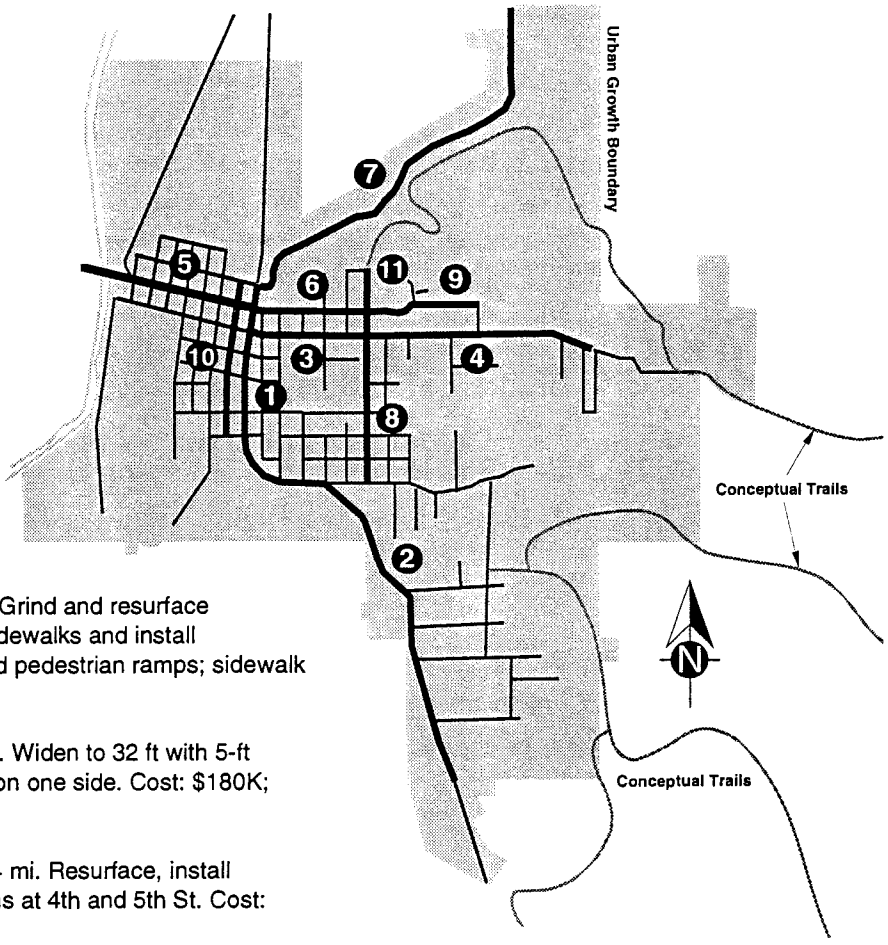
- ✔ Sidewalks and other pedestrian facilities are needed city-wide, especially along State Route 42. With relatively minor improvements, the present streets provide direct and cost-effective bikeways; arterials and collectors with heavy traffic should have bike lanes. Eleven projects are described (see page ii).

- ✔ The Pedestrian and Bicycle Plan will be incorporated into the City's Transportation Plan. Implemention will be integrated with other transportation improvements. See page iii for a summary of implementation priorities.

- ✔ Oregon walkway and bikeway designs are detailed in the *Oregon Bicycle and Pedestrian Plan*. There are four basic walkway types (multi-use path, sidewalk, shoulder, and crosswalk) and four basic bikeway types (multi-use path, bike lane, shoulder, and shared roadway). Parking, changing areas for commuters, transit links, and signs are essential to a bicycle system.

- ✔ All ages should be educated on effective and safe use of bicycle facilities, police enforcement efforts supported, and citizens made aware that bicycles are legally vehicles and that pedestrians have the right of way at intersections. There are various strategies to promote walking and cycling as transportation, to build support and to encourage potential users.

Projects Summary



1. **8th St. (State Route 42)** — Ash St. to Bothwick St., 0.3 mi. Restripe from 4 lanes to 3 lanes with bike lanes, repair sidewalks, install pedestrian ramps, and incorporate strongly delineated crosswalks and signal sensors for bicycles. Consider highway treatment to slow traffic entering city from the north. Cost: $30K for restriping and pedestrian ramps; sidewalk repairs and highway treatment additional; State and Federal funding.

2. **State Route 42** — Bothwick St. to Carlisle Lane, 1.0 mi. Restripe from 4 lanes to 3 lanes with bike lanes, construct buffered sidewalks to Kincheloe Lane (0.9 mi), and improve Maryland Ave. intersection. Cost: $315K; State and Federal funding.

3. **Maple St.** — 8th St. to Bender St., 0.3 mi. Grind and resurface pavement, restrict parking to one side, repair sidewalks and install pedestrian ramps. Cost: $94K for pavement and pedestrian ramps; sidewalk repairs additional; local funding.

4. **Maple St.** — Bender St. to 25th St., 0.6 mi. Widen to 32 ft with 5-ft shoulders and construct 6-ft buffered sidewalk on one side. Cost: $180K; local and State funding.

5. **Spruce St.** — Coquille River to 8th St., 0.4 mi. Resurface, install pedestrian ramps, and construct curb extensions at 4th and 5th St. Cost: $55K; local and State funding.

6. **Spruce St.** — 8th St. to Bender St., 0.3 mi. Restrict parking to one side, repair sidewalks and install pedestrian ramps. Cost: $10K; sidewalk repairs additional; local funding.

7. **Gravelford Rd.** — 8th St. to North UGB, 0.9 mi. Widen to 32 ft with 5-ft shoulders. Cost: $110K; local, County and State funding.

8. **Bender St.** — Willow St. to Bothwick Ave., 0.2 mi. Widen and install sidewalks. Cost: $105K; local and State funding.

9. **Spruce St.** — Bender St. to 19th St., 0.3 mi. Widen to 32 ft with 5-ft shoulders. Cost: $50K; local funding.

10. **7th St.** — Ash St. to Bothwick St., 0.3 mi. Resurface and install pedestrian ramps. Cost: $44K; local funding.

11. **Bender St.** — Fairview St. to Willow Ave., 0.2 mi. Install sidewalks. Cost: $60K; local funding.

Other supporting and candidate projects: city-wide bike racks, drainage grate improvements, and curb ramps; 4th St., Harris St., Maryland Ave., Railroad Ave., abandoned railroad, Coquille River bridge, and various urban trails.

Priorities to ensure success of this plan include the following:

- Adopt the goals and policies of this Plan as part of the City's Transportation System Plan. This will be needed to satisfy the State's Transportation Planning Rule.

- Seek to appoint a part-time Pedestrian and Bicycle Coordinator, possibly as a joint County and City position. This is necessary to ensure progress in implementing the Plan.

- Develop dependable funding sources and actively seek additional sources. If necessary, redirect some road budget to walkways and bikeways.

- Adopt implementing ordinances, codes and standards necessary to carry out the Plan. The ultimate effectiveness of the Plan hinges on this step.

- Maintain public awareness and support of the Plan. Public relations and education about the Plan's objectives are essential to continued success.

- Review project scheduling and implementation annually to keep priority projects on top of the list, delete completed projects, and add new projects that may be needed in response to changes in demographics, land-use patterns and the transportation system.

...we should raise our sights for the moment.

What could a street on which our children are

brought up, adults live, and older people spend

their last days—what could such a street be like?

What are the rights of street dwellers?

– Donald Appleyard

CONTENTS

Tables

Section 1
INTRODUCTION

- This local plan coordinates with state and federal plans.
- It describes a system that can be implemented over about 20 years.
- It is guided by the Myrtle Point Pedestrian and Bicycle Advisory Committee.

Purpose

This document provides the City of Myrtle Point with a comprehensive pedestrian and bicycle element to its Transportation Plan. It describes the pedestrian and bicycling system as it should be in the next 20 years, and it outlines the tasks necessary to accomplish this vision. The work was partially funded by the Transportation/Growth Management Program, a joint program of the Oregon Department of Transportation and the Department of Land Conservation and Development established to aid cities and counties in meeting the State Transportation Goal.

Background

Pedestrian and bicycle planning is a part of the overall long-range transportation planning undertaken by all levels of government. Transportation agencies are unique in their ability to determine the nature of the roads and how pedestrians and bicycles fit in. Long-range planning identifies local needs, establishes priorities, and puts forth solutions that are consistent with regional and national policies.

Walking is the most basic transportation—we are all pedestrians. Bicycling, a widespread transportation choice a century ago, has again become an attractive option as our automobile-dominated system has begun to reach the limits of our ability to sustain it. Various new transportation policies, plans and standards have been created that provide a wealth of pedestrian and bicycle-related information. Among the relevant documents are:

- *Intermodal Surface Transportation Efficiency Act (ISTEA) (1991)*—establishes bicycling and walking as legitimate forms of transportation and provides support to the widespread development of bicycle and pedestrian facilities; requires states and metropolitan areas to develop multimodal transportation systems that maximize mobility while minimizing fuel consumption and pollution. ISTEA allows the use of some Federal funds for non-highway transportation projects.

- *Guide for the Development of Bicycle Facilities (1991) American Association of State Highway and Transportation Officials (AASHTO), Washington, D.C.*—establishes national standards for the planning, design and operation of bicycle facilities. Adopted and supplemented by the Oregon Bicycle and Pedestrian Master Plan (1994 draft).

- *Manual on Uniform Traffic Control Devices (1988) Federal Highway Administration, Washington, D.C.*—the MUTCD establishes basic national standards for the signing and marking of bikeways. Adopted and supplemented by the Oregon Bicycle and Pedestrian Master Plan (1994 draft).

- *The Americans with Disabilities Act (1991)*—requires accessible routes for all individuals. This affects, among many things, pedestrian facilities such as walkways, crosswalks, ramps and parking access aisles. ADA is a civil rights act, not a legislative requirement, and has the full power and force of a civil guarantee.

- *Oregon Transportation Planning Rule 660-12 (1991)*—requires cities and counties to plan for non-automotive choices including bicycling and walking. In addition, street and road networks and new developments should be laid out so that short trips can be made without driving.

- *Oregon Transportation Plan (1992)*—stresses that people must have choices and that transportation systems must support land-use plans. This includes improved circulation systems for bicycles and pedestrians whereby housing, day care, schools, commercial areas and employment can be reached easily and safely.

- *Oregon Bicycle and Pedestrian Plan (1995), Oregon Department of Transportation, Highway Division*— implements the pedestrian and bicycle portion of the Oregon Transportation Plan. Explains Oregon's Pedestrian and Bikeway Program and provides uniform guidance to local governments.

- *Model Pedestrian and Bicycle Ordinances (1992), Oregon Chapter of the American Planning Association*—recommends specific ordinances for use by Oregon municipalities when implementing bicycle plans.

These documents provide the framework from which local pedestrian and bicycle programs can be designed. Oregon is fortunate in having a long-standing and supportive state program. The Myrtle Point Pedestrian and Bicycle Plan primarily focusses on considerations within the City's Urban Growth Boundary. It addresses the requirements of the Oregon Transportation Planning Rule.

Pedestrian and Bicycle Advisory Committee

In 1994, Myrtle Point established the Pedestrian and Bicycle Advisory Committee to guide the City and its consultant on local pedestrian and bicycle issues. The Committee consists of members of the public with varied interests in walking and bicycling. The Committee provided the goals and objectives, as well as local information, guidance and review of the Plan.

Section 2
GOALS AND OBJECTIVES

- Existing plans establish the need and desire for improved pedestrian and bicycle systems.
- Existing ordinances do not address pedestrian and bicycle needs adequately.
- Pedestrian and Bicycle Plan goals are to include pedestrians and bicycles in overall planning, provide comprehensive walkway and bikeway systems, promote the modes and develop systems consistent with ADA.

Relevant Policies

All levels of government recognize walking and bicycling as elements of the transportation system and encourage planning for their use. Adopted policies make clear the important role walking and bicycling play in a balanced transportation system.

Federal Policies

The Federal government has taken a strong stand in promoting walking and bicycling as alternatives to driving.

■ National Bicycling and Walking Study

The Federal Highway Administration conducted the National Bicycling and Walking Study to explore various issues and present existing data in a way that local agencies can use. The studies have been published, and the results provide useful insight into the benefits of pedestrian and bicycle transportation and the means required to promote their use.

■ ISTEA

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 requires States to staff a bicycle and pedestrian coordinator, requires metropolitan areas to plan for pedestrians and bicyclists, and makes available funds to the States for a variety of pedestrian and bicycle projects. The Federal highway classification system has been revised and new funding categories developed. The funding aspects of ISTEA are discussed in Section 6: Implementation and Funding.

State Policies

The Oregon Department of Transportation (ODOT) has long led the way in bicycle planning, and has more recently begun to provide leadership for pedestrian planning. ODOT provides cities with clear and strong directions about provisions for pedestrians and bicyclists.

■ Bicycle and Pedestrian Program

Oregon has had a State-wide bicycle program for over 20 years that is supported by the 1971 "Oregon Bicycle Law" that mandates a minimum 1% gas-tax expenditure on bicycle and pedestrian facilities (refer to Section 6). The *Oregon Bicycle and Pedestrian Plan* describes how the program

"serves the needs of bicyclists within the State by supporting bicycling as a form of transportation and recreation that enhances the livability of Oregon." In 1993, the Bicycle Program became the Bicycle and Pedestrian Program, and the latest version of the State Plan extensively addresses the needs of pedestrians as well as bicyclists.

The Oregon Bicycle and Pedestrian Plan envisions a transportation system where:

- *Oregonians and visitors can bicycle or walk safely and conveniently to destinations within reasonable walking or bicycling distance;*
- *Transit users can walk or ride to and from their transit stops and have a comfortable place to wait or transfer;*
- *Appropriate transportation choices are available to all; and*
- *The public right-of-way is designed to accommodate nonmotorized as well as motorized modes of transportation.*

■ *Transportation Planning Rule*

The Oregon Transportation Planning Rule, OAR Chapter 660, Division 12, implements Statewide Planning Goal 12 (Transportation). The rule requires cities and counties to plan for non-automotive choices, including bicycling and walking, through the following measures:

- Local governments shall adopt land use or subdivision regulations for urban areas and rural communities to require:
  - Bicycle parking facilities as part of new multi-family residential developments of four units or more, new retail, office and institutional developments, and all transfer stations and park-and-ride lots.
  - Facilities providing safe and convenient pedestrian and bicycle 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. This shall include:
    1. Sidewalks along urban arterials and collectors.
    2. Bikeways along arterials and major collectors.
    3. Where appropriate, separate bike or pedestrian ways to minimize travel distances within and between the areas and developments listed above.
  - Routes shall be:
    1. Reasonably free from hazards, particularly types or levels of automobile traffic which would interfere with or discourage pedestrian or cycle travel for short trips.
    2. Provide a direct route of travel between destinations.

3. Meet travel needs of cyclists and pedestrians considering destination and length of trip.

- 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.

The Rule has a goal of no increase in metropolitan automobile trips in the first 10 years, a reduction of 10% in 20 years, and a reduction of 20% in 30 years.

■ *Oregon Transportation Plan*

Oregon has created a 20-year Transportation Plan to meet the requirements of Goal 12 and the ISTEA. The Plan stresses that people must have choices and that transportation systems must support land-use plans. This includes improved circulation systems for bicycles and pedestrians whereby housing, day care, schools, commercial areas and employment can be reached easily and safely.

City Policies

The following is a summary of Myrtle Point's plans, codes, standards, and ordinances pertaining to pedestrians and bicyclists. The Myrtle Point Zoning Ordinance makes no mention of pedestrian or bicycle related rules or standards.

■ *Myrtle Point Comprehensive Plan (1979)*

The Myrtle Point Comprehensive Plan included the following bicycle and pedestrian policies under the goal of providing and encouraging ...*safe and efficient regional and intercity transportation systems to move goods and people...* (p. 114A):

1. *The City shall continue to support, as funds permit, the maintenance, improvement, and construction of local streets, roads, and sidewalks.*

4. *The City shall consider bicycle circulation and the reduction of hazards to bicyclists and motorists when improving and constructing local streets and roads.*

The Comprehensive Plan included the following objectives for Intracity Transportation, in regards to bicycles and pedestrians (p. 115):

1. *To provide quality streets which ensure maximum safety to pedestrians, bicyclists, and motorists by establishing long range priorities.*

4. *To provide safe and convenient footpaths and sidewalks along Highway 42 in Myrtle Point.*

5. *To encourage development of a bike path plan of the City of Myrtle Point and surrounding area.*

To fulfill the above objectives, the Comprehensive Plan suggested the following activities should take place (pp. 115, 115A):

1. *...The street improvement plan should...coordinate with development of sidewalks and bicycle paths.*

3. *Development of a plan for bicycle paths or lanes by the City to reduce hazards to both bicyclists and motorists.*

- ***Myrtle Point Ordinance No. 784 (10-4.1) (8/16/82) – Subdivision and Other Land Partitioning Standards and Procedures***

The following sections pertain to pedestrian or bicycle facilities:

Section 24. Blocks:

(2) Size. No block may be more than 1,000 feet in length between street corner lines unless it is adjacent to an arterial street, or unless the topography of the location or adjoining streets justifies an exception.

(3) Easements.
(c) Pedestrian ways. When desirable for public convenience, pedestrian ways may be required to connect to cul-de-sacs or to pass through unusually long or oddly-shaped blocks.

- ***Myrtle Point Ordinance No. 889 (10-5.2) (3/16/82) – Minimum Standards for Street Improvements***

Section 2(c) states:

Minor streets that are residential access and are not planned for future collector status shall be constructed 36 feet wide, collector and arterial streets shall be constructed not less than 40 feet wide. All streets shall be fully improved with curbs, drainage and asphaltic pavement. Sidewalks shall be constructed as required based on existing conditions and potential development.

■ ***Myrtle Point Ordinance No. 1081 (6-8.7) (9/21/87) – Regulation, Operation, and Parking of Bicycles***

This ordinance provides the rules and regulations for bicycles (two-wheeled vehicle) for the City of Myrtle Point. The ordinance includes regulations for the following: inspection, brakes, lights, riding on bicycles, riding on streets and bicycle paths, racing, emerging from an alley or driveway, carrying articles, riding on sidewalks, and parking.

■ ***Traffic Safety and Roadway Management Plan (1979)***

In addition to these recommendations, the Myrtle Point Traffic Safety and Roadway Management Plan included the following guidelines and considerations for future bikeways (p. 69-70):

1. Bicycles should be considered as part of the larger transportation system; therefore, bicycle paths should be planned and designed to reflect this relationship.

2. Bicycles should be considered as an element in a mixed mode transportation system; options should be provided to mix this mode with others such as the automobile.

One important aspect should be kept in mind when new street construction is being planned, that is, it is less expensive to construct bikeways concurrent with street construction than it is to construct them at a later date. As pointed out in the Finance Section, Federal funding programs are available to help lessen this burden. The quicker the City initiates a bicycle program the sooner the community will benefit.
– Myrtle Point Traffic Safety and Roadway Management Plan, June 1979

3. Inventories should be maintained and expanded to include such information as route usage, rider characteristics, availability of parking, land-use relationships and physical conditions.

4. With new development, forecasts for potential demand should be made with attention being given to interrelationships with other modes and seasonal influences on bicycle usage.

5. Planning goals and objectives should be established to include safety, mobility, efficiency, route flexibility, adaptability and scenic considerations.

6. Providing bicycle storage areas at appropriate locations and locking devices in order to prevent casual and professional theft.

The Plan recognized the importance of sidewalks within the City and specifically indicated that the southeast part of the town lacked sidewalks (p. 74).

The Plan also included the following "short-term" recommendations that would improve the situation for bicycles and pedestrians (p. 82):

1. *Adopt Street Standard Ordinances establishing minimum street pavement widths, requiring the construction of sidewalks with new street construction, where warranted, establishing minimum street lighting and minimum sight distance at intersections.*

2. *Investigate potential bicycle route locations.*

5. *Initiate a public education program.*

6. *Adopt an ordinance that would reduce sight obstructions at intersections.*

Pedestrian and Bicycle System Goals and Objectives

The following are the four main goals and their objectives for the Plan as approved by the Myrtle Point City Council on December 5, 1994:

Goals

- Integrate bicycle and pedestrian planning into the community's overall transportation, comprehensive and strategic planning efforts.
- Provide and maintain a comprehensive system for safe, convenient, and pleasant bicycle and pedestrian access to all destinations within the City and Urban Growth Boundary.
- Promote and advocate bicycling and walking as viable forms of transportation for all ages and trip purposes.
- Comply with ADA standards.

Objectives

- Adopt the goals and objectives of this Plan.
- Adopt implementing ordinances, codes and standards necessary to carry out this Plan.
- Enhance the quality of the walking and bicycling experience by identifying attractive routes with desired amenities and support services.
- Provide bicycle facilities as terminals with desired amenities and support services.
- Designate and develop bikeways and walkways connecting neighborhoods, schools, commercial, industrial and recreational centers.

- Improve access and mobility by identifying routes that penetrate barriers, avoid bottlenecks and obstacles, and minimize travel distances.
- Provide guidance to educational and enforcement agencies to enhance pedestrian and bicycle safety and effectiveness.
- Encourage community support of bicycle and pedestrian activities.
- Encourage land uses that give priority to pedestrians and bicyclists.
- Develop dependable funding sources and actively seek additional sources.
- Review project scheduling and implementation annually and amend the project list as needed to respond to changes in funding opportunities, demographics and development.
- Establish benchmarks to measure progress.

The Pedestrian and Bicycle Advisory Committee realizes, as do many Myrtle Point residents, that walking and bicycling are pleasurable, invigorating and healthy activities. The primary purpose of this Plan is to significantly increase walking and bicycling options so that residents have attractive alternatives to the automobile.

The problem with current suburbs is not that they are ugly. The problem is they don't work. Most of the needs of daily life can be met within a three-to-four acre area and generally within a five-minute walk of a person's home.

– architect Andres Duany

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It is the ease of access to other people and facilities that determines the success of a transportation system, rather than the means or speed of transport. It is relatively easy to increase the speed at which people move around, much harder to introduce changes that enable us to spend less time gaining access to the facilities that we need.

– John Whitehead, *Time Pollution*

❧

Section 3

EXISTING CONDITIONS

- Myrtle Point is a compact city with most destinations within a mile.
- Some steep terrain and missing sidewalks isolate areas.
- Pedestrian and bicycle use is high among small cities in Oregon but still underutilized.
- Downtown area has excellent walking and bicycling potential.

Introduction

This section examines the Myrtle Point transportation system from the perspective of pedestrians and cyclists. The resulting inventory lists the major roads that comprise the walkway and bikeway system as well as many of the destinations. The general use and potential of walking and bicycling in the community are also identified.

Community Description

Physical Features

Myrtle Point is in southwestern Oregon about 15 miles from the coast. The surrounding area is largely rural, with a timber and agriculture-based economy. The City rests on the east bank of the Coquille River at 90 feet elevation. It is about 26 road miles south of Coos Bay and 58 miles west of Roseburg. Although the gentle river valley provides a generally flat topography, there are prominent hills in the eastern portion of the City.

The climate is said to be similar to that of southern England: mild with ample winter rain and a long growing season. The summers are dry and pleasant, with temperatures typically between 60°F and 85°F. Severe cold or snow is unusual, although over 60 inches of rain falls annually.

Population and Size

The 1990 Census credited Myrtle Point with a population of 2,712, down from 2,859 in 1980. The City serves a population of about 4,800 within a 10-mi radius. Density is highest in the older part of town, whereas recent development reflects a more sprawling land-use pattern. Density is also much lower in the semi-rural development surrounding the City. The small size of Myrtle Point places urban destinations within easy walking or bicycling distance—many destinations are within one-half mile and most are within one mile.

Community Services

Myrtle Point has the spectrum of services expected in a smaller community. The following are among the most attractive urban destinations to pedestrians and cyclists:

- Three schools: Maple, with kindergarten through second grade, Myrtle Crest with first through seventh grade, and Myrtle Point High School. The combined enrollment was 1196 students in the 1994 school year.
- Four parks: Lehnherr, Lion's Memorial, Rotary, and Sunset.
- Other destinations: public library, senior center, the shops of the downtown area, the Coquille River and the Coos County Fairgrounds.

Popular rural destinations include nearby trails and a short road loop (Spruce, Stringtown, West Side) to the west.

Employment Centers

Although it is important to encourage all employees to use non-motorized means of transportation where feasible, often the most effective programs are those that involve the large employers. There are 13 businesses within Myrtle Point with 10 or more employees. The majority of these businesses are located within the downtown portion of the City.

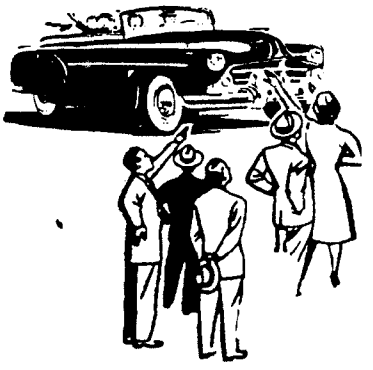
For employees who live in or near Myrtle Point, the opportunity for commuting to work by walking or bicycling is high because of the short distances involved. However, the lack of sidewalks in some areas and the lack of bicycle facilities, such as adequate parking, is a deterrent.

Large Employers (10+) in Myrtle Point

- City of Myrtle Point
- Colony Restaurant
- Mckay's Market
- Myrtle Point Care Center (Nursing)
- Myrtle Point Forest Products
- Myrtle Point Medical Center
- Myrtle Point School District
- Safeway Market
- Schroeder's Furniture Store
- Security Bank
- Semperts Drugstore
- Tubby's Restaurant
- Western Bank

Source: Joanne Miller, Planner, City of Myrtle Point.

Transportation System



Myrtle Point residents rely heavily on the private automobile for most transportation, although slightly less so than the average Oregon community and with more carpooling. The 1990 Journey to Work data for the City reveal that 67% of those over 15 years of age commute to work by driving alone, compared to the State average of 74%. Carpooling accounts for another 18% of trips to work, compared to the State average of 13%.

Myrtle Point has, like many other communities, grown from an older core that was established before land-use patterns began to become auto-oriented. As a result, the downtown is relatively easy to walk or bike, with a 250-foot grid pattern of short blocks and many through connections providing a convenient system for non-motorized travel.

However, as the town expanded, changes were made to primarily accommodate cars, diminishing both accessibility and safety for pedestrians and bicyclists. The interconnecting grid pattern of the older district became a more suburban pattern of long blocks and dead-end streets in the newer portions of the City.

The main corridor through the City is State Route 42 (Coos Bay-Roseburg Highway), which has been dedicated to the almost exclusive use of motorists. There are inadequate facilities for both pedestrians and bicyclists for most of its length. The highway also creates crossing problems for pedestrians and cyclists through the center of the City.

Buses are relied upon for the majority of school transportation. There is no local public transit service.

Details of the existing pedestrian and bikeway systems are described below, in Facility Inventory.

Facility Inventory

Table 1 is an inventory of the existing walkway and bikeway systems, comprised of the major streets located in the City's urban area. The streets are sorted by classification: arterial, collector, local and unimproved. Several features are listed, such as width and the presence of a sidewalk on at least one side of the street. The majority of ADT (average daily traffic) figures are estimates.

Pedestrian

There is an extensive sidewalk system in the older part of town, including the downtown. Many of the sidewalks are buffered by a planting strip. However, some of sidewalks have significant damage such as breaking up, cracking or spalling. Many corners lack curb cuts (see the attached map in

Appendix A) and some have obstacles such as utility poles or fire hydrants that encroach on pedestrian space. Many curb ramps do not meet slope standards (see Section 7).

Of the 18.9 miles of streets in Myrtle Point, 9.2 mi (or 49%) have at least one sidewalk. Four areas of Myrtle Point are deficient in sidewalks:

- The eastern part of Maple Street has no sidewalks or shoulders and the blocks are long with few accesses to adjacent streets.
- The southern part of the City has relatively narrow streets (some of them unpaved), long blocks and no sidewalks or shoulders.
- State Route 42 lacks sidewalks south of Bothwick and has undesirable curb sidewalks in the City center.
- Gravelford Road, which extends to the northern Urban Growth Boundary and is rural in nature, lacks adequate shoulders.

Bicycle

There are no specially designated bikeways within Myrtle Point. Most streets (about 70%) are for local access and have relatively low traffic volumes. Even among the major streets, only State Route 42 has heavy traffic. The streets are all shared roadways, except for the extreme north and south segments of State Route 42 which are shoulder bikeways.

A few unsheltered bicycle racks were noted at several locations, notably schools. Bicycle parking appears to be sparse to nonexistent in all areas of the City.

All public roads in Myrtle Point are open to bicycles. These roads are *shared roadways*, meaning the bicycle shares the travel lane with motor vehicles (see *Section 7: Facility Standards* for a discussion of bikeway types).

Other Corridors

Besides the facilities mentioned above, the abandoned railroad right-of-way near the east boundary of the city is a potential trail to other areas in the county. Also, pedestrian gates through the Coos County Fairground provide a connection between Reeds Ford Rd. and 6th St. Finally, several user trails were noted at the ends of dead-end streets (e.g., 18th St.) leading to adjacent neighborhoods through what is presumed to be private property.

Table 1. Myrtle Point Streets Inventory

Street	From	To	length mi	width ft	outside lane ft	Side-walks	ADT
Arterials							
Gravelford Rd	8th St	North UGB	0.9	24	12	No	1500
Spruce St	Coquille River	8th St	0.4	40	12	Yes	5000
St Route 42	North UGB	Ash St	0.5	66	17	No	7500
St Route 42	Ash St	Harris St	0.3	48	12	Yes	8700
St Route 42	Harris St	Carlisle Ln	1.0	48	12	No	5800
St Route 42	Carlisle Ln	South UGB	0.3	40	20	No	5100
			3.4			0.7	
Collectors							
Harris St	4th St	C St	0.3	36	11	Yes	3000
Harris St	C St	E of Hermann St	0.3	22	11	No	1000
Maple St	Reeds Ford Rd	8th St	0.4	36	11	Yes	2500
Maple St	8th St	Bender St	0.3	36	11	Yes	3000
Maple St	Bender St	25th St	0.6	22	11	No	2500
Maryland Ave	A St	18th St	0.3	40	13	Yes	3000
Maryland Ave	18th St	E of 19th St	0.2	22	11	No	2000
Spruce St	8th St	Bender St	0.3	34	10	Yes	2500
			2.7			1.6	
Local							
1st St	Ash St	Maple St	0.1	40	13	Yes	1000
2nd St	Alder St	S of Maple St	0.2	40	13	Yes	2000
3rd St	Alder St	Maple St	0.1	38	12	Yes	1000
4th St	Alder St	S of Harris St	0.5	40	13	Yes	2000
5th St	Alder St	Harris St	0.3	40	12	Yes	2000
6th St	Alder St	S of Bothwick	0.6	40	13	Yes	2000
7th St	Ash St	Bothwick St	0.3	38	12	Yes	1000
16th St	N of Spruce St	Spruce St	0.1	22	11	No	100
18th St	Maple St	Cedar St	0.1	22	11	No	500
18th St	N of Maryland Ave	Maryland Ave	0.1	18	9	No	250
18th St	N of View St	View St	0.1	18	9	No	100
19th St	Spruce St	Maple St	0.1	22	11	No	500
19th St	Maryland Ave	Hazel St	0.2	40	13	Yes	2000
19th St	Hazel St	Stover St	0.2	22	11	No	1000
20th St	Stover Ln	Kincheloe Ln	0.1	20	10	No	500
23rd St	Maple St	S of Maple St	0.1	22	11	No	250
24th St	Maple St	S of Maple St	0.1	22	11	No	250
25th St	Maple St	S of Maple St	0.1	22	11	No	250
A St	N of Spruce St	S of Cedar St	0.2	30	8	No	500
A St	Bothwick St	Maryland Ave	0.1	36	11	Yes	500
Alder St	2nd St	6th St	0.2	36	11	Yes	1500
Apple Hill Dr	16th St	E of 16th St	0.0	22	11	No	100
Ash St	1st St	8th St	0.3	36	11	Yes	3500

Local (cont'd)							
B St	Harris St	Bothwick St	0.0	20	10	No	250
B St	Bothwick St	Maryland Ave	0.1	36	11	Yes	500
Bender St	Fairview St	Willow Ave	0.2	36	11	No	1000
Bender St	Willow St	Bothwick Ave	0.2	20	10	No	1500
Bender St	Bothwick St	Maryland Ave	0.1	36	11	Yes	1500
Border St	Fairview St	Spruce St	0.1	38	12	No	250
Border St	Spruce St	Maple St	0.0	20	10	No	250
Border St	N of Bothwick St	Maryland Ave	0.1	22	11	Yes	500
Bothwick St	6th St	Railroad Ave	0.1	36	11	Yes	1000
Bothwick St	C St	Myrtle Crest	0.3	40	13	Yes	2000
C St	Spruce St	Maryland Ave	0.3	40	13	Yes	3000
Cathcart St	4th St	6th St	0.1	36	11	Yes	250
Cedar St	4th St	C St	0.3	36	11	Yes	1000
Cedar St	Bender St	E of Hermann	0.1	20	10	No	250
Doborout St	Railroad Ave	C St	0.0	26	13	No	500
Doborout St	B St	Myrtle Crest	0.2	36	11	Yes	1000
Fairview St	W of Border St	Bender St	0.1	36	11	No	250
Hazel St	19th St	E of 19th St	0.0	22	11	No	500
Hermann St	Maple St	Harris St	0.2	20	10	No	500
Hermann St	Bothwick St	Maryland Ave	0.1	36	11	No	250
Hermann St	Maryland Ave	S of Maryland	0.1	34	10	Yes	250
Kincheloe Ln	Roseburg Rd	E of 20th St	0.2	22	11	No	1000
King Ln	20th St	22nd St	0.1	22	10	No	500
Maple St	25th St	Cemetery	0.3	20	10	No	1500
Maryland Ct	Maryland Ave	S of Maryland	0.0	34	10	No	250
Myrtle Crest Dr	Maryland Ave	S of Maryland	0.1	36	11	No	250
Myrtle Crest St	Maple St	Willow St	0.0	20	10	No	250
Myrtle Crest St	Bothwick St	Maryland Ave	0.1	40	15	Yes	1000
Myrtle Pt-River Rd	Roseburg Rd	Spruce St	0.8	26	13	No	2000
Railroad Ave	Gravelford Rd	Doborout St	0.4	30	8	Yes	2000
Reeds Ford Rd	Maple St	Fairgrounds	0.5	22	11	No	250
Spruce St	Bender St	19th St	0.3	22	11	No	2500
Stover Ln	Roseburg Rd	E of 20th St	0.3	22	11	No	1000
Sunset Dr	Roseburg Rd	E of 19th St	0.2	22	11	No	1000
View St	Roseburg Rd	E of 19th St	0.2	22	11	No	1000
Willow St	4th St	8th St	0.2	36	11	Yes	2000
Willow St	8th St	C St	0.1	40	13	Yes	2000
Willow St	A St	Hermann St	0.1	30	15	No	500
Willow St	18th St	E of 18th St	0.1	18	9	No	250
			11.3			5.4	

Unimproved					
21st St	Maple St	S of Maple St	0.1		No
21st St	King Ln	S of King Ln	0.1		No
22nd St	N of King Ln	S of King Ln	0.2		No
B St	Spruce St	Maple St	0.2	36	No
Border St	Willow St	Cedar St	0.0	38	No
Carlisle Ln	W of St Route 42	St Route 42	0.1		No
Cedar St	A St	Border St	0.0	20	No
Cedar St	18th St	E of 18th St	0.1		No
Oak St	St Route 42	E of St Route 42	0.1		No
Pine St	St Route 42	E of St Route 42	0.1		No
River Rd	Sewage Plant	Spruce St	0.3		No
Snyder Ct	St Route 42	St Route 42	0.1		No
Willow St	Hermann St	E of Myrtle Cr St	0.1	30	No
			1.5		0.0
		Total mi.	18.9	Sidewalks	9.2

Pedestrian and Bicyclist Characteristics

Community Demographics

About 63 percent of Myrtle Point's population is under 45. Over 18 percent of the population belongs to the age group that is old enough to attend school but too young to drive (5 to 15 years). Another 19 percent of the population is over 64 (see Table 2).

It is the young and old groups, containing the largest numbers of non-drivers, that can be the most disadvantaged by an automobile-dominated transportation system. Typically, about half of people under the age of 18 participate in bicycling. For the 30 percent of Myrtle Point's population in this age group, a bicycling program would have an immediate audience.

The elderly may bicycle the least of any group, but about one-third like to walk and can benefit greatly from carefully designed facilities. Myrtle Point's adult population is larger than the State average, and will grow in the coming decades. This population has a potential for high pedestrian use if the need for safe and convenient facilities is realized.

Low income groups are also attracted by necessity to walking and bicycling. Per capita income in Myrtle Point for 1989 was $9,436, compared to Oregon's $13,418.

Table 2. Population Age Distribution

Age Group	% in Age Group		Characteristics of Age Group
	Myrtle Point	Oregon	
<18	30%	25.5%	dominant bicycle user group
18-24	5%	9.4%	sharp decline in bicyclists; fewest walkers
25-44	27%	32.6%	decline in bicycling, increase in walking
45-64	17%	18.7%	further decline in bicycling, increase in walking
>64	19%	13.8%	group with fewest bicyclists but many walkers

U.S. Census data

Existing Pedestrian and Bicycle Use

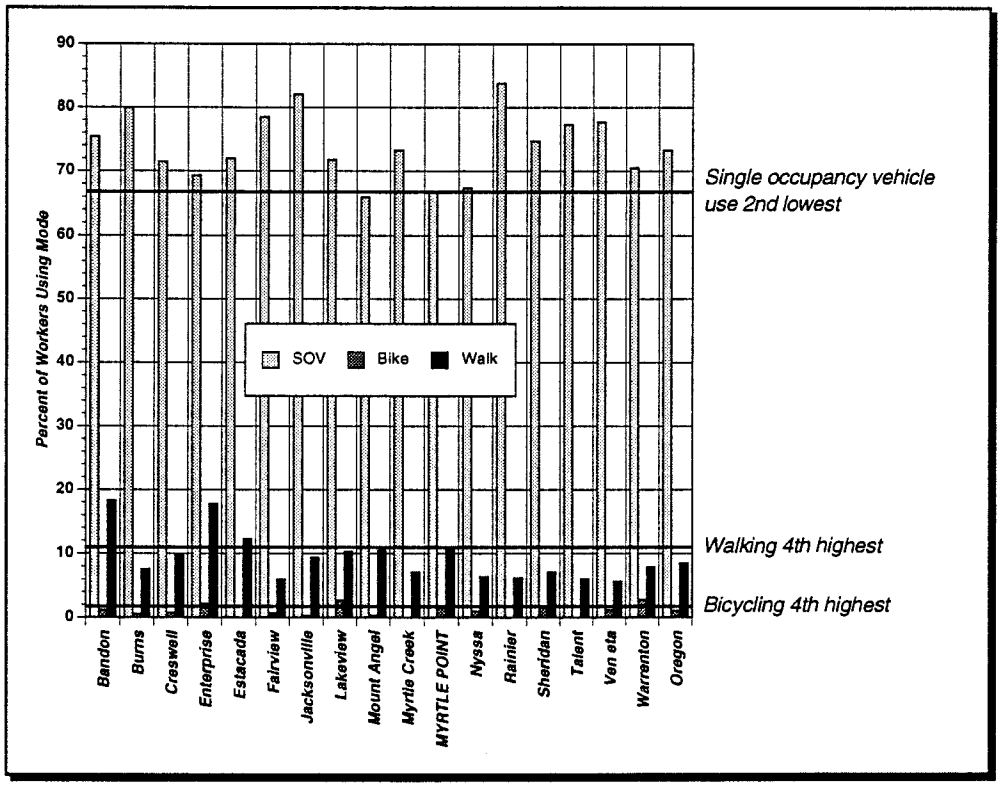
Journey-to-work data show that Myrtle Point residents commute by walking and bicycling more than the State average. Furthermore, among 17 Oregon cities of similar size, Myrtle Point ranks 4th for both walking and bicycling (see figure below).

About 11.0% of Myrtle Point residents walk to work (or work at home)—higher than the State average (8.5%). Cities of similar size had walking figures ranging from a high of 18.3% (Bandon) to a low of 5.7% (Veneta).

Bicycle commuter use in Myrtle Point was at 1.8% in 1990, above the State average of 1.1%. Oregon cities of similar size had bicycle use ranging from a high of 2.8% (Warrenton) to 0.0% (Myrtle Creek and Talent).

These relatively high walking and bicycling figures contribute to low single occupancy vehicle (SOV) use of 66.8%, significantly below the State average of 73.3% and 2nd best among similar-sized cities (only Mount Angel is better at 66.0%).

Journey-to-work data are only an indicator of adult commuting trips and do not include trips by children or any trips for errands or pleasure. Work trips may make up only a quarter or less of total trips. Still, the relatively high percentages of walkers and cyclists in Myrtle Point are a reflection of its compact land-use pattern, centrally located employment area and dense grid of streets in the older part of town.



Myrtle Point is a Leader in Walking and Bicycling Among Small Cities in Oregon

U.S. Census data

Forecasts Affecting Bicycle and Pedestrian Use

Development Patterns

Myrtle Point's population has remained relatively steady over the last few decades. This lack of rapid growth has spared Myrtle Point some of the land-use patterns that have made walking and bicycling more difficult in other communities.

The challenge that faces Myrtle Point is to keep its efficient land-use pattern as it does grow, to modify the newer portions of the City to improve their convenience for pedestrians and bicyclists, and to work with the State Transportation Department to improve the non-motorized facilities on State Route 42.

It is generally accepted that when land uses are less segregated with a development pattern of mixed uses, the short trips by non-motorized modes of transportation are encouraged. The older portion of Myrtle Point is a good example of mixed-use land development, with employment, stores and other conveniences placed within walking or bicycling distances of higher-density residential areas.

However, the newer portions of Myrtle Point reflect the automobile-based zoning pattern typically established following World War II, with very long blocks, missing sidewalks, single uses (residential) with lower density.

The adopted zoning has placed most commercial businesses in the downtown and along the State highway. Industrial zoning is found next to the river and at the extreme southern end of town. The entire eastern half of the City is residential.

Anticipated Use

Although the population of Myrtle Point is not rapidly increasing, two factors may contribute to changes in its demographics that will affect pedestrian and bicycle use. First, Myrtle Point is an attractive city for retirees, as indicted by the larger than average population over 64 (see Table 3). This trend is likely to continue. Older people are more likely to walk for exercise, recreation and transportation than any other age group.

Second, the City is actively seeking a place within the growing tourist economy of south-coastal Oregon. Tourists are attracted to centers of activity and are particularly drawn to walkable and bicyclable areas, such as Ashland or Sunriver, Oregon. As the local economy shifts, tourism will increase in importance.

In addition, automobile use is increasing about three times faster than population, even in portions of the State without rapid population increases. Although no statistics are available to determine if this trend is occurring in Myrtle Point, it most likely is the case.

Increased car use will tax the existing transportation network in Myrtle Point. Expensive expansion of the major roads will be required if current

trends of automobile use continue. A systematic program of pedestrian and bicycle facility improvements will help to create an environment where non-auto trips can increase. Accommodating bicycles, along with encouraging pedestrians can replace some automobile trips and postpone or eliminate the need to construct or reconstruct roads.

Besides these specific reasons, there some general reasons to expect increased bicycle use in the near future. National surveys suggest the potential of bicycle commuting. For example, a 1990 national poll indicated a tenfold increase was possible if better facilities were available. Federal, State and County policies have all begun to strongly emphasize planning for and encouraging non-motorized options. Communities in the U.S. and throughout the world have demonstrated that bicycles can play a prominent role in local trips.

Bicycles as a mode of travel are underutilized in Myrtle Point. The low use is not so much an indication of preference as of a lack of choices. By enhancing local conditions for cycling, and by improving the crossing of 8th St. (State Route 42), ridership should increase measurably.

Walking is a popular mode of local transportation in Myrtle Point when compared to other cities but is still a distant second to single-passenger automobiles. Providing sidewalks in portions of the City where they are lacking, improving the ability of pedestrians to easily cross 8th St., and providing some "short-cuts" in the hilly portion of the City can increase the use of walking.

A reasonable goal for Myrtle Point might be for 20% of all short trips (under 2 miles) to be taken on foot or by bicycle in 20 years (including trips to school by children and other trips not counted in the Census data).

Planned Capital Improvement Projects

The State's 1993–1998 Six-Year Transportation Improvement Program shows no projects in the Myrtle Point area. Roads that are eligible include State Route 42 (Coos Bay–Roseburg Highway), Arago Road (Myrtle Point–Lampa Road), West Side Road and Gravelford Road (Myrtle Point–Cooper Bridge Road).

One parked vehicle requires the area of about 20 walkers.
One moving at 30 mph requires the space of more than 60 walkers.
That's partly why cars in today's traffic wait mostly for cars, little
for pedestrians, while pedestrians do virtually all of their waiting
for cars and rarely, but momentarily, for each other.

– Kenneth Schneider

❧

Roads are typically viewed as transportation links,
but they are also barriers, especially to nonmotorized travel.
The barrier effect reduces walking and bicycling, and increases driving.
It represents an increase in accident risk, and a degradation of the
pedestrian and bicyclist environment. Barrier effect costs tend to be
inequitable because they are imposed most on vulnerable and disadvantaged
populations, including children, the elderly, and handicapped people.

– Todd Litman

❧

Section 4
BARRIERS TO WALKING AND BICYCLING

- Several barriers inhibit walking and cycling.
- Barriers can be minimized by changes in planning, facilities and upkeep.
- Regular maintenance is the easiest and cheapest thing that can be done.

Introduction

A person travelling across the City of Myrtle Point on bicycle or foot would be likely to notice several barriers. The most obvious is State Route 42, both for the lack of walkways and bikeways on portions of the highway, and for the difficulty of crossing it. Other barriers to walking and bicycling in Myrtle Point are the "Maple Street hill," the "19th Street hill," a lack of sidewalks and shoulders in the eastern and southeastern portions of the City, almost no bicycle parking, and a lack of shoulders on two popular recreational routes: Myrtle Point-Cooper Bridge Road and Myrtle Point-River Road.

The effect of these barriers is to diminish the use of nonmotorized modes within the City. The physical barriers described below should be addressed in the planning, design and upkeep of functional walkway and bikeway systems.

General recommendations are given below. Specific projects are described in Section 5: Streets Analysis and Recommended Projects.

State Highway

The central north-south street within Myrtle Point is State Route 42, also known as 8th St. in the downtown area. This facility, which is the only through north-south route, poses several significant problems for pedestrians and bicyclists.

It is the policy of the State of Oregon to provide a balanced transportation system. A balanced transportation system is one that provides transportation options at appropriate minimum service standards, reduces reliance on the single occupant automobile where other modes or choices can be made available, particularly in urban areas, and takes advantage of the inherent efficiencies of each mode. —Oregon Transportation Plan Policy 1A

Traffic volumes on the highway are 8,700 vehicles per day in the central area (1993 count), dropping to 5,100 at the south City limits. It appears that the majority of these trips are through traffic. Many of the vehicles on the highway in Myrtle Point may be trucks with more than two axles; studies in the late '70s gave a figure of 33% in town and 17% north of the city, although during two site visits for this plan the in-town figure was about 15%.

The posted speed is 30 mph. For most of its length in Myrtle Point, the highway has four 12-ft lanes curb-to-curb with no on-street parking. Six-foot sidewalks exist adjacent to the curb from Ash St. to Bothwick St. within the narrow 60-ft right-of-way. The right-of-way broadens north and south of this area.

Except for stoplights at Spruce St. and Harris St., there is little to slow down the motorist or give any indication that they are on an urban street. At the north end of Myrtle Point, the highway enters the City abruptly, with no warning that the motorist will shortly be entering a downtown area where cross traffic, including pedestrians and bicyclists, is expected. This lack of entrance into the City, combined with the wide travel lanes, results in higher motor vehicle speeds than are appropriate through a downtown core. High traffic volumes and speeds are intimidating and unpleasant for bicyclists and pedestrians, both on and crossing the facility.

The southern entrance to the City is similar, with over a mile of four-lane highway without any signals, crosswalks or other features to slow the traffic.

The section of the highway from Bothwick south is also four lanes with no sidewalks. A high cliff on the east side over part of this segment limits the space to add a sidewalk to full standard. Several curves make it difficult for large trucks and speeding cars to stay within the lanes, increasing the level of danger and discomfort for pedestrians and bicyclists. Unfortunately, there are no alternative routes into the downtown.

A realignment of the highway to the west to straighten out the curves was proposed a few years ago. It appears to have been dropped due to cost. Straightening the highway would tend to make the traffic go even faster, although a reconstruction would provide the opportunity to add bike lanes and sidewalks.

After they reach the downtown area, some pedestrians and cyclists may prefer to use parallel streets such as 7th St., Railroad Ave. and "C" St. However, these streets have many disadvantages that make them an imperfect alternative:

- Out-of-direction travel increases distance and turning movements.
- Additional stops increase travel time (Railroad Ave., in particular, has 5 stop signs).
- Many intersections with cross streets of equal or greater priority are potentially hazardous.
- Facilities (sidewalks, curb ramps, street width, intersection controls) are inconsistent.
- Some destinations on 8th St. cannot be reached easily.

State Route 42 has two signalized intersections in the downtown area at Spruce and Harris. The intersections have marked crosswalks. There are "walk" buttons, on poles mounted on the sidewalk, suitable for pedestrians on the sidewalk (good placement) but not easily reached from the roadway. The problem is that, because there are no curb cuts, a person in a wheelchair faces a dilemma. Without using the "walk" button, the intersection timing

appeared to be as short as 10 seconds (with one car), insufficient crossing time for a wheelchair user as well as most pedestrians and many cyclists.

There is an additional intersection with marked crosswalks but no signals at Maple St., approximately 200 feet south of the Spruce St. intersection. There are four other intersections through town that do not have marked crosswalks: Ash St., Willow St., Cedar St. and Bothwick St. that create an 800-ft gap with no marked crosswalk. Because there are businesses, schools and residential areas on both sides of the highway, and the majority of employment areas are located on the west side, the number of marked crossings may be inadequate.

Existing nonmotorized facilities on the highway are restricted to sidewalks through the downtown core. These sidewalks are curb sidewalks, unbuffered from adjacent traffic, since there is no planting strip or on-street parking. There are no bike lanes or wide outside travel lane.

This analysis shows that State Route 42 needs major improvements:

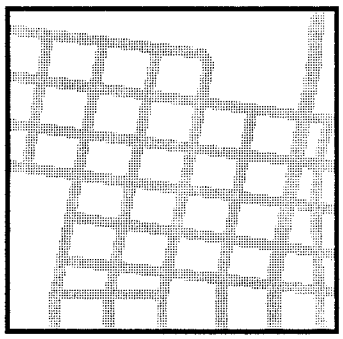
- Entrance treatments into the City that welcome the visitor and encourage them to reduce speed and watch for local traffic. Other cities accomplish this with techniques such as landscaping, medians, roundabouts, buildings close to the curb and narrow lanes.

- Pedestrian and bicycle facilities on the highway as it traverses the City on the only through north-south route. The appropriate bikeway on an arterial street with heavy traffic is the bike lane. Sidewalks on both sides, buffered with a planting strip where possible, are needed for pedestrians.

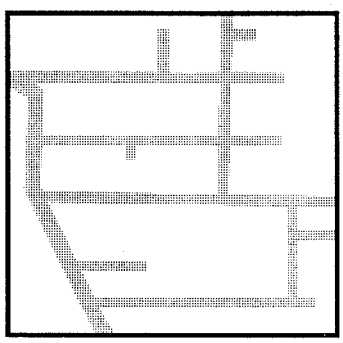
- Strongly marked crossings that are accessible to all users and provide ample time to cross. Curb ramps should be installed. A center median would provide the pedestrian with a crossing refuge.

Missing Links

An integrated and continuous street system is desirable for all users because it allows for many route options and the shortest possible distance to destinations. This is especially critical for pedestrians and cyclists who are less willing to travel out-of-direction. A grid pattern of streets with short blocks is optimum. This pattern is found in the older part of Myrtle Point and functions well, except where interrupted by State Route 42.



Dense grid of streets, all with sidewalks, provides many route and mode choices and disperses traffic.



Long blocks, with many cul-de-sacs and few sidewalks, results in longer travel distances and encourages car use. Traffic congestion results.

In the newer portions of the City, to the east and south, the grid pattern has been abandoned. Although the street layout is partly due to the topography, development was built to a rural rather than urban standard, with narrow roadway width, no shoulders or walkways, and few connecting streets.

However, due to the short travel distances from these "outlying" neighborhoods to the City center, they are not actually rural in nature, and the City should encourage greater connectivity. With better facilities and connections, people could walk and bicycle within and from these areas. Without facilities, there is little choice but to drive.

Several remedies are suggested in *Section 5: Projects.* These include walkways along Maple St., and the establishment of trail or path "short-cuts" to allow pedestrians and bicyclists more direct access to adjacent neighborhoods. The appendix contains suggested policies and ordinances to accommodate pedestrians and bicyclists in future development.

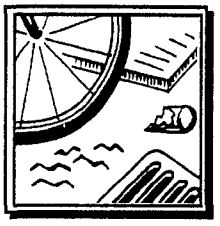
Topography

Hills are more of a design consideration than a limitation to walking and cycling. Steep grades certainly discourage some people, although those who lack the gears or fitness to tackle grades on a bicycle can frequently handle them on foot.

The topography of Myrtle Point includes some steep hills, specifically the "Maple Street hill" and the "19th Street hill." However, the terrain within most of the urban area is flat or relatively gentle and not a significant constraint to walkers or bicyclists. The biggest problems posed by these two hills in are the poor asphalt condition on Maple Street, creating difficulties for bicyclists, and the lack of sidewalks in the area of 19th Street and upper Maple Street.

Recommended improvements are the addition of walkways or sidewalks and attention to roadway maintenance (refer to general discussion below).

Maintenance



It often seems easier to plan for and build a project than to maintain it. Yet, without the commitment to maintenance, walkway and bikeway projects can be a step backwards. Inevitable accumulations of debris along the road edges as well as surface deterioration renders bikeways unpleasant and dangerous. Similarly, sidewalks must have a smooth surface and be free of undue amounts of debris. This is particularly true for disabled people.

Unswept shoulders are one of the most common complaints from cyclists. Broken glass, rough overlays, and cracks force cyclists into the travel lane to find a smooth surface, which causes animosity in motorists who do not understand the dilemma. A street that is in poor condition along its edges is effectively that much narrower than its measured width, placing more demand on the remaining road.

Sidewalks are prone to cracking, spalling, root upheaval and other conditions that render them unsuitable for walking. Where the sidewalks are not kept in good condition, it is common to see pedestrians walking in the street. This places them at risk from vehicles.

Some of the roads in Myrtle Point are in poor condition, particularly along their edges (see *Section 5: Projects*). A regularly scheduled inspection and maintenance program is essential, and all road work should be performed with an understanding of how it affects pedestrians and cyclists. In particular, the following activities should be stressed.

Sweeping

Sweeping sidewalks, roadway shoulders and bike lanes consistently is probably the easiest step that can be taken to improve conditions for nonmotorized modes. The responsibility for sweeping sidewalks usually falls on the adjacent property owner; this responsibility should be made clear and enforced, similar to other kinds of sidewalk maintenance.

Roadway sweeping is usually the responsibility of the City, County, or State, depending on the jurisdiction of the road. Although it may not be cost-effective to sweep every roadway frequently, the following actions can improve the situation:

- Establish a seasonal sweeping schedule and sweep high use areas after each major storm.
- Pave gravel driveways to the road right-of-way as suggested in the *Oregon Bicycle and Pedestrian Plan*. This adds a small cost (about $200 plus material per driveway) to road construction and greatly benefits both bicyclists and residents.
- Publicize a phone number where glass and other hazards can be reported.

Vegetation Removal

Trees, shrubs, and other vegetation and their roots encroaching into and under sidewalks, paths and roadway edges cause safety and maintenance problems: loss of clearance, reduced sight distance, debris, and pavement breakup. Pruning, mowing and leaf removal should be part of routine maintenance. New construction should employ 12-inch root barriers where necessary.

Drainage Grate Inventory and Replacement

The City should conduct a drainage grate inventory, particularly in advance of doing overlay work, and make sure that all grates comply with the standards outlined in the State Bicycle and Pedestrian Plan (1994 Draft). Grates should be raised to the level of the roadway and be given a smooth joint with the street surface. This is especially critical at intersections where the curb cut is adjacent to a drainage grate, to insure that problems are not created for the disabled.

Any grates that have the potential for catching bicycle or wheelchair wheels should be replaced. When doing reconstruction, in-street drainage grates should be replaced by curb inlets. See Section 7 for detail about drainage grates.

Sidewalk Repair

Oregon allows cities to require property owners to maintain and repair sidewalks. Myrtle Point has an informal program under which property owners are notified that repair is needed and given a time period in which the repairs should be completed. Students at Myrtle Point High School are available to do concrete work at low cost.

Sidewalk conditions ranged from very good to very poor in Myrtle Point at the time of the inventory. The City may wish to formalize its sidewalk repair program and pursue it more aggressively, particularly within the downtown core.

Oiling and Chip Sealing

Attention should be given to maintaining the full pavement width and not allowing the edges to ravel or deteriorate. Because work that extends partially into the shoulder leave a dangerous, raised ridge, oiling and chip sealing should extend the full width or stop at the shoulder stripe.

The preferred chip seal size is 3/8 in. to #10 or smaller for bike lanes and shoulder bikeways. All utility access points, manhole covers and drainage grates should be raised to match the new surface within 0.75 in. All edges should be feathered to provide a smooth transition from the bikeway to other surfaces.

Overlays and Patching

Spot maintenance work can degrade bikeways if care is not taken. Where the work is in the bikeway, a smooth surface with feathered edges is important. Ideally, the work should extend the entire width of the bikeway to avoid discontinuities parallel to the bicycle travel. When a grader blade is used, the last pass may leave a rough tire track in the patch, so either a smooth tire should be used or the area should be rolled.

Even work confined to the travel lanes can cause problems because loose asphalt often ends up in the bikeway where it adheres to the existing surface and creates a rough spot. Work should be compacted sufficiently and loose materials should be swept away before they become a problem. Leaving the work of flattening a patch to passing vehicles is dangerous to cyclists.

Widening and Restriping

Improvement and periodic restriping of roads present an excellent opportunity to improve cycling conditions. Bikeways should be resurfaced, as a minimum, to the same width as the existing pavement and, where possible, should be widened to standard.

Wide travel lanes can often be restriped to 11 or 12 ft to provide wider shoulders for bicyclists with no loss in automobile safety and movement (indeed, 11-ft lanes in urban areas are recommended by many authorities to reduce vehicle speed on over-designed roads). An extra foot in shoulder width can mean a lot to bicyclists' safety and comfort.

Existing gravel shoulders, such as along Gravelford Rd., may have sufficient width and base to support shoulder bikeways. Minor excavation and the addition of 3 to 4 in. of asphalt is often all that is required. Care should be taken to avoid a joint at the edge of the existing pavement by feathering the new asphalt or creating a clean saw cut at the transition.

Four-lane arterials and collectors without bike lanes, such as 8th St., can often benefit from restriping to two travel lanes with outside bike lanes and a center turn lane. This has proven to increase safety and convenience for all users—motorists, bicyclists and pedestrians—while maintaining vehicle capacity.

Responsibility

The agencies responsible for the control, maintenance, and policing of bicycle facilities should be established prior to construction. The costs involved with the operation and maintenance should be considered and budgeted for when planning a facility.

Neglected maintenance renders sidewalks and bikeways unusable, and the facilities become a liability to the community. Regular inspections should be scheduled. Users should be encouraged to report needed maintenance. A central contact person with authority to authorize maintenance work should be designated to receive such reports.

Any construction, public or private, should be designed so as not to compromise the maintenance of existing or planned walkways or bikeways. Site plan reviews and inspections should verify that suitable surfaces, drainage, driveway aprons and sweeper access exist.

Specific design and construction recommendations are given in *Section 7: Facility Standards* and in the *Oregon Bicycle and Pedestrian Plan.*

Land Use

A city's land-use policies—in particular, density, connectivity, zoning and site planning—have a profound effect on its citizen's transportation choices. The older section of Myrtle Point in the west half of the city demonstrates the kind of planning that encourages walking and bicycling. The newer development to the east and south does not. Myrtle Point should apply the following planning principles to future developments.

Density

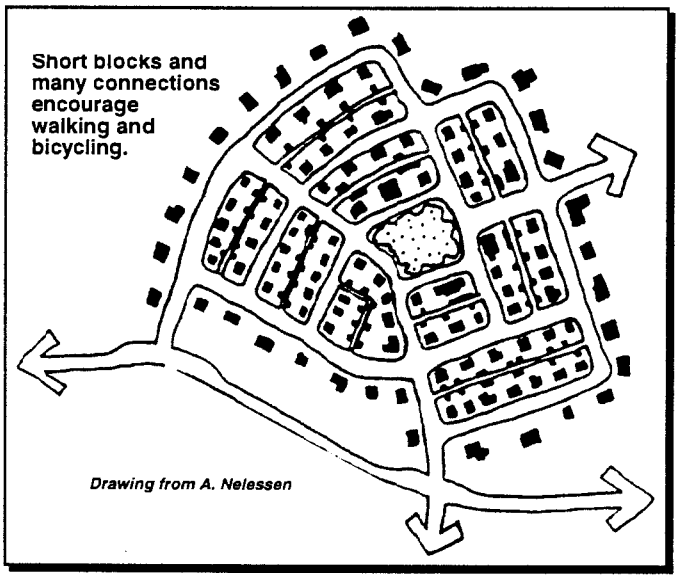
The density of development has a direct relationship on the level of pedestrian and bicycle use in an area, and an inverse relationship on the level of car use. This is because walking and bicycling are the best choices for short trips—from 0.25 to 2.5 mi for most people. In downtown Myrtle Point, where density is relatively high, pedestrian use is also high because many destinations are a short distance away. Spread the same population out over a larger area and people rely on their cars more.

In larger cities, transit use becomes closely tied to density because transit stops must be within walking distance to attract users. The ability to reach a bus stop or rideshare lot by walking or bicycling can reduce the need for a car.

City ordinances relating to maximum and minimum lot size, dwellings per acre, secondary dwellings ("mother-in-law" apartments), street widths and space consumed by automobile parking should be designed to maintain sufficient density within the urban area to make walking and bicycling practical. Suggested ordinances are included in the Appendix.

Connectivity

A dense, well-connected street network is crucial for walking and bicycling because it offers a choice of routes and limits out-of-direction travel. Most destinations can be reached as directly as possible. In addition, the traffic in a dense, interconnected system of narrow streets is far less hostile to pedestrians and bicyclists than the same amount of traffic in a sparse network of wide collectors and arterials. For example, it is more difficult for a pedestrian to cross six lanes of traffic on a single major arterial than it is to cross the same amount of traffic spread out on three two-lane streets.



The City should strive to keep block lengths short (600 ft maximum) so that there are many intersections. This need not be a square grid; for variety or to adjust to topography, T-intersections and short curves can be utilized. Cul-de-sacs and isolated developments should be discouraged or, if approved, should include public easements to connect with adjacent development (existing or future).

Mixed and Multiple-Use Zoning

Another land-use issue that has enormous influence on the choice of walking or bicycling for transportation is the availability of shops, banks, jobs, schools and transit stops within walking distance.

Studies show that the average person considers maximum walking distance to be around one-half mile, and that greater distances encourage substituting a car. If new developments are proposed that are located further than one-half mile from most services, then the development should be zoned to include a small commercial area for basic services. This type of mixed-use development can have the added advantage of establishing a neighborhood feeling, which is often missing in newer developments built without such a center.

Another advantageous practice is multiple-use zoning, wherein more than one use is allowed on the same property (such as living quarters above a store). This type of zoning also contributes to the supply of affordable housing.

Site Planning

Large setbacks from the street are a great discouragement to pedestrians and bicyclists, especially when the setback is a parking lot. Parking lots can be a safety hazard, as well. Public and commercial buildings should be oriented to the street, with small or no setbacks where possible, and with car parking located behind the building.

Where rear parking is not possible, walkways should be provided across the parking lot. The walkways should be curbed, lighted sidewalks. Where pedestrians must cross a car lane, the walkway should be clearly marked with paint, texture, or both. The walkway should follow a convenient and logical route to the main entrance of the building. Connections to future transit stops should also be considered when planning the walkway.

Bicycle parking should be conveniently located close to the building's main entrance (see *Section 7: Facility Standards* for bicycle parking needs).

Section 5

ANALYSIS AND RECOMMENDED PROJECTS

- Sidewalks and other pedestrian facilities are needed city-wide, especially along State Route 42.
- With relatively minor improvements, the present streets provide direct and cost-effective bikeways.
- Arterials and collectors with high traffic loads should have bike lanes.
- Eleven projects are described.

Challenges

Roadways differ greatly in what they offer pedestrians and cyclists. Putting aside the social and political factors, walkway and bikeway evaluation is inherently complex because of the many alignment, design and traffic factors as well as the wide range of user preferences and abilities.

Numerous physical features enter into the considerations, including road and lane widths, shoulders, alignment, pavement, traffic controls, turning movements, automobile parking, bicycle parking, sight distance, grade, intersections, and the volume, speed, and mix of traffic.

Add to this the different types of users—children, the disabled, novice cyclists, commuters, shoppers, tourists, runners and bicycle racers—any one of which may use the facilities, and the equation becomes complicated indeed. The typology of users must consider such factors as trip purpose, average trip length, physical ability, operating speed, skill, knowledge of traffic rules, age, experience, and so on. A given person may fall into more than one category.

After gathering user preferences, assessing the various aspects of the transportation system, and attempting to minimize hazards, one is often left with confusing and conflicting choices. What works well for one user may not be ideal for another.

Fortunately, planners need not start from the beginning. The transportation system is well developed around a hierarchy of streets—highways, arterials, collectors, local—that provide direct public access to nearly all destinations. The city's existing arterials and collectors provide the basis for the most functional urban walkway and bikeway networks, just as they do for motorists. Decades of experience provides insight into the most effective solutions for each element in the network.

The challenge is to gather enough relevant information to make informed decisions. The inventory of existing facilities in Section 3 is a beginning. The next step is to organize the data to highlight deficient elements. Finally, the most significant deficiencies are analyzed and ranked.

Rating Index

All streets within the Urban Growth Boundary (UGB) were examined for factors that affect bicycle operation and use. These factors include standard street measurements such as Average Daily Traffic (ADT), outside lane width, number of travel lanes, and vehicle speed. Various other factors are divided into 'pavement' and 'location' categories that describe street condition and design.

The data were organized for each street segment in a computer database application. A numerical value was assigned to each factor and incorporated into a Bicycle Rating Index formula. The resulting number is an overall indication of the each street's condition—the lower the number the better the street accommodates cyclists.

The Index results were used to divide the streets into four categories: superior, good, fair and poor per Table 3. Results were transferred to a map (see next page), so that gaps in the system are demonstrated graphically. Table 4 lists all streets in order of their index rating. Projects are noted by a number in parentheses that corresponds to the description later in this section.

Table 3. Bikeway Rating Index Summary

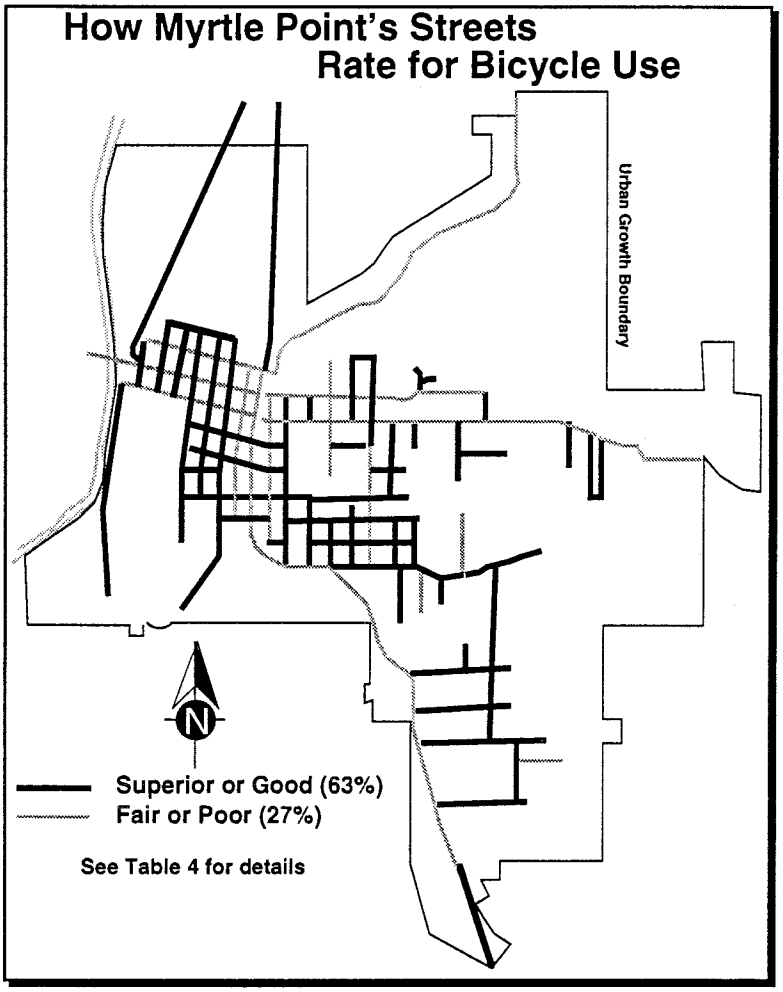
Rating	Index Scale	Description	miles	Percent of total miles
Superior	less than 3.00	Conducive to bicycle use. Minor improvements, if any, needed.	4.4	25
Good	3.00-3.99	Accommodates most cyclists. Minor improvements may elevate to superior rating.	6.6	38
Fair	4.00-4.99	Usable by some cyclists but poses hazards. Improvements, such as shoulders or lanes, needed.	4.0	23
Poor	greater than 4.99	Significant hazards due to substandard conditions. Should be improved ASAP unless traffic levels are low.	2.4	14
		Total	17.4	100

Notes:

There are 1.5 miles of unimproved roads in the UGB not counted above.
About 8.0 miles (46 percent) of the roads above (paved) do not have a sidewalk.
About 9.7 miles (51 percent) of all roads in the UGB do not have a sidewalk.

Table 3 shows that 63% of the paved roads inside the UGB are rated good or superior for cyclists, meaning that few improvements are necessary under present conditions. These are mostly local streets that have a good surface, ample width and low traffic volumes. However, this does not take into account factors such as destinations, intersections, connectivity and pedestrian facilities. In other words, these roads may offer acceptable cycling conditions but, being local streets, are useful mainly to neighborhood residents.

Many of the roads rated poor or fair (27% of the total) are arterials or collectors that serve the most users and provide the best through access. These are the focus of the recommended projects.



A form was filled out for each street (supplied as an Appendix). Where a street changed conditions significantly, it was broken into segments and a form was filled out for each segment. The data were entered into a computerized data base which calculated the Bicycle Rating Index. The lower the number, the better the street for cycling.

The index depends on reasonably accurate traffic counts, lane widths and conditions. Myrtle Point does not routinely track this information. Limited information was bolstered by a walking inspection of the urban area and by inputs from the Pedestrian and Bicycle Advisory Committee. Where ADTs were not known, they were estimated.

The Pedestrian and Bicycle Advisory Committee and Public Works Departments should gather the data necessary to keep these forms up-to-date so as to identify future needs and to track progress.

Derivation of Bicycle Rating Index

To help provide consistent, bicycle-specific data for an entire street network, a formula was devised that has been successfully used in Florida and Tennessee (W. Davis and M. Horowitz, *Assessing Roadway Conditions for Bicycle Suitability,* paper presented at Conference Velo Mondiale, Montreal, Canada, Sept. 1992). The formula evaluates how well a road accommodates cyclists based on recognized factors that affect bicycle operation and use noted above. By using primarily existing data, it provides a cost-effective way to quantify streets and to isolate deficiencies. The data are easily updated as conditions change. A highly refined version of this formula was used to inventory the Myrtle Point area's streets.

Table 4. Bikeway Rating Index List

Street	From	To	Classification	Rating Index			
				Total	Traffic	Pavement	Location
Superior							
St Route 42	Carlisle Ln	South UGB	Arterial	**-0.34**	-0.84	0.0	0.50
Myrtle Crest St	Bothwick St	Maryland Ave	Local	**1.33**	0.33	0.25	0.75
Willow St	A St	Hermann St	Local	**1.56**	0.31	0.25	1.00
St Route 42	North UGB	Ash St	Arterial	**1.57**	0.82	0.0	0.75
Doborout St	Railroad Ave	C St	Local	**2.31**	1.31	0.0	1.00
6th St	Alder St	S of Bothwick St	Local	**2.36**	1.61	0.25	0.50
Bothwick St	C St	Myrtle Crest St	Local	**2.36**	1.61	0.25	0.50
Willow St	8th St	C St	Local	**2.36**	1.61	0.25	0.50
1st St	Ash St	Maple St	Local	**2.41**	1.41	0.25	0.75
Bender St	Bothwick St	Maryland Ave	Local	**2.51**	2.51	0.0	0.0
19th St	Maryland Ave	Hazel St	Local	**2.61**	1.61	0.25	0.75
23rd St	Maple St	S of Maple St	Local	**2.76**	2.26	0.0	0.50
24th St	Maple St	S of Maple St	Local	**2.76**	2.26	0.0	0.50
25th St	Maple St	S of Maple St	Local	**2.76**	2.26	0.0	0.50
B St	Bothwick St	Maryland Ave	Local	**2.81**	2.31	0.0	0.50
Border St	N of Bothwick St	Maryland Ave	Local	**2.81**	2.31	0.50	0.0
C St	Spruce St	Maryland Ave	Local	**2.81**	1.81	0.50	0.50
Hazel St	19th St	E of 19th St	Local	**2.81**	2.31	0.0	0.50
Maryland Ave	A St	18th St	Collector	**2.81**	1.81	0.25	0.75
3rd St	Alder St	Maple St	Local	**2.91**	1.91	0.25	0.75
Harris St	C St	E of Hermann St	Collector	**2.91**	2.41	0.0	0.50
Hermann St	Bothwick St	Maryland Ave	Local	**2.98**	1.98	0.0	1.00
16th St	N of Spruce St	Spruce St	Local	**2.98**	2.23	0.25	0.50
Apple Hill Dr	16th St	E of 16th St	Local	**2.98**	2.23	0.25	0.50
Good							
Border St	Fairview St	Spruce St	Local	**3.01**	1.76	0.25	1.00
A St	Bothwick St	Maryland Ave	Local	**3.06**	2.31	0.25	0.50
2nd St	Alder St	S of Maple St	Local	**3.11**	1.61	0.50	1.00
Maryland Ave	18th St	E of 19th St	Collector	**3.11**	2.61	0.0	0.50
Doborout St	B St	Myrtle Crest St	Local	**3.16**	2.41	0.25	0.50
Alder St	2nd St	6th St	Local	**3.26**	2.51	0.25	0.50
Border St	Spruce St	Maple St	Local	**3.26**	2.76	0.0	0.50
Cathcart St	4th St	6th St	Local	**3.26**	2.26	0.50	0.50
Cedar St	Bender St	E of Hermann St	Local	**3.26**	2.76	0.0	0.50
Maryland Ct	Maryland Ave	S of Maryland Ave	Local	**3.26**	2.76	0.0	0.50
Myrtle Crest St	Maple St	Willow St	Local	**3.26**	2.76	0.0	0.50
Hermann St	Maple St	Harris St	Local	**3.31**	2.81	0.0	0.50
5th St	Alder St	Harris St	Local	**3.36**	2.11	0.50	0.75
19th St	Hazel St	Stover St	Local	**3.41**	2.41	0.25	0.75
Bothwick St (15)	6th St	Railroad Ave	Local	**3.41**	2.41	0.50	0.50
Stover Ln	St Route 42	E of 20th St	Local	**3.41**	2.41	0.25	0.75

Myrtle Pt-River Rd	St Route 42	Spruce St	Local	**3.51**	1.76	1.25	0.50
B St	Harris St	Bothwick St	Local	**3.51**	2.76	0.25	0.50
Fairview St	W of Border St	Bender St	Local	**3.51**	2.26	0.25	1.00
19th St	Spruce St	Maple St	Local	**3.56**	2.31	0.25	1.00
20th St	Stover Ln	Kincheloe Ln	Local	**3.56**	2.81	0.25	0.50
Harris St	4th St	C St	Collector	**3.56**	2.81	0.25	0.50
Kincheloe Ln	St Route 42	E of 20th St	Local	**3.66**	2.41	0.25	1.00
Sunset Dr	St Route 42	E of 19th St	Local	**3.66**	2.41	0.25	1.00
View St	St Route 42	E of 19th St	Local	**3.66**	2.41	0.25	1.00
Hermann St	Maryland Ave	S of Maryland Ave	Local	**3.76**	2.76	0.25	0.75
Willow St	18th St	E of 18th St	Local	**3.76**	3.26	0.0	0.50
18th St	Maple St	Cedar St	Local	**3.81**	2.31	0.75	0.75
4th St	Alder St	S of Harris St	Local	**3.86**	1.61	1.75	0.50
Willow St	4th St	8th St	Local	**3.86**	2.61	0.75	0.50
Reeds Ford Rd	Maple St	Fairgrounds	Local	**3.91**	2.41	1.00	0.50
Bender St (11)	Fairview St	Willow Ave	Local	**3.91**	2.41	0.25	1.25
Cedar St	4th St	C St	Local	**3.91**	2.41	1.00	0.50
18th St	N of View St	View St	Local	**3.98**	3.23	0.25	0.50

Fair

18th St	N of Maryland Ave	Maryland Ave	Local	**4.01**	3.26	0.0	0.75
Bender St (8)	Willow St	Bothwick Ave	Local	**4.01**	3.01	0.0	1.00
Myrtle Crest Dr	Maryland Ave	S of Maryland Ave	Local	**4.01**	2.26	1.25	0.50
King Ln	20th St	22nd St	Local	**4.06**	2.81	0.25	1.00
Ash St	1st St	8th St	Local	**4.16**	2.91	0.50	0.75
Maple St (4)	Bender St	25th St	Collector	**4.21**	2.71	0.75	0.75
Gravelford Rd (7)	8th St	North UGB	Arterial	**4.26**	2.01	0.75	1.50
7th St (10)	Ash St	Bothwick St	Local	**4.41**	1.91	1.75	0.75
Spruce St (6)	8th St	Bender St	Collector	**4.46**	3.21	0.25	1.00
Spruce St (9)	Bender St	19th St	Local	**4.46**	2.71	0.75	1.00
Maple St	Reeds Ford Rd	8th St	Collector	**4.71**	2.71	0.75	1.25
Spruce St (5)	Coquille River	8th St	Arterial	**4.96**	2.71	1.00	1.25

Poor

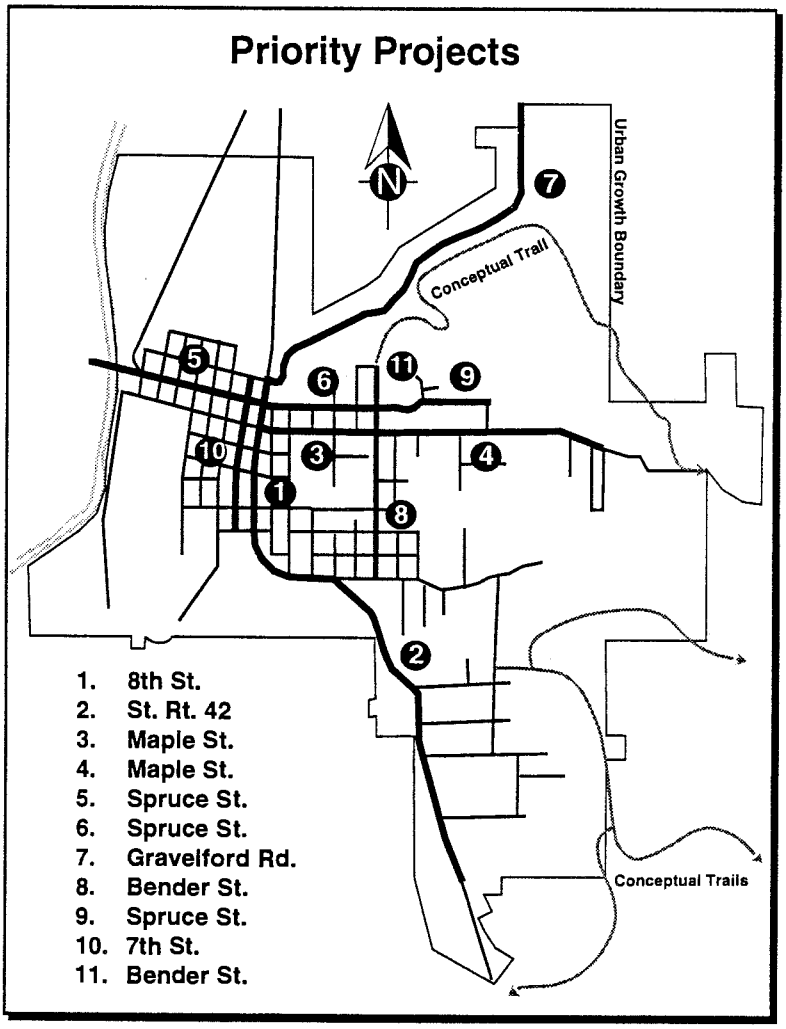
A St	N of Spruce St	S of Cedar St	Local	**5.31**	3.81	0.25	1.25
Maple St (3)	8th St	Bender St	Collector	**5.56**	2.81	1.75	1.00
Railroad Ave	Gravelford Rd	Doborout St	Local	**5.61**	4.11	0.25	1.25
St Route 42 (1)	Ash St	Harris St	Arterial	**5.85**	3.60	1.50	0.75
St Route 42 (2)	Harris St	Carlisle Ln	Arterial	**5.94**	2.44	1.50	2.00
Maple St	25th St	Cemetery	Local	**6.01**	3.01	1.50	1.50

Average Index Rating **3.67** (Good)

Project Descriptions

The index, along with considerations such as traffic mix, intersections, linkages and destinations, are used to recommend projects and appropriate designs. Eleven projects are listed alphabetically in three categories: high, medium and low (see figure below).

There is also a list of candidate projects that should be keep in mind for future improvements. Finally, streets that access recreational rides are listed. Parking recommendations are discussed at the end.



Lane configurations are presented as a number series, in feet, from curb-to-curb (or edge-to-edge). For example, 7P-5B-11-11-6B (40) is a 7-ft parking lane, 5-ft bike lane, two 11-ft travel lanes, and a 6-ft bike lane for a total roadway width of 40 ft. The lanes are normally listed from west-to-east or north-to-south.

The estimated cost represents what it would take to add the improvement to the existing road. Most projects can be accomplished at reduced cost by combining them with other work such as an overlay. In some cases, the recommended work includes general roadway improvement, such as patching, that benefits all users.

Costs include only engineering, installation, minor contingencies, striping and signing as discussed in Section 6: Implementation and Funding. Because costs vary over time, the figures provided are rough estimates intended to help set priorities and secure funding.

The priorities are merely a guide for pursuing projects by incorporation into the capital improvements list. It is difficult to know exactly what developments will be proposed and what funding opportunities will be realized. Projects should be sequenced to take advantage of other road work being performed. Timing is often crucial, and a project should not be overlooked simply because it is down on the list, if conditions are favorable to proceed. One thing is certain: a strong set of ordinances, codes and standards guiding construction will ensure that whatever happens will have adequate provisions for pedestrians and cyclists.

High Priority Projects

High priority projects correct major problems in the most important corridors. Examples are removal of a significant barrier, elimination of a serious hazard, completion of a critical link, or greatly improved access.

These projects typically involve arterials that feature high traffic volumes, large intersections and lack of facilities. Despite the obstacles, these streets are essential to functional walkway and bikeway systems because they offer direct routes with minimal stops to many destinations. Because of the traffic volume, buffered sidewalks and bike lanes are usually the appropriate on-street facilities.

High-priority projects may be difficult to accomplish immediately due to the magnitude of the task, but they should be pursued methodically.

1. St Route 42 (8th St), Ash St to Bothwick St, Arterial, 0.3 mi

Description: Primary corridor in the City and the only through north-south route. It traverses many commercial and residential destinations. The posted speed limit is 30 mph. There are four 12-ft lanes and two 6-ft curb sidewalks in the 60-ft right-of-way. Daily traffic was 8,700 at the highest location (south of Spruce St) in 1993. The sidewalks are in fair condition but with debris and some obstacles (e.g., signal poles and driveway ramps). There is no on-street parking. Three of 7 intersections have crosswalks, 2 with signals, but without pedestrian ramps.

Recommendation: For pedestrians, the sidewalks should be repaired where the surface has deteriorated or been damaged, pedestrian ramps should be installed at all intersections, and crosswalks should be strongly delineated with interior markings.

For bicyclists, ODOT's policy is to provide bike lanes on urban arterials. This can be accomplished within the limited right-of-way on 8th St. by conversion from 4 lanes to 2 travel lanes with a center turn-lane (6B-12-12-12-6B). Fortunately, a 3-lane configuration can adequately serve the moderate traffic volumes and has other advantages (refer to discussion of how a 3-lane street works on the following pages). Routing bicycles onto side streets, as was popular in some cities during the 1970's, is not a constructive answer to cyclist's needs as discussed in the *Oregon Bicycle and Pedestrian Plan* and in Section 4: Barriers to Walking and Bicycling of this document.

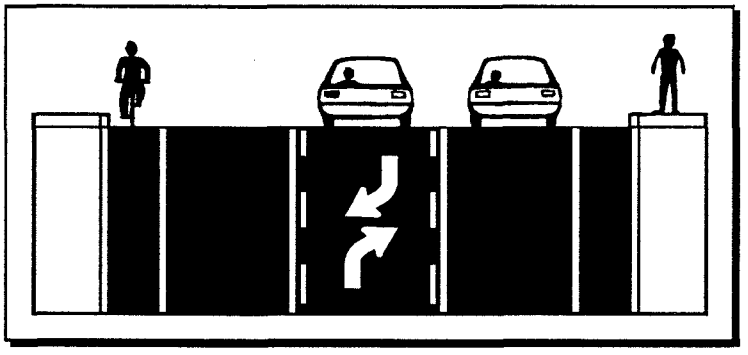
Consideration should be given to slowing motorists approaching from the north. North of Ash St, the highway widens to 56 ft curb-to-curb for about 200 ft and then to 66 ft including shoulders. The 56-ft section could be the transition area from the 4-lane highway to the 3-lane urban section. A center median would provide an opportunity for landscaping that would mark the urban nature of the street.

Cost: Lane restriping and stencils about $5,000. Eight curb cuts at each of 7 intersections about $25,000. Other sidewalk repairs and median treatments to be determined. This project would be eligible for full State funding but must be added to the State's Transportation Improvement Program list. It would also be eligible for ISTEA Enhancement funding (providing that ISTEA is reallocated).

■ *How a 3-Lane Street Works*

Streets are usually designed with an even number of lanes (2, 4, 6...). In urban areas, a 4-lane street can be inefficient.

Where many vehicles access side streets and adjacent lots, a given lane is often blocked by a vehicle turning or waiting for a chance to turn. The lane does not function at full capacity. Special right and left-turn lanes are one solution to this problem but may be difficult to retrofit on existing streets.



An easier solution is to incorporate a continuous left-turn lane and bike lanes with two travel lanes. For example, instead of four 12-ft travel lanes such as exist on 8th St., there would be two 12-ft travel lanes, a 12-ft center turn lane, and two 6-ft bike lanes.

This configuration maintains adequate vehicle capacity (typically 12,000 to 16,000 vehicles/day), provides space for cyclists, and has other advantages:

- The center lane provides a place for vehicles turning left both off and onto the roadway to wait for the travel lane to clear without obstructing through traffic.
- The bike lanes provide some maneuvering space for vehicles to enter and exit the roadway, much as a shoulder does (motor vehicles are allowed in the bike lane when turning). Bike lanes also improve sight distance and turning radii.
- There is less conflict between motor vehicles and bicycles, which improves the traffic flow for both modes.
- The bike lane helps buffer pedestrians from the travel lane (although a planting strip and on-street parking are even more helpful).
- The center turn lane provides some refuge for pedestrians (a physical median with pedestrian cut-throughs is preferred on some streets).
- The single travel lane in each direction helps prevent excessive speed in the urban area.

The result is a street that works better for all users. The problems of converting from 4 to 3 lanes are:

- Lane restriping can be difficult unless it is done when the street is resurfaced. The pavement from Ash St. to Carlisle Lane has patching, rough edges from an overlay, and weathering, and so may be due for resurfacing soon.

- Signal sensors may need to be relocated (and perhaps added in the bike lanes) at Spruce St. and Harris St.

- During peak hours in the busiest months, traffic stopped at signals may back up beyond the 200-ft block length, temporarily preventing vehicles from entering the street.

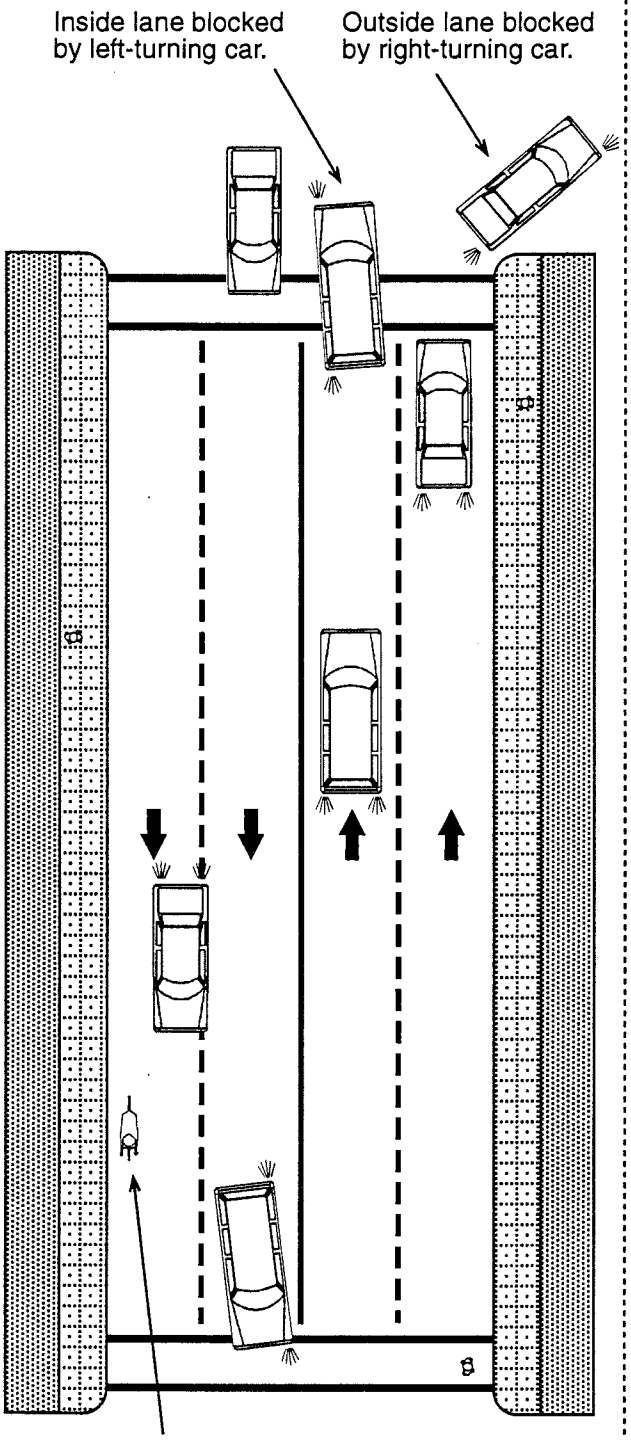
- The public lacks exposure to pedestrian and bicycle needs, and so may perceive the changes as unnecessary.

- Traffic modeling focuses exclusively on motor vehicle movement and will not demonstrate all the advantages of a 3-lane configuration.

Three lanes are used on many arterial and collector streets in Oregon. For example, in Bend, Division St. is a 52-ft wide major arterial that carries over 20,000 vehicles/day using 3 lanes plus bike lanes.

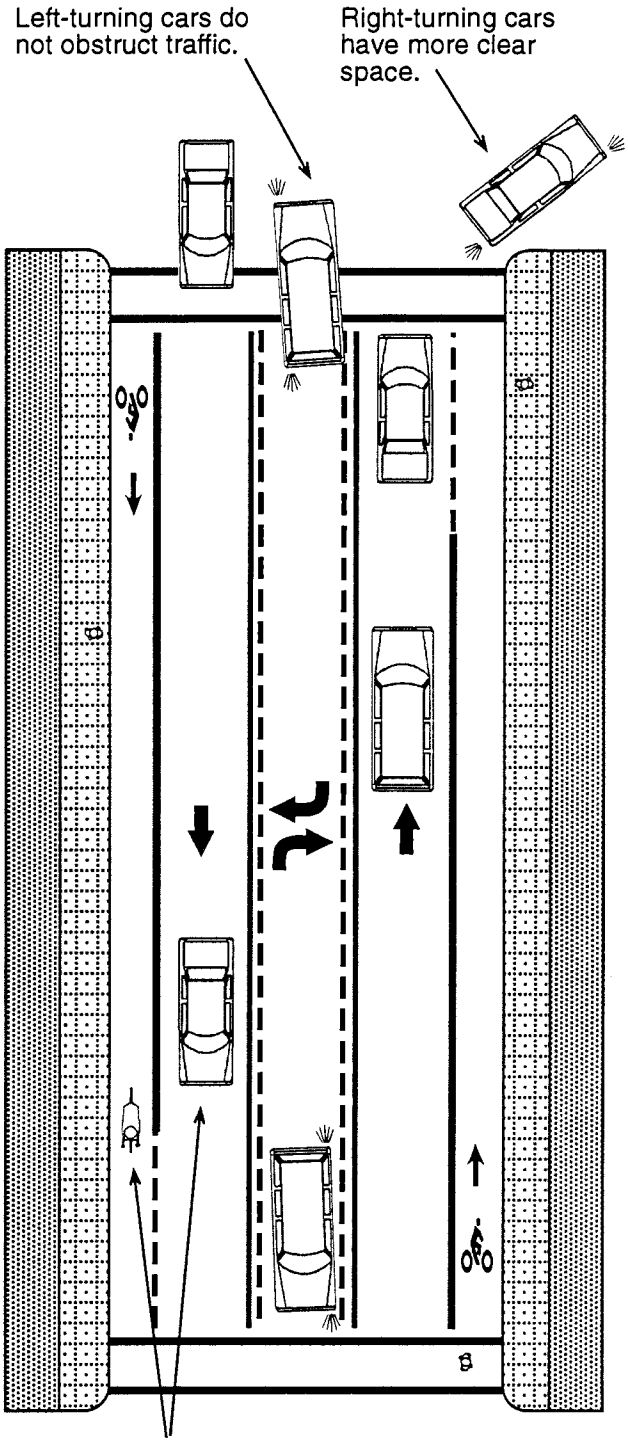
A highway that runs through a small city, such as Myrtle Point, serves not only through traffic but a variety of local users including pedestrians and cyclists. Residences, employers, schools, public buildings, and commercial areas should be accessible by foot and bicycle—community vitality and livability depend on it. In the case of 8th St., a 3-lane configuration is the only practical way to do this.

4 Lanes



Results:
- Stop-and-go driving.
- Poor walking and cycling conditions.
- Incompatible with urban uses.

3 Lanes



Note: Actual block is longer than shown.

Results:
- Smoother traffic flow.
- Improved walking and cycling conditions.
- Appropriate for urban conditions.

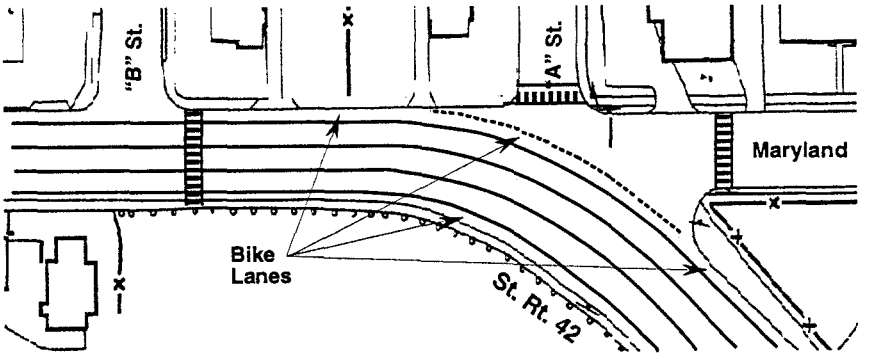
2. *St Route 42, Bothwick St to Carlisle Ln, Arterial, 1.0 mi*

Description: The 4-lane highway continues south out of the City center through a series of turns and down a moderate hill. There are four 12-ft lanes with curbs but no sidewalks or crosswalks (except for a sidewalk on one side between "A" and "C" Streets). Pedestrians are forced to walk on the unimproved area above the curb.

Right-of-way varies from about 60 ft south of Bothwick to at least 80 ft at a point 600 ft south of Maryland. The slope on one or both sides may require fill or removal to install sidewalks in some sections. The skewed intersection with "A" St. and Maryland Ave. presents major problems to a pedestrian and uncertainty to a bicyclist.

Daily traffic drops to 5,800 south of Maryland Ave. Adjacent uses are residential and some commercial and light industrial. South of Carlisle Lane, the highway becomes 2 lanes with shoulders.

Note: Another link between Maryland Ave. and St. Route 42 should be investigated. For example, a trail easement from the end of Myrtle Crest St. south to View St. would provide an alternative to St. Route 42 for pedestrians and bicyclists. It would also help link up the neighborhoods and provide a direct route to Myrtle Crest School from the south.



Recommendation: Convert to 3 lanes with bike lanes (6B-12-12-12-6B) and construct sidewalks (with a planting strip between the street and sidewalk where possible) to Kincheloe. Review the Maryland intersection design for alignment improvements; at the least, dash the bike lane through the intersection and provide crosswalks at the shortest crossing points (see figure above); improve sight distance at southeast corner.

Cost: Lane restriping and stencils about $15,000. Sidewalks about $300,000. This project would be eligible for full State funding but must be added to the State's Transportation Improvement Program list. It would also be eligible for ISTEA Enhancement funding (providing that ISTEA is reallocated).

3. *Maple St, 8th St to Bender St, Collector, 0.3 mi*

Description: This section is 36 ft with on-street parking and curb sidewalks without pedestrian ramps. There is a thick 26-ft wide overlay with a rough surface, excessive cross-slope, and abrupt edges. The center portion of the street is built directly on dirt. Sections of the sidewalks are in poor repair. Daily traffic is estimated to be about 3,000. The street goes up a hill to the east. Adjacent uses are primarily residential with an elementary school.

Recommendation: Resurface the street with a smooth, consistent surface; this will require some reconstruction to build a subsurface. At the same time or independently, repair the sidewalks and install pedestrian curb cuts at intersections.

The traffic volume is borderline for bike lanes. A worthwhile improvement would be to remove parking on one side of the street and shift the centerline so that the eastbound (uphill) lane is wider (e.g., 8P-13-15). This would allow the slow-moving uphill cyclist to comfortably share the lane with overtaking cars. The downhill cyclist can keep up with traffic and so does not need as much room.

Cost: Resurfacing and signing about $75,000. Four curb cuts at each of 5 intersections about $9,000. Other sidewalk repairs to be determined.

4. *Maple St, Bender St to 25th St, Collector, 0.6 mi*

Description: East of Bender, Maple becomes less steep and narrows to 22–24 ft with no curbs or sidewalks. There is an approximately 10-ft strip on both sides between the roadway and the utility poles. Right-of-way is 60 ft. Daily traffic is estimated to be about 2,500. The adjacent uses are residential with 7 of 8 side streets to the south.

Note: A right-of-way between Spruce and Maple is undeveloped. The feasibility of pedestrian-bicycle access should be investigated because this would make a useful shortcut. If the right-of-way is ever vacated, a trail easement should be retained.

Recommendation: Widen to 32 ft with 11-ft lanes and 5-ft shoulders. Construct a 6-ft, at-grade, separated sidewalk on one side of the street (preferably the south side because most of the foot traffic would originate there). Driveways should be paved within the road right-of-way to avoid the spreading of gravel. Stripe a crosswalk at 19th St. Eventually, this street should be brought up to full urban standards with curbs, bike lanes and sidewalks on both sides.

Cost: Widening about $85,000 plus the expense of reditching. Sidewalk about $95,000 if concrete, $40,000 if asphalt. At least a portion of this

project would be eligible for a State Bicycle-Pedestrian Program grant at a 20% match.

Medium Priority Projects

Medium priority projects involve less critical elements of a walkway or bikeway system that can await future improvements, often in conjunction with an arterial or collector that is reconstructed. They feature projects that will improve overall conditions and attract walkers and cyclists by adding lanes, shoulders, wider outside travel lanes, sidewalks, or intersection treatments.

5. *Spruce St, Coquille River to 8th St, Arterial, 0.4 mi*

Description: Primary east-west route and access to rural area to the west (including pedestrians). Serves as "Main Street" for downtown. Two lanes with parking in 40-ft width; 8-ft curb sidewalks. Bridge over river narrows to 24 ft with 3.5–4 ft sidewalks. Heavy truck traffic.

The street has deteriorated pavement and curbs, especially at the west end. Some corners and alleys lack pedestrian ramps, are of uneven height, and have utility poles at the curb radius (an obstacle and sight problem for motorists but not a great pedestrian problem).

Notes: The bridge is up for moderization. Engineering plans show two 11-ft travel lanes, two 6-ft bike lanes, and two 3.8-ft sidewalks. The standard width for a bridge sidewalk is 5 ft in Oregon; if less than standard is used, then there must be a 5-ft square area at least every 200 ft.

There is some local support for converting Spruce St and Maple St to a one-way couplet. If this is done, both streets should have a bike lane.

Recommendation: The City plans to improve Spruce St, including its sidewalks, as soon as funding is identified. These improvements should include resurfacing, pedestrian ramps where lacking (see map in Appendix), and curb extensions (refer to Section 7: Facility Standards) extending into intersections at 4th and 5th Streets. Alternate truck routes should be considered, such as Myrtle Point-River Rd to the north and Maple St and 8th St to the south.

Cost: Resurfacing about $40,000. Twenty curb cuts at various intersections and alleys, and 8 bulbs about $15,000.

6. *Spruce St, 8th St to Bender St, Collector, 0.3 mi*

Description: This section is 34 ft with on-street parking and curb sidewalks. Sections of the sidewalks are in poor repair. The street goes up a hill to the east. Adjacent uses are primarily residential.

Recommendation: Remove parking on one side of the street and shift the centerline so that the eastbound (uphill) lane is wider (e.g., 7P-12-15). This would allow the slow-moving uphill cyclist to comfortably share the lane with overtaking cars. The downhill cyclist can keep up with traffic and so does not need as much room.

Repair the sidewalks and install pedestrian curb cuts at intersections.

Cost: Restriping and signing about $1,100. Four curb cuts at each of 5 intersections about $9,000. Other sidewalk repairs to be determined.

7. *Gravelford Rd, 8th St to North UGB, Arterial, 0.9 mi*

Description: Access to rural residential area in northern section of City. Also a recreational route. Posted 25 mph (signed northbound only). Pavement width 24 ft. Limited sight distance in spots. Daily traffic about 1,500.

Recommendation: Widen to 32 ft with 11-ft lanes and 5-ft shoulders.

Cost: Widening about $110,000.

8. *Bender St, Willow St to Bothwick Ave, Local, 0.2 mi*

Description: Bender is designated as a local street but functions as a north-south collector. It is the only street east of "C" St. that connects east-west collectors Spruce St. and Maryland Ave. It is only 20 ft wide without curbs and descends a steep hill to Bothwick. The sections north and south of this section are both 36 ft wide with curbs (and sidewalks south).

Recommendation: Widen to 28 ft without on-street parking (or 36 ft with parking) and install sidewalks (buffered by a planting strip if right-of-way permits).

Cost: Widening and sidewalks about $105,000.

Low Priority Projects

Low priority projects address future needs on streets that are either acceptable now or have such low traffic as to be of lesser concern. However, these streets may need improvement as development occurs or traffic increases. These final segments of the walkway and bikeway system should not be overlooked if an opportunity for improvement occurs sooner. The normal bikeway standards apply.

9. *Spruce St, Bender St to 19th St, Local, 0.3 mi*

Description: East of Bender, Spruce becomes less steep and narrows to 20–22 ft with no curbs or sidewalks. The surface is unpaved beyond 19th St. The adjacent uses are residential.

Recommendation: Widen to 32 ft with 11-ft lanes and 5-ft shoulders. Eventually, this section should be brought up to full standard with curbs and buffered sidewalks.

Cost: Widening about $50,000.

10. *7th St, Ash St to Bothwick St, Local, 0.3 mi*

Description: This 38–40 ft wide street parallels 8th St. and passes through residential and commercial uses. The pavement is in poor condition, below-grade drainage grates pose a hazard, the east sidewalk is interrupted between Maple and Willow, and pedestrian curb cuts are lacking south of Maple.

Recommendation: Resurface, bring grates up to grade, investigate options for a sidewalk between Maple and Willow, and install curb cuts where needed.

Cost: Resurfacing about $30,000. Eight curb cuts at each of 4 intersections about $14,000.

11. *Bender St, Fairview St to Willow Ave, Local, 0.2 mi*

Description: This is the section north of Project No. 8. It is 36 ft wide with curbs but lacks sidewalks.

Recommendation: Install sidewalks, buffered if right-of-way permits.

Cost: Sidewalks about $60,000.

Other Candidate Projects

The following projects would enhance pedestrian and bicycle conditions and opportunities but are not considered as critical as the priority projects. The trail projects would require right-of-way resolution and special funding to construct. As conditions change, any of these projects might be added to the priority list.

4th St. — repaving, bike lanes, sidewalk upgrades.
Harris St. — bike lanes, sidewalk upgrades.
Maryland Ave. — bike lanes, sidewalk upgrades.
Railroad Ave. — redesign intersections for local traffic only.
Bridge over Coquille River — modernization.
Urban trails —

a. Link up segments of 18th St.
b. Link Myrtle Crest School to 18th St.
c. Link Harris to 18th St.
d. Link Myrtle Crest St. to View St.–St. Route 42.
e. Link Reeds Ford Rd. to 6th St.
f. "A" St. (Harris to Bothwick).
g. "B" St. (Maple to Harris).
h. Border (Maple to Willow).
i. Hermann (Spruce to Maple).

Rural Access

The following roads extend outside the City's Urban Growth Boundary but provide access to and from the surrounding countryside. These roads should be monitored for conditions detrimental to safety and enjoyment: Arago Rd., Gravelford Rd., Stringtown Rd., Sugerloaf Mtn. Rd., and West Side Rd.

An unpaved, perimeter trail system encompasing the City has been discussed by the Pedestrian and Bicycle Advisory Committee (see map in Appendix). This trail would provide access to nearby rural areas and could be reached from anywhere in the urban area with only a short traverse on City streets. While the details of this trail are worked out, Myrtle Point should keep potential trail segments and accesses available.

Parking

As it is with automobile use, secure and convenient parking is critical to bicycle popularity. The city should undertake a study of parking needs and develop a program to add racks and associated facilities. *Section 7: Facility Standards* contains parking guidelines.

In particular, racks should be installed in front of downtown businesses and at all public facilities (schools, post office, library, city hall and parks). Employers should also be encouraged to provide sheltered parking for their employees.

It is recommended that the City find a local source for racks and offer to install them for free with the permission of adjacent property owners. The local High School could be a source for labor, similar to the sidewalk repair program. A Bicycle Coordinator (refer to *Program Support* in Section 6) or similar City staff person can meet with interested parties to answer questions, obtain written permission and select rack locations. A rack would remain City property but the City would not assume any responsibility for bikes parked at it.

Racks may also be installed on private property if purchased by the property owner.

Section 6
IMPLEMENTATION AND FUNDING

- Incorporate the Pedestrian and Bicycle Plan into the City's Transportation Plan and adopt implementing ordinances.
- Assign a part-time Coordinator to guide implementation with citizen help from the Advisory Committee.
- Add projects to capital improvements list.
- Pursue a variety of local, state and federal funding sources.

Effective implementation of the Pedestrian and Bicycle Plan hinges on the support of the community and the local government. It is expected that development will occur in the private and public sectors that will affect the Myrtle Point area's transportation system.

The Pedestrian and Bicycle Plan should be flexible enough to respond to changing conditions and funding opportunities. Funding will play a large role in the acceptance of the Plan, as will a systematic approach to improving bicycling conditions. The recognized ingredients of successful programs are examined below, followed by a discussion of typical costs and funding options. Finally, a set of priorities is recommended that rely heavily on integrating bicycle facility construction into normal road construction and maintenance.

Program Support

Successful pedestrian and bicycle programs have several characteristics in common: a coordinator on planning or public works staff, an advisory committee, and public and government backing.

A staff coordinator acts as an inside advocate and is necessary because pedestrian and bicycle planning typically takes a long time to become part of everyday government operations. Myrtle Point may want to consider the part-time dedication of staff as a Pedestrian and Bicycle Coordinator (see below), possibly in conjunction with Coos County.

The advisory committee, comprised of staff and citizens, provides needed expertise in bicycle matters, critically monitors the program, and gives an avenue for public input. The Myrtle Point area has a Pedestrian and Bicycle Advisory Committee, which is staffed by the City's Community Development Coordinator.

Backing from local citizens and officials is critical for program approval and funding.

Pedestrian and Bicycle Coordinator

The Coordinator's primary responsibility is to maintain a strong and active pedestrian and bicycle program. Even the best of plans need a knowledgeable staff person to oversee implementation and see to it that projects are completed. The Coordinator also acts as a spokesperson for pedestrian and bicycling matters. The Federal government recognized these needs in the 1991 Transportation Act when it required States to staff a Coordinator.

The importance of these functions in a developing community pedestrian and bicycle program cannot be overstated. Successful programs are multifaceted efforts in planning, design, implementation and community relations. There are many pedestrian and bicycle issues little understood by today's planners, engineers, and developers who have been educated and employed in an automobile-dominated culture. Mistakes and oversights can be very long lasting and damaging. Until the community establishes a tradition of planning for pedestrians and bicycling, a dedicated Coordinator should be utilized.

A staff member within either the City or County could be assigned the task of Pedestrian and Bicycle Coordinator. This person should be knowledgeable of pedestrian and bicycling issues, roadway design, local government and the project development process. Due to the Myrtle Point area's moderate size, duties would be a designated portion of the person's full-time workload.

Because of funding constraints and overlap of jurisdiction, there is good potential for the County and Myrtle Point to band together to fund a Coordinator for all jurisdictions. This could be a practical approach that would have positive results for the area's bicycle potential by lend much needed continuity and focus to bicycle planning efforts, particularly in providing consistent interaction with the State.

Pedestrian and Bicycle Advisory Committee

As discussed previously, the Myrtle Point area has a Pedestrian and Bicycle Advisory Committee, which played a strong role in the development of this Plan. The Advisory Committee should help coordinate Plan implementation and foster cooperation in the community. They can also advise City staff and educate the public in pedestrian and bicycle issues.

Citizen input at all levels is essential to the program's lasting success. Pedestrian and bicycle programs are, more than most, dependent on the desires of their users. Citizen involvement through the Advisory Committee empowers the citizens and the staff; the citizens feel that they are part of the process, and the staff has the advantage of public support.

Public and Government Backing

The ultimate success of a bicycle program depends on how it is received by the public and their government officials. Without public involvement, there is a much lesser chance that the officials will choose to follow through with bicycle programs. Without government support, even popular programs can falter. Strong community support for bicycling is achievable with a focused organization, the ability to set and follow through with long-term goals, and the proper political timing.

There are many things that citizens, clubs, employers, the Chamber of Commerce, and the area can do to garner support and increase bicycling. As discussed in Section 8, sponsoring events such as noncompetitive rides and bike-to-work days have proven effective in introducing people to bicycling and helping overcome the psychological barriers. Foremost is the creation of safe places to ride, which is what most of this Plan is about. Facilities then need to be promoted with education and encouragement that can be carried out by the public and private sectors alike.

Typical Costs

Estimated costs for typical bicycle facilities built today in Oregon are given in Table 5. These figures include engineering, installation, minor contingencies, striping and signing. They do not include administration, special grading and fill operations, unusual construction (e.g., bridges and tunnels) or land acquisition, all of which can contribute to the final price and can vary greatly.

Separated, multi-use paths tend to cost much more than indicated in Table 5 because of special design considerations (bridges, intersections, fences, drainage, etc.) not usually encountered on other bikeway projects.

Pedestrian and bicycle projects are markedly cheaper than equivalent automotive projects because bicycles are smaller, lighter, and travel at a lower speed. For example, construction costs for a new four-lane urban arterial may run about two million dollars per mile, with the bike lanes representing only about 10%. Nor do on-road bikeways benefit only cyclists—the space is also used by turning vehicles, for safety (crash avoidance), as emergency parking, and as a buffer for pedestrians.

Table 5. Typical Facility Costs

Facility	Description	Cost
Striping	8-in. stripe on clean surface	$0.40/linear ft
Stencil	Bike symbol after every intersection	$100 each
Sign	Typical sign	$100 each
Traffic signal	Intersection	$100,000/pole
Pedestrian signal	Crosswalk	$2500/unit
Pedestrian/ bicycle bridge	10-ft wide	$560/linear ft
Sidewalk	6-ft wide (4-in concrete/2-in aggregrate) without curb	$30/linear ft
Curb	12-in high	$5/linear ft
Curb cut	Cut and ramp per ADA	$450/unit
Sweeping	Once a month at 5 mph	$40/hr
Repair	10-ft wide path, seal every 5 years	$0.70/linear ft
Repair	10-ft wide path, resurface every 10 years	$5/linear ft
Shoulder	4-ft wide on both sides to highway standards (4-in asphalt/9-in aggregrate) with 4-in stripe	$24/linear ft
Bike lane	5-ft wide on both sides to highway standards (4-in asphalt/9-in aggregrate) with curbs and 8-in stripe	$45/linear ft
Multi-use path	10-ft wide (2-in asphalt/4-in aggregrate) with clearing and preparation, no fences	$16/linear ft (see note)
Multi-use path	10-ft wide (3-in asphalt/6-in aggregrate) with clearing and preparation, no fences	$22/linear ft (see note)
Multi-use path	12-ft wide (3-in asphalt/6-in aggregrate) with clearing and preparation, no fences	$28/linear ft (see note)
Multi-use path	10-ft wide (4-in concrete/3-in aggregrate) with clearing and preparation, no fences	$55/linear ft (see note)
Parking	Short-term	$50/bike
Parking	Long-term and sheltered for 10 bikes	$300/bike

Note: Cost does not include special engineering problems such as steep grades, retaining walls and drainage that increase costs. Because these design features are usually present, costs for paths are frequently 3 to 4 times the amount given here. Land acquisition not included.

Funding

Can anybody remember when the times were not hard and money was not scarce?
– Ralph Waldo Emerson

Bicycle facilities and programs can be funded through a broad combination of local, state, federal and private sources:

- Local: road construction and maintenance budget, the general fund, system development charges, and joint projects with utilities and other agencies.
- State: highway projects, Bicycle Fund distribution, matching Local Assistance Grants, and support from other agencies.
- Federal: surface transportation, maintenance and air quality programs.
- Other: donations, grants, development costs, and miscellaneous.

By State law, walkways and bikeways must be created whenever City, County, State or Federal roads are built or reconstructed (with exceptions for safety, need or cost). Any road project within the Myrtle Point urban area should have walkways and bikeways appropriate for the street classification, and costs should be included as a normal part of the project. Resurfacing of an arterial or collector is an excellent time to restripe for bike lanes at little additional cost. Walkway and bikeway maintenance should also be funded along with routine roadway maintenance.

Bikeways may be constructed or improved as a part of roadway repairs. For example, routine resurfacing of a shared roadway may be expanded to include a new or wider shoulder. In such cases, additional funding may be sought for the portion of the project that includes the walkway and bikeway improvements. Special projects such as separated paths, shoulders added to a road that is in good condition, and restriping existing roads for bike lanes also require dedicated funding.

It is to Myrtle Point's advantage to develop a consistent funding source for critical projects and maintenance, and to actively seek additional sources for the remaining projects. Available money should be leveraged to the greatest extent possible by using it for matching grants and joint projects.

Local Government Funding

Sidewalks, bike lanes and shoulder bikeways, which make up the majority of the walkway and bikeway systems, are usually placed within the standard roadway width and so add minor cost to the road department's budget. As new arterials and collectors are constructed or old ones are reconstructed to current standards, walkways and bikeways are incorporated into the project designs.

Bike lanes can often be incorporated into existing roads at minimal cost during periodic restriping. In this way, a bikeway system can develop incrementally over time in step with the road system. Some communities earmark up to 10% of their streets construction budget for pedestrian and bicycle projects.

In private developments, pedestrian and bicycle facilities are made a condition of approval, just as are the roads and parking lots. In some cases, System Development Charges (SDCs) or transportation impact fees can be imposed. If the impact of a development on adjacent streets is not immediate, the developer may participate in future improvements through a Local Improvement District (LID).

When a pedestrian or bicycle project steps beyond the normal road standards, other local government funding may be needed. Examples of expenses outside the normal road budget are construction of a separated path and building a bikeway to higher standards than required. Parks, recreation, tourism, transit and planning departments are often supporters of such projects and may have funds available. The area's general fund can be tapped for special projects. Also, bond levies are used by some municipalities to finance projects.

In all walkway and bikeway construction projects, it is important to coordinate with other road work so as to keep expenses— administration, material unit costs, mobilization, traffic control—to a minimum by sharing them with larger road projects. For example, shoulder widening to accommodate pedestrians and bicycles in a rural area might be prohibitively expensive unless done at the same time as a scheduled pavement overlay; this can reduce shoulder costs by as much as half.

State Funding

The principle State funding resource for bikeway projects is the State Highway Fund that is gathered from weight-mile taxes, fuel taxes, licensing and registration fees, and truck load violations. These moneys can only be spent on bikeway or walkway construction projects within a publicly owned road or highway right-of-way. Eligible expenditures include administration, development, construction, and maintenance of bicycle and pedestrian facilities within the road right-of-way.

By law (ORS 366.514), a reasonable amount of the DOT moneys must be used for qualifying bicycle and pedestrian expenditures. According to ODOT, reasonable amounts relate to the need for bikeways and walkways; if there is a need (and there almost always is), the governing jurisdiction shall expend a reasonable amount to construct the appropriate facilities. The law also states that walkways and bikeways must be established when a road is constructed, reconstructed or relocated, except under special circumstances.

The majority of the State funds are used by communities for pedestrian and bicycle program administration and engineering efforts, or as leverage to obtain matching grant funds. When used for construction projects, the funds should only be directed towards those expenses that exceed what would be routinely included. For example, simply providing basic road space for bicyclists as part of new construction is routine, but retrofitting lanes on a street, developing feeder routes and adding grade-separated crossings is beyond ordinary and qualify as legitimate bicycle expenses.

The State Bicycle and Pedestrian Program Office allocates funds and assists municipalities in developing and implementing pedestrian and bicycle plans. It identifies worthy projects and reviews state highway construction plans to ensure that proper facilities are incorporated. A portion of the funds is distributed to the cities and counties by two means:

- An annual sum proportional to population. Myrtle Point received $6,269 from FY 1981–90; Coos County received $147,865. Because the allocation in any given year may be too low to be useful, this money can be accumulated in a special reserve fund for up to ten years.

- Local assistance grants that are awarded annually to selected applications. Applications should be submitted annually by September 1 and grants are awarded later in the year. Proposed construction projects are reviewed in the field and rated according to criteria developed by the State Bicycle Advisory Committee. The priorities established for Myrtle Point's projects (see below) are based on these criteria.

Walkways and bikeways may also be funded as projects on state right-of-ways:

- The construction of walkways and bikeways associated with new, reconstructed or relocated highways. The cost is typically a small fraction of the overall project.

- Independent walkway and bikeway projects such as multi-use paths and shoulder widening for bikes. Improvements to State routes are eligible. Requests for this funding must come from the Regional ODOT office to the Bicycle and Pedestrian Program Office. It is appropriate for the municipalities within the ODOT region to request walkway and bikeway projects from ODOT.

Walkway and bikeway projects are included in the State's 6-Year Transportation Improvement Program. Proposed projects are submitted to the DOT Region Engineer who evaluates the proposal and considers it for inclusion in the next preliminary 6-Year Program.

The maintenance of existing state bikeways strives to give cyclists a smooth and clean surface by periodic repair and sweeping of state bikeways. It also replaces damaged and obsolete signs.

The Oregon Traffic Safety Division helps fund educational and safety programs such as Portland's Community Traffic Safety Initiative and the State-sponsored Smart Cycling courses. Other potential State funding sources for community infrastructure improvements, including walkways and bikeways, are the Oregon Community Development Block Grant Program and the Oregon Special Works Fund.

Federal Funding

The National Transportation Policy is to promote the increased use of walking and bicycling, to accommodate bicycle and pedestrian needs in designing transportation facilities for urban and suburban areas, and to increase pedestrian safety. Federal-aid money is available for pedestrian and bicycle facilities as part of a normal federal-aid highway construction project at the same financial match ratio as the other highway work.

Walkway and bikeway projects independent of other construction projects, as well as nonconstruction projects related to pedestrian and bicycle use, can be funded with an 80% federal share as provided in 23 USC, Section 217. Such projects must be principally for transportation rather than recreation, however.

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 authorizes expenditures of $151 billion over 6 years and has opened up new funding opportunities for pedestrian and bicycle projects. There are several programs in the ISTEA for which bicycle facilities and programs are eligible:

- The National Highway System (NHS) includes former Federal Aid Primary (FAP) and Secondary (FAS) designations. Eligible project areas include bicycles and pedestrian transportation facilities. Half to all of this system will be transferred to the Surface Transportation Program.

- The Surface Transportation Program (STP) provides funds for a variety of uses including walking, bicycling and safety. The funds are distributed by population (50%), statewide (30%), for safety and railroad crossings (10%), and for enhancements (10%). The STP funds can be used for bicycle and pedestrian facilities, bicycle parking, and education and safety programs. Transportation Enhancement Activities are allocated to 10 specific project types, including bicycle and pedestrian projects and the conversion of abandoned railroad corridors to trails. Oregon's Enhancement Funds have been allocated.

- Congestion Mitigation and Air Quality Improvement (CMAQ) Program is for use primarily in nonattainment areas under the Clean Air Act. The Program encourages states to invest in pedestrian and bicycle facilities and programs.

- Interstate Maintenance Program stresses cost-effective ways of extending pavement life.

To be eligible for these funds, a construction project must be on the State's 4-year TIP. The State allocates the funds through its regional offices, Region 3 for Myrtle Point area. The funding request must come from an eligible agency such as the City, County or park district. Proposed projects generally require some local matching funds, which can include Bicycle Funds or grants. Local funding must be reasonably available during the time period of the proposed project.

In addition, Land and Water Conservation Fund (Public Law 88-578) money is available for the acquisition of lands and waters or for the development of public outdoor recreational facilities.

Lastly, if roadway conditions create an immediate hazard for pedestrian and bicycle travel, federal safety program funds can be used, including Hazard Elimination Program funds.

Other Funding

Walkway and bikeway facilities and programs are a community investment shared by all sectors—private, business and government. Each can contribute in many ways, including land dedications, donations of engineering and public relations talent, special grants, sponsorship of fund-raising events, and so on. Developers can also choose to include extra walkway and bikeway projects, beyond what is required, in their project designs. Businesses can voluntarily construct showers and offer incentives for their employees. These sources should be actively sought and nurtured.

A good example of the creative use of funding is Myrtle Point's relationship with the High School which provides low-cost sidewalk repair in exchange for students' on-the-job training.

There are other inventive means for obtaining materials, funds or right-of-ways. Some methods that have been used in other cities include:

- Environmental impact mitigation.
- Street vacation moneys.
- Enforcement of franchise agreements for railroad crossings.
- Utility tax for public works.
- Utility easements.
- Tax-deductible gifts in the form of signs, equipment and trail segments.

Priorities for System Implementation

Development of walkway and bikeway systems start out as a plan with good intentions. Success depends on following through with the actions necessary to implement that plan. Priorities to ensure success should be the following:

- Adopt the goals and policies of this Plan by the City as part of the Transportation System Plan. This will be needed to satisfy the State's Transportation Planning Rule.

  ⇨ Please refer to *Pedestrian and Bicycle System Objectives* in Section 2.

- Seek to appoint a part-time Pedestrian and Bicycle Coordinator, possibly as a joint County and City position. This is necessary to ensure progress in implementing the Plan.

  ⇨ Please refer to *Program Support* in Section 6.

- Develop dependable funding sources and actively seek additional sources. If necessary, redirect some road budget to walkways and bikeways.

  ⇨ Please refer to *Funding* in Section 6.

- Adopt implementing ordinances, codes and standards necessary to carry out the Plan. The ultimate effectiveness of the Plan hinges on this step.

  ⇨ Please refer to *Land Use* in Section 4 and *Facility Standards* in Section 7.

- Maintain public awareness and support of the Plan. Public relations and education about the Plan's objectives are essential to continued success.

  ⇨ Please refer to Section 8: *Education, Enforcement and Encouragement.*

- Review project scheduling and implementation annually to keep priority projects on top of the list, delete completed projects, and add new projects that may be needed in response to changes in demographics, land-use patterns and the transportation system.

  ⇨ Please refer to Section 5: *Analysis and Recommended Projects.*

Section 7
FACILITY STANDARDS

- Oregon walkway and bikeway designs are detailed in the *Oregon Bicycle and Pedestrian Plan.*
- There are four basic walkway types: multi-use path, sidewalk, shoulder and crosswalk.
- There are four basic bikeway types: multi-use path, bike lane, shoulder, and shared roadway.
- Parking, changing areas for commuters, transit links, and signs are essential to a bicycle system.

Introduction

Pedestrians and bicyclists share many goals while having distinct needs. Nowhere are the differences greater than in the facilities. Pedestrians are the slowest and most vulnerable road users. Many people with disabilities, such as vision and mental impairments, walk as their primary mode of transportation. Pedestrians require separation from traffic, extra time to cross the street and other considerations. Bicycles, on the other hand, are vehicles that use the roadway and have special needs on busy roads and at complex intersections.

With these differences in mind, this section is divided into Walkways and Bikeways. There are also shared facilities (called multi-use paths) and supplementary facilities (parking, showers, etc.) discussed in separate subsections.

Application

There is a wide range of facility improvements which can enhance pedestrian and bicycle transportation. Improvements can be simple and involve minimal design consideration (e.g., changing drainage grate inlets) or they can involve a detailed design (e.g., intersections).

The basic design of a pedestrian or bicycle facility depends on whether it is associated with a road or on an independent alignment. Road improvements such as sidewalks and bicycle lanes depend on the road's function and design. On the other hand, separated paths may be located on independent alignments and their design depends on many factors such as terrain and access points.

Improvements for motor vehicles can enhance pedestrian and bicycle travel through appropriate planning and design and, in any event, should avoid adverse impacts. The City's overall goals for transportation improvements should, whenever possible, include the enhancement of walking and bicycling. Public involvement in the form of public meetings or hearings and an ongoing Bicycle Coordinator and Pedestrian and Bicycle Advisory Committee will help develop a widely accepted plan.

Walkways

Oregon Standards

Walkway standards are basic guidelines used for planning, design and construction. The Oregon Bicycle and Pedestrian Program has developed standards for the wide range of applications in the state. The standards are based on the AASHTO Guide, on the *Americans with Disabilities Act* (1991) and on decades of experience providing pedestrian facilities. The following standards are based primarily on these sources.

> *Pedestrians are a part of every roadway environment, and attention must be paid to their presence in rural as well as urban areas....Because of the demands of vehicular traffic in congested urban areas, it is often extremely difficult to make adequate provisions for pedestrians. Yet, this must be done, because pedestrians are the lifeblood of our urban areas, especially in the downtown and other retail areas. In general, the most successful shopping sections are those that provide the most comfort and pleasure for pedestrians.* –Geometric Design of Highways and Streets, Design Controls and Criteria, AASHTO

In particular, the *Oregon Bicycle and Pedestrian Plan* (1995) covers many applications for all types of walkways and situations (summarized in Table 6). It provides comprehensive discussions of design considerations, examples of good and bad practices, a glossary of terms, and expanded guidelines for separated multi-use paths, intersections, mid-block crossings, and maintenance activities. It is a valuable reference source for planners, engineers and maintenance personnel.

Table 6. Walkway Types

Walkway Type	Description	Application	Width
Shoulder	Smooth, paved shoulder with 4-in. stripe	Rural roads and highways	6-ft desirable, 2 to 8-ft min. depending on vehicle volume
Sidewalk	Smooth, paved surface, normally on both sides of roadway	Urban roads and highways	6-ft desirable, >6 ft in high-use areas, 5-ft min. buffered, 6-ft min. unbuffered
Crosswalk	Marked or unmarked road crossing, usually at an intersection	Marked crossing at high-use and special need areas	6-ft min., >6 ft in high-use areas
Multi-use Path	Separated from roadway by open space or barriers and closed to motorized traffic but shared with bicycles	Along busy highways, through roadless corridors, and in urban areas with extensive traffic control	Normally two-way 12-ft desirable 10-ft min. 8-ft if one-way

Pedestrian facilities include sidewalks, crosswalks, traffic control features, curb cuts and ramps. They are also part of bus stops or other loading areas, grade separations, and the stairs related to these facilities.

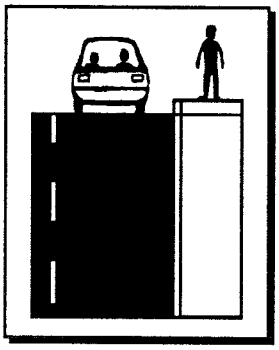
Sidewalks are integral parts of city streets. In suburban residential areas with low traffic volumes (below about 500 vehicles/day), shoulders are usually adequate. In rural areas where there are large gaps between dwellings and businesses, shoulders are the standard facility. A sidewalk or path should be constructed along any road not provided with shoulders, even though pedestrian traffic may be light.

Design Practices

Pedestrians use all types of roads except for some freeways on which they are legally prohibited. Roads should be designed and constructed to serve pedestrians in a safe and convenient manner. Pedestrian-safe design practices, as described in this document, should be followed to avoid the necessity for costly retrofitting. Refer to the *Oregon Bicycle and Pedestrian Plan* for more information, road cross-sections, and design considerations.

Roads that were not designed with pedestrians in mind can be improved to more safely accommodate foot traffic. Road conditions should be examined and, where necessary, curb cuts, smooth pavements, and signals responsive to pedestrians should be provided. In addition, the desirability of adding facilities such as sidewalks, shoulders and crosswalks should be considered.

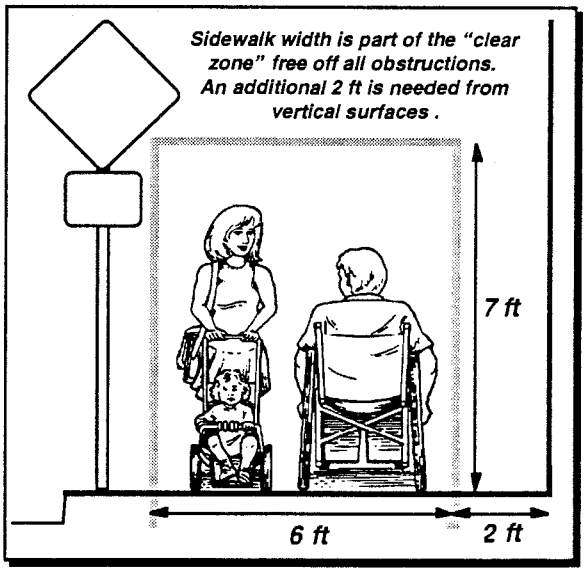
■ Curb Sidewalks



Curb sidewalks are located adjacent to the street, with no buffer. This type of sidewalk is easy to maintain because there is no planting strip. However, curb sidewalks do not provide the pedestrian with any buffer from traffic and provide limited opportunities for landscaping. Particular care must be taken with curb sidewalks so that driveways, poles and other intrusions do not interfere with access for the disabled.

Curb sidewalks should not be used on arterials and collectors, except where right-of-way is severely limited (such as 8th St.) or in a business district where sidewalks are wide and there is high parking turnover (such as Spruce St.).

The standard width for curb sidewalks is 6 ft, exclusive of the curb and obstructions (poles, trees, fire hydrants, etc.). The minimum acceptable width in low-use areas is 5 ft.

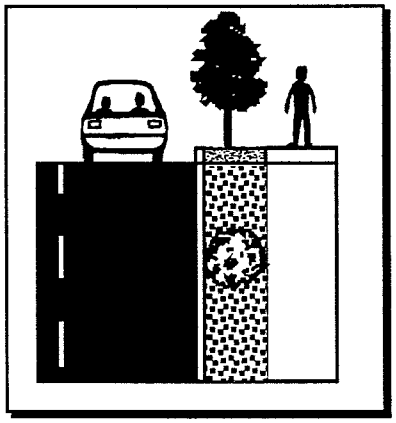


An additional 2-ft shy distance is needed from vertical barriers such as walls and fences.

Grade should not exceed 5%, except that 8.3% (12:1) is acceptable for a rise of no more than 2.5 ft if a level landing at least 5 ft long is provided at each end. Cross-slope should be no more than 2%; at driveways, curb cuts and unavoidable obstructions there must be at least a 3-ft wide area that does not exceed 2% cross-slope.

Sidewalks are usually constructed from concrete, although brick pavers are an attractive alternative. The surface should be sufficiently smooth to allow easy passage of a wheelchair and to not present tripping hazards to the elderly. Special textures at curb cuts and direction changes are necessary for the vision-impaired.

■ *Buffered Sidewalks*



Buffered sidewalks have a planting strip located between the sidewalk and the adjacent street, and are recommended for most applications, especially arterials and collectors.

Because pedestrians move slowly relative to motorists and bicyclists, they are more intensely subjected to the surrounding environment. Vehicle noise and exhaust, water and debris thrown up by tires, and a feeling of vulnerability to traffic can make walking unpleasant.

A landscaped strip between the sidewalk and the street improves safety and comfort for pedestrians as well as enhancing the street's visual appeal. Buffer strips have many other advantages:

- Room for signs, poles, hydrants, mailboxes and other street furniture. This allows the sidewalk to be narrower than it might be otherwise.
- The ability to keep sidewalk side-slope constant because the slope for driveways can be built into the buffer strip. This is a critical feature for wheelchair users, people using canes or walkers, and those pushing baby strollers.
- The ability to line up sidewalks, curb cuts and crosswalks at intersections.
- A place to store snow during the winter.
- Less water runoff into the gutter, which may decrease drainage needs.

The width for buffered sidewalks is 5 ft for the buffer and 6 ft for the sidewalk. The minimum width is 3 ft for the buffer and 5 ft for the sidewalk. A wider buffer strip promotes tree health. Plants should be selected that require little maintenance and watering, and whose roots will not buckle sidewalks. Where there is parking, an additional 2-ft wide

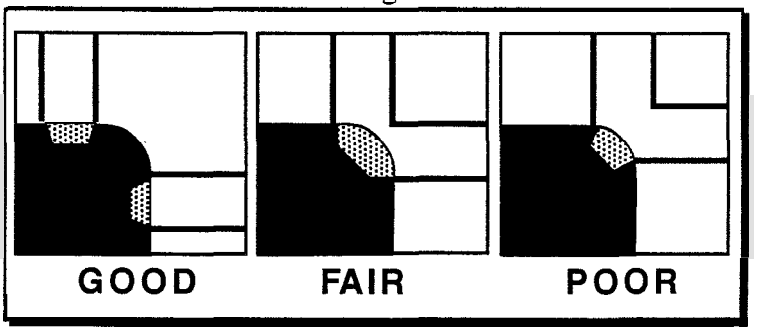
concrete pad can be placed between the curb and the buffer strip or between street trees to allow passengers to step out onto a hard, dry surface.

■ *Crosswalks*

Pedestrian crossings—marked or unmarked crosswalks—exist at all intersections unless signed otherwise. Marked crosswalks are recommended at high-use intersections, transit stops, and wherever two arterials or collectors meet; all legs of the intersection should be marked. Crosswalks should also be marked at mid-block where:

- blocks are longer than 1,000 ft,
- a major attractor, such as a school or shopping area, is located mid-block or
- a crosswalk on one side of the street ends and is picked up on the other side.

A mid-block crosswalk should be located in the pedestrian flow path, such as to building entrance, or the building entrance should be located close to existing crosswalks.



A crosswalk should meet the straight section of the curb at a right angle whenever possible. The curb radius is a less desirable location for the crosswalk because it places the pedestrian in a more vulnerable position and lengthens the crossing distance. A crosswalk should never be beyond the curb line.

Curb radii should be kept to a minimum:

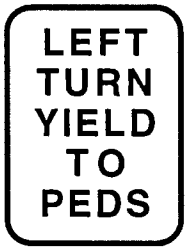
- 5 ft where right turns are not permitted (such as on one-way streets) or where on-street parking creates a wider vehicle turning radius.
- 15 ft in residential areas.
- 30 ft in industrial areas or where large trucks are common.

Access ramps must be provided at below-grade crosswalks. At a corner, there should be a ramp for each crosswalk and a level 4-ft platform (3-ft minimum). Note that T-intersections have 3 crosswalks and require 2 ramps on the top part of the T.

Raised (above grade) crosswalks are recommended when vehicle speeding is a problem. They act like speed humps (see the *Oregon Bicycle and Pedestrian Plan* for design details) and have the advantage of no pedestrian curb cuts.

Crosswalks at signals, stop signs and mid-block on arterials or collectors should be clearly marked with reflective paint. Striped markings are more visible than double lines, and a different color paint, such as a bright blue, could be used to bring attention to the crosswalk striping. Curbs extensions (as discussed below), permanent texture and color changes, and raised crosswalks ("speed humps") can be used to signal to the motorist that the road space belongs to pedestrians.

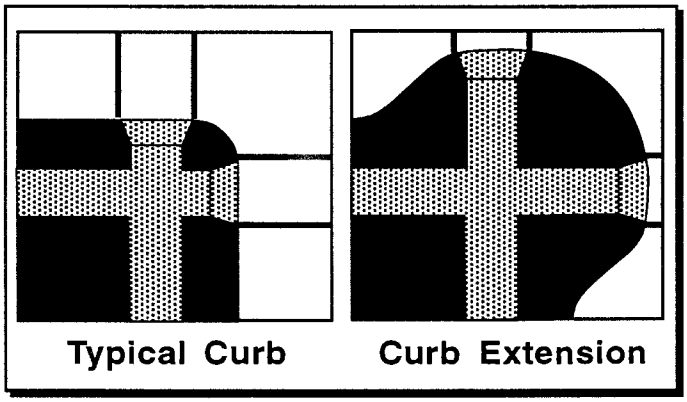
Pedestrian-activated traffic signals should be considered at all arterial and collector intersections and mid-block crossings. All signals should be timed to allow complete crossing by the slowest individual before changing (3 ft/s). Signal phasing should also minimize the wait by the pedestrian who is more exposed to noise, air pollution and weather than is the motorist; a maximum 15 s wait is desirable and 60 s is the absolute maximum. The pedestrian phase of signals should be audible for people with vision impairments. Buttons should face the sidewalk rather than the street and should be obvious as to which direction they control.



Where turning movements create a conflict with pedestrians, several design adjustments can be made. At signalized intersections, the timing of the signal can put the "walk" signal on in advance of the green light for cars (with appropriate red light timing for cross traffic). A sign "YIELD TO PEDS" (OR17-5 and OR17-6) can also be installed. In areas with high pedestrian traffic, right-hand turns on red should be prohibited. At stop-controlled intersections, free right-hand turns should be prohibited.

■ *Curb Extensions*

Curb extensions—also called bulbs, flares and chokers—reduce pedestrian crossing distances, provide greater visibility for both pedestrians and motorists, and exercise a certain amount of control over vehicle paths and speeds. A curb extension is the widening of the sidewalk into the roadway at selected mid-block and intersection locations.



Curb extensions at intersections should be considered on all streets with on-street parking. Curb extensions should also be considered at mid-block crosswalks.

Important design details that should be considered when using curb extensions are intersection site distance, turning radii, drainage, and the location of traffic control hardware, street furniture, bus stops and bike lanes.

Curb extensions offer pedestrians a distinct advantage in crossing while causing minimum interference for on-street traffic. In fact, the shorter crossing distance means that the pedestrian signal phase can be decreased.

■ Refuges

Channelization islands, pedestrian refuge islands and medians can be effective ways to "bring the sidewalk into the street" at major intersections. They utilize space that is not in the vehicle flow to give pedestrians a modicum of comfort in an otherwise hostile setting. Any street more than 56-ft wide should have a median refuge with a clearly marked pedestrian cut-through.

Channelization islands are used for intersections that separate right-turning motor vehicle traffic from traffic traveling straight. Although channelization islands do provide a place for the pedestrian to stand clear of right-turning traffic, it is best to limit the use of channelization islands to situations where pedestrians must cross an on-ramp to a limited access facility such as a freeway. Free right turns are not compatible with pedestrian or bicycle use, and they should be avoided.

Pedestrian refuge islands and medians are provided in the center of arterials for pedestrians who cannot make a full crossing on the walk signal. Although these features are better than no facility at all, they have a tendency to be an unpleasant pedestrian experience because they are surrounded by moving vehicles until the light changes. It is preferable to change the signal phasing to allow time for pedestrians to completely cross the street.

Refuges must be large enough for several pedestrians to wait. For wheelchair accessibility, it is preferable to provide at-grade cuts rather than ramps.

■ Driveways

Vehicle access to adjacent property is often provided by driveways that cross the sidewalk. Where driveways are necessary, they should be designed to not interrupt the sidewalk with grade, slope and direction changes (see requirements under *Curb Sidewalks* above). Design techniques that preserve sidewalk continuity include:

- Use of alleys and carefully-placed street access points to limit the number of driveways.
- Minimum width driveways: 10 ft for lots up to 10 cars, 14 ft up to 20 cars, 18 ft for more than 20 cars, and wider only if used frequently by large trucks. Continuous curb cuts, which often exist at gas stations, should be prohibited.
- Minimum width driveway aprons: 3-ft standard wing on each side, with a 6-ft maximum on each side where there is frequent truck use.
- Use of radius wings or rolled curbs.
- Avoid use of angled driveways and right-turn pockets.
- Inclusion of a buffer strip so that the driveway grade change occurs in the buffer area and not the sidewalk.

- Dip the entire sidewalk to keep the cross-slope constant.

- Wrap a curb sidewalk around the driveway, although this requires special surface textures to alert the vision-impaired who follow the curb line for guidance.

■ *Pedestrian Comfort*

It is important to provide pedestrians with a safe and pleasant environment. This is especially true in the downtown area. Lighting and signing should be at a pedestrian scale. Street furniture, such as benches, trash receptacles, bus shelters and planting containers give the street an interesting appearance, provide a pedestrian scale and encourage people to walk. Awnings or other coverings are important in a downtown area. Studies comparing downtown areas with enclosed shopping malls stress the importance of providing "pedestrian refuges" from weather and traffic.

However, it is equally important to avoid cluttering or constricting pedestrian movement through encroachment of commercial uses into the walking area. Although uses such as coffee stands and street entertainment may add to the pedestrian environment, they should not interfere with pedestrian movement. Street furniture, such as newspaper vendors, benches and bike racks should also be placed out of the travel area to maintain a 6-ft sidewalk width.

Bikeways

Oregon Standards

Bikeway standards are basic guidelines used for design, construction, signing and striping. The Oregon Bicycle and Pedestrian Program has developed standards, based on over two decades of experience, for the wide range of urban and rural applications in the state. The standards are based on the *Guide for Development of Bicycle Facilities* (1991), published by the American Association of State Highway and Transportation Officials (AASHTO), to which Oregon contributed many ideas.

The *Oregon Bicycle and Pedestrian Plan* covers many applications for all types of bikeways and situations (summarized in Table 7). It provides comprehensive discussions of design considerations, examples of good and bad practices, a glossary of terms, and expanded guidelines for separated multi-use paths, retrofit bike lanes, shoulder widening, interchange areas, maintenance activities, and exceptions to AASHTO standards. It is a valuable reference source for planners, engineers and maintenance personnel.

Table 7. Bikeway Types

Bikeway Type	Description	Application	Width
Shared Roadway	Bicyclists share the normal vehicle lanes with motorists	City residental streets and low-traffic rural roads	14-ft desirable 12-ft min. 15-ft max.
Shoulder Bikeway	Smooth, paved shoulder with 4-in. stripe	Highways and minor arterials and collectors	6-ft desirable 4-ft min. uncurbed 5-ft min. curbed
Bike Lane	Preferential lane on roadway with 8-in. stripe, signs and pavement markings	Arterials and collectors as well as other high-volume routes	6-ft desirable 4-ft min. uncurbed 5-ft min. curbed
Multi-Use Path	Separated from roadway by open space or barriers and closed to motorized traffic	Along busy highways, through roadless corridors, and in urban areas with extensive traffic control	Normally two-way 12-ft desirable 10-ft min. 8-ft if low use 5-ft min. if one-way

Design Practices

To varying extent, bicycles will be ridden on all roads where they are permitted. All new roads, except for some freeways where bicyclists will be legally prohibited, should be designed and constructed under the assumption that they will be used by bicyclists. Bicycle-safe design practices, as described in this document, should be followed to avoid the necessity for costly retrofitting. Refer to the *Oregon Bicycle and Pedestrian Plan* for more information, roadway cross-sections, and typical pavement markings.

Roadways that were not designed with bicycle travel in mind can be improved to more safely accommodate bicycle traffic. Roadway conditions should be examined and, where necessary, safe drainage grates and railroad crossings, smooth pavements, and signals responsive to bicycles should be provided. In addition, the desirability of adding facilities such as bicycle lanes, shoulder improvements and wide curb lanes should be considered.

■ Design Speed

Design speed is a critical factor in providing for adequate horizontal curvature and stopping sight distance. It is also an element in assessing the feasibility of grades. A design speed of 20 mph is generally desirable to provide safe and comfortable cycling. On descending grades that exceed 4%, a design speed of 30 mph is recommended as a safe minimum. On bikeways with climbing grades exceeding 3%, it is considered sufficient to use a design speed of 15 mph.

■ Stopping Sight Distance

Unexpected obstacles on a bikeway such as broken glass, broken pavement or other impediments may cause a cyclist to brake or swerve. To safely provide the cyclist with an opportunity to see and react, bicycle stopping sight distances have been studied and criteria compiled (refer to AASHTO Guide).

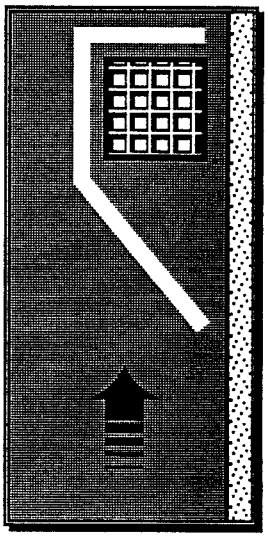
Generally, there is no problem in attaining adequate stopping sight distances for bicycle lanes because the roadway alignment usually has been designed to accommodate motor vehicle speeds that are equal to or greater than bicycle speeds. There are exceptions, however, especially where on-street parking is permitted. The stopping sight distance factor should be routinely checked in locating bikeways. Where necessary, sight distance should be improved by adjusting parking, encroaching vegetation and signs.

■ Grades

Parts of the Myrtle Point area are hilly. Most studies recommend that bicycle grades be limited to 11% and grade distances up to 2000 ft. Sometimes, ramp and bridge approaches have steeper grades. Acceptable grades in such cases can be adjusted accordingly, but should not exceed 15%. Facilities shared with the disabled should not exceed 5% grade.

■ Drainage Grates

Drainage grate inlets and utility covers are potential problems to bicyclists. When a new roadway is designed, all such grates and covers should be kept out of bicyclists' expected path. On new construction, curb inlets should be used wherever possible to completely eliminate exposure of bicyclists to grate inlets. It is important that grates and utility covers be adjusted flush with the surface, especially after a roadway is resurfaced.



Parallel bar drainage grate inlets can trap the front wheel of a bicycle which may cause loss of steering control, damage to the bicycle wheel and injury to the bicyclist. These grates should be replaced with bicycle-safe and efficient ones. When this is not immediately possible, a temporary correction is to weld steel cross straps or bars perpendicular to the parallel bars to provide a maximum safe opening between straps.

While identifying a grate with a pavement marking, as indicated in the Manual for Uniform Traffic Devices (MUTCD), is acceptable in most situations, parallel bar grate inlets deserve special attention. Because of the serious consequences of a bicyclist missing the pavement marking in the dark or being forced over such a grate inlet by other traffic, these grates should be physically corrected, as described above, as soon as practicable.

■ Railroad Crossings

Although Myrtle Point has no railroad crossings, the following discussion is included for planning purposes.

Railroad-highway grade crossings should ideally be at a right angle to the rails. The greater the crossing deviates from this ideal crossing angle, the greater is the potential for a bicyclist's front wheel to be trapped in the flangeway. It is also important that the roadway approach be at the same elevation as the rails.

The crossing surface materials and the flangeway depth and width should not be a hazard to cyclists. Rubberized mats or concrete flanges are a good choice. If the crossing angle is less than approximately 45 degrees, consider widening the outside lane, shoulder, or bicycle lane to allow bicyclists adequate room to cross the tracks at a right angle. Where this is not possible, commercially available compressible flangeway fillers can enhance bicyclist safety. In some cases, abandoned tracks can be removed. Warning signs and pavement markings should be installed.

■ *Pavements*

Pavement surface irregularities can do more than cause an unpleasant ride. Gaps between pavement slabs or drop-offs at overlays parallel to the direction of travel can trap a bicycle wheel and cause loss of control; holes and bumps can cause bicyclists to swerve into the path of motor vehicle traffic. To the extent practicable, pavement surfaces should be free of irregularities and the edge of the pavement should be uniform in width.

On older pavements it may be necessary to fill joints, adjust utility covers or, in extreme cases, overlay the pavement to make it suitable for bicycling. Tarred and graveled roadways are unsuitable for cycling. The loose gravel is not only extremely unstable for bicyclists but the added danger of passing cars spitting rocks pose a hazard.

■ *Bike Routes (Bad Design Practice)*

Signing bike routes was very popular 10 to 20 years ago among cities trying to instantly create a bicycle "system." Unfortunately, there was rarely anything done to improve cycling conditions or to logically connect routes. The signs became counterproductive, telling the cyclist nothing that they did not already know, often leading them onto obscure secondary streets away from destinations, and leading motorists to believe that bicycles did not belong on non-signed streets.

By today's bikeway standards, bike routes are obsolete and route signs should be removed or replaced with more useful directional signs (see discussion below under Supplemental Facilities).

■ *Sidewalk Bikeways (Bad Design Practice)*

Sidewalk bikeways had some popularity in the '70s when cities were first experimenting with designs. With experience, the approach was abandoned in all but a few rare cases and is highly discouraged in contemporary facility standards. (One exception is that small children are generally permitted on sidewalks so long as they act like pedestrians.)

Two principles apply. First, pedestrians are the most vulnerable—and in many ways the most valuable—road user. The pedestrian environment, which is already severely compromised, must be protected.

Second, cyclists are safer as roadway vehicle operators, rather than as pedestrians. This is reflected in the Oregon Statutes which recognize bicycles as vehicles. Sidewalks are not suitable for cycling because:

- They put cyclists, who can easily move from 10 to 20+ mph, in conflict with pedestrians and people emerging from doorways or cars.
- There are dangers from poles, signs, trees and other "street furniture."
- Cyclists face potential conflicts at every driveway and intersection from emerging or turning cars. A cyclist on a sidewalk is generally invisible to motorists, so that the cyclist appears unexpectedly.

- The cyclist is put into an awkward position at intersections where they can neither act safely like a vehicle nor are they in the pedestrian flow. The confusion creates dangerous situations and promotes unsafe behavior.

For these reasons many cities ban bicycles from sidewalks. Routing bikes on sidewalks is counterproductive to cyclist and pedestrian safety and does not address transportation needs.

■ *Wide Curb Lanes*

On highway sections without bicycle lanes, a right lane wider than 12 ft can better accommodate both bicycles and motor vehicles in the same lane and thus is beneficial to both bicyclists and motorists. In many cases where there is a wide curb lane, motorists will not need to change lanes to pass a bicyclist.

Also, more maneuvering room is provided when drivers are exiting from driveways or in areas with limited sight distance. In general, a lane width of 14 ft of usable pavement width is desired. Usable pavement width would normally be from curb face to lane strip, or from edge line to lane stripe, but adjustments need to be made for drainage grates, parking, and longitudinal ridges between pavement and gutter sections.

Widths greater than 14 ft can encourage the undesirable operation of two motor vehicles in one lane, especially in urban areas. Consider striping bicycle lanes when wider widths exist and ADTs are greater than 2000 (refer to Table 8).

Table 8. Bikeways and Traffic Volume

Traffic Volume	Average Daily Traffic (ADT)	Appropriate Bikeway
Light	Less than 2,000	Shared roadway or shoulder bikeway
Medium	2,000-5,000	Shoulder bikeway or consider bike lane
Heavy	5,000-10,000	Bike lane
Very heavy	More than 10,000	Bike lane

■ *Shoulders*

Wide curb lanes and bicycle lanes are usually preferred over shoulders for use by bicyclists. However, if it is intended that the bicyclists ride on shoulders, smooth paved shoulder surfaces must be provided. Pavement edge lines supplement surface texture in delineating the shoulder from the motor vehicle lanes. Rumble strips can be a deterrent to bicycling on shoulders and their benefits should be weighed against the probability that bicyclists will ride in the motor vehicle lanes to avoid them.

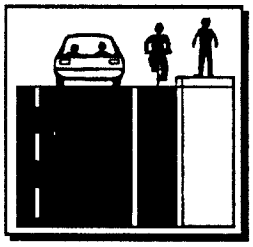
Shoulder width should be a minimum of 4 ft when intended to accommodate bicycle travel. Roads with shoulders less than 4 ft wide are considered shared roadways. If motor vehicle speeds exceed 35 mph , if the percentage of trucks, buses, and recreational vehicles is high, or if static obstructions exist at the right side, then additional width is desirable.

Adding or improving shoulders can often be the best way to accommodate bicyclists in rural areas. Shoulders also provide many other benefits:

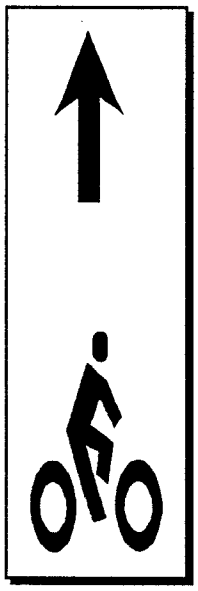
- Space for motor vehicles to:
  - avoid running off the roadway in poor weather,
  - avoid crashes,
  - park in emergencies, and
  - pull over for right turns, looking at a map, etc.
- Improved sight distance.
- Increased vehicle capacity
- Fewer crashes.
- Lateral clearance for signs and guardrails.
- Space for maintenance operations.
- Increased pavement life due to:
  - better storm water discharge and less seepage into the pavement,
  - structural support, and
  - less debris thrown onto travel lanes from vehicle wheels.

Where funding is limited, adding or improving shoulders on uphill sections first will give slow moving bicyclists needed maneuvering space and decrease conflicts with faster moving motor vehicle traffic.

■ *Bike Lanes*



Bike lanes separated by a stripe can be considered when it is desirable to delineate available road space for preferential use by bicyclists and motorists, and to provide for a more predictable movements by each. Bicycle lane markings can increase a bicyclist's confidence that motorists will not stray into their path of travel. Likewise, passing motorists are less likely to swerve to the left out of their lane to avoid bicyclists on their right, thereby improving overall traffic flow.



Normal bike lane width is 6 ft. Under some conditions, a width as narrow as 4 ft is acceptable on uncurbed roadways and 5 ft on curbed roadways or next to parking. An 8-in white stripe is used with pavement markings (see stencil at left). Raised pavement markings and raised barriers can cause steering difficulties for bicyclists and should not be used to delineate bicycle lanes.

Bicycle lanes should always be one-way facilities and carry traffic in the same direction as adjacent motor vehicle traffic. Two-way bicycle lanes on one side of the roadway are unacceptable because they promote riding against the flow of motor vehicle traffic. Wrong-way riding is a major cause of bicycle crashes and violates the Rules of the Road stated in the Uniform Vehicle Code.

Bicycle lanes on one-way streets should be on the right side of the street, except in areas where a bicycle lane on the left will decrease the number of conflicts (e.g., those caused by heavy bus traffic, awkward intersections, etc.).

Bicycle lanes should always be placed between the parking lane and the motor vehicle lanes. Bicycle lanes between the curb and the parking lane create hazards for bicyclists from opening car doors and poor visibility at intersections and driveways, and they prohibit bicyclists from making left turns; therefore this placement should never be considered.

Where parking is permitted but a parking lane is not provided, the combination lane, intended for both motor vehicle parking and bicycle use, should be 14 ft wide. However, because it is likely the combination lane will be used as an additional motor vehicle lane, it is preferable to designate separate parking and bicycle lanes.

Angled vehicular parking discourages the location of bicycle lanes. The backing up of vehicles and poor visibility until a vehicle is partially backed out promotes collisions with bicyclists.

Bicyclists do not generally ride near a curb because of the possibility of debris, of hitting a pedal on the curb, of an uneven longitudinal joint, or of a steeper cross-slope. If the longitudinal joint between the gutter pan and the roadway surface is uneven, a minimum of 4 ft should be provided between the joint and the motor vehicle lanes.

For a highway without a curb or gutter, bicycle lanes should be located between the motor vehicle lanes and the roadway shoulders. Bicycle lanes may have a minimum width of 4 ft, where the shoulder can provide additional maneuvering width. A width of 5 ft or greater is preferable; additional widths are desirable where substantial truck traffic is present, where prevailing winds are a factor, on grades, or where motor vehicle speeds exceed 35 mph.

Adequate pavement surface, bicycle-safe grate inlets, safe railroad crossings, and traffic signals responsive to bicycles should be provided on all roadways but especially where bicycle lanes are designated.

On-street bike lanes have proven to be among the safest of facilities when built to standard, and they are used extensively in the cities with the highest ridership. The perception of danger due to the proximity of motorized traffic is unsupported by crash statistics and lessens as riders gain experience with the facility. Bike lanes on arterials and collectors improve safety and offer the most direct route to most destinations.

■ *Intersections*

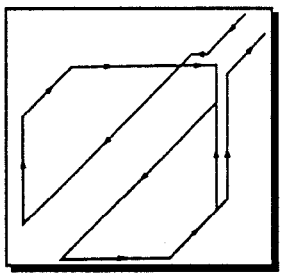
For bicycle lanes to work properly at intersections, care must be taken to provide both bicycles and motor vehicles with clear paths through the intersection and for turns according to established Rules of the Road. Bicyclists proceeding straight through and motorists turning right must cross paths. Striping and signing configurations which encourage these crossings in advance of the intersection, in a merging fashion, are preferable to those that force the crossing in the immediate vicinity of the intersection.

To a lesser extent, the same is true for left-turning bicyclists; however, in this maneuver, the vehicle code allows the bicyclist the option of making either a "vehicular style" left turn (where the bicyclist merges leftward to the same lane used for motor vehicle left turns) or a "pedestrian style" left turn (where the bicyclist proceeds straight through the intersection, turns left at the far side, then proceeds across the intersection again on the cross street). Where there are numerous left-turning bicyclists, a separate turning lane should be considered.

In extreme cases, special signals may be used to give bicycles their own phase. Or staggered stop bars can give cyclists a head start on motor vehicles.

Freeway-style ramps present a special problem. One design for a bike lane crossing is noted in the *Oregon Bicycle and Pedestrian Plan.*

■ *Traffic Control Devices*



At intersections, bicycles should be considered in the timing of the traffic signal cycle, as well as the traffic detection device. Normally, a bicyclist can cross an intersection under the same signal phasing arrangement as motor vehicles; however, on multi-lane streets special consideration should be given to

ensure that short clearance intervals are not used. If necessary, an all-red clearance interval may be used. To check the clearance interval, a bicyclist's speed of 10 mph and a perception/reaction/braking time of 2.5 seconds should be used.

Loop detectors for traffic-actuated signals should be sensitive to bicycles, located in the bicyclist's expected path, including left turn lanes, and marked so that bicyclists can activate them. Signals should be timed to allow slow cyclists to clear the intersection; about one second per every three feet of width is sufficient. Where programmed visibility signal heads are used, they should be checked to ensure that they are visible to bicyclists who are properly positioned on the road. Special signal heads for the bike lanes can be used in special cases such as very large intersections.

At signal-controlled intersections with high bicycle traffic, it may be desirable to have a staggered stop bar for automobiles where the bike lane stop is several feet in front. This gives bicycles a head start on a green light which makes crossing the intersection easier. Cars are not permitted to turn right on red, which is a good idea at any intersection with substantial pedestrian and bicycle traffic.

It is also desirable to avoid unnecessary stop signs along bikeways. If a stop is deemed necessary to slow down automobile traffic, as is often the case in residential areas or near schools, consideration should be given to employing traffic calming measures instead. There are various roadway designs, such as narrow lanes, constrictors and roundabouts, that slow traffic without stopping it (see discussion of local streets below).

■ *Local Streets*

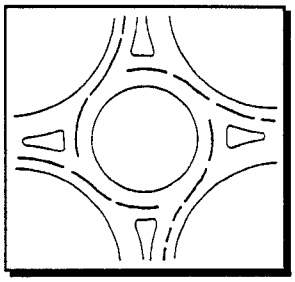
Although this Plan focuses on arterials and collectors, local streets should not be overlooked. The side streets in residential, business and rural areas are the feeders for the bikeway network. The relatively quiet local streets are also favored by children and inexperienced adult riders who do not stray far from home.

The traffic volume and speed on arterials and collectors argue for some separation of cars and bicycles through bike lanes or wide travel lanes. Well-engineered facilities make for more orderly traffic flow with fewer conflicts. The conditions on local streets are usually less demanding so that cars and bicycles can mix safely on a shared roadway.

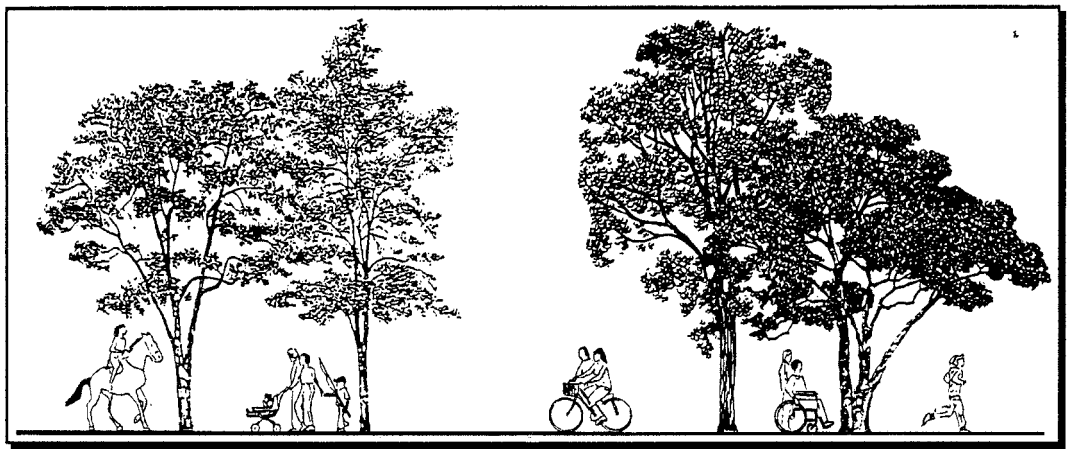
However, mixing vehicles requires a street design that does not allow the automobile to dominate. Local streets that are too wide and straight encourage speeding and cut-through traffic trying to avoid major streets. Streets in business neighborhoods that lack sufficient off-street parking for employees and customers may resemble crowded parking lots more than public spaces. Cyclists find these conditions very uncomfortable and experience higher crash rates when they try to use them.

Many techniques are used to make local streets more inviting and safer for cyclists, pedestrians, children, residents and visitors. The basic concept is known as "traffic calming" and starts from the premise that motorists are admitted only when they move slowly and with respect for other's rights. The general idea is to design streets at a pedestrian's scale and speed. Standard traffic-calming techniques include:

- Skinny streets and queuing streets where cars must slow down or pull over to pass oncoming cars.
- One-lane entry drives at intersections and narrow constrictors mid-block.
- One-way entries (or streets turned into dead-end routes for cars in extreme cases) to discourage drive-through traffic.
- Benches, trees and landscaping in the road right-of-way.
- Parking bays.
- Curving roadways.
- Roundabouts.
- Varied paving materials.
- Varied road widths.
- Creation of calm zones where traffic is limited to 20 mph or less.



Traffic calming can also be applied to arterials and collectors that are too narrow to support bike lanes. By slowing the traffic, cyclists can cope with sharing the travel lane. Experience shows that car capacity is not degraded because the slower speeds result in less braking and accelerating. The smoother flow also produces less noise and pollution. Traffic injuries and crash severity drop, as well. In commercial areas, the slower speeds make it easier for motorists to spot stores.



Separated Paths

Separated, multi-use paths are facilities on exclusive rights-of-way and with minimal cross flow by motor vehicles. Paths serve a variety of users: joggers, pedestrians, bicyclists, skaters and even equestrians. Paths serve many purposes. They can provide a shortcut through a residential neighborhood (e.g., between two cul-de-sac streets). In a park, they can provide enjoyable recreation. Paths can be located along abandoned railroad rights-of-way, riverbanks and other similar areas. Paths can also provide access to areas that are otherwise served only by limited-access highways.

There are many similarities between design criteria for paths and those for highways (e.g., horizontal alignment, sight distance, access management, and signing and markings).

On the other hand, some criteria (e.g., horizontal and vertical clearance, grades, and pavement structure) are dictated by characteristics of pedestrians and bicycles that are substantially different from those of motor vehicles. The designer should always be conscious of the similarities and the differences between pedestrians, bicycles and motor vehicles in path design (refer to the *Oregon Bicycle and Pedestrian Plan*).

For example, the Americans with Disabilities Act requires that grade not exceed 5%, although bicycles can handle grades of up to 10% for short distances. The maximum allowable cross-slope for a pedestrian facility is 2%, whereas bicycles prefer a cross-slope between 2%–5% to assist drainage and turning at speed in curves. In practice, hilly routes may necessitate grades and cross-slopes beyond ADA requirements. In such cases, a warning sign (e.g., W7-5, Hill) may be advisable.

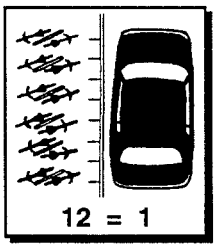
Paths have a reputation for causing crashes. Of particular concern in path design is reducing the number and complexity of intersections while maintaining access. It is also important to maintain adequate width (10 ft standard and 12 ft in high-use areas) and sight distance.

Supplemental Facilities

The motorist benefits not only from roads leading to nearly any destination, but also from extensive signals, parking, signing, and special services. Motoring would not be nearly as popular without these added features.

Likewise, a complete bicycle system incorporates not only bikeways but also parking, commuter facilities, rest areas for tourists, and bicycle-oriented signing. Where there is transit, both modes benefit greatly when bicycles can be carried by the transit vehicle.

Parking Facilities



Just as omnipresent parking is essential to automobile use, convenient and secure bicycle parking is needed to promote that mode. Any bicycle trip involves parking. The lack of secure and convenient parking is often the missing link in bicycle facilities and is a great deterrent to bicycle use. Local governments should require bicycle parking in new developments just as they do for automobile parking (sample ordinances are in the Appendix).

Bicycle parking falls into two basic categories of user need: commuter (or long term) and convenience (or short term). The minimum needs for each differ in their placement and protection, as shown in Table 9.

A basic guideline for capacity is that bicycle parking should be about 10% to 20% of motor vehicle parking. For example, a use that requires 35 motor vehicle parking spaces would require facilities for parking four to eight bikes. Some uses, such as a public library or popular ice cream store, may require a higher ratio of bike parking to motor vehicle parking.

Table 9. Bicycle Parking Categories

Placement	Comments	Protection
Commuter (Long-Term) Parking		
• *Employment areas* • *Schools and colleges* • *Multifamily dwellings* • *Public transit transfer stations*	• *Weather-protected area that is covered and drained.* • *Securing device that supports the frame or handlebars rather than the wheels only.* • *Securing device that easily allows bicycles to be locked to it through the frame and both wheels.* • *Lighting consistent with automobile parking lighting.*	• *Security ranks over convenience, although bicycle parking should be at least as conveniently located as automobile parking.* • *Bicycle parking should not conflict with motorized uses in a dangerous or congested manner.*
Convenience (Short-Term) Parking		
• *Shopping centers* • *Hospitals and health care offices* • *Libraries and museums* • *Public service government agencies* • *Recreation and entertainment areas*	• *Device that allows the frame and both wheels to be secured by the bicyclist's own lock.* • *Parking location free of unnecessary conflicts with motor vehicles and pedestrians.* • *Well-lit location that is as closely situated to the most easily monitored access to an entry in order to reduce theft.*	• *Weather-protected bicycle parking is not always necessary or cost effective for the short-term user.* • *Note that these locations are also a place of employment and should have some long-term parking.*

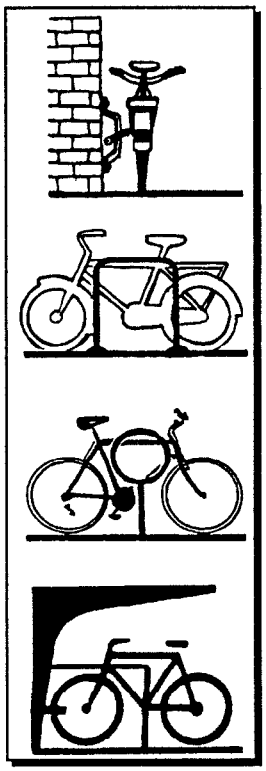
The primary design considerations are:

- Bicycle parking should be convenient and easy to find, preferably near a building's main entrance. Where necessary, a sign should be used to direct users to the parking facility.
- Each bicycle parking space should be at least 2 by 6 ft with a vertical clearance of 7 ft.
- Facilities should be able to accommodate a wide range of bicycle shapes and sizes including tricycles and trailers if used locally. Finally, facilities should be simple to operate. If possible, signs depicting how to operate the facility should be posted.
- Parking facilities should offer security in the form of either a lockable enclosure in which the bicycle can be stored or a rack to which the bicycle can be locked. Structures that require a user-supplied lock should accommodate both cables and a U-shaped locks and should permit the frame and both wheels to be secured (avoid the need for removing the front wheel). Note: businesses may provide long-term, employee parking by allowing access to a secure room within a building, although additional short-term, customer parking may also be required.

- The rack should support the bicycle in a stable position without damage (for example, bent rims are common with racks that only support one wheel).

- Long-term parking should be sheltered so that bicycles are not exposed to the sun, rain and snow.

- Care should be given in selecting the location to ensure that bicycles will not be damaged by motor vehicles and will not be in the way of pedestrians.



There are many acceptable designs in use throughout the State. Several such designs are noted in Bicycle Parking Facilities, Oregon Department of Transportation, Dec. 1992.

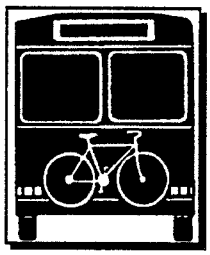
Bicycle parking should be provided in all types of new development (both public and private) and for changes in use, and for expansions and other remodeling that increase the required level of automobile parking.

Commuter Facilities

Besides parking, showers and changing rooms at large employers (at least 10,000 square feet and 25 employees) should be required in new construction or major remodelling to promote bicycle commuting.

Many employers find that such facilities pay for themselves quickly in increased employee fitness and health, not to mention morale. Capital costs also argue for encouraging bicycle commuting: a car parking space may cost from $2000 to $5000, several times more if in a multi-level structure; interest on debt, operations, maintenance, and other costs add significantly to the initial cost.

Transit Link



Although Myrtle Point has no fixed-route transit, the following discussion is included for planning purposes.

Bicycles and transit are logical partners. A person can bicycle right from their home to their destination, but the suitable distance is short (a few miles). Transit routes offer the most efficient way to travel longer distances but are not convenient to most residents. For many travelers, neither mode can compete with the automobile's combination of range, flexibility and convenience.

However, if bikes and transit work as a team, they make an attractive alternative to the car—just as flexible and convenient, cheaper, more relaxing, and even faster on some routes. Together, these modes can carry people across large metropolitan areas without reliance on automobiles.

Bicyclists benefit because their range and flexibility are increased, they can overcome barriers such as bridges and freeways, and sudden storms or emergencies are not such a problem. Transit benefits by drawing from a larger area, being able to distribute passengers to more destinations and reducing the need for car parking at transit centers.

Despite the logical connection, bicycle access to transit is neglected. Most transit users continue to drive to the transit stops, which causes localized congestion around the transit station, requires costly park-and-ride lots and does nothing to reduce highly-polluting engine cold starts. These disadvantages offset to a great extent the gains that transit offers to the community. And many commuters, once they are in their car, figure they might as well drive to their destination.

To take advantage of bicycles, transit stations should have convenient bikeway access and long-term bicycle parking (secure and sheltered). Feeder bikeways to the stations should be well marked and lead directly to the parking.

In most cases, transit vehicles can be adapted to carry bicycles, so that commuters can bicycle at both ends of their trip. This greatly increases the attractiveness of using transit.

At least 15 U.S. cities, including Portland (TriMet) have buses with bike racks, typically front-mounted units operated by the cyclist. Most require a user permit and restrict children. A permit also eliminates tourists, casual cyclists or riders caught in an emergency. In most cases, signs could communicate the rules of operation as effectively as permits.

Some bus designs allow for a storage area where large items such as baby strollers, wheelchairs or bicycles can be brought on board. A wall sticker can identify the area as reserved for wheelchairs or bicycles and the space can be used by others for standing during peak times. This design is common in Europe.

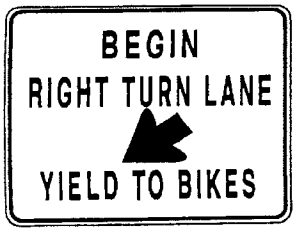
Signing

Signs serve three basic purposes: regulating usage, directing users along established corridors, and warning them of unexpected conditions.

Because of a pedestrian's or cyclist's lower line-of-sight, the bottom of signs intended to inform these users should be about 5 ft above the travel surface. If a secondary sign is mounted below another sign, it should be at least 4 ft above the travel surface. The signs should provide at least 2 ft lateral clearance from the edge of the bikeway. Standards for signing are contained in the *Oregon Bicycle and Pedestrian Plan* and the MUTCD and are summarized below:

- **Regulatory Signs** are used to inform pedestrians, bicyclists and motorists of traffic laws or regulations. Common regulatory signs are:

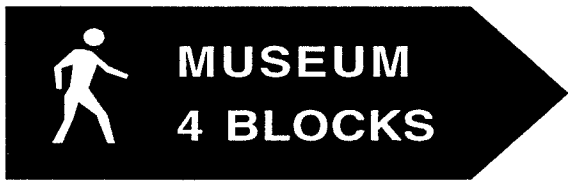
  R5-3 (Motor Vehicles Prohibited),
  R1-1 (Stop, 18x18 in.),
  R1-2 (Yield, 24x24x24 in.),
  R4-4 (Yield to Bikes) and
  R9-2a (Cross Only On Signal).



  Bike lanes may be signed with R7-9 and R7-9a (No Parking) where parking is a problem; many jurisdictions paint curbs yellow to indicate that parking is prohibited.

- **Directional Signs** are used to guide users to destinations such as libraries, schools, museums, shopping districts, etc. The basic sign portrays a pedestrian or bicycle and includes information such as a directional arrow, destination name and distance. Because a directional sign tells the user that there are advantages to using the route, care should be taken to assure its suitability.

  Bikeway direction-of-travel signs are used at junctions and places where a bikeway differs from the standard motor-vehicle route. Two common situations where directional signs are employed are to lead cyclists on a popular bikeway through a section that is difficult to follow, and to steer cyclists around a section of roadway that is poor for cycling when a better alternate roadway is close by. In both cases, the purpose is to maintain continuity in the bikeway system.



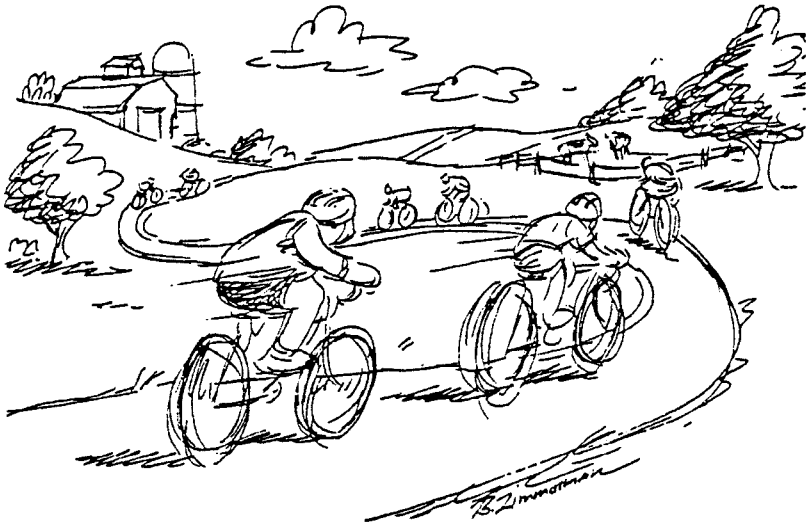
Destination and distance information along heavily traveled bikeways and walkways are useful for orientation and to encourage use, although such signs should not duplicate existing road signs. Signs should be no more than 24 in. wide.

- ***Warning Signs*** are used to inform bicyclists and other users of potentially hazardous conditions such as turns and curves, intersections, stops, hills, slippery surfaces, and railroad tracks. Common signs are described in the *Oregon Bicycle and Pedestrian Plan.*

  The basic warning signs for pedestrian safety are W11A-2 and W11-2 (Pedestrian Crossing). They are placed only in locations where a marked crossing is not normally encountered, such as mid-block.

Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has.

– Margaret Mead



Section 8

EDUCATION, ENFORCEMENT AND ENCOURAGEMENT

- Educate all ages on effective and safe use of pedestrian and bicycle facilities.
- Support police enforcement efforts.
- Make citizens aware that bicycles are legally vehicles and that pedestrians have the right of way at intersections.
- Promote walking and cycling as transportation to build support and encourage potential users.

Bicycling Promotion

Bicycling means different things to different people. Some see it as one answer to the problems besetting our automobile-dominated communities. Others see it as pleasant recreation. Some consider it an annoyance and a dangerous sport. To children, it may be a way to get around until they can drive a car. In some countries, bicycling is simply a part of daily life, little different than eating and sleeping. Education's role is to bring together these disparate views in a way that can promote cycling within the community.

A bicycle system is most evident in its facilities, which are the most visible and expensive element. Indeed, some transportation agencies have felt that their job was finished once the bicycle facilities were provided, and that it is was then up to the people to figure out how to use the facilities. This approach generally works with motorists because they must be a minimum age and pass a competence exam before they can drive. They also have the benefit of an extensive, highly structured road system complete with traffic control and directional devices.

Bicyclists, on the other hand, are practically unregulated, and a would-be cyclist may venture out on the roads with few skills and little judgement. This ignorance, combined with the fact that automobiles are the dominant form of transportation in our society, often keeps people from even considering bicycling as a choice. The result is that fine facilities may be misused or ignored and may even be perceived as unnecessary.

Getting people to use bicycle facilities and to use them safely requires follow-through in various programs that promote awareness, safety, skills and enforcement. Although these programs might be best handled by private or community groups instead of government agencies, it is important that they be encouraged and supported.

There are numerous strategies for pursuing education including information packages, training courses, commuter programs, special incentives, event sponsorship, and other promotional efforts.

Information Packages

A bicycle information packet is one tool that is easily and cheaply provided by the City. The contents should include a map, suggested routes (both recreational and commuter), local services, contacts, and perhaps riding safety tips. Its purpose is to help bicyclists choose appropriate routes for their skill level, to orient visitors and to encourage first-time riders. The Bicycle and Pedestrian Program Office has samples of both color and black and white maps using preferred symbols and styles.

Training Classes

The existence of good facilities is not enough to get many people out on their bicycles because they are afraid, and those who do ride often endanger themselves and others with unsafe behavior. Potential and unskilled bicyclists need to be shown how to ride safely and easily. Motorists, too, need to be taught how to interact with bicyclists.

Most bicycle experts agree that bicycle training reduces crashes, encourages new cyclists, and improves the image of cycling among the general public. Unfortunately, people who frequently bicycle often have differing opinions about the proper way to ride, merge with traffic, make left turns at intersections, and other aspects of riding.

A person who knows how to ride a bicycle does not necessarily know how to ride in traffic, although they may think they do. Because there is no general perception of the need for training, especially among those who ride frequently or those who do not plan to ride in traffic, it can be difficult to reach the public.

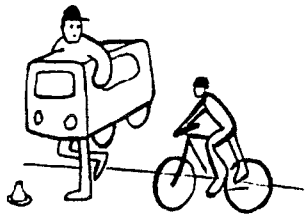
■ *Flexible Approach*

The best approach is to develop several different courses, each designed for a particular audience—serious club riders, interested adults, employees, parents, young children, etc. There are numerous good training courses and materials from which to choose, such as:

- Smart Cycling Class for Kids from the Oregon Bicycle Safety Education Program, Salem, OR.
- National Safe Kid's Campaign from the Children's National Medical Center, Washington, D.C.
- Sprocketman series from Bikecentennial, Missoula, MT.
- The Basics of Bicycling (BOBS) from the Bicycle Federation of America, Washington, D.C.
- Street Smarts from Bicycling Magazine, Rodale Press, Emmaus, PA.
- Effective Cycling from the League of American Wheelmen, Washington, D.C.

While some of these courses are highly structured and involve on-bike training, most of the materials can be presented in local school classrooms, the workplace, church, recreation departments, club and community events, skills fairs and rodeos, or at home. Palo Alto, California even has a traffic school for juveniles who violate bicycle laws (the Traffic Court described below).

■ *School Training*



Beyond their normal academic curriculum, schools provide an avenue for teaching basic life skills. Teachers regularly present information on health issues, substance abuse and personal safety. Sometimes, bicycle safety is discussed and occasionally a training session is held if there is an interested teacher. However, a basic bicycling skills course is not a standard component of the education process. Nationally, we spend about $200 on driver's education for each 16-year-old but only $1 worth of traffic-safety education before age 15.

Traffic education should be a regular part of school curriculum at all levels. Programs should be appropriate to the students' age and study areas. For example:

- A few Oregon communities have a Traffic Training Officer who visits each first grade class early in September to instill safety guidelines. If no such person is available locally due to budgetary and staffing limitations, a knowledgeable adult cyclist or school teacher could present the same information.

- Teachers or local cyclists can teach bicycle safety along with the existing pedestrian safety lesson offered in the elementary grades.

- A "Safety Town" that includes streets, an intersection, stop signs and lights, buildings, bicycles, and perhaps even pedal cars have been used successfully with young children. When assembled, the course simulates typical situations found when riding a bicycle on the street. It can be reused repeatedly to help defray the initial investment.

- A bicycle written test could be part of computer classes offered in Middle School, and lessons on the public good achieved by using bicycles instead of cars could be included in a science section on the effects of pollution.

- Physical education courses can be particularly beneficial by providing an avenue for practical bicycling experience.

- Students could go to a special training course and be given simulated on-road experience. Liability issues could be handled through parental permission slips, as it is for other school field trips.

- Driver education courses in high school, which prepare students for driving vehicles safely, are an excellent opportunity to emphasize bicycle safety. Many of these students have bicycles and are aware of problems from a bicyclist's point of view. This is the perfect time to encourage new drivers to establish proper, safe driving relationships with bicyclists.

- The DMV has a publication, "Oregon Bicyclist's Manual," which tells all the rules both for the cyclists and the motor vehicle drivers riding on Oregon's highways.

- A video could be produced locally showing local areas, illustrating proper use of lanes, demonstrating intersection conflict and crashes, unpredictable maneuvers by young riders, errors of bicyclists and motorists, improper turning, disobedience at STOP sign or traffic signal, need for nighttime visibility, helmets, etc.

- Informative brochures and packets provide good information for school teachers. Additionally, posters can be placed in conspicuous places in the school.

■ *Oregon Bicycle Safety Program*

The Oregon Bicycle Safety Program provides materials and support to communities for education. For example:

- A simple informative brochure, understandable by elementary school children, is "Say, you're not from this planet, are you?" Additional information can be sent home to the parents, such as the brochure, "Prevent Bicycle Accidents—A Message for Parents." This is an efficient way to present information to the children and the parents.

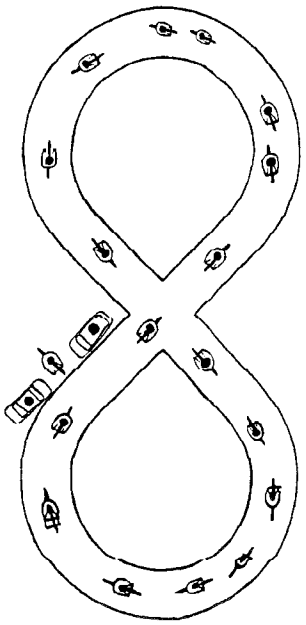
- A 20-minute video, "Bicycle Rules for the Road," reviews state rules, and is ideal for kids ages 6-12, and is often used in connection with a Bike Rodeo (see below).

- The young teenagers also should have their bicycling etiquette reinforced. A state available video, "Be Safe On Your Bike," is aimed at ages 12-15, and is also good for families, with emphasis placed on anticipating problems, visible hints of problems, and communicating properly with cars and pedestrians.

- The state also provides a brochure "Smart Cycling, Class for Kids," which is an instructor's guide in teaching 10 to 12-year -old children good cycling skills, including bike handling, traffic awareness and positioning, and safe maneuvers. The highlight of this course in on-bike practice, as well as classroom instruction and exercises. The State Bicycle Safety Program offers instructor training for these courses. As of 1991, 50 people had been trained as instructors in 15 communities.

■ *Fairs and Rodeos*

A "Bike Skills Fair" is a fun event where children receive educational information, have their bicycles checked for proper equipment and safety, and participate in bicycling skill drills. It is typically held on a Saturday or a summer day, directed to kids aged 6 to 12. A pool of 15 organizers and volunteers can guide 30-60 kids through the skills fair in groups of about 10 or 12.The State has a brochure describing how to organize and present a fair.



Some areas also have used such an event as an opportunity to stamp the parent's driver's license numbers into the metal on the crank of the children's bicycles as an aid in recovery of lost and stolen bicycles. This seems to be more effective than licensing in returning missing bicycles to their rightful owners. Advertising such a free service tends to increase the attendance at such an event.

Such an event could be organized by the Bicycle Advisory Committee or the local Parks and Recreation Department, perhaps in conjunction with one of the service clubs. Good media coverage to advertise the event is vital if it is to reach an important segment of the youngsters.

Commuter Programs

People need advice on how to commute by bicycle because most of them have never done it and they do not know what it entails. By far the most popular means of getting people to try bicycle commuting are the various bike-to-work events sponsored throughout the country. Many such programs have been designed for beginning commuters and offer much the same information.

Some of the better publications are listed below. In Central Oregon, Biking for a Better Community is a good source of information and sponsors a Bike Commute Week in late May to coincide with the Oregon Bike Commute Week and the National Bike Commute Day. In Portland, the Bicycle Transportation Alliance pursues similar events.

Bike Week Guide for Colorado Communities, Colorado Bicycle Program, Colorado Department of Highways, Denver, CO, May 1991.

Boulder started a bike week in 1982. It progressed from a single-day event to one of the largest in the U.S. By 1991, the project had evolved into a state-wide Bike Week. It is a 7-day series of fun and educational events tailored to each community, with a Wednesday Bike-to-Work-Day being conducted at all locations. The Guide is a tool to help communities produce a Bike Week most beneficial to their citizens. It describes what is needed in the way of organization, skills, volunteers, budget, sponsors and media coverage. Suggested events include celebrity media events (commuting races, relays), rides of various types (century, family, seniors, church), parades, displays and bike-checkup stations.

Bike-to-Work Day Organization Manual, Jessica Denevan, for People Power and the Santa Cruz County Regional Transportation Commission, Santa Cruz, Calif., Feb. 1992. ($4 from County Bicycle Coordinator, 701 Ocean Street, Santa Cruz, CA 95060.)

Santa Cruz built on Boulder's experience in designing their own bike-to-work day which is in its fifth year. Participation grew dramatically and drew about 660 riders last year. The manual lead the reader through

how to organize and implement an annual bike-to-work-day. There is much useful information on organization, budget, sponsors, choosing event sites, media, promotion, materials, volunteers, and employer and school participation. One unique aspect in 1991 was the use of bicycle trailers to haul all 3,800 pounds of food to the breakfast sites.

Bike Commute Week Planning Guide, Oregon Bicycle Safety Coordinator, Oregon Department of Transportation, 400 State Library Building, Salem, OR 97310, (503)378-3669.

Tucson Area Bicycle Commuter Handbook, Alternate Modes Planner, Tucson Department of Transportation, Tucson, AZ, 1989.

Another Way to Work: The Employer's Handbook on Bicycle Commuting in the Delaware Valley, Bicycle Coalition of the Delaware Valley, Philadelphia, PA, 1983.

Bicycles Make Good Business Sense!, Bicycle Program Office, D.C. Department of Public Works, Washington, D.C., 1981.

Special Incentives

Many employers and government agencies have found ways to make it easier to bicycle and to reward those who do. Some tried and true carrot-and-stick techniques are:

- Stipends and Subsidies. The direct approach to encourage bicycling is to pay employees to do it. Stipends of about $25-$30 per month can be effective and have been used in California (for example, the Alza Corporation in Palo Alto pays its employees $1 for each day they ride to work). Reimbursing employees for business travel on bicycles (the City of Palo Alto pays its employees $0.07 per mile for business and travel), as is done for cars, is becoming increasingly common. Employees who commute by bicycle should also be included in any incentive programs offered to those who rideshare.

  The health benefits of cycling have been acknowledged by some employers who include it as part of company-sponsored wellness programs or offer insurance discounts to employees who commute by bicycle regularly. For example, the U.S. Forest Service allows employees to spend part of their working day in aerobic fitness activities that include bicycling.

  Another approach was taken by Emanuel Hospital in Portland that offered employees $4000 to buy homes in the local neighborhood--within walking distance of work. An even more direct subsidy would be to forego parking costs and give the money directly to employees.

- **Flex Time.** Allowing bicyclists to schedule their work day so as to avoid rush hour or darkness encourages some commuters.

- **Bicycles and Maintenance Provided.** Rather than give stipends, some employers have offered to pay for an employee's bicycle after a certain period of riding in regularly or to set up a credit program for its purchase (such as the City of Glendale, Arizona; City of Pasadena, California; and Food 4 Less Supermarkets, Inc. in La Habra, California). Arranging for service at a local shop is another perk. Another incentive that can be arranged by the employer is a special discount at a local bike shop for commuter accessories and clothing; if a bike shop can expect some business to develop, they are often willing to give a discount of, say, 10 percent.

- **Ride-Home Services.** For companies with a vehicle at their disposal, an offer to take the employee home if the weather turns bad, if they need to work late unexpectedly, or if they become ill can ease the fears of both the employee and the employer about bicycling or walking (such as done by Fleetwood Enterprises Inc. in Riverside, California).

- **Awards and Commendations.** Approval is a powerful incentive. By singling out employees who commute by bicycle or walking, others can be encouraged to try. Competitions can even be arranged between departments. The Jet Propulsion Laboratory Bicycle Club in Pasadena, California has one such program.

- **Company Motor and Nonmotor Pools.** People who occasionally need a car to do their work may still commute by bicycle if their company has a motorpool from which employees can reserve a vehicle a day ahead (for example, David Evans and Associates in Bend, Oregon). In fact, some cities (Ashland, Oregon and Seattle, Washington) have discovered that city-furnished bicycles are actually a more efficient and healthy way to conduct business such as road and building inspections. Numerous police departments have also added bicycles to their rolling stock.

- **Relaxed Dress Code.** Some offices have formal or informal dress codes that are not entirely compatible with a commuting bicyclist or walker. For example, wrinkle-free fabrics, comfortable shoes and minimum makeup should be approved.

Event Sponsorship

Rides are an excellent way to introduce people to bicycling. These can be easy, neighborhood rides for the family or longer distance tours for people wanting a challenge. The atmosphere should be friendly and supportive, with plenty of help and information available. Refreshments and even door prizes add to the festivities. Once they try it, many people get hooked on cycling for life. A local bicycle club or shop can help in staging events.

Walking Promotion

Walking comes naturally to most people. However, it suffers from the many of the same problems that inhibit cycling: failure to see it as a mode of transportation and misperceptions about what is safe and legal. Many of the same techniques described above can be applied to walking programs.

Approach

Walking should be marketed as a means of relieving traffic congestion, increasing energy conservation, and promoting personal health, fitness, relaxation and fun. This can be accomplished through a coalition of regional and local governments and special interest or service clubs. The following are some suggested objectives and actions:

- Provide Opportunities to Experience Walking Benefits
  - Local governments and service organizations hold special walking events, such as walkathons, volksmarches, fitness walks, mall walks, etc.
  - Hold a regional walk-to-work day.
  - Develop a walking tour of the historic area of downtown led by volunteers or by a published map or brochure (e.g., the *Myrtle Point Tree Trail*, Myrtle Point Chamber of Commerce, 1992).
  - Establish walking clubs and advocacy groups.

- Provide Information About Walking Opportunities
  - Publish a newsletter about walking activities.
  - Encourage local newspapers to publish a weekly walking column to highlight scheduled walking events.

- Alert the Public About the Benefits of Walking
  - Develop a brochure on the benefits of walking and what the community is doing to improve conditions for pedestrians.
  - Write a regular column for the local paper on walking.
  - Encourage local walking clubs to sponsor exhibits at public centers on what walking has to offer and how to get involved.
  - Develop a public service campaign for local radio and television.
  - Encourage local officials to speak out on behalf of pedestrians and to provide a good example by walking to work themselves.
  - Community groups put on "rodeos" for children similar to bicycle rodeos to teach them to be safe and effective pedestrians.

- Provide Incentives to Promote Walking
  - Encourage local employers to provide incentives to employees who walk to work.
  - Publicize developers who make special provisions for pedestrians.

Pedestrian casualties are the second largest category of motor vehicle crashes after occupants. Age, visibility and alcohol are the leading factors. The elderly, in particular, are victims; starting at age 75, the rate is twice as high as it is for younger people. Males makes up 70 percent of the victims. The nighttime hours between 6 p.m. and 3 a.m. account for 57 percent of the crashes. Alcohol (at least 0.10 percent in either the driver or pedestrian) is present in 59 percent of the nighttime fatalities involving pedestrians at least 16 years old. (Source: *Fatality Facts: Pedestrians*, Insurance Institute for Highway Safety, Arlington, VA, July 1990.) As with bicycling, pedestrian crashes are aggravated by poor facilities, poor judgement and traffic violations.

Children need to be taught that the street can be dangerous and that cars have to be respected. This is best accomplished at home and in the schools with simple teaching aids. However, a number of studies have shown that many parents underestimate the danger to young pedestrians (especially relative to driving and bicycling, which are both safer), and to overestimate the capabilities of their children. It is critical that, along with improving pedestrian facilities and traffic calming, a good education program be implemented. Pedestrian safety should be a regular part of the school curriculum, with parent participation.

More difficult is teaching motorists to respect pedestrians. There is a strong perception among pedestrians that motorists are often disrespectful of pedestrian protection laws. A "Share the Road" campaign can be effective in raising community awareness. Possible themes or messages include:

- All modes have equal rights to use the transportation system.
- Motorists have a responsibility to stop for pedestrians at all crosswalks.
- It is the motorist's duty to stop for pedestrians before completing right or left turns.

Radio, television, and newspapers should be used to reach the community. Some excellent public service announcements (PSAs) have been produced about such topics as crossing the street, stopping for pedestrians and riding a bicycling on the right side of the street. Local "victim stories" can be used to personalize the problem. Information can also be distributed directly to the public though brochures, posters, t-shirts and bumper stickers.

Transportation Issues

A clear understanding of transportation issues is fundamental to accepting walking and bicycling on the roads. Transportation planning has been so dominated by the automobile the past several decades that the basic needs of people—access, mobility, and low cost—are often overlooked. It is important to present all sides of the transportation equation:

- Access has become a prominent issued with the disabled, but the inability to reach many destinations is also a problem for the able-bodied public. Lack of sidewalks and bike lanes, building entrances across parking lots, drive-throughs, no stopping for right turns, and many other street features make access by means other than automobiles difficult.

- Personal mobility is about moving people. The present system is so focused on moving automobiles that the quarter of the population that does not have access to a car is left out of the planning. Many who do not drive become dependent on those who do, which ties people into a chauffeur role, generates more car trips, and limits personal options.

- Low-cost transportation is a basic community need. Superior automobile access and mobility are beneficial, up to a point, for those who can afford it. But as moving people around becomes too expensive, discrimination occurs, the community's resources are taxed, and prosperity suffers. By all accounts, the line of reasonable cost has been passed. That this issue is not addressed more often is because few communities keep tack of the costs.

Advocacy

Well-organized promotional and public relations efforts greatly benefit groups concerned with "public issues" such as recycling, accommodations for people with disabilities, pedestrian rights or bicycling. Methods of disseminating information and encouragement are carefully conceived to reach a wide audience, from school children to special interest groups, to employers and businesses. The messages are carried by many media forms: television, newspapers, signs, brochures and flyers.

Promotion and information on bicycling requires a plan and implementation strategy to highlight it as an important public issue. Programs to encourage people to bicycle are only effective if they respond directly to the concerns people have about bicycling and their disposition to try it.

The Myrtle Point Bicycle and Pedestrian Committee could fulfill this role. It should encourage more public inclusion in their process, perhaps by holding quarterly or semiannual public meetings to receive public comments and direction. A newsletter could be useful to let the citizens know about issues of bicycling interest and their relation to City programs and projects.

Enforcement

Need

The Oregon Driver's Manual explains one aspect of the pedestrian-driver relationship: "Generally, pedestrians have the right of way at all intersections. There is a crosswalk at every intersection, even if painted lines do not mark it.... You must yield to pedestrians in a marked or unmarked crosswalk when the pedestrian is in your half of the road...." A recent study by the AAA revealed that close to 50 percent of Americans do not know, much less obey, basic pedestrian laws.

State motor vehicle law states: "Every person riding a bicycle or an animal upon a public way is subject to the provisions applicable to and has the same rights and duties as the driver of another vehicle...." (ORS 814.400). There are 32 other statutes pertaining to bicycles listed in the *Oregon Bicycle and Pedestrian Plan.* The DMV provides a brochure, "Bicycle Rules of the Road," that tells the rules for riding on Oregon's highways.

Many bicyclists and motorists do not know that bicycles are vehicles and need to behave as such on the roadways. Most of the problems relating to bicycles—improper use, poor facilities, safety, etc.—are because someone is not treating them like the vehicles they are.

Law enforcement is a recognized tool to promote an awareness of the laws and to ensure pedestrian and bicycle safety. Typical pedestrian violations include crossing the street against a red light or at mid-block without looking. Bicyclists who run stop signs and traffic signals, ride the wrong way on a street, or ride at night without lights are responsible for many crashes. Drunk driving and failure to yield are leading motor vehicle violations. Frequent violations that go unpunished deteriorate the trust between the different user groups and can contribute to lack of support for good facilities.

Many communities have had difficulty in getting their police to enforce the vehicle code relating to pedestrians, cyclists and motorists. This is partly due to inadequately trained officers who are not aware of the importance of citing these violation. Heavy criminal workloads also interfere and point to the need for more police staff.

Enforcement is not a cure-all for all problems relating to walking and bicycling. However, it reinforces the attitude that all modes are partners on the road. The long-term effects of consistent enforcement are smoother and more efficient traffic flow with reduced crashes.

Causes of Crashes

In 1993, Oregon bicycle–motor vehicle urban crash statistics showed 49% occurred at intersections, 23% were the result of bicycles or motor vehicles entering or leaving roadways at mid-block locations, 12% were caused by wrong-way riding, 6% were caused by the cyclist or motorist turning or swerving, and 10% were from miscellaneous causes (only 3% involve being hit from behind). Figures in 1986 and 1990 were similar. The reports note several things:

- Most cycling crashes do not involve motor vehicles.
- In bicycle-motor vehicle collisions, the blame is almost equally shared between cyclists and motorists, although the number one cause of collisions is the motor vehicle failing to yield at intersections.
- Young cyclists are most often responsible for crashes caused by disregard or ignorance of the law.
- Pedestrian–motor vehicle collisions are more likely to be fatal (8.4%) than bicycle–motor vehicle collisions (2.4%).

Eugene has a well developed bikeway network and has much experience in coping with numerous cyclists. Disobedience at traffic signals cause about 44% of citations, not obeying a STOP sign 32%, and improper turns only 2%. Eugene's bicycle crash statistics showed failure to yield right-of-way and running a stop sign or traffic signal were two of the three most frequent bicyclist errors causing collisions with motor vehicles.

Selective enforcement should be emphasized along corridors where frequent bicycle activity or crashes are noted. At present, Myrtle Point's crash data do not indicate any special problem areas.

It should also be noted that bike lanes, properly designed and maintained, save lives and help avoid many nonfatal crashes. For example, the Netherlands has the most cars per square mile of any European country, but they also have the most bike lanes and tracks (over 6,000 mi) and enjoy the lowest cycling deaths per mile traveled of all industrialized countries.

Support

It is important that the police be encouraged and supported through adequate funding and the establishment of courses to train police in proper bicyclist behavior. Some cities have had success with traffic enforcement, especially in regards to car parking and bicycle violations, by using trainees and bicycle-mounted patrols.

Motivation

It is sometimes difficult for an officer who has been specially trained for police work to regard citing bicycle violators as a high priority item compared to dealing with criminal activities. The normal first reaction is that it is no fun citing kids, especially since contemporary police policy is generally directed toward improving the image of law enforcement with young people.

The task of bicycle safety enforcement can be eased considerably when the police are supported strongly by the community. It is also important to have active safety education programs directed toward bicyclists and motorists, constant engineering efforts geared toward reducing illogical or compromising situations, and coordination with the courts to assure understanding of enforcement goals in the light of judicial prerogatives.

The Oregon Traffic Safety Commission provides a 15 minute video, "Ride on By," for the law enforcement community. The narrator explains in detail why enforcement in the bicycle arena is so important. It helps overcome embarrassment about pulling over cyclists.

It is useful to bridge the gap between token enforcement and a strong effort by conducting a public awareness campaign, followed by a warning phase leading into total enforcement and citations. Newspaper, radio, and school educational programs could all be used effectively. Cities that have tried this technique have found they receive only a small number of complaints when the program is implemented.

The Bicycle Advisory Committee should work with the Chief of Police to increase enforcement on the most common dangerous offenses: running stop lights and stop signs, riding the wrong way and riding at night without lights.

Bicycle Equipment

Crashes often occur at night. Bicycles are required to have a white light visible from the front for a distance of 500 ft at night as well as a red reflector or lighting device or material, big enough and mounted so that it can be seen from all distances up to 600 ft to the rear when directly in front of motor vehicle headlights on low beam. These lighting requirements apply only when riding on a public way from sunset to sunrise or when people or vehicles cannot be clearly seen 500 ft ahead because of darkness or bad weather.

It is also a good idea to wear light-colored, reflective clothing at night. Commonly, most bikes do not have permanent lights as standard equipment and most riders avoid installing one for fear of vandalism. Some riders do carry a flashlight but the majority appear to ride in the dark, especially if the trip is short and made on local streets. New lights are small and are designed for quick removal to avoid theft or vandalism.

Nearly all bicycles are equipped originally with rear reflectors. However, wear and tear and oftentimes inferior reflector mountings or impact resistance take their toll. Parents should take a look at the family bicycles and make corrections as soon as possible.

Wearing a helmet does not reduce the chances of a crash but can reduce the severity of head injuries should a crash occur. In Oregon, all bicycle riders and passengers under the age of 16 are required to wear a helmet. Helmet effectiveness is dependent on proper fit.

The use of an annual bike rodeo with a maintenance and helmet check as part of the agenda could assist in improving equipment safety. A combination of preventive maintenance, common sense and enforcement should reduce the number of bicycles traveling with deficient equipment in violation of the law.

Bicycle Court

Enforcement presupposes a system of laws and adjudication. The courts are utilized for processing citations of older bicyclists. However, there is a problem with treating young cyclists. Often the young rider who violates the law requires an additional educational experience as well as a reprimand. The Bicycle Court concept was developed to provide this experience rather than to totally rely on regular traffic citations that are processed in the Municipal or Juvenile Court.

Bicycle Court is not a criminal court, nor a court of record. It is an educational experience for cyclists from 10 to 17 years of age. For children under 10 years old, a letter is sent to the parents explaining the violation and requesting parental assistance to prevent crashes rather than requiring an appearance in Bicycle Court.

The purpose of the Bicycle Court is to impress upon juvenile bicycle operators a proper regard for the rules of the traffic safety and the property of others. It is believed that the experience they receive in connection with appearance before the Bicycle Court will be of real value to them as they grow older and graduate from bicycles to automobiles.

If instituted locally, the judges of the Bicycle Court could be selected from the high school students by faculty and student body representatives based upon scholastic ability and leadership. Typically, three judges take part in each Saturday Court session and they are charged with judging their peers and classmates. Violators appear before the Court and are asked to recount the circumstances of the violation. Judges ask questions and a police officer or police cadet are in attendance to clarify the law relating to the violation.

If the judges determine that the violator is guilty, then an appropriate penalty is dispensed. Typically, these could include obtaining a bicycle license, correcting equipment deficiencies, having parents take away the bicycle for a specified number of days, copying the applicable section of the bicycle

ordinance a given number of times, writing an essay on the subject of the violation, or being given a verbal reprimand.

The Bicycle Court appears to have been worthwhile in other localities. Less than 5 percent of the violators make repeat appearances. High school students selected to conduct the Bicycle Court also benefit from the experience by conducting court procedures and being involved with the maturing responsibility of judgment.

Another suggestion from some communities has been to form police bicycle patrols. The belief is expressed that police officers do not fully appreciate the problems faced by bicyclists and need to be educated to broaden their perspective. It is suggested that this education could best be achieved by officers actually riding a bicycle. It would give bikeways more thorough enforcement than is currently available without causing problems in traffic flow.

Police bicyclists can also be effective in patrolling areas with burglary problems since a bicycle is quiet, unobtrusive and offers speed and flexibility not available by patrol cars in certain situations. Two local Oregon cities that have effectively used bicycle patrols are Redmond and Sisters. Seattle, Washington helped make bicycle patrols nationally known.

APPENDIX

Reference Publications

The following publications provide reference information useful for implementing this plan:

- *Bicycle Parking Facilities: A Source Book of Designs, Manufacturers and Representatives*, Systems Planning Section, Oregon Department of Transportation, Salem, OR, December 1992.
- *Developing Pedestrian Plans: Pedestrian Coordinators Manual*, Florida Department of Transportation, Tallahassee, FL.
- Litman, Todd, *Transportation Cost Analysis*, Victoria Transport Policy Institute, Victoria, BC, February 1995.
- *Model Bicycle Ordinances*, Oregon Chapter of the American Planning Association, c/o J. Fregonese, Regional Planning Supervisor, Metropolitan Service District, Portland, OR, December 1992.
- *National Bicycling and Walking Study*, Federal Highway Administration, 1994. A series of 24 case studies published under separate covers and a Final Report. Source: National Bicycle and Pedestrian Clearinghouse.
- Moore, Terry and Paul Thorsnes, *The Transportation/Land Use Connection*, American Planning Association, Report No. 448/449, Chicago, IL, January 1994.
- Nelessen, A. C., *Visions for a New American Dream: Process, Principles, and an Ordinance to Plan and Design Small Communities*, Edwards Brothers, Ann Arbor, MI, January 1994.
- *Oregon Bicycle and Pedestrian Plan*, Bicycle and Pedestrian Program Office, Oregon Department of Transportation, Salem, OR, June 1995, supersedes *Oregon Bicycle Plan*, July 1992.
- *Pedestrian Safety Program Resource Kit*, National Highway Traffic Safety Administration and Federal Highway Administration, Washington, DC, 1990.
- *Trails for the 21st Century*, Rails to Trails Conservancy, Washington, DC, 1992.

Organizations

The following are excellent sources for current pedestrian and bicycle program information:

- American Planning Association Planners Bookstore, 1313 E. 60th St., Chicago, IL 60637, (312) 955-9100.
- Bicycle Federation of America, 1818 R Street NW, Washington, D.C. 20009, (202) 332-6986.
- Bicycle Transportation Alliance, P.O. Box 9072, Portland, OR 97207, (503) 284-MOVE.
- National Bicycle and Pedestrian Clearinghouse, 1506 21st St. NW, Suite 210, Washington, DC 20036, (800) 760-NBPC.
- National Bicycle Program Manager, Federal Highway Administration, HEP-12, 400 7th Street SW, Washington, D.C. 20590, (202) 366-5007.
- Oregon Bicycle Safety Education Program, Oregon Department of Transportation, 400 State Library Building, Salem, OR 97310, (503) 378-3669.
- Oregon Bicycle and Pedestrian Program Office, Oregon Department of Transportation, Room 210, Transportation Building, Salem, OR 97310, (503) 986-3555.
- Transportation Options, c/o Central Oregon Environmental Center, 16 NW Kansas Avenue, Bend, OR 97701, (503) 385-6908.
- Victoria Transport Policy Institute, P.O. Box 38040, 794 Fort Street, Victoria, BC V8W 3N2, (604) 360-1560.
- Willamette Pedestrian Coalition, P.O. Box 2252, Portland, OR 97208, (503) 223-1597.

Attachments

Attached are a map showing the pedestrian facilities and the proposed projects, ordinances to implement the Pedestrian and Bicycle Plan, and the individual Street Rating Index forms used to compile the urban bikeway inventory in Tables 1 and 4 in Section 5.

APPENDIX

RECOMMENDED BICYCLE AND PEDESTRIAN ORDINANCES

PROVISION OF BICYCLE PARKING

Section 60-12-045(3)(a) of the TPR deals with bicycle parking. The lack of safe and convenient storage facilities for bicycles is a discouragement to their use. Poorly designed and installed bicycle parking can be a waste of resources and a further discouragement to bicycling as a transportation mode, as well as an irritant to non-cyclists.

The following ordinances differentiate between the downtown area of a small town and the outlying and more rural areas. These ordinances are typically placed in the PARKING AND LOADING section of the land use code.

A. Number and Type of Bicycle Parking Spaces Required

1. General Minimum Standard. All uses that require off-street motor vehicle parking shall, except as specifically noted below, shall provide one bicycle parking space for every 10 required motor vehicle parking spaces, with a minimum of two bicycle parking spaces per use (one sheltered and one unsheltered).

2. Special Minimum Standards.

   a) Multi-Family Residences. Every residential use of 4 or more dwelling units shall provide at least one sheltered bicycle parking space for each unit. In those instances in which the residential complex has no garage or other easily accessible storage unit, the required bicycle parking spaces shall be sheltered under eaves, overhang, an independent structure, or similar cover.

   b) Parking Lots. All public and commercial parking lots and parking structures shall provide a minimum of one bicycle parking space for every 10 motor vehicle parking spaces.

   c) Schools. Elementary, middle, and high schools, both private and public, shall provide one bicycle parking space for every 10 students and employees, all of which shall be sheltered under an eave, overhang, independent structure, or similar cover.

   d) Colleges. Colleges, universities, and trade schools shall provide one bicycle parking space for every 10 motor vehicle spaces plus one space for every dormitory unit. 50% of the bicycle parking spaces shall be sheltered under an eave, overhang, independent structure, or similar cover.

   e) Downtown Areas. In downtown areas with on-street parking, bicycle parking for customers shall be provided along the street at a rate of at least one space per use. Spaces may be clustered to serve up to six bicycles. At least one cluster per block shall

be provided. Bicycle parking spaces shall be located in front of the stores along the street, either on the sidewalks on in specially constructed areas such as pedestrian curb extensions. Inverted "U" style racks are recommended (see illustration). Bicycle parking shall not interfere with pedestrian passage, leaving a clear area of at least 5 feet between the parked bicycle and the store front. Customer spaces are not required to be sheltered. Sheltered parking (within a building, or under an eave, overhang, or similar structure) shall be provided at a rate of one space per 10 employees, with a minimum of one space per store.

f) Rural Schools, Service Centers, and Industrial Parks. Where a school, service center, or industrial park is located more than 5 miles from the closest urban area or residential development with a density of less than one dwelling unit per 20 acres, a minimum of one bicycle parking space per use shall be required.

3. Calculating the Number of Required Bicycle Parking Spaces.

a) Fractional numbers of spaces shall be rounded up to the next whole space.

b) For facilities with multiple uses (such as a commercial center), the bicycle parking requirements shall be calculated by using the total number of motor vehicle parking spaces required for the entire development.

B. Bicycle Parking Design.

1. General Description.

a) Sheltered Bicycle Parking. Sheltered bicycle parking is primarily for long-term parking such as for employees. Sheltered bicycle parking may be provided within a storage room, bicycle locker, or racks inside a building; in lockers or racks in an accessory parking structure; beneath an awning, eave, or other overhang; or by other facility as determined by the Hearings Body or Planning Director that protects the bicycle from direct exposure to the elements and provides long-term security.

b) Unsheltered Bicycle Parking. Unsheltered bicycle parking is primarily for short-term parking such as for shopping or visiting a library. Unsheltered parking may be provided by single or clustered bicycle racks (see illustration for acceptable types of racks).

2. Location.

a) Required bicycle parking that is located outdoors shall be located within 50 feet of main entrances and no further from the entrance than the closest motor vehicle parking space.

b) Bicycle parking shall be separated from motor vehicle parking by a barrier, curb, or sufficient distance to prevent damage to parked bicycles.

c) Where bicycle parking facilities are not directly visible and obvious from the public right(s)-of-way, sign(s) shall be provided to direct bicyclists to the parking. Directions to sheltered facilities inside a structure may be signed or supplied by the employer, as appropriate.

3. Dimensional Standards.

   a) Each bicycle parking space shall be at least 2 by 6 feet with a vertical clearance of 7 feet.

   b) An access aisle at least 5 feet wide shall be provided and maintained beside or between each row of bicycle parking, and between parked bicycles and a storefront.

   c) Each required bicycle parking space shall be accessible without removing another bicycle.

4. Surface. The surface of an outdoor bicycle parking facility shall be the same as the motor vehicle parking surface, if the motor vehicle parking area is paved. If the motor vehicle parking area is unpaved, the bicycle parking area will be paved with a minimum of one inch thickness of crushed rock or similar material.

5. Security.

   a) Bicycle parking facilities shall offer security in the form of either a lockable enclosure within which the bicycle can be stored, or a stationary object (i.e. "rack") upon which the bicycle can be locked. Racks that require a user-supplied lock shall accommodate both cable or chain locks and U-shaped rigid locks and shall permit the frame and both wheels to be secured (removing the front wheel may be necessary). All bicycle racks, lockers, or other facilities shall be permanently anchored to the ground or to a structure.

   b) If lighting is supplied to the motor vehicle parking area, the bicycle parking are shall also be lit.

6. Other means that provide the level of bicycle parking described above may be approved by the Hearings Body or the Planning Director.

SAFE, CONVENIENT BICYCLE/PEDESTRIAN CIRCULATION AND ACCESS

Sections 660-12-045(3)(b), (c), and (d) of the TPR deal with providing facilities for safe and convenient pedestrian and bicycle circulation and access, both within new residential and commercial development, and on public thoroughfares. In order for walking and bicycling to be viable forms of transportation, especially in the smaller urban centers where they can constitute a significant portion of local trips, the proper facilities must be supplied. In addition, certain development design patterns, such as orienting commercial uses to the street and placing parking behind the building make a commercial district more accessible to non-motorized transportation and to transit.

The TPR specifies that, at a minimum, sidewalks be provided along arterials and collectors in urban areas, bikeways be provided along arterials and major collectors, and separate bicycle and pedestrian facilities be provided where these would safely minimize trips distances by providing a "short cut". The following recommended ordinances should be placed within the appropriate section of the ZONING or SUBDIVISION ORDINANCE:

Definitions

It may be necessary to include all or some of the following DEFINITIONS to bring the Zoning or Subdivision Code up to date:

1. Access Corridor. A separate travel way for pedestrians and bicyclists to minimize travel distances within and between subdivisions, planned unit developments, residential areas, transit stops (if appropriate), or within and between nearby neighborhood activity centers such as schools, parks, and services.

2. Bicycle. A vehicle designed to operate on the ground on wheels, propelled solely by human power, upon which any person or persons may ride, and with every wheel more than 14 inches in diameter or two tandem wheels either of which is more than 14 inches in diameter, or having three wheels in contact with the ground, any one of which is more than 14 inches in diameter.

3. Bicycle Facilities. A general term denoting improvements and provisions made to accommodate or encourage bicycling, including parking facilities and all bikeways.

4. Bikeway. Any road, path, or way that is some manner specifically open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are shared with other transportation modes. The five types of bikeways are:

   a. Path. A paved 10 to 12-foot wide way that is physically separated from motorized vehicular traffic.

   b. Lane. A 4 to 6-foot wide portion of the roadway that has been designated by permanent striping and pavement markings for the exclusive use of bicycles.

   c. Shoulder Bikeway. The paved shoulder of a roadway that is 4 to 6 feet wide.

   d. Shared Roadway. A travel lane that is at least 14 feet wide and is shared by bicyclists and motor vehicles.

   e. Trail. An unpaved path that accommodates all-terrain bicycles.

5. Pedestrian Facilities: A general term denoting improvements and provisions made to accommodate or encourage walking, including sidewalks, accessways, and paths.

Zoning Ordinance

Site Plan

Required elements for a SITE PLAN should include bicycle parking and bicycle and pedestrian circulation elements such as accessways, walkways, and transit facilities (if appropriate). The site plan should be required to show the location of bicycle parking, walkways, accessways, and transit facilities (if appropriate). Typical language would be as follows:

Required Minimum Standards.

A. Non-motorized Access.

1. Bicycle Parking. The development shall include the number and type of bicycle parking facilities required in Section ___ (Off-Street Parking and Loading) of this Title. The location and design of bicycle parking facilities shall be indicated on the site plan.

2. Pedestrian Access and Circulation.

   a) Internal pedestrian circulation shall be provided in new commercial, office, and multi-family residential developments through the clustering of buildings, construction of hard surface walkways or similar techniques.

   b) Internal walkways shall connect building entrances to one another and from building entrances to public streets and existing and planned transit facilities (if appropriate). On-site walkways shall connect with walkways, sidewalks, bikeways, and other pedestrian and bicycle facilities on adjacent properties. Routing walkways across parking lots shall be avoided; site design shall locate walkways to provide the most direct routes for pedestrians and shall locate parking areas to accommodate the walkways.

   c) Internal walkways shall be at least 5 feet in paved unobstructed width. Walkways that border parking spaces shall be at least 7 feet wide unless concrete bumpers, curbing, landscaping or other similar measures are provided to prevent parked motor vehicles from obstructing the walkway. Walkways shall be as direct as possible.

   d) Driveway crossings by walkways shall be minimized. Where the walkway system crosses driveways, parking areas, and loading zones, the walkway must be clearly identifiable through the use of elevation changes, speed bumps, a different paving treatment, or other similar method. Marking a walkway with paint only (without other treatment) is to be avoided.

   e) The primary building entrance and any walkway that connects a transit stop (if appropriate) shall have a maximum slope of 5%. Walkways up to 8% slope are permitted, but must be treated as ramps with railings and landings.

3. Commercial Development Standards.

a) New commercial buildings shall be sited at the front yard setback line for lots with one frontage, and at both front yard setback lines for corner lots. For lots with more than two front yards, the building(s) shall be oriented to the two busiest streets. The building(s) shall have an entrance oriented toward the street.

b) An increase in the front yard setback may be allowed by the Hearings Body or Planning Director if the applicant can demonstrate that one or more of the following factors make it impractical to site the new building at the minimum setback:

i) Existing development on the site;
ii) Lot configuration;
iii) Topography of the lot;
iv) Significant trees or other vegetation to be retained;
v) Location of existing driveway access.

Such an increase in the front yard setback shall be the minimum necessary to accommodate the reason for the increase.

c) Off-street motor vehicle parking for new commercial developments shall be located at the side or behind the building(s).

Subdivision Ordinance

Approval of Subdivision Tentative Plans and Final Plats

Information required should include the location and design of all proposed pedestrian and bicycle facilities, including access corridors.

Design Standards

Should include a section such as:

Streets, Sidewalks, and Bikeways

A. Pedestrian and Bicycle Circulation within Subdivision.

1. The tentative plan for a proposed subdivision shall include bicycle and pedestrian facilities and improvements within the subdivision, including accessways as necessary to provide more direct connections through the subdivision. The tentative plan shall demonstrate how the subdivision's internal pedestrian and bikeway system provides safe and convenient connections to the surrounding street system.

2. Cul-de-Sacs and Accessways.

a) Cul-de-sacs or permanent dead-end streets (not including temporary stubs) shall be allowed only where, due to severe topographical or environmental constraints or incompatible existing abutting street patterns, a street connection is determined by the Hearings Body or the Planning Director to be infeasible. In such instances, where feasible, there shall be an access corridor for pedestrians and bicyclists connecting the ends of cul-de-sacs to streets or neighborhood activity centers on the opposite side of the block.

b) Access corridors for pedestrians and bicyclists shall be provided at mid-block where the block is longer than 1,000 feet and the addition of such a corridor would reduce out-of-direction travel for pedestrians and bicyclists.

c) Access corridors for pedestrians and bicyclists shall not be more than 400 feet long and shall be as straight as possible. The access corridor shall be a minimum of 10 feet wide, located within a 20-foot-wide right of way or easement. If the streets within the subdivision are lighted, the accessways shall also be lighted

d) The Hearings Body or Planning Director may determine, based upon evidence in the record, that an access corridor is inappropriate or impracticable. Such evidence may include but is not limited to:

1) The nature of abutting existing development makes the construction of an access corridor impracticable;

2) The access corridor would cross a natural area with significant habitat, and construction of the access corridor would be incompatible with the protection of natural values;

3) The access corridor would cross topography where slopes exceed 30% or the corridor grade would exceed an 18% grade; or

4) A cul-de-sac or dead-end streets abuts rural resource land at the urban growth boundary, except where the adjoining land is designated as urban reserve.

Road Standards (Bikeways and Sidewalks)

Recommended bikeway and sidewalk road standards for new road construction or the reconstruction of existing roads within urban areas are summarized in Table 1. In general, the direction is as follows:

Urban Streets

1. Urban Arterials. All arterials should include marked and signed 6-foot wide bike lanes on both sides of the street. Arterials should include 6-foot wide sidewalks on both sides of the street, buffered from the street with a planting strip of at least 6 feet located between the sidewalk and the street. In downtown core areas, the sidewalk shall be 10 feet wide with no buffer required.

2. Urban Collectors. All collectors predicted to carry 3,000 ADT or greater shall include bike lanes at least 5 feet wide. Other collectors predicted to carry less than 3,000 ADT shall be constructed to include a wide outer lane of 14 feet to allow a shared bikeway. Collectors shall include a 6-foot wide sidewalk with a planting strip of at least 6 feet located between the street and the sidewalk.

3. Urban Local Streets. Bikeways are not needed on local streets, since motor vehicle speeds are slow. All local streets shall include a 5-foot wide sidewalk buffered from the street with a planting strip of at least 4 feet.

Rural Streets

1. Rural Arterials. All rural arterials should include 6-foot wide shoulders. Shoulders provide adequate bicycle and pedestrian space in sparsely inhabited rural areas.

   In rural areas where rural subdivisions, schools, or commercial centers attract pedestrians, a separated path should be considered. This path could be cinders, bark chip, or similar surface, provided that an adequate road shoulder is also provided for bicyclists and other wheeled vehicles. The path should be at least 4 feet wide where the roadway has a 6-foot shoulder for bicyclists, and should be 10 feet wide if there is no road shoulder and the path will be a shared facility (the practice of placing a two-way multi-use path along one side of a roadway is discourage for safety reasons). The path should be located on the side of the road with the fewest side roads or driveway crossings.

2. Rural Collectors. All rural collectors should include 6-foot wide shoulders. Shoulders provide adequate bicycle and pedestrian space in sparsely inhabited rural areas.

   In rural areas where rural subdivisions, schools, or commercial centers attract pedestrians, a separated path should be considered. This path could be cinder, bark chip, or similar surface, provided that an adequate road shoulder is also provided for bicyclists and other wheeled vehicles. The path should be at least 4 feet wide where the roadway has a 6-foot shoulder for bicyclists, and should be 10 feet wide if there is no road shoulder and the path will be a shared facility (the practice of placing a two-way multi-use path along one side of a roadway is discourage for safety reasons). The path should be located on the side of the road with the fewest side roads or driveway crossings.

3. Rural Local Streets. Bikeways typically are not needed on rural local streets, since motor vehicle speeds should be slow and population densities are low. If rural subdivision densities are greater than one dwelling per acre, or if a school or other neighborhood attraction is located within walking or bicycling distance of a rural subdivision, then either sidewalks, 4-foot shoulders on both sides of the roadway or a separated 10-foot-wide path should be provided.

Myrtle Point

Bicycle Street Rating Index

Record 1

Street	16th St		Seg. No.
From	N of Spruce St		
To	Spruce St		
Classification	Local	Length 300 ft 0.1 mi	Width 22 ft

Rating Index 2.98 =

$$\frac{\text{ADT: } 100}{\text{Travel Lanes: } 2 \bullet 2500} + \frac{\text{Speed, mph: } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.): } 14 - 11}{2} + \text{Pavement Factors: } 0.25 + \text{Location Factors: } 0.50$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐	0.50
Patching	☐	0.25
Weathering	☒	0.25
Potholes	☐	0.75
Rough Edge	☐	0.75
Debris	☐	0.75
Curb	☐	0.25
Rough RR Crossing	☐	0.50
Drainage Grates	☐	0.75

Angle Parking	☐	0.75
Parallel Parking	☐	0.50
Right Turn Lanes	☐	0.25
Physical Median	☐	-0.25
Center Turn Lane	☐	-0.25
Paved Shoulder	☐	-0.50
Bike Lanes	☐	-0.75
Typical Section		

Severe Grades	☐	0.50
Moderate Grades	☐	0.25
Frequent Curves	☐	0.25
Restricted Sight Distance	☐	0.50
Roadway Alignment		

Numerous Drives	☐	0.50
Numerous Stops	☐	0.75
Industrial Land Use	☐	0.50
Commercial Land Use	☐	0.25
One Sidewalk Only	☐	0.25
No Sidewalks	☒	0.50
Roadway Environment		0.50

Destinations/Comments

Dead-end.
ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 2

Street	18th St		Seg. No. 1
From	Maple St		
To	Cedar St		
Classification	Local	Length 600 ft 0.1 mi	Width 22 ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$\text{Rating Index} = \frac{500}{2 \times 2500} + \frac{25}{35} + \frac{14 - 11}{2} + 0.75 + 0.75 = 3.81$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☒ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☐ 0.50
Moderate Grades	☒ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	0.25

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.
Unimproved trail at end crossing ravine.

Bicycle Street Rating Index

Street	18th St		Seg. No. 2
From	N of Maryland Ave		
To	Maryland Ave		
Classification	Local	Length 550 ft 0.1 mi	Width 18 ft

Rating Index 4.01 = $\frac{\text{ADT } 250}{2 \text{ Travel Lanes} \bullet 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 9}{2} + \text{Pavement Factors } [\ ] + \text{Location Factors } 0.75$

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☐ 0.50
Moderate Grades	☒ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	0.25

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

Unimproved section south of Maryland.
ADT est.
Unimproved trails at end crossing ravine and dropping into school.

Myrtle Point

Bicycle Street Rating Index

Record 4

Street	18th St		Seg. No. 3
From	N of View St		
To	View St		
Classification	Local	Length 300 ft 0.1 mi	Width 18 ft

Rating Index = 3.98

$$\frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$\frac{100}{2 \times 2500} + \frac{25}{35} + \frac{14 - 9}{2} + 0.25 + 0.50$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 5

Street	19th St		Seg. No. 1
From	Spruce St		
To	Maple St		
Classification	Local	Length 300 ft 0.1 mi	Width 22 ft

Rating Index = 3.56

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$3.56 = \frac{500}{2 \times 2500} + \frac{25}{35} + \frac{14 - 11}{2} + 0.25 + 1.00$$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☒ 0.50
Roadway Alignment	0.50

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.

Bicycle Street Rating Index

Street	19th St		Seg. No. 2
From	Maryland Ave		
To	Hazel St		
Classification	Local	Length 950 ft 0.2 mi	Width 40 ft

Rating Index 2.61 =

$$\frac{\text{ADT: } 2000}{\text{Travel Lanes: } 2 \bullet 2500} + \frac{\text{Speed, mph: } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.): } 14 - 13}{2} + \text{Pavement Factors: } 0.25 + \text{Location Factors: } 0.75$$

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☒ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	0.50

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☒ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	0.25

Destinations/Comments

Apartments.
ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 7

Street	19th St		Seg. No. 3
From	Hazel St		
To	Stover St		
Classification	Local	Length 950 ft 0.2 mi	Width 22 ft

Rating Index 3.41 = $\frac{\text{ADT } 1000}{\text{Travel Lanes } 2 \bullet 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 11}{2} + \text{Pavement Factors } 0.25 + \text{Location Factors } 0.75$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☐ 0.50
Moderate Grades	☒ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	0.25

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 8

Street	1st St		Seg. No.
From	Ash St		
To	Maple St		
Classification	Local	Length 500 ft 0.1 mi	Width 40 ft

Rating Index 2.41 =

$$\frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$= \frac{1000}{2 \times 2500} + \frac{25}{35} + \frac{14 - 13}{2} + 0.25 + 0.75$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors		
Cracking	☐	0.50
Patching	☐	0.25
Weathering	☐	0.25
Potholes	☐	0.75
Rough Edge	☐	0.75
Debris	☐	0.75
Curb	☒	0.25
Rough RR Crossing	☐	0.50
Drainage Grates	☐	0.75

Location Factors		
Angle Parking	☐	0.75
Parallel Parking	☒	0.50
Right Turn Lanes	☐	0.25
Physical Median	☐	-0.25
Center Turn Lane	☐	-0.25
Paved Shoulder	☐	-0.50
Bike Lanes	☐	-0.75
Typical Section		0.50
Severe Grades	☐	0.50
Moderate Grades	☐	0.25
Frequent Curves	☐	0.25
Restricted Sight Distance	☐	0.50
Roadway Alignment		
Numerous Drives	☐	0.50
Numerous Stops	☐	0.75
Industrial Land Use	☐	0.50
Commercial Land Use	☐	0.25
One Sidewalk Only	☒	0.25
No Sidewalks	☐	0.50
Roadway Environment		0.25

Destinations/Comments

Lehnherr Park.
ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 9

Street	20th St			Seg. No.	
From	Stover Ln				
To	Kincheloe Ln				
Classification	Local	Length	650 ft 0.1 mi	Width	20 ft

Rating Index 3.56 =

$$\frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$\frac{500}{2 \times 2500} + \frac{25}{35} + \frac{14 - 10}{2} + 0.25 + 0.50$$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.

Bicycle Street Rating Index

Street	21st St		Seg. No. 1
From	Maple St		
To	S of Maple St		
Classification	Unimproved	Length 400 ft 0.1 mi	Width ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \bullet 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{14 - 2} + \text{Pavement Factors} + \text{Location Factors}$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

Lion's Memorial Park.

Myrtle Point

Bicycle Street Rating Index

Record 11

Street	21st St			Seg. No.	2
From	King Ln				
To	S of King Ln				
Classification	Unimproved	Length	300 ft 0.1 mi	Width	ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{14 - \text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

Bicycle Street Rating Index

Street	22nd St		Seg. No.
From	N of King Ln		
To	S of King Ln		
Classification	Unimproved	Length 900 ft 0.2 mi	Width ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{14 - \text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☒ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

Myrtle Point

Bicycle Street Rating Index

Record 13

Street	23rd St			Seg. No.	
From	Maple St				
To	S of Maple St				
Classification	Local	Length	450 ft 0.1 mi	Width	22 ft

Rating Index 2.76 = $\frac{\text{ADT: } 250}{2 \text{ Travel Lanes} \times 2500} + \frac{\text{Speed, mph: } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.): } 14 - 11}{2} + \text{Pavement Factors: } \square + \text{Location Factors: } 0.50$

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.
Dead-end.

Bicycle Street Rating Index

Street	24th St		Seg. No.
From	Maple St		
To	S of Maple St		
Classification	Local	Length 700 ft 0.1 mi	Width 22 ft

Rating Index 2.76 = ADT 250 / (2 Travel Lanes • 2500) + Speed, mph 25 / 35 + Outside Lane Width (inc. shld.) 14 - 11 / 2 + Pavement Factors [ ] + Location Factors 0.50

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Destinations/Comments

Loop with 25th.
ADT est.

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Bicycle Street Rating Index

Street	25th St		Seg. No.
From	Maple St		
To	S of Maple St		
Classification	Local	Length 700 ft 0.1 mi	Width 22 ft

Rating Index = ADT / (Travel Lanes • 2500) + Speed, mph / 35 + Outside Lane Width (inc. shld.) / 2 + Pavement Factors + Location Factors

2.76 = 250 / (2 • 2500) + 25 / 35 + (14 - 11) / 2 + [ ] + 0.50

Travel Lanes: 2

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors

Typical Section

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75

Roadway Alignment

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50

Roadway Environment

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50

0.50

Destinations/Comments

Loop with 24th.
ADT est.

Bicycle Street Rating Index

Street	2nd St		Seg. No.
From	Alder St		
To	S of Maple St		
Classification	Local	Length 875 ft 0.2 mi	Width 40 ft

Rating Index 3.11 = ADT 2000 / (2 Travel Lanes • 2500) + Speed, mph 25 / 35 + Outside Lane Width (inc. shld.) 14 - 13 / 2 + Pavement Factors 0.50 + Location Factors 1.00

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☒ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	0.50

Destinations/Comments

Lehnherr Park.
Safeway Ice Cream.
MP Forest Products.
ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 17

Street	3rd St		Seg. No.
From	Alder St		
To	Maple St		
Classification	Local	Length 750 ft 0.1 mi	Width 38 ft

Rating Index 2.91 =

$$\frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$= \frac{1000}{2 \times 2500} + \frac{25}{35} + \frac{14 - 12}{2} + 0.25 + 0.75$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors		
Cracking	☐	0.50
Patching	☐	0.25
Weathering	☐	0.25
Potholes	☐	0.75
Rough Edge	☐	0.75
Debris	☐	0.75
Curb	☒	0.25
Rough RR Crossing	☐	0.50
Drainage Grates	☐	0.75

Location Factors		
Angle Parking	☐	0.75
Parallel Parking	☒	0.50
Right Turn Lanes	☐	0.25
Physical Median	☐	-0.25
Center Turn Lane	☐	-0.25
Paved Shoulder	☐	-0.50
Bike Lanes	☐	-0.75
Typical Section		0.50

Severe Grades	☐	0.50
Moderate Grades	☐	0.25
Frequent Curves	☐	0.25
Restricted Sight Distance	☐	0.50
Roadway Alignment		

Numerous Drives	☐	0.50
Numerous Stops	☐	0.75
Industrial Land Use	☐	0.50
Commercial Land Use	☒	0.25
One Sidewalk Only	☐	0.25
No Sidewalks	☐	0.50
Roadway Environment		0.25

Destinations/Comments

ADT est.

Bicycle Street Rating Index

Street	4th St		Seg. No.
From	Alder St		
To	S of Harris St		
Classification	Local	Length 2400 ft 0.5 mi	Width 40 ft

Rating Index 3.86 = $\frac{\text{ADT } 2000}{\text{Travel Lanes } 2 \bullet 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 13}{2} + \text{Pavement Factors } 1.75 + \text{Location Factors } 0.50$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors		
Cracking	☒	0.50
Patching	☐	0.25
Weathering	☒	0.25
Potholes	☐	0.75
Rough Edge	☒	0.75
Debris	☐	0.75
Curb	☒	0.25
Rough RR Crossing	☐	0.50
Drainage Grates	☐	0.75

Location Factors		
Angle Parking	☐	0.75
Parallel Parking	☒	0.50
Right Turn Lanes	☐	0.25
Physical Median	☐	-0.25
Center Turn Lane	☐	-0.25
Paved Shoulder	☐	-0.50
Bike Lanes	☐	-0.75
Typical Section		0.50
Severe Grades	☐	0.50
Moderate Grades	☐	0.25
Frequent Curves	☐	0.25
Restricted Sight Distance	☐	0.50
Roadway Alignment		
Numerous Drives	☐	0.50
Numerous Stops	☐	0.75
Industrial Land Use	☐	0.50
Commercial Land Use	☐	0.25
One Sidewalk Only	☐	0.25
No Sidewalks	☐	0.50
Roadway Environment		

Destinations/Comments

Myrtle Point High School.
Downtown.
34-ft overlay.
Crosswalk at Spruce and Harris.
ADT est.

Bicycle Street Rating Index

Street	5th St		Seg. No.
From	Alder St		
To	Harris St		
Classification	Local	Length 1800 ft 0.3 mi	Width 40 ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \cdot 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$3.36 = \frac{2000}{2 \cdot 2500} + \frac{25}{35} + \frac{14 - 12}{2} + 0.50 + 0.75$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
☐ Cracking	0.50
☐ Patching	0.25
☒ Weathering	0.25
☐ Potholes	0.75
☐ Rough Edge	0.75
☐ Debris	0.75
☒ Curb	0.25
☐ Rough RR Crossing	0.50
☐ Drainage Grates	0.75

Location Factors	
☐ Angle Parking	0.75
☒ Parallel Parking	0.50
☐ Right Turn Lanes	0.25
☐ Physical Median	-0.25
☐ Center Turn Lane	-0.25
☐ Paved Shoulder	-0.50
☐ Bike Lanes	-0.75
Typical Section	0.50
☐ Severe Grades	0.50
☐ Moderate Grades	0.25
☐ Frequent Curves	0.25
☐ Restricted Sight Distance	0.50
Roadway Alignment	
☐ Numerous Drives	0.50
☐ Numerous Stops	0.75
☐ Industrial Land Use	0.50
☒ Commercial Land Use	0.25
☐ One Sidewalk Only	0.25
☐ No Sidewalks	0.50
Roadway Environment	0.25

Destinations/Comments

Post Office.
City Hall.
Library.
Downtown.
38-ft south of Maple to Cedar.
Marked 8-ft parking Ash to Spruce.
Crosswalk at Spruce.
ADT est.

Bicycle Street Rating Index

Street	6th St		Seg. No.
From	Alder St		
To	S of Bothwick St		
Classification	Local	Length 3250 ft 0.6 mi	Width 40 ft

Rating Index 2.36 = $\frac{\text{ADT } 2000}{2 \text{ Travel Lanes} \bullet 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 13}{2} + \text{Pavement Factors } 0.25 + \text{Location Factors } 0.50$

Rating Index
<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Angle Parking	☐	0.75
Parallel Parking	☒	0.50
Right Turn Lanes	☐	0.25
Physical Median	☐	-0.25
Center Turn Lane	☐	-0.25
Paved Shoulder	☐	-0.50
Bike Lanes	☐	-0.75
Typical Section		0.50

Severe Grades	☐	0.50
Moderate Grades	☐	0.25
Frequent Curves	☐	0.25
Restricted Sight Distance	☐	0.50
Roadway Alignment		

Numerous Drives	☐	0.50
Numerous Stops	☐	0.75
Industrial Land Use	☐	0.50
Commercial Land Use	☐	0.25
One Sidewalk Only	☐	0.25
No Sidewalks	☐	0.50
Roadway Environment		

Cracking	☐	0.50
Patching	☐	0.25
Weathering	☐	0.25
Potholes	☐	0.75
Rough Edge	☐	0.75
Debris	☐	0.75
Curb	☒	0.25
Rough RR Crossing	☐	0.50
Drainage Grates	☐	0.75

Destinations/Comments

Coos County Fairgrounds.
Myrtle Point High School.
Downtown.
Crosswalk at Harris.
Narrows to 28 ft and no curb south of Bothwick.
ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 21

Street	7th St		Seg. No.
From	Ash St		
To	Bothwick St		
Classification	Local	Length 1700 ft 0.3 mi	Width 38 ft

$$\text{Rating Index} = \frac{\text{ADT}}{2 \text{ Travel Lanes} \cdot 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$4.41 = \frac{1000}{2 \cdot 2500} + \frac{25}{35} + \frac{14 - 12}{2} + 1.75 + 0.75$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☒ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☒ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☒ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	0.25

Destinations/Comments

Downtown.
Museum.
Care Center.
Market loading area.
40 ft north, 38 ft south.
ADT est.

Bicycle Street Rating Index

Street	A St		Seg. No. 1
From	N of Spruce St		
To	S of Cedar St		
Classification	Local	Length 1250 ft 0.2 mi	Width 30 ft

Rating Index 5.31 = $\frac{\text{ADT } 500}{2 \text{ Travel Lanes} \bullet 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 8}{2} + \text{Pavement Factors } 0.25 + \text{Location Factors } 1.25$

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☒ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	0.50

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☒ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.75

Destinations/Comments

Variable width (24 to 30 ft).
Inconsistent sidewalks.
ADT est.

Bicycle Street Rating Index

Street	A St		Seg. No. 2
From	Bothwick St		
To	Maryland Ave		
Classification	Local	Length 500 ft 0.1 mi	Width 36 ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$3.06 = \frac{500}{2 \times 2500} + \frac{25}{35} + \frac{14 - 11}{2} + 0.25 + 0.50$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

Crosswalk at Bothwick.
Trail between Harris and Bothwick.
ADT est.

Bicycle Street Rating Index

Street	Alder St		Seg. No.
From	2nd St		
To	6th St		
Classification	Local	Length 1025 ft 0.2 mi	Width 36 ft

Rating Index 3.26 = $\frac{\text{ADT } 1500}{2 \text{ Travel Lanes} \times 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 11}{2} + \text{Pavement Factors } 0.25 + \text{Location Factors } 0.50$

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐	0.50
Patching	☐	0.25
Weathering	☐	0.25
Potholes	☐	0.75
Rough Edge	☐	0.75
Debris	☐	0.75
Curb	☒	0.25
Rough RR Crossing	☐	0.50
Drainage Grates	☐	0.75

Angle Parking	☐	0.75
Parallel Parking	☒	0.50
Right Turn Lanes	☐	0.25
Physical Median	☐	-0.25
Center Turn Lane	☐	-0.25
Paved Shoulder	☐	-0.50
Bike Lanes	☐	-0.75
Typical Section		0.50

Severe Grades	☐	0.50
Moderate Grades	☐	0.25
Frequent Curves	☐	0.25
Restricted Sight Distance	☐	0.50
Roadway Alignment		

Numerous Drives	☐	0.50
Numerous Stops	☐	0.75
Industrial Land Use	☐	0.50
Commercial Land Use	☐	0.25
One Sidewalk Only	☐	0.25
No Sidewalks	☐	0.50
Roadway Environment		

Destinations/Comments

Bicycle Street Rating Index

Street	Apple Hill Dr		Seg. No.
From	16th St		
To	E of 16th St		
Classification	Local	Length 250 ft 0.0 mi	Width 22 ft

Rating Index 2.98 = $\frac{\text{ADT } 100}{2 \text{ Travel Lanes} \cdot 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 11}{2} + \text{Pavement Factors } 0.25 + \text{Location Factors } 0.50$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

Dead-end.
ADT est.

Bicycle Street Rating Index

Street	Ash St		Seg. No.
From	1st St		
To	8th St		
Classification	Local	Length 1800 ft 0.3 mi	Width 36 ft

Rating Index 4.16 = $\frac{\text{ADT } 3500}{\text{Travel Lanes } 2 \cdot 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 11}{2} + \text{Pavement Factors } 0.50 + \text{Location Factors } 0.75$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☒ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	0.25

Destinations/Comments

Lehnherr Park.
Post Office.
Care Center.
Market.
Connects to Gravelford (no traffic control at 8th).

Myrtle Point

Bicycle Street Rating Index

Record 27

Street	B St		Seg. No. 1
From	Spruce St		
To	Maple St		
Classification	Unimproved	Length 1050 ft 0.2 mi	Width 36 ft

$$\text{Rating Index } (?) = \frac{\text{ADT}}{(\ \ )\text{ Travel Lanes} \cdot 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - (\ \ )}{2} + \text{Pavement Factors} + \text{Location Factors } 0.50$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☒ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	0.50

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

36-ft wide gravel Spruce to Maple (200 ft).
10-ft wide dirt Maple to Harris.

Bicycle Street Rating Index

Street	B St		Seg. No. 2
From	Harris St		
To	Bothwick St		
Classification	Local	Length 200 ft 0.0 mi	Width 20 ft

Rating Index = ADT: 250 / (2 Travel Lanes • 2500) + Speed, mph: 25 / 35 + Outside Lane Width (inc. shld.): 14 - 10 / 2 + Pavement Factors: 0.25 + Location Factors: 0.50

3.51

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐	0.50
Patching	☐	0.25
Weathering	☒	0.25
Potholes	☐	0.75
Rough Edge	☐	0.75
Debris	☐	0.75
Curb	☐	0.25
Rough RR Crossing	☐	0.50
Drainage Grates	☐	0.75

Angle Parking	☐	0.75
Parallel Parking	☐	0.50
Right Turn Lanes	☐	0.25
Physical Median	☐	-0.25
Center Turn Lane	☐	-0.25
Paved Shoulder	☐	-0.50
Bike Lanes	☐	-0.75
Typical Section		

Severe Grades	☐	0.50
Moderate Grades	☐	0.25
Frequent Curves	☐	0.25
Restricted Sight Distance	☐	0.50
Roadway Alignment		

Numerous Drives	☐	0.50
Numerous Stops	☐	0.75
Industrial Land Use	☐	0.50
Commercial Land Use	☐	0.25
One Sidewalk Only	☐	0.25
No Sidewalks	☒	0.50
Roadway Environment		0.50

Destinations/Comments

ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 29

Street	B St		Seg. No. 3
From	Bothwick St		
To	Maryland Ave		
Classification	Local	Length 500 ft 0.1 mi	Width 36 ft

Rating Index 2.81 =

$$\frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$\frac{500}{2 \times 2500} + \frac{25}{35} + \frac{14 - 11}{2} + \square + 0.50$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

ADT est.

Bicycle Street Rating Index

Street	Bender St		Seg. No. 1
From	Fairview St		
To	Willow Ave		
Classification	Local	Length 950 ft 0.2 mi	Width 36 ft

Rating Index 3.91 = $\frac{\text{ADT } 1000}{2 \text{ Travel Lanes} \bullet 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 11}{2} + \text{Pavement Factors } 0.25 + \text{Location Factors } 1.25$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50

Severe Grades	☐ 0.50
Moderate Grades	☒ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	0.25

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

Stop signs at Spruce and Maple.
ADT est.

Bicycle Street Rating Index

Street	Bender St		Seg. No. 2
From	Willow St		
To	Bothwick Ave		
Classification	Local	Length 800 ft 0.2 mi	Width 20 ft

Rating Index 4.01 = $\frac{\text{ADT } 1500}{\text{Travel Lanes } 2 \bullet 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 10}{2} + \text{Pavement Factors} + \text{Location Factors } 1.00$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☒ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	0.50

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.

Bicycle Street Rating Index

Street	Bender St		Seg. No. 3
From	Bothwick St		
To	Maryland Ave		
Classification	Local	Length 500 ft 0.1 mi	Width 36 ft

Rating Index 2.51 =

$$\frac{\text{ADT: } 1500}{\text{Travel Lanes: } 2 \bullet 2500} + \frac{\text{Speed, mph: } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.): } 14 - 11}{2} + \frac{\text{Pavement Factors}}{} + \frac{\text{Location Factors}}{}$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75

Typical Section

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50

Roadway Alignment

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50

Roadway Environment

Destinations/Comments

ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 33

Street	Border St		Seg. No. 1
From	Fairview St		
To	Spruce St		
Classification	Local	Length 400 ft 0.1 mi	Width 38 ft

Rating Index 3.01 = $\frac{\text{ADT: } 250}{\text{Travel Lanes: } 2 \bullet 2500} + \frac{\text{Speed, mph: } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.): } 14 - 12}{2} + \text{Pavement Factors: } 0.25 + \text{Location Factors: } 1.00$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Angle Parking	☐	0.75
Parallel Parking	☒	0.50
Right Turn Lanes	☐	0.25
Physical Median	☐	-0.25
Center Turn Lane	☐	-0.25
Paved Shoulder	☐	-0.50
Bike Lanes	☐	-0.75
Typical Section		0.50

Cracking	☐	0.50
Patching	☐	0.25
Weathering	☐	0.25
Potholes	☐	0.75
Rough Edge	☐	0.75
Debris	☐	0.75
Curb	☒	0.25
Rough RR Crossing	☐	0.50
Drainage Grates	☐	0.75

Severe Grades	☐	0.50
Moderate Grades	☐	0.25
Frequent Curves	☐	0.25
Restricted Sight Distance	☐	0.50
Roadway Alignment		

Numerous Drives	☐	0.50
Numerous Stops	☐	0.75
Industrial Land Use	☐	0.50
Commercial Land Use	☐	0.25
One Sidewalk Only	☐	0.25
No Sidewalks	☒	0.50
Roadway Environment		0.50

Destinations/Comments

ADT est.

Bicycle Street Rating Index

Street	Border St		Seg. No. 2
From	Spruce St		
To	Maple St		
Classification	Local	Length 200 ft 0.0 mi	Width 20 ft

Rating Index 3.26 = $\frac{\text{ADT } 250}{2 \text{ Travel Lanes} \times 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 10}{2} + \text{Pavement Factors} + \text{Location Factors } 0.50$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☒ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☒ 0.75
Debris	☒ 0.75
Curb	☐ 0.25
Rough RR Crossing	☒ 0.50
Drainage Grates	☒ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☒ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☐ 0.50
Moderate Grades	☒ 0.25
Frequent Curves	☒ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☒ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☒ 0.50
Commercial Land Use	☒ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 35

Street	Border St		Seg. No. 3
From	Willow St		
To	Cedar St		
Classification	Unimproved	Length 200 ft 0.0 mi	Width 38 ft

Rating Index = (ADT / Travel Lanes • 2500) + (Speed, mph / 35) + (Outside Lane Width (inc. shld.) 14 - / 2) + Pavement Factors + Location Factors

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75

Typical Section

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50

Roadway Alignment

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50

Roadway Environment

Destinations/Comments

Bicycle Street Rating Index

Street	Border St		Seg. No. 4
From	N of Bothwick St		
To	Maryland Ave		
Classification	Local	Length 650 ft 0.1 mi	Width 22 ft

Rating Index 2.81 = ADT 500 / (2 Travel Lanes • 2500) + Speed, mph 25 / 35 + Outside Lane Width (inc. shld.) 14 - 11 / 2 + Pavement Factors 0.50 + Location Factors

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75

Typical Section

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50

Roadway Alignment

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50

Roadway Environment

Destinations/Comments

ADT est.

Bicycle Street Rating Index

Street	Bothwick St		Seg. No. 1
From	6th St		
To	Railroad Ave		
Classification	Local	Length 775 ft 0.1 mi	Width 36 ft

Rating Index = 3.41

$$\frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$= \frac{1000}{2 \times 2500} + \frac{25}{35} + \frac{14 - 11}{2} + 0.50 + 0.50$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

Myrtle Point High School.
Rotary Park.
Sidewalk through park connects to other segment.
Difficult crossing at 8th.
ADT est.

Bicycle Street Rating Index

Street	Bothwick St		Seg. No. 2
From	C St		
To	Myrtle Crest St		
Classification	Local	Length 1600 ft 0.3 mi	Width 40 ft

Rating Index 2.36 = ADT 2000 / (2 • 2500) Travel Lanes + Speed, mph 25 / 35 + Outside Lane Width (inc. shld.) 14 - 13 / 2 + Pavement Factors 0.25 + Location Factors 0.50

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

Rotary Park.
Myrtle Crest School.
Crosswalk at A St.
ADT est.

Bicycle Street Rating Index

Street	C St		Seg. No.
From	Spruce St		
To	Maryland Ave		
Classification	Local	Length 1825 ft 0.3 mi	Width 40 ft

Rating Index 2.81 = ADT 3000 / (2 Travel Lanes • 2500) + Speed, mph 25 / 35 + Outside Lane Width (inc. shld.) 14 - 13 / 2 + Pavement Factors 0.50 + Location Factors 0.50

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐	0.50
Patching	☐	0.25
Weathering	☒	0.25
Potholes	☐	0.75
Rough Edge	☐	0.75
Debris	☐	0.75
Curb	☒	0.25
Rough RR Crossing	☐	0.50
Drainage Grates	☐	0.75

Angle Parking	☐	0.75
Parallel Parking	☒	0.50
Right Turn Lanes	☐	0.25
Physical Median	☐	-0.25
Center Turn Lane	☐	-0.25
Paved Shoulder	☐	-0.50
Bike Lanes	☐	-0.75
Typical Section		0.50

Severe Grades	☐	0.50
Moderate Grades	☐	0.25
Frequent Curves	☐	0.25
Restricted Sight Distance	☐	0.50
Roadway Alignment		

Numerous Drives	☐	0.50
Numerous Stops	☐	0.75
Industrial Land Use	☐	0.50
Commercial Land Use	☐	0.25
One Sidewalk Only	☐	0.25
No Sidewalks	☐	0.50
Roadway Environment		

Destinations/Comments

Maple School.
Stop signs at Spruce and Maple.
ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 40

Street	Carlisle Ln		Seg. No.
From	W of Roseburg Rd		
To	Roseburg Rd		
Classification	Unimproved	Length 550 ft 0.1 mi	Width ft

Rating Index = $\frac{\text{ADT}}{\text{Travel Lanes} \bullet 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{14 - \quad / 2} + \text{Pavement Factors} + \text{Location Factors}$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75

Typical Section

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50

Roadway Alignment

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50

Roadway Environment

Destinations/Comments

Dirt.
Dead-end.

Myrtle Point

Bicycle Street Rating Index

Record 41

Street	Cathcart St		Seg. No.
From	4th St		
To	6th St		
Classification	Local	Length 500 ft 0.1 mi	Width 36 ft

Rating Index 3.26 =

$$\frac{\text{ADT}}{2 \text{ Travel Lanes} \cdot 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{14 - 11} + \text{Pavement Factors} + \text{Location Factors}$$

ADT: 250 | Travel Lanes: 2 | Speed, mph: 25 | Outside Lane Width (inc. shld.): 14 - 11 | Pavement Factors: 0.50 | Location Factors: 0.50

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐	0.50
Patching	☐	0.25
Weathering	☒	0.25
Potholes	☐	0.75
Rough Edge	☐	0.75
Debris	☐	0.75
Curb	☒	0.25
Rough RR Crossing	☐	0.50
Drainage Grates	☐	0.75

Angle Parking	☐	0.75
Parallel Parking	☒	0.50
Right Turn Lanes	☐	0.25
Physical Median	☐	-0.25
Center Turn Lane	☐	-0.25
Paved Shoulder	☐	-0.50
Bike Lanes	☐	-0.75
Typical Section		0.50

Severe Grades	☐	0.50
Moderate Grades	☐	0.25
Frequent Curves	☐	0.25
Restricted Sight Distance	☐	0.50
Roadway Alignment		

Numerous Drives	☐	0.50
Numerous Stops	☐	0.75
Industrial Land Use	☐	0.50
Commercial Land Use	☐	0.25
One Sidewalk Only	☐	0.25
No Sidewalks	☐	0.50
Roadway Environment		

Destinations/Comments

ADT est.

Bicycle Street Rating Index

Street	Cedar St		Seg. No. 1
From	4th St		
To	C St		
Classification	Local	Length 1725 ft 0.3 mi	Width 36 ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$3.91 = \frac{1000}{2 \times 2500} + \frac{25}{35} + \frac{14 - 11}{2} + 1.00 + 0.50$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
☒ Cracking	0.50
☐ Patching	0.25
☒ Weathering	0.25
☐ Potholes	0.75
☐ Rough Edge	0.75
☐ Debris	0.75
☒ Curb	0.25
☐ Rough RR Crossing	0.50
☐ Drainage Grates	0.75

Location Factors	
☐ Angle Parking	0.75
☒ Parallel Parking	0.50
☐ Right Turn Lanes	0.25
☐ Physical Median	-0.25
☐ Center Turn Lane	-0.25
☐ Paved Shoulder	-0.50
☐ Bike Lanes	-0.75
Typical Section	0.50
☐ Severe Grades	0.50
☐ Moderate Grades	0.25
☐ Frequent Curves	0.25
☐ Restricted Sight Distance	0.50
Roadway Alignment	
☐ Numerous Drives	0.50
☐ Numerous Stops	0.75
☐ Industrial Land Use	0.50
☐ Commercial Land Use	0.25
☐ One Sidewalk Only	0.25
☐ No Sidewalks	0.50
Roadway Environment	

Destinations/Comments

40-ft wide east of 8th.
Gravel east of C St.
ADT est.

Bicycle Street Rating Index

Street	Cedar St		Seg. No. 2
From	A St		
To	Border St		
Classification	Unimproved	Length 250 ft 0.0 mi	Width 20 ft

Rating Index ☐ = ADT ☐ / Travel Lanes ☐ • 2500 + Speed, mph ☐ / 35 + Outside Lane Width (inc. shld.) 14 - ☐ / 2 + Pavement Factors ☐ + Location Factors ☐

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75

Typical Section

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50

Roadway Alignment

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50

Roadway Environment

Destinations/Comments

Myrtle Point

Bicycle Street Rating Index

Record 44

Street	Cedar St		Seg. No. 3
From	Bender St		
To	E of Hermann St		
Classification	Local	Length 450 ft 0.1 mi	Width 20 ft

Rating Index 3.26 =

$$\frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$= \frac{250}{2 \times 2500} + \frac{25}{35} + \frac{14 - 10}{2} + \square + 0.50$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.

Bicycle Street Rating Index

Street	Cedar St		Seg. No. 4
From	18th St		
To	E of 18th St		
Classification	Unimproved	Length 400 ft 0.1 mi	Width ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{14 - \text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

Bicycle Street Rating Index

Street	Doborout St		Seg. No. 1
From	Railroad Ave		
To	C St		
Classification	Local	Length 250 ft 0.0 mi	Width 26 ft

Rating Index 2.31 = ADT 500 / (2 Travel Lanes • 2500) + Speed, mph 25 / 35 + Outside Lane Width (inc. shld.) 14 - 13 / 2 + Pavement Factors [ ] + Location Factors 1.00

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

Rotary Park.
ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 47

Street	Doborout St		Seg. No. 2
From	B St		
To	Myrtle Crest St		
Classification	Local	Length 1300 ft 0.2 mi	Width 36 ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$3.16 = \frac{1000}{2 \times 2500} + \frac{25}{35} + \frac{14 - 11}{2} + 0.25 + 0.50$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

Myrtle Crest School.
ADT est.

Bicycle Street Rating Index

Street	Fairview St		Seg. No.
From	W of Border St		
To	Bender St		
Classification	Local	Length 400 ft 0.1 mi	Width 36 ft

Rating Index 3.51 = $\frac{\text{ADT } 250}{2 \text{ Travel Lanes} \cdot 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 11}{2} + \text{Pavement Factors } 0.25 + \text{Location Factors } 1.00$

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐	0.50
Patching	☐	0.25
Weathering	☐	0.25
Potholes	☐	0.75
Rough Edge	☐	0.75
Debris	☐	0.75
Curb	☒	0.25
Rough RR Crossing	☐	0.50
Drainage Grates	☐	0.75

Angle Parking	☐	0.75
Parallel Parking	☒	0.50
Right Turn Lanes	☐	0.25
Physical Median	☐	-0.25
Center Turn Lane	☐	-0.25
Paved Shoulder	☐	-0.50
Bike Lanes	☐	-0.75
Typical Section		0.50

Severe Grades	☐	0.50
Moderate Grades	☐	0.25
Frequent Curves	☐	0.25
Restricted Sight Distance	☐	0.50
Roadway Alignment		

Numerous Drives	☐	0.50
Numerous Stops	☐	0.75
Industrial Land Use	☐	0.50
Commercial Land Use	☐	0.25
One Sidewalk Only	☐	0.25
No Sidewalks	☒	0.50
Roadway Environment		0.50

Destinations/Comments

ADT est.

Myrtle Point

Bicycle Street Rating Index

Record #49

Street	Gravelford Rd		Seg. No.
From	8th St		
To	North UGB		
Classification	Arterial	Length 4500 ft 0.9 mi	Width 24 ft

Rating Index 4.26 = $\frac{\text{ADT: } 1500}{\text{Travel Lanes: } 2 \bullet 2500} + \frac{\text{Speed, mph: } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.): } 14 - 12}{2} + \text{Pavement Factors: } 0.75 + \text{Location Factors: } 1.50$

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☒ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☒ 0.50
Roadway Alignment	0.50

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☒ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	1.00

Destinations/Comments

aka Myrtle Point-Cooper Bridge Rd.
No 25 mph sign approaching town.
35 mph 500 ft from UGB.
Recreational.

Bicycle Street Rating Index

Street	Harris St		Seg. No. 1
From	4th St		
To	C St		
Classification	Collector	Length 1550 ft 0.3 mi	Width 36 ft

Rating Index = 3.56

$$\frac{\text{ADT}}{2 \text{ Travel Lanes} \bullet 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$\frac{3000}{2 \bullet 2500} + \frac{25}{35} + \frac{14 - 11}{2} + 0.25 + 0.50$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

Myrtle Point High School.
Rotary Park.
Crosswalks at 4th, 6th and 8th.
Signal at 8th.
Stop sign at Railroad.
ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 51

Street	Harris St		Seg. No. 2
From	C St		
To	E of Hermann St		
Classification	Collector	Length 1500 ft 0.3 mi	Width 22 ft

Rating Index 2.91 =

$$\frac{\text{ADT}}{\text{Travel Lanes} \cdot 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

ADT: 1000 | Travel Lanes: 2 | Speed, mph: 25 | Outside Lane Width (inc. shld.): 14 - 11 | Pavement Factors: | Location Factors: 0.50

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

Rotary Park.
ADT est.

Bicycle Street Rating Index

Street	Hazel St		Seg. No.
From	19th St		
To	E of 19th St		
Classification	Local	Length 150 ft 0.0 mi	Width 22 ft

$$\text{Rating Index} = \frac{\text{ADT}}{2 \text{ (Travel Lanes)} \cdot 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$\text{Rating Index} = \frac{500}{2 \cdot 2500} + \frac{25}{35} + \frac{14 - 11}{2} + \_\_\_ + 0.50$$

Rating Index: 2.81

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

Apartments.
Dead-end.
ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 53

Street	Hermann St		Seg. No. 1
From	Maple St		
To	Harris St		
Classification	Local	Length 800 ft 0.2 mi	Width 20 ft

Rating Index 3.31 =

$$\frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$\frac{500}{2 \times 2500} + \frac{25}{35} + \frac{14 - 10}{2} + \square + 0.50$$

Rating Index
<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.

Bicycle Street Rating Index

Street	Hermann St		Seg. No. 2
From	Bothwick St		
To	Maryland Ave		
Classification	Local	Length 550 ft 0.1 mi	Width 36 ft

Rating Index = **2.98**

$$\frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$\frac{250}{2 \times 2500} + \frac{15}{35} + \frac{14 - 11}{2} + \_\_\_ + 1.00$$

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

Playground.

Bicycle Street Rating Index

Street	Hermann St		Seg. No. 3
From	Maryland Ave		
To	S of Maryland Ave		
Classification	Local	Length 600 ft 0.1 mi	Width 34 ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)} - 10}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$3.76 = \frac{250}{2 \times 2500} + \frac{25}{35} + \frac{14 - 10}{2} + 0.25 + 0.75$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☒ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	0.25

Destinations/Comments

ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 56

Street	Kincheloe Ln			Seg. No.	
From	Roseburg Rd				
To	E of 20th St				
Classification	Local	Length	950 ft 0.2 mi	Width	22 ft

Rating Index 3.66 = $\frac{\text{ADT } 1000}{2 \text{ Travel Lanes} \bullet 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 11}{2} + \text{Pavement Factors } 0.25 + \text{Location Factors } 1.00$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☒ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	0.50

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 57

Street	King Ln		Seg. No.
From	20th St		
To	22nd St		
Classification	Local	Length 700 ft 0.1 mi	Width 22 ft

Rating Index = 4.06

$$\frac{\text{ADT: } 500}{\text{Travel Lanes: } 2 \bullet 2500} + \frac{\text{Speed, mph: } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.): } 14 - 10}{2} + \text{Pavement Factors: } 0.25 + \text{Location Factors: } 1.00$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☒ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	0.50

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.

Bicycle Street Rating Index

Street	Maple St		Seg. No. 1
From	Reeds Ford Rd		
To	8th St		
Classification	Collector	Length 2000 ft 0.4 mi	Width 36 ft

$$\text{Rating Index} = \frac{\text{ADT}}{2 \text{ (Travel Lanes)} \cdot 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$\text{Rating Index} = \frac{2500}{2 \cdot 2500} + \frac{25}{35} + \frac{14 - 11}{2} + 0.75 + 1.25 = 4.71$$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☒ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☒ 0.50
Commercial Land Use	☒ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	0.75

Destinations/Comments

City Hall.
Library.
Safeway Ice Cream.
Myrtle Point Forest Products.
Museum.
Market.
No sidewalks west of 1st.
Connection to Fairgrounds and boat ramp.
Crosswalks at 8th (no signal).

Bicycle Street Rating Index

Street	Maple St		Seg. No. 2
From	8th St		
To	Bender St		
Classification	Collector	Length 1450 ft 0.3 mi	Width 36 ft

Rating Index 5.56 = $\frac{\text{ADT: } 3000}{2 \text{ (Travel Lanes)} \bullet 2500} + \frac{\text{Speed, mph: } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.): } 14 - 11}{2} + \text{Pavement Factors: } 1.75 + \text{Location Factors: } 1.00$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☒ 0.50
Patching	☒ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☒ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50

Severe Grades	☒ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	0.50

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

Maple School.
Lion's Park.
26-ft overlay.

Bicycle Street Rating Index

Street	Maple St		Seg. No. 3
From	Bender St		
To	25th St		
Classification	Collector	Length 3000 ft 0.6 mi	Width 22 ft

Rating Index = 4.21

$$\frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$= \frac{2500}{2 \times 2500} + \frac{25}{35} + \frac{14 - 11}{2} + 0.75 + 0.75$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
☐ Cracking	0.50
☐ Patching	0.25
☐ Weathering	0.25
☐ Potholes	0.75
☒ Rough Edge	0.75
☐ Debris	0.75
☐ Curb	0.25
☐ Rough RR Crossing	0.50
☐ Drainage Grates	0.75

Location Factors	
☐ Angle Parking	0.75
☐ Parallel Parking	0.50
☐ Right Turn Lanes	0.25
☐ Physical Median	-0.25
☐ Center Turn Lane	-0.25
☐ Paved Shoulder	-0.50
☐ Bike Lanes	-0.75
Typical Section	

☐ Severe Grades	0.50
☒ Moderate Grades	0.25
☐ Frequent Curves	0.25
☐ Restricted Sight Distance	0.50
Roadway Alignment	0.25

☐ Numerous Drives	0.50
☐ Numerous Stops	0.75
☐ Industrial Land Use	0.50
☐ Commercial Land Use	0.25
☐ One Sidewalk Only	0.25
☒ No Sidewalks	0.50
Roadway Environment	0.50

Destinations/Comments

Lion's Park.
Width up to 24.
About 8 ft to utility poles (40 ft available).

Myrtle Point

Bicycle Street Rating Index

Record 61

Street	Maple St		Seg. No. 4
From	25th St		
To	Cemetery		
Classification	Local	Length 1400 ft 0.3 mi	Width 20 ft

Rating Index 6.01 =

$$\frac{\text{ADT } 1500}{\text{Travel Lanes } 2 \bullet 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 10}{2} + \text{Pavement Factors } 1.50 + \text{Location Factors } 1.50$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐	0.50
Patching	☐	0.25
Weathering	☐	0.25
Potholes	☐	0.75
Rough Edge	☒	0.75
Debris	☒	0.75
Curb	☐	0.25
Rough RR Crossing	☐	0.50
Drainage Grates	☐	0.75

Angle Parking	☐	0.75
Parallel Parking	☐	0.50
Right Turn Lanes	☐	0.25
Physical Median	☐	-0.25
Center Turn Lane	☐	-0.25
Paved Shoulder	☐	-0.50
Bike Lanes	☐	-0.75
Typical Section		

Severe Grades	☒	0.50
Moderate Grades	☐	0.25
Frequent Curves	☐	0.25
Restricted Sight Distance	☒	0.50
Roadway Alignment		1.00

Numerous Drives	☐	0.50
Numerous Stops	☐	0.75
Industrial Land Use	☐	0.50
Commercial Land Use	☐	0.25
One Sidewalk Only	☐	0.25
No Sidewalks	☒	0.50
Roadway Environment		0.50

Destinations/Comments

Cemetery.
Sugarloaf Mtn Rd.

Myrtle Point

Bicycle Street Rating Index

Record 62

Street	Maryland Ave		Seg. No. 1
From	A St		
To	18th St		
Classification	Collector	Length 1700 ft 0.3 mi	Width 40 ft

Rating Index 2.81 =

$$\frac{\text{ADT } 3000}{\text{Travel Lanes } 2 \bullet 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 13}{2} + \text{Pavement Factors } 0.25 + \text{Location Factors } 0.75$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☒ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	0.25

Destinations/Comments

ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 63

Street	Maryland Ave		Seg. No. 2
From	18th St		
To	E of 19th St		
Classification	Collector	Length 1100 ft 0.2 mi	Width 22 ft

Rating Index 3.11 =

$$\frac{\text{ADT: } 2000}{\text{Travel Lanes: } 2 \bullet 2500} + \frac{\text{Speed, mph: } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.): } 14 - 11}{2} + \frac{\text{Pavement Factors: }}{} + \text{Location Factors: } 0.50$$

Rating Index
<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.

Bicycle Street Rating Index

Street	Maryland Ct		Seg. No.
From	Maryland Ave		
To	S of Maryland Ave		
Classification	Local	Length 250 ft 0.0 mi	Width 34 ft

Rating Index 3.26 = $\frac{\text{ADT } 250}{2 \text{ Travel Lanes} \times 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 10}{2} + \text{Pavement Factors} + \text{Location Factors } 0.50$

Rating Index
<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

Dead-end.
ADT est.
Not on map (private?).

Myrtle Point

Bicycle Street Rating Index

Record 65

Street	Myrtle Crest Dr		Seg. No.
From	Maryland Ave		
To	S of Maryland Ave		
Classification	Local	Length 500 ft 0.1 mi	Width 36 ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$4.01 = \frac{250}{2 \times 2500} + \frac{25}{35} + \frac{14 - 11}{2} + 1.25 + 0.50$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors

Cracking	☒ 0.50
Patching	☒ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.

Bicycle Street Rating Index

Street	Myrtle Crest St		Seg. No. 1
From	Maple St		
To	Willow St		
Classification	Local	Length 250 ft 0.0 mi	Width 20 ft

Rating Index = 3.26

$$\frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$\frac{250}{2 \times 2500} + \frac{25}{35} + \frac{14 - 10}{2} + \square + 0.50$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.

Bicycle Street Rating Index

Street	Myrtle Crest St		Seg. No. 2
From	Bothwick St		
To	Maryland Ave		
Classification	Private	Length 550 ft 0.1 mi	Width 40 ft

Rating Index 1.33 =

$$\frac{\text{ADT: } 1000}{\text{Travel Lanes: } 1 \bullet 2500} + \frac{\text{Speed, mph: } 15}{35} + \frac{\text{Outside Lane Width (inc. shld.): } 14 - 15}{2} + \text{Pavement Factors: } 0.25 + \text{Location Factors: } 0.75$$

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Angle Parking	☐	0.75
Parallel Parking	☒	0.50
Right Turn Lanes	☐	0.25
Physical Median	☐	-0.25
Center Turn Lane	☐	-0.25
Paved Shoulder	☐	-0.50
Bike Lanes	☐	-0.75
Typical Section		0.50

Cracking	☐	0.50
Patching	☐	0.25
Weathering	☐	0.25
Potholes	☐	0.75
Rough Edge	☐	0.75
Debris	☐	0.75
Curb	☒	0.25
Rough RR Crossing	☐	0.50
Drainage Grates	☐	0.75

Severe Grades	☐	0.50
Moderate Grades	☐	0.25
Frequent Curves	☐	0.25
Restricted Sight Distance	☐	0.50
Roadway Alignment		

Numerous Drives	☐	0.50
Numerous Stops	☐	0.75
Industrial Land Use	☐	0.50
Commercial Land Use	☐	0.25
One Sidewalk Only	☒	0.25
No Sidewalks	☐	0.50
Roadway Environment		0.25

Destinations/Comments

Myrtle Crest School.
Closed except to buses (loading area).
One-way north.
ADT est.

Bicycle Street Rating Index

Street	Myrtle Point-River Rd		Seg. No.
From	Roseburg Rd		
To	Spruce St		
Classification	Local	Length 4400 ft 0.8 mi	Width 26 ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$3.51 = \frac{2000}{2 \times 2500} + \frac{30}{35} + \frac{14 - 13}{2} + 1.25 + 0.50$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
☒ Cracking	0.50
☐ Patching	0.25
☐ Weathering	0.25
☐ Potholes	0.75
☒ Rough Edge	0.75
☐ Debris	0.75
☐ Curb	0.25
☐ Rough RR Crossing	0.50
☐ Drainage Grates	0.75

Location Factors	
☐ Angle Parking	0.75
☐ Parallel Parking	0.50
☐ Right Turn Lanes	0.25
☐ Physical Median	-0.25
☐ Center Turn Lane	-0.25
☐ Paved Shoulder	-0.50
☐ Bike Lanes	-0.75
Typical Section	
☐ Severe Grades	0.50
☐ Moderate Grades	0.25
☐ Frequent Curves	0.25
☐ Restricted Sight Distance	0.50
Roadway Alignment	
☐ Numerous Drives	0.50
☐ Numerous Stops	0.75
☐ Industrial Land Use	0.50
☐ Commercial Land Use	0.25
☐ One Sidewalk Only	0.25
☒ No Sidewalks	0.50
Roadway Environment	0.50

Destinations/Comments

Lehnherr Park.
Boat ramp.
ADT and mph est.

Bicycle Street Rating Index

Street	Oak St		Seg. No.
From	Roseburg Rd		
To	E of Roseburg Rd		
Classification	Unimproved	Length 400 ft 0.1 mi	Width ft

Rating Index ☐ = ADT ☐ / (☐ Travel Lanes • 2500) + Speed, mph ☐ / 35 + Outside Lane Width (inc. shld.) 14 - ☐ / 2 + Pavement Factors ☐ + Location Factors ☐

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75

Typical Section

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50

Roadway Alignment

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50

Roadway Environment

Destinations/Comments

Bicycle Street Rating Index

Street	Pine St		Seg. No.
From	Roseburg Rd		
To	E of Roseburg Rd		
Classification	Unimproved	Length 500 ft 0.1 mi	Width ft

$$\text{Rating Index} = \frac{\text{ADT}}{\square \bullet 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{14 - \square \,/\, 2} + \text{Pavement Factors} + \text{Location Factors}$$

Travel Lanes

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75

Typical Section

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50

Roadway Alignment

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50

Roadway Environment

Destinations/Comments

Dirt.
Dead-end.

Bicycle Street Rating Index

Street	Railroad Ave		Seg. No.
From	Gravelford Rd		
To	Doborout St		
Classification	Local	Length 1850 ft 0.4 mi	Width 30 ft

Rating Index 5.61 = $\frac{\text{ADT } 2000}{2 \text{ Travel Lanes} \bullet 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 8}{2} + \text{Pavement Factors } 0.25 + \text{Location Factors } 1.25$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☒ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	0.75

Destinations/Comments

Rotary Park.
Pavement varies: unimproved Gravelford to Spruce (200 ft), 34-ft wide around Willow, 26-ft wide south of Bothwick.
Stop signs at most intersections.

Bicycle Street Rating Index

Street	Reeds Ford Rd		Seg. No.
From	Maple St		
To	Coos County Fairgrounds		
Classification	Local	Length 2600 ft 0.5 mi	Width 22 ft

Rating Index 3.91 = $\frac{\text{ADT}}{2 \text{ Travel Lanes} \bullet 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2}$ + Pavement Factors + Location Factors

$\frac{250}{2 \bullet 2500} + \frac{30}{35} + \frac{14 - 11}{2}$ + 1.00 + 0.50

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☒ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

Fairgrounds.
Boat ramp.
ADT est.

Bicycle Street Rating Index

Street	River Rd		Seg. No.
From	Sewage Treatment Plant		
To	Spruce St		
Classification	Unimproved	Length 1600 ft 0.3 mi	Width ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{14 - \text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

Bicycle Street Rating Index

Street	Snyder Ct		Seg. No.
From	Roseburg Rd		
To	Roseburg Rd		
Classification	Unimproved	Length 700 ft 0.1 mi	Width ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \bullet 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{14 - Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	0.50
Patching	0.25
Weathering	0.25
Potholes	0.75
Rough Edge	0.75
Debris	0.75
Curb	0.25
Rough RR Crossing	0.50
Drainage Grates	0.75

Location Factors	
Angle Parking	0.75
Parallel Parking	0.50
Right Turn Lanes	0.25
Physical Median	-0.25
Center Turn Lane	-0.25
Paved Shoulder	-0.50
Bike Lanes	-0.75
Typical Section	
Severe Grades	0.50
Moderate Grades	0.25
Frequent Curves	0.25
Restricted Sight Distance	0.50
Roadway Alignment	
Numerous Drives	0.50
Numerous Stops	0.75
Industrial Land Use	0.50
Commercial Land Use	0.25
One Sidewalk Only	0.25
No Sidewalks	0.50
Roadway Environment	

Destinations/Comments

Loop.
Dirt.

Bicycle Street Rating Index

Street	Spruce St		Seg. No. 1
From	Coquille River		
To	8th St		
Classification	Arterial	Length 2100 ft 0.4 mi	Width 40 ft

$$\text{Rating Index} = \frac{\text{ADT}}{2 \text{ (Travel Lanes)} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$4.96 = \frac{5000}{2 \times 2500} + \frac{25}{35} + \frac{14 - 12}{2} + 1.00 + 1.25$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
☒ Cracking	0.50
☐ Patching	0.25
☒ Weathering	0.25
☐ Potholes	0.75
☐ Rough Edge	0.75
☐ Debris	0.75
☒ Curb	0.25
☐ Rough RR Crossing	0.50
☐ Drainage Grates	0.75

Location Factors	
☐ Angle Parking	0.75
☒ Parallel Parking	0.50
☐ Right Turn Lanes	0.25
☐ Physical Median	-0.25
☐ Center Turn Lane	-0.25
☐ Paved Shoulder	-0.50
☐ Bike Lanes	-0.75
Typical Section	0.50
☐ Severe Grades	0.50
☐ Moderate Grades	0.25
☐ Frequent Curves	0.25
☐ Restricted Sight Distance	0.50
Roadway Alignment	
☐ Numerous Drives	0.50
☐ Numerous Stops	0.75
☒ Industrial Land Use	0.50
☒ Commercial Land Use	0.25
☐ One Sidewalk Only	0.25
☐ No Sidewalks	0.50
Roadway Environment	0.75

Destinations/Comments

Safeway Ice Cream.
Downtown stores.
Connects to county roads west (recreational) and to boat ramp.
Signalized at 8th.
Bridge over River Rd 24 curb-curb with 3.5 sidewalks.

Myrtle Point

Bicycle Street Rating Index

Record 76

Street	Spruce St		Seg. No. 2
From	8th St		
To	Bender St		
Classification	Collector	Length 1400 ft 0.3 mi	Width 34 ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \bullet 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$4.46 = \frac{2500}{2 \bullet 2500} + \frac{25}{35} + \frac{14 - 10}{2} + 0.25 + 1.00$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50
Severe Grades	☒ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	0.50
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

Bicycle Street Rating Index

Street	Spruce St		Seg. No. 3
From	Bender St		
To	19th St		
Classification	Local	Length 1450 ft 0.3 mi	Width 22 ft

Rating Index = $\frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$

Rating Index = **4.46** = $\frac{2500}{2 \times 2500} + \frac{25}{35} + \frac{14 - 11}{2} + 0.75 + 1.00$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☒ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Roadway Alignment	
Severe Grades	☒ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	0.50

Roadway Environment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

Myrtle Point

Bicycle Street Rating Index

Record #78

Street	St Route 42		Seg. No. 1
From	North UGB		
To	Ash St		
Classification	Arterial	Length 2400 ft 0.5 mi	Width 66 ft

Rating Index 1.57 = $\frac{\text{ADT } 7500}{\text{Travel Lanes } 4 \bullet 2500} + \frac{\text{Speed, mph } 55}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 17}{2} + \frac{\text{Pavement Factors}}{} + \text{Location Factors } 0.75$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☒ -0.50
Bike Lanes	☐ -0.75
Typical Section	-0.50
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☒ 0.50
Commercial Land Use	☒ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	1.25

Destinations/Comments

aka Roseburg Hwy.
30 mph N of Ash.
West shoulder north of Ash narrows to 4 ft next to rail.
Street just north of Ash narrows to 56 ft with curbs.
Heavy truck traffic.
1993 ADT north city limits.

Bicycle Street Rating Index

Street	St Route 42		Seg. No. 2
From	Ash St		
To	Harris St		
Classification	Arterial	Length 1400 ft 0.3 mi	Width 48 ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$5.85 = \frac{8700}{2 \times 2500} + \frac{30}{35} + \frac{14 - 12}{2} + 1.50 + 0.75$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☒ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☒ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☒ 0.50
Commercial Land Use	☒ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	0.75

Destinations/Comments

aka Roseburg Hwy.
aka 8th St.
Signals at Spruce (10 s crossing!) and Harris.
Crosswalks at Spruce, Maple and Harris.
Heavy truck traffic.
Pavement upheaval from trucks.
1993 ADT 0.01 mi S of Spruce.

Myrtle Point

Bicycle Street Rating Index

Record # 80

Street	St Route 42		Seg. No. 3
From	Harris St		
To	Carlisle Ln		
Classification	Arterial	Length 5350 ft 1.0 mi	Width 48 ft

Rating Index 5.94 = $\frac{\text{ADT } 5800}{4 \text{ Travel Lanes} \bullet 2500} + \frac{\text{Speed, mph } 30}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 12}{2} + \text{Pavement Factors } 1.50 + \text{Location Factors } 2.00$

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐ 0.50
Patching	☒ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☒ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☐ 0.50
Moderate Grades	☒ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☒ 0.50
Roadway Alignment	0.75

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☒ 0.50
Commercial Land Use	☒ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	1.25

Destinations/Comments

aka Roseburg Rd.
aka Maryland Ave (C St to A St).
Heavy truck traffic.
1993 ADT 0.01 mi S of Maryland.

Myrtle Point

Bicycle Street Rating Index

Record 481

Street	St Route 42		Seg. No. 4
From	Carlisle Ln		
To	South UGB		
Classification	Arterial	Length 1700 ft 0.3 mi	Width 40 ft

Rating Index = **-0.34**

$$\frac{\text{ADT: } 5100}{\text{Travel Lanes: } 2 \bullet 2500} + \frac{\text{Speed, mph: } 40}{35} + \frac{\text{Outside Lane Width (inc. shld.): } 14 - 20}{2} + \text{Pavement Factors: } \square + \text{Location Factors: } 0.50$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☒ -0.50
Bike Lanes	☐ -0.75
Typical Section	-0.50
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☒ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	1.00

Destinations/Comments

aka Roseburg Rd.
Heavy truck traffic.
1993 ADT south city limits.

Myrtle Point

Bicycle Street Rating Index

Record 82

Street	Stover Ln		Seg. No.
From	Roseburg Rd		
To	E of 20th St		
Classification	Local	Length 1700 ft 0.3 mi	Width 22 ft

Rating Index = 3.41

$$\frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$\frac{1000}{2 \times 2500} + \frac{25}{35} + \frac{14 - 11}{2} + 0.25 + 0.75$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☐ 0.50
Moderate Grades	☒ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	0.25

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 83

Street	Sunset Dr		Seg. No.
From	Roseburg Rd		
To	E of 19th St		
Classification	Local	Length 1200 ft 0.2 mi	Width 22 ft

Rating Index 3.66 = $\frac{\text{ADT } 1000}{2 \text{ Travel Lanes} \bullet 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 11}{2} + \text{Pavement Factors } 0.25 + \text{Location Factors } 1.00$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☒ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	0.50

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

ADT est.

Bicycle Street Rating Index

Street	View St		Seg. No.
From	Roseburg Rd		
To	E of 19th St		
Classification	Local	Length 1250 ft 0.2 mi	Width 22 ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \bullet 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$3.66 = \frac{1000}{2 \bullet 2500} + \frac{25}{35} + \frac{14 - 11}{2} + 0.25 + 1.00$$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐	0.50	
Patching	☐	0.25	
Weathering	☒	0.25	
Potholes	☐	0.75	
Rough Edge	☐	0.75	
Debris	☐	0.75	
Curb	☐	0.25	
Rough RR Crossing	☐	0.50	
Drainage Grates	☐	0.75	

Angle Parking	☐	0.75
Parallel Parking	☐	0.50
Right Turn Lanes	☐	0.25
Physical Median	☐	-0.25
Center Turn Lane	☐	-0.25
Paved Shoulder	☐	-0.50
Bike Lanes	☐	-0.75
Typical Section		

Severe Grades	☒	0.50
Moderate Grades	☐	0.25
Frequent Curves	☐	0.25
Restricted Sight Distance	☐	0.50
Roadway Alignment		0.50

Numerous Drives	☐	0.50
Numerous Stops	☐	0.75
Industrial Land Use	☐	0.50
Commercial Land Use	☐	0.25
One Sidewalk Only	☐	0.25
No Sidewalks	☒	0.50
Roadway Environment		0.50

Destinations/Comments

ADT est.

Myrtle Point

Bicycle Street Rating Index

Record 85

Street	Willow St		Seg. No. 1
From	4th St		
To	8th St		
Classification	Local	Length 1000 ft 0.2 mi	Width 36 ft

Rating Index 3.86 = $\frac{\text{ADT: } 2000}{\text{Travel Lanes: } 2 \bullet 2500} + \frac{\text{Speed, mph: } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.): } 14 - 11}{2} + \text{Pavement Factors: } 0.75 + \text{Location Factors: } 0.50$

Rating Index
<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Pavement Factors	
Cracking	☒ 0.50
Patching	☐ 0.25
Weathering	☒ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

City Hall.
Library.
Market.

Bicycle Street Rating Index

Street	Willow St		Seg. No. 2
From	8th St		
To	C St		
Classification	Local	Length 450 ft 0.1 mi	Width 40 ft

Rating Index = 2.36

$$\text{Rating Index} = \frac{\text{ADT}}{2 \cdot 2500} + \frac{\text{Speed, mph}}{35} + \frac{\text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

$$= \frac{2000}{2 \cdot 2500} + \frac{25}{35} + \frac{14 - 13}{2} + 0.25 + 0.50$$

Travel Lanes = 2

<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

Maple School.
Gravel east of C St.

Myrtle Point

Bicycle Street Rating Index

Record 87

Street	Willow St		Seg. No. 3
From	A St		
To	Hermann St		
Classification	Local	Length 750 ft 0.1 mi	Width 30 ft

Rating Index 1.56 = $\frac{\text{ADT: } 500}{\text{Travel Lanes: } 2 \cdot 2500} + \frac{\text{Speed, mph: } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.): } 14 - 15}{2} + \text{Pavement Factors: } 0.25 + \text{Location Factors: } 1.00$

Rating Index
<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☒ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☒ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	0.50

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

Blocked off at Hermann.
ADT est.

Bicycle Street Rating Index

Street	Willow St		Seg. No. 4
From	Hermann St		
To	E of Myrtle Crest St		
Classification	Unimproved	Length 450 ft 0.1 mi	Width 30 ft

$$\text{Rating Index} = \frac{\text{ADT}}{\text{Travel Lanes} \times 2500} + \frac{\text{Speed, mph}}{35} + \frac{14 - \text{Outside Lane Width (inc. shld.)}}{2} + \text{Pavement Factors} + \text{Location Factors}$$

Rating Index	
<3	Superior
3-4	Good
4-5	Fair
>5	Poor

Pavement Factors	
Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

Location Factors	
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	
Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	
Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☐ 0.50
Roadway Environment	

Destinations/Comments

Myrtle Point

Bicycle Street Rating Index

Record 89

Street	Willow St		Seg. No. 5
From	18th St		
To	E of 18th St		
Classification	Local	Length 600 ft 0.1 mi	Width 18 ft

Rating Index 3.76 = $\frac{\text{ADT } 250}{\text{Travel Lanes } 2 \bullet 2500} + \frac{\text{Speed, mph } 25}{35} + \frac{\text{Outside Lane Width (inc. shld.) } 14 - 9}{2} + \text{Pavement Factors} + \text{Location Factors } 0.50$

<3 Superior
3-4 Good
4-5 Fair
>5 Poor

Cracking	☐ 0.50
Patching	☐ 0.25
Weathering	☐ 0.25
Potholes	☐ 0.75
Rough Edge	☐ 0.75
Debris	☐ 0.75
Curb	☐ 0.25
Rough RR Crossing	☐ 0.50
Drainage Grates	☐ 0.75

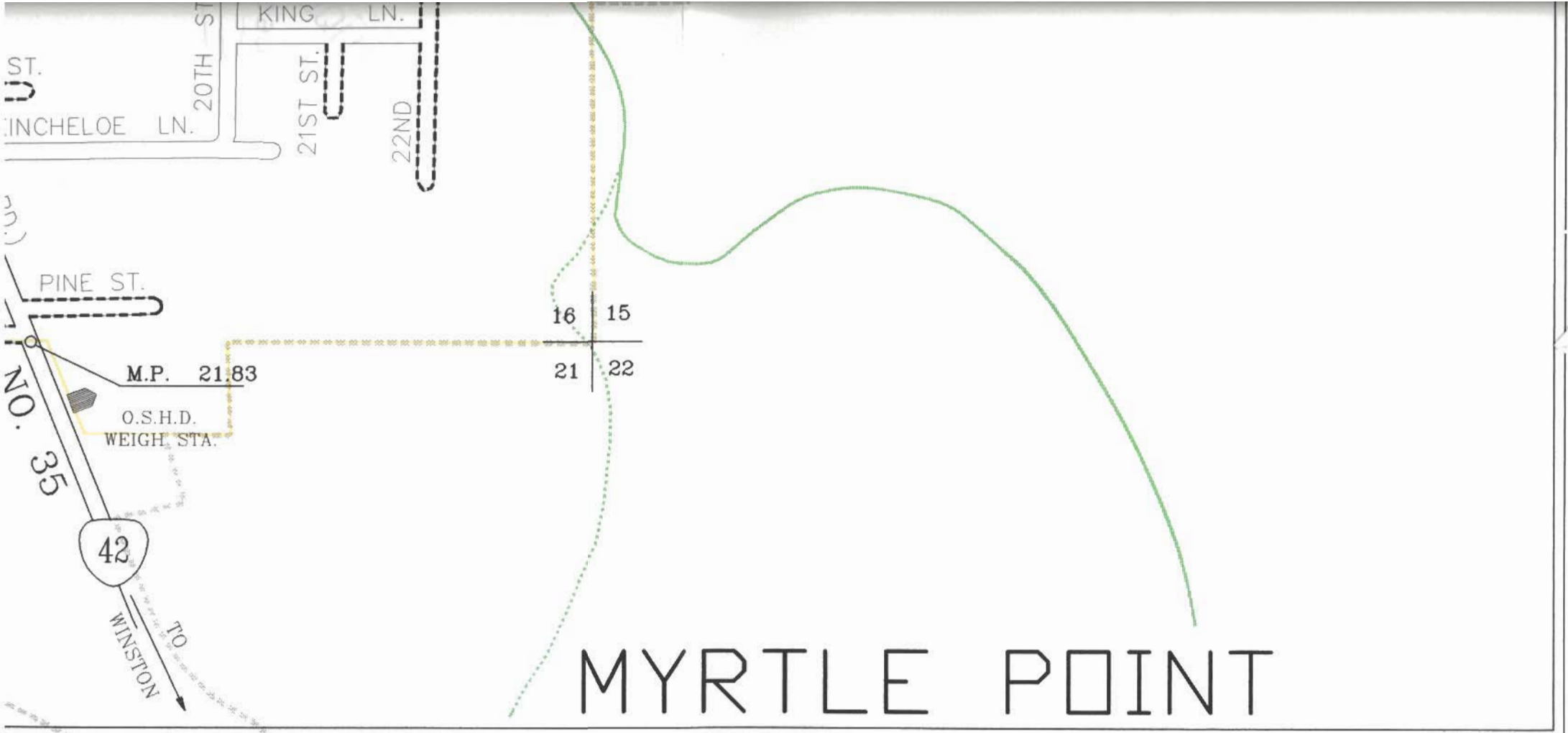
Angle Parking	☐ 0.75
Parallel Parking	☐ 0.50
Right Turn Lanes	☐ 0.25
Physical Median	☐ -0.25
Center Turn Lane	☐ -0.25
Paved Shoulder	☐ -0.50
Bike Lanes	☐ -0.75
Typical Section	

Severe Grades	☐ 0.50
Moderate Grades	☐ 0.25
Frequent Curves	☐ 0.25
Restricted Sight Distance	☐ 0.50
Roadway Alignment	

Numerous Drives	☐ 0.50
Numerous Stops	☐ 0.75
Industrial Land Use	☐ 0.50
Commercial Land Use	☐ 0.25
One Sidewalk Only	☐ 0.25
No Sidewalks	☒ 0.50
Roadway Environment	0.50

Destinations/Comments

Dead end.
ADT est.

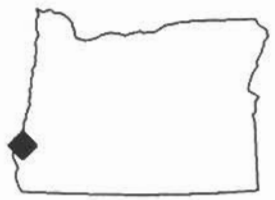


MYRTLE POINT – PEDESTRIAN FACILITIES INVENTORY

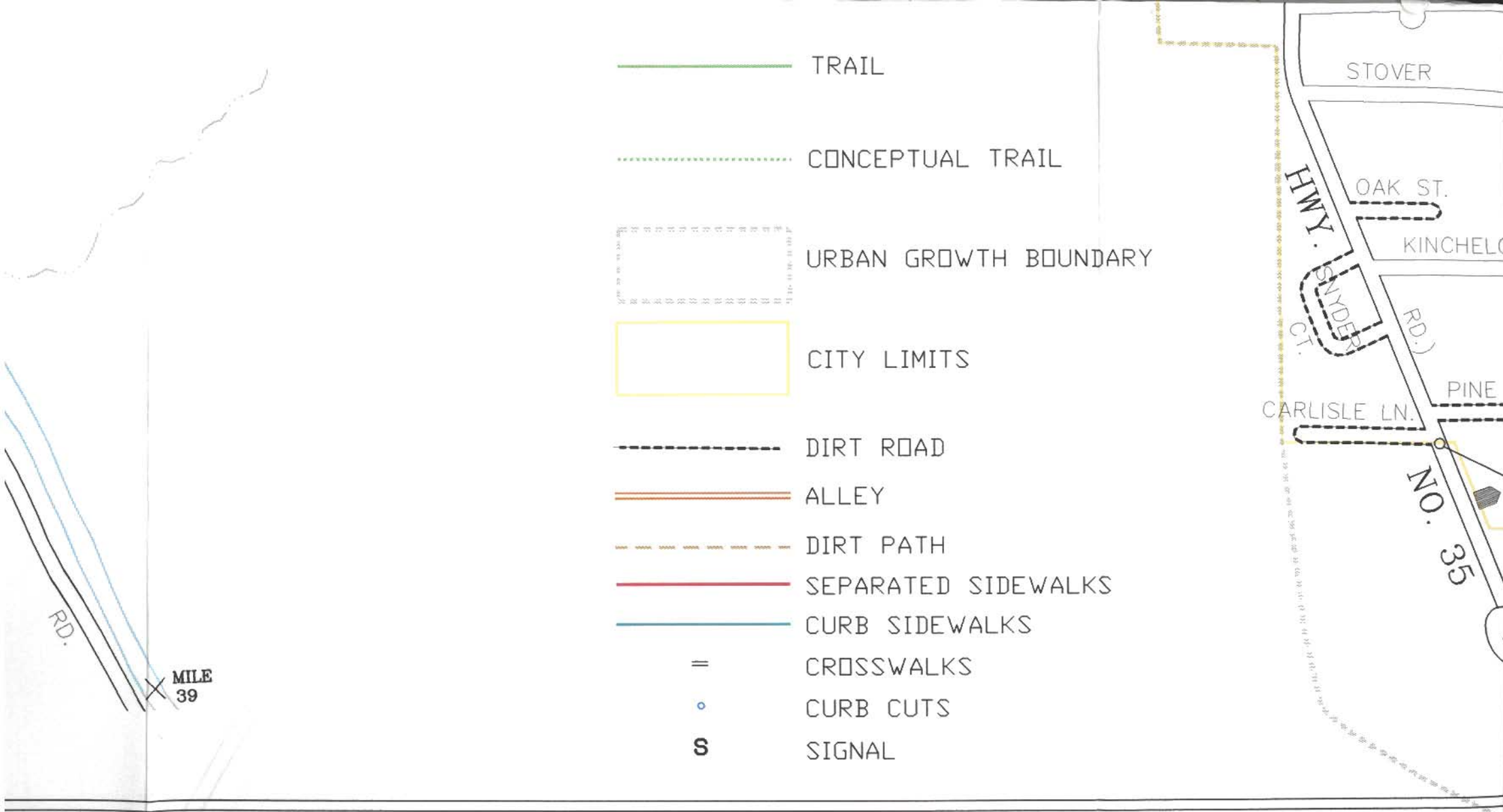
COOS COUNTY

T. 29 S. R. 12 W. W.M.

Population 2,665



COOS COUNTY
MYRTLE POINT



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IN COOPERATION WITH THE
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FEDERAL HIGHWAY ADMINISTRATION

[redacted]

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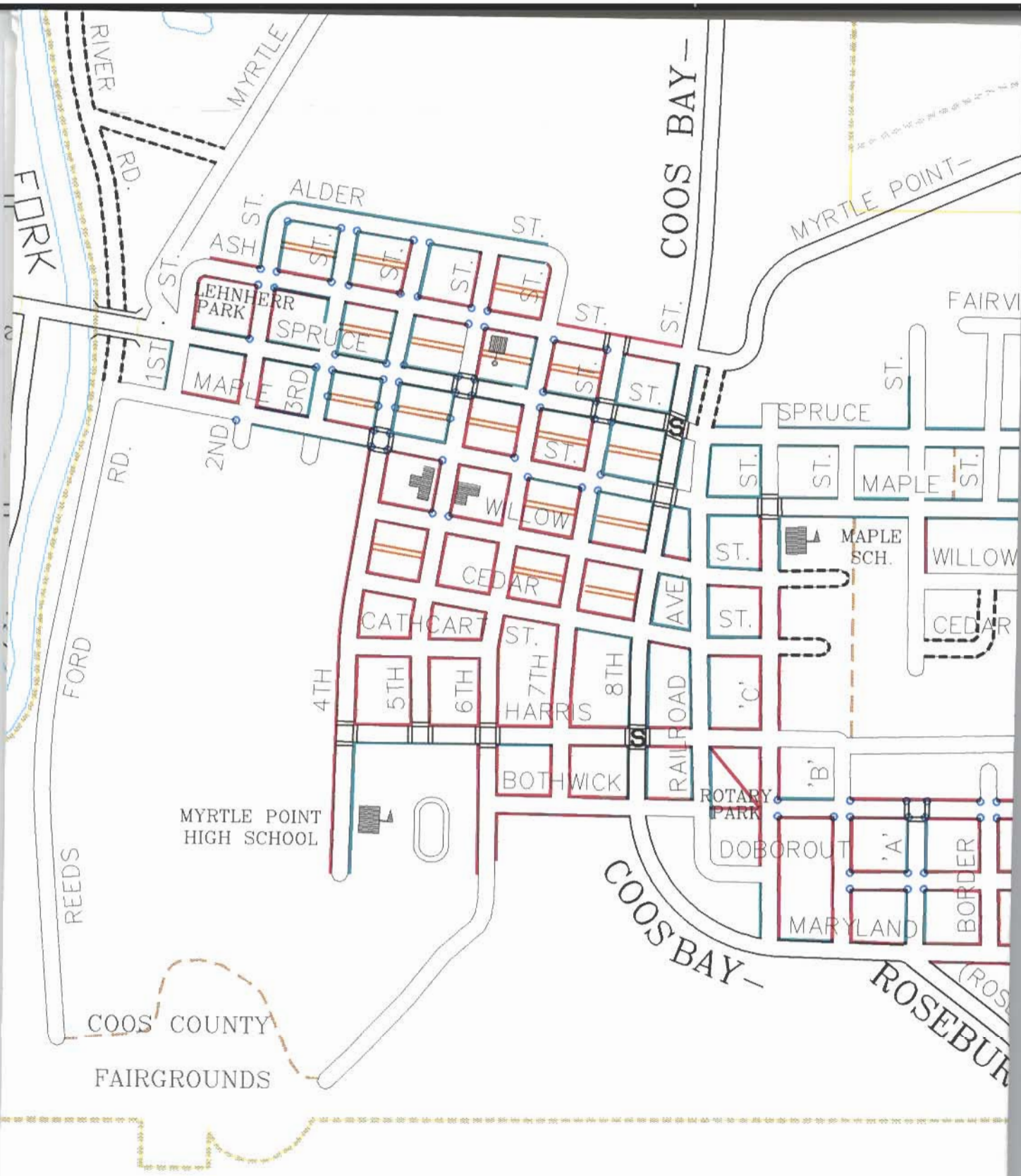
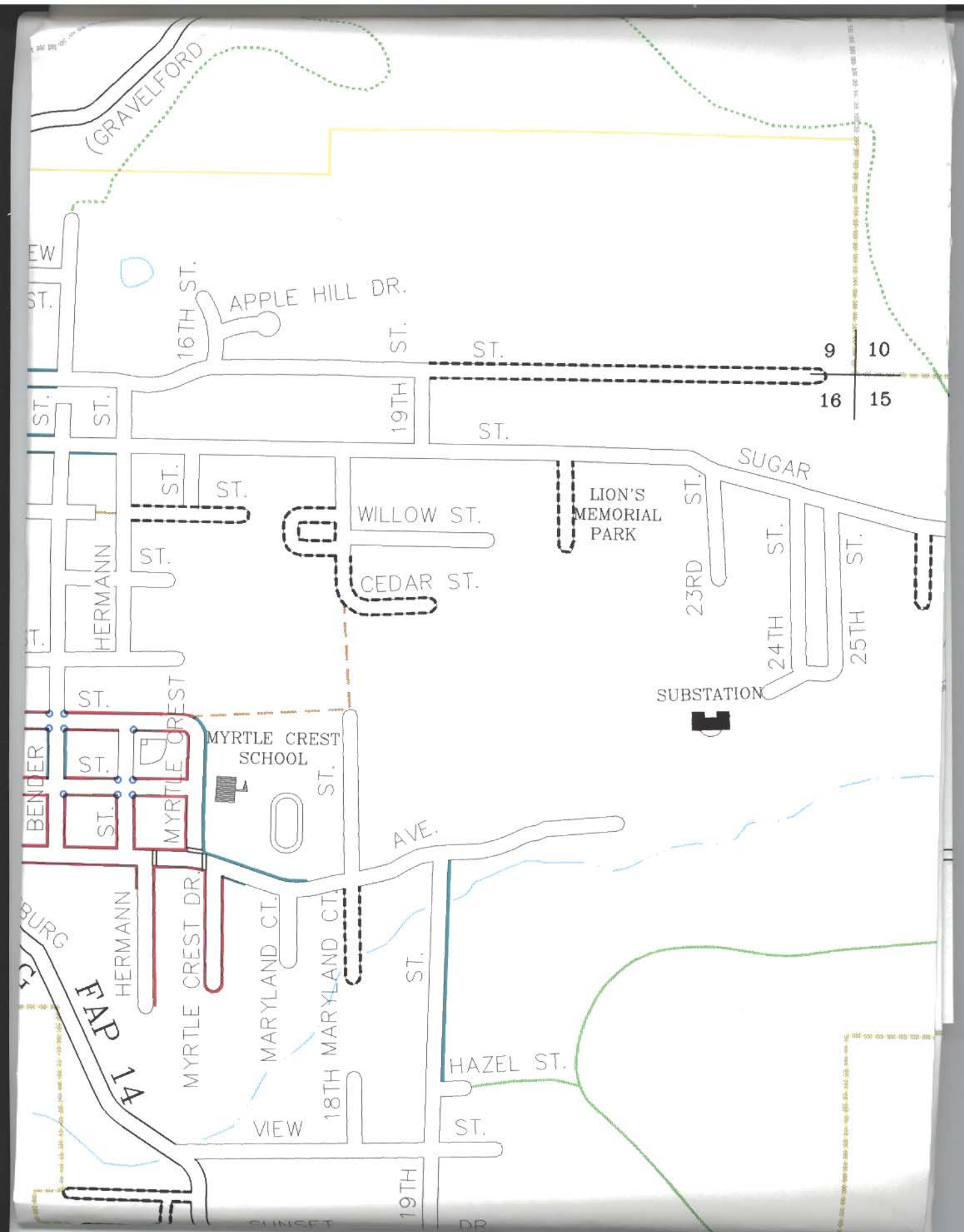

RIVER
RD.
MYRTLE
FORK
ST.
ALDER
ASH
LEHNHERR PARK
SPRUCE
1ST
MAPLE
3RD
2ND
FORD
REEDS
COOS BAY-
MYRTLE POINT-
FAIRVI
WILLOW
CEDAR
CATHCART
4TH
5TH
6TH
7TH
8TH
HARRIS
BOTHWICK
RAILROAD
AVE
'C'
'B'
'A'
MAPLE SCH.
ROTARY PARK
DOBOROUT
MARYLAND
BORDER
MYRTLE POINT HIGH SCHOOL
COOS COUNTY FAIRGROUNDS
COOS BAY-
ROSEBUR


GRAVELFORD
APPLE HILL DR.
16TH ST.
19TH ST.
9
10
16
15
SUGAR
LION'S MEMORIAL PARK
23RD ST.
24TH ST.
25TH ST.
WILLOW ST.
CEDAR ST.
HERMANN
SUBSTATION
MYRTLE CREST SCHOOL
MYRTLE CREST
BENDER
MYRTLE CREST DR.
MARYLAND CT.
18TH MARYLAND CT.
AVE.
HAZEL ST.
VIEW
FAP 14