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REVISED 3/25/96

DRAFT CLACKAMAS COUNTY PEDESTRIAN MASTER PLAN
March 25, 1996

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THIS PROJECT IS PARTIALLY FUNDED BY A GRANT FROM THE
TRANSPORTATION AND GROWTH MANAGEMENT (TGM)
PROGRAM, A JOINT PROGRAM OF THE OREGON DEPARTMENT
OF TRANSPORTATION AND THE OREGON DEPARTMENT OF

**LAND CONSERVATION AND DEVELOPMENT. TGM GRANTS
RELY ON FEDERAL INTERMODAL SURFACE TRANSPORTATION
AND EFFICIENCY ACT AND OREGON LOTTERY FUNDS.**

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Chapter 1
INTRODUCTION

PURPOSE

The purpose of this plan is to focus on promoting walking for transportation purposes in Clackamas County. As the county seeks to reduce the number of automobile trips to reduce traffic congestion and associated problems, walking will be an important component of the County Transportation Plan.

The Pedestrian Plan describes the tasks necessary to accomplish the vision of the plan, which is to **CREATE AN ENVIRONMENT WHICH ENCOURAGES PEOPLE TO WALK IN A NETWORKED SYSTEM THAT FACILITATES AND PROMOTES THE ENJOYMENT OF WALKING AS A SAFE AND CONVENIENT TRANSPORTATION MODE.** Plan elements will be incorporated into the County Transportation Plan, Comprehensive Plan and the Zoning and Development Ordinance as necessary.

BACKGROUND

Walking is the oldest form of transportation. Walking is a low cost, easy on the infrastructure, quiet, healthy, energy efficient, nonpolluting means of transportation. Walking can be a viable transportation option for short trips to local destinations such as schools and parks, local restaurants, convenience stores, and to the local and regional public transit system. For some, particularly children, the elderly, disabled, and low income residents, walking is a primary means of travel.

Walking has great potential as a transportation option. In Oregon, feet outnumber motor vehicles 6.1 million to 2.9 million. The National Bicycling and Walking Study, conducted in 1990, collected data from 48,000 individuals in approximately 23,000

households. According to the study, walking presently accounts for 7 percent of all transportation trips. Study data shows that forty (40) percent of all travel trips are less than 2 miles, and 25 percent are less than 1 mile. These are distances that can be walked in a short period of time. Nationally, only 21 percent of all travel trips are for commuting to work. Most trips are for utility purposes such as school functions, playing at the park, socializing, recreation and fitness, and shopping. In Clackamas County maps show that there is a large population within 1/2 mile of these major pedestrian destinations. This represents great potential to increase the number of people who choose to walk .

One of the biggest obstacles to pedestrian travel is lack of adequate and safe facilities. A recent Harris Poll showed that while five percent of respondents currently walk or bicycle as their primary means of transportation, two-and-a-half times this number would prefer to meet their transportation needs by walking or bicycling if better facilities were available.¹ Much of the focus of the Clackamas County Pedestrian Plan will be on overcoming this obstacle by programming sidewalk improvements to provide a network of safe and convenient pedways.

LEGISLATION PERTAINING TO PEDESTRIAN PLANNING

Legislation enacted in recent years at the State and Federal level promotes alternative transportation modes such as walking to reduce the dependency on automobiles.

State

The Transportation Planning Rule (Oregon Administrative Rules 660-12) was adopted by the Oregon Land Conservation and Development Commission in 1991 to implement Goal 12 of the State Planning Goals. Goal 12 requires that a County

¹ 1 The National Bicycling and Walking Study, Final Report. US Department of Transportation, Federal Highway Administration, pVII.

Transportation Plan consider all modes of transportation, avoid reliance on one mode of transportation, and conserve energy.

The State Transportation Planning Rule requires each county to adopt a Transportation Systems Plan (TSP) as part of the Comprehensive Plan by 1997. Under the rule, all counties in the Portland Metropolitan area must adopt plans to reduce vehicle miles traveled per capita by 20 percent over the next 30 years. The local transportation plan must include a pedestrian component that establishes a network of pedestrian facilities. This Pedestrian Plan will be part of the TSP, and parts of it will be adopted into the Comprehensive Plan.

The Transportation Planning Rule also requires the State Department of Transportation and Metro to prepare transportation plans. The Oregon Bicycle and Pedestrian Plan has been adopted by the Oregon Department of Transportation (1995). The plan includes policies, design standards, priorities for statewide pedestrian projects, and consideration of maintenance and safety of walkways.

Metro is preparing a Regional Transportation Plan (RTP) for the Portland Metropolitan area. This plan will establish a regional pedestrian system focusing on making the regions major activity centers more walkable. The Plan will also promote improvements that make it easier to walk from homes to bus stops and transit stations. Projects requiring Intermodal Surface Transportation Efficiency Act (ISTEA) funding will be evaluated against the regional system.

Oregon Benchmarks. The Oregon Progress Board released the first set of benchmarks in 1991 and Governor Barbara Roberts adopted them as a tool for stating concrete objectives, setting program and budget priorities, and measuring performance.

The benchmark that applies directly to this plan is:

31b. Percentage of streets in urban areas that have adequate pedestrian and bicycle facilities.

Other benchmarks also relating to this plan are:

20. Percentage of new development where occupants are within 1/2 mile of a mix of stores and services, transit, parks and services, and open spaces.

21. Percentage of existing development where occupants are within 1/2 mile of a mix of stores and services, transit, parks and open spaces.

32. Percentage of Oregonians who commute to and from work during peak hours by means other than a single-occupancy vehicle.

33. Vehicle miles traveled per capita in Oregon metropolitan areas (per year).

The Oregon Bike Bill, described in Oregon Revised Statutes 366.514, requires walkways be provided where warranted on all new road construction, reconstruction or relocation projects. The statute also requires a minimum of 1 percent of the State gas Tax funds distributed to local government be used specifically for pedestrian and bicycle improvements. A recent court case determined this was a minimum, not a maximum.

Federal

At the Federal level, the most significant legislation affecting pedestrian planning is the Intermodal Surface Transportation Efficiency Act (ISTEA). ISTEA broadens the focus of national surface transportation policy from the automobile to include alternative modes that are more cost effective and environmentally

sound. Most importantly, ISTEA provides funding for alternative transportation projects such as pedestrian facilities that reduce traffic congestion and help air quality. ISTEA requires all states and metropolitan planning organizations (Metro in Clackamas County) to develop transportation plans that incorporate programs and facilities for pedestrians. The Plan must have a pedestrian component to qualify for ISTEA funding.

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Chapter II
FRAMEWORK

To respond to the changing focus in transportation policy, this plan will institutionalize pedestrian planning and facility construction in Clackamas County. The emphasis will be on a pedestrian network that improves mobility for walkers and reduces reliance on one mode of transportation. The Plan will also bring the County into compliance with part of the Transportation Planning Rule.

The County Bicycling and Pedestrian and Bikeway Citizens Advisory Committee and the public has defined a VISION for the Plan. The VISION serves as the guiding principle of the Plan. The vision is:

CREATE AN ENVIRONMENT WHICH ENCOURAGES PEOPLE TO WALK IN A NETWORKED SYSTEM THAT FACILITATES AND PROMOTES THE ENJOYMENT OF WALKING AS A SAFE AND CONVENIENT TRANSPORTATION MODE

To guide the actions necessary to accomplish the VISION, Goals, Objectives, and Strategies have been identified for the Plan. Goals, Objectives and Strategies for the Clackamas County Pedestrian Plan are:

GOAL 1

Provide a County-wide safe and convenient network of pedestrian routes and access integrated with other transportation modes.

1:1 OBJECTIVE: Provide a networked grid of walkways connecting neighborhoods, transit stops, commercial areas, community centers, schools, parks, libraries, churches, day care centers employment places, other major destinations, regional walkways and other transportation modes.

1:1:1 Strategy: Identify facility improvements necessary to ensure a direct and continuous network of pedestrian facilities on the County road system.

1:1:2 Strategy: Construct all pedestrian facilities designated in this plan and any others proposed according to the current County Design Standards, the American Association of State Highway and Transportation Officials (AASHTO) standards, and the Americans with Disabilities Act (ADA).

1:1:3 Strategy: Incorporate Design considerations which take into account the needs of potential users and surrounding land uses for all pedestrian facilities designated in the plan.

1:1:4 Strategy: Promote grid street development patterns to provide connections to transportation facilities.

1:1:5 Strategy: Encourage plans to support compact, mixed land use development.

1:1:6 Strategy: Require that new development provide pedestrian connections within and between adjacent developments to increase the non-motorized mobility.

1:2 OBJECTIVE: Provide more pedestrianways.

1:2:1 Strategy: Provide pedestrian facilities which encourage a reduction in the number of motorized vehicle trips and increase pedestrian usage.

1:2:2 Strategy: ~~Coordinate Work with Metro, parks districts and cities~~
~~and city parks~~
departments to achieve a safe and convenient off-road trail system.

1:2:3 Strategy: Support acquisition and development of multi-use paths on abandoned public and private rights-of-way

1:2:4 Strategy: Encourage pedestrian access across rivers and other natural barriers in the County.

1:3 Objective: Ensure funding for the construction of the pedestrian ~~infrastructure and sup~~facilities necessary to complete the planned County Pedestrian System in a timely manner.

1:3:1 Strategy: Support continuation of current (or equivalent) federal, state, and local funding mechanisms to construct County pedestrian facilities and amenities that comprise the County Pedestrian System.

1:3:2 Strategy: Develop dedicated funding sources to implement the Clackamas County Pedestrian Plan.

1:3:3 Strategy: Provide pedestrian ~~roadway~~improvements based on the priority system established in the Plan with the flexibility to take advantage of outside funding opportunities.

1:3:4 Strategy: Review dedicated funding sources every three years as part of the Capital Improvements Plan update to ensure funding is adequate to

address improvement needs identified in the Clackamas County Pedestrian Plan.

GOAL 2

Integrate pedestrian facilities into all planning, design, and construction activities.

2:1 Objective: Adopt policies and design standards that provide for safe, convenient and enjoyable pedestrian facilities.

2:1:1 Strategy: Revise existing standards to include pedestrian facilities to safely accommodate pedestrians as part of the typical functional classification section design standard for both urban and rural roadways.

~~**2:1:2 Strategy:** Adopt roadway design standards to safely accommodate pedestrians for urban and rural roads of all functional classes.~~

2:2 Objective: Ensure a continuing, comprehensive and cooperative planning process that provides for the efficient and timely implementation of the County Pedestrian Plan.

2:2:1 Strategy: Promote the ongoing education of the pedestrian's needs for all staff who plan, engineer and build transportation facilities.

2:2:2 Strategy: Incorporate an inventory of needed pedestrian facility improvements, prioritized according to the process developed in this plan, into the annual County Transportation Improvement Program.

2:2:3 Strategy: Coordinate recommended pedestrian system needs with roadway improvement projects to take advantage of cost sharing

opportunities (i.e., Resurfacing, widening, upgrading, etc.).

2:2:4 Strategy: Coordinate pedestrian planning and improvements with neighboring jurisdictions

GOAL 3

Maintain pedestrian facilities to ensure safety and encourage use.

3:1 OBJECTIVE: Keep walkways free of debris and in good repair in order to accommodate pedestrians conveniently and safely.

- 3:1:1 Strategy: Develop routine maintenance standards and practices for pedestrian facilities including traffic control devices.
- 3:1:2 Strategy: Respond promptly to reports by the public and others, of potentially unsafe conditions for pedestrians on County roads and walkways.
- 3:1:3 Strategy: Support programs and volunteer community services that assist in maintaining the County Pedestrian System.
- 3:1:4 Strategy: Coordinate utility installation/repair with maintenance of the County Pedestrian System.
- 3:1:5 Strategy: Promote the education of utilities and their repair personnel regarding pedestrian's needs through an informational pamphlet or appropriate materials.
- 3:1:6 Strategy: Enforce use of traffic control and safety devices during roadway and pedestrian construction and maintenance activities.

3:1:7 Strategy: Inform the public of their responsibilities for sidewalk maintenance

GOAL 4

Increase the use of walking as a mode of transportation.

4:1 **OBJECTIVE:** Provide a safe, convenient walking environment.

4:1:1 Strategy: Recognize walking as a means to achieve Transportation Demand Management and achieve reduced reliance on single occupancy vehicles.

4:2 **OBJECTIVE:** Provide information to assist and encourage people to use walking for transportation and recreation.

4:2:1 Strategy: Develop and implement a public information program to encourage individuals and businesses to use walking for transportation and recreation.

4:2:2 Strategy: Educate the public as to the benefits of walking including those benefits related to improving air quality, reducing energy consumption, reducing congestion, and promoting health and physical fitness.

4:2:3 Strategy: Coordinate with cities to provide pedestrian encouragement information

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4:3 OBJECTIVE: Increase the effectiveness and extent of the County's current Pedway Program.

4:3:1 Strategy: Continue to fund a full-time program Coordinator to staff the Pedestrian and Bikeway Advisory Committee and administer the pedestrian program.

4:3:2 Strategy: Ensure an opportunity for representative citizen involvement in the County pedestrian planning process by sponsoring the County Pedestrian and ~~Bikeway Bicycle~~ Advisory Committee as a public input.

4:3:3 Strategy: Coordinate with adjacent jurisdictions, Metro, and the Oregon Department of Transportation to implement the Pedway Program.

GOAL 5

Heighten the awareness of pedestrians and motorists and bicyclists of their rights and responsibilities for pedestrian's safety, and for sharing both on-road and off-road facilities.

5:1 OBJECTIVE: Implement pedestrian safety education programs which encourage observance of traffic laws, and promote safety for pedestrians of all ages.

5:1:1 Strategy: Seek sources of funding and support in providing pedestrian safety education.

5:1:2 Strategy: Develop and provide pedestrian safety and education information for adults and children and encourage community organizations to participate in pedestrian/traffic safety

education.

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5:1:3 Strategy: Support programs to train law enforcement officers in appropriate enforcement techniques regarding pedestrians who violate laws.

5:1:4 Strategy: Promote awareness and increased enforcement of vehicle laws as they pertain to pedestrians.

5:2 OBJECTIVE: Improve ~~vehicle operators~~ motorists' understanding of the need for sharing the road.

5:2:1 Strategy: Encourage the inclusion of pedestrian safety information in the State drivers licensing and re-examination program, and in driver education and defensive driving courses.

5:2:2 Strategy: Support programs to train law enforcement officers in appropriate enforcement techniques regarding motorists' violation of pedestrians' rights to the road.

5:3 OBJECTIVE: Increase security for pedestrians.

5:3:1 Strategy: Encourage the provision of street lighting to increase the visibility and personal security of pedestrians.

5:3:2 Strategy: Provide a physical separation between pedestrians and vehicular traffic when possible.

GOAL 6

Monitor and update the pedestrian plan.

6:1 OBJECTIVE: Provide the data collection, evaluation and review activities necessary to maintain and expand the programs established in this Plan and to respond to the changing needs of the walking public of Clackamas County.

- 6:1:1 Strategy:** Update the walkway facilities inventory for the County every three years.
- 6:1:2 Strategy:** Collect pedestrian travel data for the County periodically which measure how an area or facility is actually being used.
- 6:1:3 Strategy:** Review of pedestrian accident data in the project priorities evaluation of the Capital Improvements Plan
- 6:1:4 Strategy:** Review new land use development to determine impacts on plan priorities in the Capital Improvement Program.
- 6:1:5 Strategy:** Review BI-annually the priorities in the Capital Pedway Improvement Plan.
- 6:1:6 Strategy:** Review and revise as necessary the Pedestrian Plan as a part of periodic review.

The Goals, Objectives, and Strategies will be adopted into the Transportation System Plan (TSP) in the Comprehensive Plan. Components of the TSP will also be incorporated into other County planning and construction documents such as the Zoning and Development Ordinance and Road Design Manual. These documents guide daily and long-range decision-making.

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CHAPTER III. CURRENT CONDITIONS

A Plan is a course of action to get from the present to a desired future. Current conditions affect the direction, scope, and priorities of a plan. Therefore, a baseline for analysis is necessary to establish the projects and actions necessary to accomplish the vision of the Pedestrian Plan. Current conditions reviewed and analyzed are:

- Existing sidewalks;
- Comprehensive Plan and Zoning and Development Ordinance policies and requirements for pedestrian transportation;
- Existing pedestrian programs and funding in the County; and
- Citizen Involvement

EXISTING - ~~Walkways~~ SIDEWALKS

The Vision calls for anetworked system of pedestrian facilities.... Therefore, an important analytical tool is an inventory of existing sidewalks. The inventory shows where existing facilities are in relation to major destinations and serves as the basis to develop a network that serves the destinations. The sidewalk inventory was conducted in the summer of 1994. The inventory was done on every County road in the urban area of Clackamas County. Using an Oregon Department of Transportation inventory checklist, sidewalks were evaluated by condition, width, presence of crosswalks and curb ramps. Map 1 shows the inventory of existing sidewalks and multi-use paths.

For inventory analysis, the northwest urban portion of the County can be divided into 2 general areas with different historical development patterns. The older area is west of I-205, east of the Willamette River and south of Highway 224. The newer area is the

Clackamas Town Center and the area east of I-205 and north of Hwy. 212/224.

The inventory shows that of the 42 arterials and collectors in the north urban study area, 36 have sidewalks. Of the 36 roads with sidewalks, 24 have sidewalks on one side and 9 have sidewalks on both sides for a varying distance. Only 4 of the urban arterials and collectors inventoried have sidewalks their entire length.

There are 47 miles of arterials and 45 miles of collectors in the unincorporated urban area. There are 18.07 miles of sidewalks on arterials and 8.02 miles on collectors. By general historical development area, 63 percent of the total miles of sidewalks on arterials are in the new area; for collectors, the percentage is 57 percent.

By road classification, 88 percent of arterials and 76 percent of collectors have sidewalks for various lengths.

The inventory shows the older area has fewer pedestrian facilities than the new area. This is most evident in the Oak Grove, Jennings Lodge and Oatfield Ridge neighborhoods and along McLoughlin Boulevard. Much of the older area was developed prior to County Planning ordinances passed in 1971 that required sidewalks for most new development. The area also developed in an era when it was still considered a rural environment. Sidewalks were typically not part of this early development pattern. Local streets are still perceived as country lanes by many residents.

Residential development since 1971 in the older area has occurred primarily through partitioning and small subdivisions. There are few remaining large tracts of vacant land, so there has been redevelopment of existing developed parcels--infill. Typically, development is on sites 1 acre or smaller. A partition or subdivision on an infill lot may add 50-100 feet of sidewalk.

Waiver provisions in the 1974 and 1979 Zoning and Development Ordinance allowed much of the development to occur without sidewalks. The result is that very few existing local streets had sidewalks installed at the time of new development. The inventory shows that on streets in this area, infill has added approximately 3000 feet of sidewalk since 1971! The sidewalks obtained are scattered and generally provide no connections to pedestrian destinations or arterials or collectors.

The inventory analysis also shows that in the older portion of the urban areas there is a comparatively small amount of developable land remaining and these parcels are dispersed throughout the area. This limits the opportunity to add to the pedestrian network through new development. Therefore, adding to the network in this area will require substantial retrofitting of sidewalks along existing arterials, collectors and local streets.

In contrast, most new development in the Town Center Area and east of I-205 has sidewalks. Prior to the late seventies, this area was primarily undeveloped. Whereas development in the old area during this period was infill, development in the new area usually occurred on large tracts of vacant or mostly vacant land. Accordingly, more sidewalks have been constructed through the development process. New residential development typically involves the creation of a local street connecting to a collector or arterial, or another local street with sidewalks. Sidewalks also are required for industrial and commercial development which has been rapidly increasing in the last two decades.

The newer area has the most potential for growth because there are still large parcels of vacant or underdeveloped land. To create a pedestrian network, some retrofitting will be required, but as the large parcels in the area develop and new streets are improved to county standards, additional pedestrian facilities on the proposed network will be constructed.

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The inventory of pedestrian facilities for the rural portion of the County was done in conjunction with the Pavement Management System used by the Road Department. Shoulder widths and condition are part of the inventory, and were not inventoried specifically for this Plan. There are no sidewalks in the rural area. Road shoulders are used by walkers. Pedway Program improvements have concentrated on the areas around schools. Specific pedestrian improvements have been on Meridian Rd., 232nd. Avenue, Redland Rd., Salmon River Rd., Coupland Rd., Jackknife Rd. and Grays Hill Road.

Overall, the inventory provides a clear picture that most roads within walking distance of major destinations such as schools, libraries, bus stops, and parks do not have adequate facilities for safe, convenient access by pedestrians. Improving the pedestrian network will therefore be a major priority of this Plan.

COMPREHENSIVE PLAN AND ZONING ORDINANCE

The Clackamas County Comprehensive Plan has supported construction of sidewalks along arterials and collectors, as well as construction of sidewalks along new roads and reconstruction since 1974. The 1980 acknowledged Plan provided greater detail with regard to specific roads, as did Plan amendments in 1989 and 1992.

The Clackamas County Zoning and Development Ordinance has required sidewalks on all streets in new development since 1971. However, use of rather generous waiver provisions have allowed development without sidewalks to occur in some areas, particularly in older more established neighborhoods. This is one reason there are fewer sidewalks in the older areas.

The long standing policies in the Comprehensive Plan and ZDO, as well as the County Pedway program are partly responsible for creating the existing pedestrian facilities shown on Map 1.

Oregons Transportation Planning Rule requires that a Transportation System Plan (TSP) for all transportation modes be completed by 1997. The Transportation System Plan must be incorporated into the Comprehensive Plan, and the Plan must include a pedestrian plan. This Pedestrian Plan is part of Clackamas Countys Transportation System Plan, and portions will be adopted into the Comprehensive Plan. It also requires changes in the Countys Zoning Ordinance to make development more pedestrian friendly.

In 1994, the Zoning and Development Ordinance was amended to comply with the Transportation Planning Rule. The 1994 Zoning and Development Ordinance provisions allow for fewer waivers. No waivers are allowed for new development on any street within a mile of a school or park. Staff has found few areas west of I-205 where a local street is not within a mile of a school or park.

Other highlights of the 1994 Zoning Ordinance amendments include minimum sidewalk widths based on functional road class and adjacent land use, accessway requirements, and provisions for dedication and development of off-road sections of planned trails.

The stricter standards in the 1994 Zoning Ordinance have been the subject of much debate on development proposals and through community planning meetings in communities such as Oak Grove. As previously noted, there were waiver provisions prior to the Transportation Planning Rule amendments in 1994 that allowed some development to occur without sidewalks. The result has been very few new sidewalks in many areas and some streets have retained a country appearance. With the stricter 1994 standards, sidewalks are required on existing local streets whether or not they would connect to pedestrian destinations or other sidewalks.

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The Transportation Planning Rule was amended by the Land Conservation and Development Commission in April 1995. According to this Oregon Administrative Rule, the Zoning and Development Ordinance does not have to be amended again to meet the revisions because the County ordinances related to the Transportation Planning Rule have not been appealed.

The States new policy on sidewalks is that they shall be required on arterials, collectors and most locals in urban areas. The County Zoning and Development Ordinance is consistent with the new policy with the understanding the most allows for waivers when the criteria for a waiver are clearly specified.

This Pedestrian Plan will examine the impact of the 1994 standards on existing local streets, particularly the need for sidewalks on ALL local streets. As the policies in the pedestrian plan are debated and considered in conjunction with the needs of bicyclists, autos, trucks and narrow street standards, additional changes to the Zoning and Development Ordinance may be necessary. These revisions may be considered as part of the zoning ordinance amendments package proposed for the remainder of the transportation system plan the County is required to adopt by 1997.

PEDWAY PROGRAM

The County Board of Commissioners created the Pedway program in 1993. The program commits a portion of the County road fund to pay for bike and pedestrian improvements. The focus of the Pedway Program has been to improve pedestrian and bicycle access and safety, primarily around schools. Each year, potential projects are submitted by school districts, Citizens Planning Organizations, and citizens. Projects are evaluated and ranked by the Citizens Advisory Committee and approved by the Board of County Commissioners.

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The primary source of funding is the State gas tax allocation to the County. The County Commissioners have also contributed additional money above the 1 percent minimum to support the Pedway Program. Some projects also receive outside grants or are leveraged through joint projects with cities or the State.

One full-time staff person oversees the development and construction of all pedways and bikeways.

CITIZEN INVOLVEMENT

The Board of County Commissioners created a permanent Bike and Pedestrian and Bikeway Citizens Advisory Committee in 1990. The committee's mission is to promote and encourage safe bicycling and walking as a significant means of transportation in Clackamas County. Committee goals include the development of a coordinated system of safe and convenient bikeways and walkways, the stimulation of public awareness, budgeting strategies for bicycle and pedestrian projects and examination of current and future financing options. The Pedestrian and Bikeway Citizens Advisory Committee advises County staff and the Board of County Commissioners on all bicycle and pedestrian planning, implementation and maintenance issues. They also provide recommendations for Pedway Program projects, and are currently involved in the development of the County Bicycle and Pedestrian Plans.

There are 10 members of the Pedestrian and Bikeway Citizens Advisory Committee, with broad geographic representation. The County Planning Division and the Road Engineering Section provide staff support to the Citizens Advisory Committee.

The Bicycle and Pedestrian and Bikeway Citizens Advisory Committee will continue to be involved in all aspects of pedestrian planning in the County, including implementation of the Pedestrian Plan.

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**CHAPTER IV.
IMPLEMENTATION**

Through the Goals, Objectives, Strategies, and analysis of existing conditions, specific action items can be identified to implement the Plan. Actions will include proposed changes to the Comprehensive Plan, Zoning and Development Ordinance and a Capital Improvements Plan element for pedways. The capital improvements plan will be detailed in the next chapter.

COMPREHENSIVE PLAN AND ZDO REVISIONS

The Zoning and Development Ordinance was modified in 1994 to incorporate the requirements of the State Transportation Planning Rule. As previously noted, the Transportation Planning Rule was amended in 1995. The County is still in compliance. However, amendments to the Comprehensive Plan and Zoning Ordinance are necessary to help accomplish the vision of this pedestrian Plan. The most important changes are incorporating the Pedestrian Plan into the Transportation Element of the Comprehensive Plan, codifying changes in local street sidewalk requirements for new development into the Zoning Ordinance, and adopting a pedway capital improvement element in the County Capital Improvements Plan. These changes will set the foundation for achieving the following goals:

Goal 1: providing creating a safe and convenient network of pedestrian routes and access integrated with other transportation modes

Goal 2: Integrate pedestrian facilities into all planning, design and construction activities

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Goal 4: Increase the use of walking as a mode of transportation

Goal 5: Monitor and update the pedestrian plan.

LOCAL STREET POLICY

The pedestrian planning process included an evaluation of the Countys policy requiring sidewalks for new development on all existing local streets. The policy evaluation occurred for three reasons:

- results of the sidewalk inventory analysis, stark in showing only a few scattered sidewalks in some neighborhoods;
- urban development patterns, indicating little potential to achieve a system through new development with essentially a sidewalks everywhere policy;
- public comments negative to sidewalks on every local street.

Based on this evaluation, County staff recommends that a new local street sidewalk improvements policy be adopted as part of this Plan.

This recommendation is a significant departure from current policy, particularly because major amendments to the Zoning and Development Ordinance were just adopted in 1994. The policy change is an attempt to balance Transportation Planning Rule requirements with a pragmatic approach to improving pedestrian access in the County in a way that recognizes unique neighborhood character and funding limitations.

The current provisions requiring sidewalks on all local streets are unnecessarily severe and ineffective. The Zoning and Development Ordinance requires sidewalks on ALL streets, existing and new as part of development requirements (Section 1007). There are waiver provisions. In most cases, however, the waiver provisions are overridden by the requirement for sidewalks within 1 mile of all schools and parks. The result is the creation of

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scattered sections of new sidewalks with no logical relation to existing or proposed sidewalks where they are really needed.

Citizens have commented in several forums that local street characteristics obviate the need for sidewalks. Conditions include narrow streets with low traffic volumes. Many existing streets retain a rural character valued as important to neighborhood livability. Many local streets have no direct connections to pedestrian destinations or arterial or collector streets. Many citizens do not want sidewalks on these local streets. They believe construction of short unconnected segments is ineffective and not necessary for a viable pedestrian system and the sidewalks detract from neighborhood character.

Based on these factors, the County Department of Transportation and Development recommends that a new policy be adopted for development on existing local streets. The policy is:

Sidewalk improvements will be required on the frontage of an existing local street when the street is part of the essential pedestrian network for the County identified in the Comprehensive Plan.

Sidewalk improvements will be waived for single family development on existing local streets not shown to be on the essential pedestrian network.

The new policy does not affect the sidewalk requirement for new streets for any development. The policy also does not effect curb requirements that are an engineering issue related to drainage control and road structure.

The new local street policy will require changes to the current Comprehensive Plan and Zoning and Development Ordinance.

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ACTION NO 1: Amend the Transportation Element of the Comprehensive Plan to include the Pedesirian Plan Fall 1995

ACTION 2: Amend the Zoning and Development Ordinance to reference the Pedestrian Network Map and list of essential local streets in the Comprehensive Plan as the official map to determine where sidewalks are required for proposed development. Fall 1995

ACTION 3: Amend the Zoning and Development Ordinance to eliminate sidewalk requirements for land partitions on existing local streets unless identified on the pedestrian network map. Fall 1995

ACTION 4: Amend Zoning and Development Ordinance to reflect new standards for subdivisions. Short Subdivisions shall improve an existing local street when the street is on the pedestrian network. Fall 1995

ACTION 5: Adopt the Pedway Capital Improvement Plan as part of the County Transportation Capital Improvement Plan Fall 1995

PEDESTRIAN FACILITY DESIGN STANDARDS

Current Design standards for pedways are listed in Appendix A. The County follows the Oregon Department of Transportation pedestrian plan standards when possible.

The County Road Engineering Division is currently working on a Road Standards and Design Manual. Pedway standards should be incorporated into this manual. These changes will achieve the following Goals and Objectives:

Goal 1: Provide a.....safe and convenient network of pedestrian routes...

Goal 2: Integrate pedestrian facilities into.....design and construction activities.

ACTION 6: Include in the County Road Standards and Design Manual pedway design standards that safely accommodate pedestrians. The standards shall be consistent with the standards in the ODOT Pedestrian Plan and AASHTO. ongoing

ACTION 7: Amend the Zoning and Development Ordinance to reference the Clackamas County Road Standard and Design Manual as the official document for pedestrian improvement standards. Fall 1995

ACTION 8: work with the County Road Engineering Section to identify alternative pedway surface standards that provide greater flexibility in surface type while meeting AASHTO and ADA requirements. ongoing

EDUCATION AND PROMOTION

The Goals and Objectives call for the County to promote and educate people about the benefits of walking as a mode of transportation and maintenance responsibilities. Specific Goals are:

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Goal 4: Increase the use of walking as a mode of transportation.

Goal 5: heighten the awareness of pedestrians and ~~vehicle operators - motorists~~ and bicyclists of their rights and responsibilities for pedestrian safety, and for sharing both on-road and off-road facilities.

ACTION 9: in conjunction with regional pedestrian advocacy groups, other government agencies, school districts and the County sheriffs office, develop a education and safety program for the county cable access station. The video could be copied for use at schools etc.

ACTION 10: develop a brochure describing the benefits of walking for travel, and highlighting safety concerns. Brochures could be distributed at outdoor recreation stores, parks, schools, cities, community centers etc. .

ACTION 11: Include information about sidewalk obstructions and the ADA in the County Road Design Manual typical sidewalk drawing.

1995

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ACTION 12: Continue funding a program coordinator to staff the Pedestrian and Bicycle Advisory Committee and administer the Pedway program. This position will provide communication between the advisory committee and the Department of Transportation and Development, and other County departments.

Annually

ACTION 13: The County shall support the continuation of the County Pedestrian and ~~Bikeway~~ Bicycle-Citizens Advisory Committee to advise staff and the Board of County Commissioners on pedestrian and bicycle issues and serve as a forum for public input. ongoing

ACTION 14: Include funding for a project on bicycle and pedestrian safety and education in the next Capital Improvements Plan . 1995

MAINTENANCE

Proper maintenance of sidewalks is important for pedestrian safety and use and to help protect the investment of public funds in sidewalks and pedways.

Maintenance of sidewalks is currently the responsibility of the abutting property owner. Routine maintenance needs include sweeping, vegetation control to maintain adequate sight distance

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and clearances, and root control to prevent sidewalk surface damage. Property owners also are responsible for repairing or replacing damaged or worn out sidewalks abutting their property.

The County is responsible for the maintenance of pavement surfaces, traffic signs and signals, and surface water drainage on county roads.

The Plan includes a specific goal to address the importance of maintenance:

Goal 3: Maintain pedestrian facilities to ensure safety and encourage use

The actions needed to accomplish this goal are described below.

ACTION 15: Prepare and distribute a brochure describing sidewalk maintenance responsibilities for property owners.

ACTION 16: Coordinate utility installation and repair to ensure sidewalk cuts are backfield with the same original surface, flush with the surrounding sidewalk grade.

ACTION 17: The County shall continue to respond to reports by the public and others of walkway problems. The Clackamas County Road Use Ordinance is the authority for implementation and enforcement of maintenance requirements. Pursuant to the Road Use Ordinance, the county shall notify property owners of the report and responsibility for maintenance. Failure to comply with the Road Use ordinance shall be grounds for a hearing before the County Code Enforcement Hearings

Officer or proceedings in Circuit Court.
ongoing

ACTION 18: The County Road Department, Road Engineering Section and Community Environment Section shall develop criteria for assessing sidewalk condition for the purpose of enforcing maintenance through the Road Use ordinance 1995-96

ACTION 19: As part of its maintenance program, the County shall continue to repair or relocate faulty drains at intersections where the water backs up onto the curb cut or into the crosswalk.
ongoing

ACTION 20: The County shall maintain signs and pavement markings related to pedestrians in readable condition.
ongoing

ACTION 21: The County shall properly maintain traffic signals on streets with sidewalks and crosswalks.
ongoing

ACTION 22 Continue maintenance, including sweeping and striping of pedways that are part of the road surface

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**CHAPTER 5
PEDWAY CAPITAL IMPROVEMENT PLAN**

The heart of the Plan is the creation of a networked system of pedestrian facilities. Because existing ~~walkways~~ ~~sidewalks~~ do not form a network, a capital improvements program is required to construct the necessary facilities where they cannot be constructed at the time of new development or new road construction or road reconstruction. Pursuant to ACTION 5, The Pedway Capital Improvement Plan will be adopted as an element of the County's Transportation Capital Improvements Plan.

Purpose

The Capital Improvement Plan identifies, prioritizes, and sets a construction timetable for the projects identified as part of the proposed essential pedestrian network. The Capital Improvements Plan also will:

- facilitate better coordination with cities, special districts, the State and other affected agencies to maximize the investment of public resources and minimize conflicts;
- increase public awareness of the sidewalk capital construction and financing program.

Periodic Review and Update

Goal 6 of the plan requires the county.....to monitor and update the pedestrian plan. The Capital Improvement Plan and Program will be reviewed and updated as projects are completed, revenue and costs estimates are revised, unanticipated moneys like grants become available, and the public's priorities change. The Board of County Commissioners has final approval authority for the Capital Improvements Plan and the expenditure of funds. The

Board may amend the Capital Improvements Plan at any time to reflect changing conditions and priorities.

Specific actions to assure Goal 6 is met are:

ACTION 23: Update the pedestrian facility inventory every 3 years.

ACTION 24: Develop a method to maintain an updated inventory of new sidewalks obtained through development, new or reconstructed road projects and capital improvement projects.

begin in 1995

ACTION 25: Review pedestrian accident data in the projects priorities evaluation of the Capital Improvements Plan.

every
3 years

ACTION 26: Review new land use development to determine impacts on plan priorities in the Capital Improvements Plan.

Ongoing

ESSENTIAL PEDESTRIAN NETWORK

The Bicycle and Pedestrian and Bikeway Citizens Advisory Committee, the public and staff have identified an essential pedestrian network necessary to meet the Vision of the Plan. Map 2 shows the proposed Essential Pedestrian Network. The network will provide direct access to most major pedestrian destinations.

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The network includes arterials and collector roads and select local streets pursuant to the recommended new local street policy. The significance of roads on the network is that while these roads may not have been initially developed with sidewalks, it is now deemed necessary to add or complete sidewalks along them. Sidewalks along these streets will not be waived in the development process.

All roads in the urban area were reviewed to determine which would be part of the essential pedestrian network. Factors of consideration included the functional classification of the road, location of schools and parks, commercial land uses, transit stops, connectivity between arterials or collectors and Metro 2040 plan designations, areas with vacant land, and streets where filling gaps would add to the system. The proposed network will meet Transportation Planning Rule requirements for sidewalks on arterials, collectors and most local roads.

Specific local streets are identified in Appendix B

In addition to the improvements proposed in the Capital Improvements Plan, sidewalks will continue to be required for new development and road reconstruction on roads comprising the essential pedestrian network.

Also, pursuant to Strategy 1:2:4, the County will work with county and city park districts and Metro on the acquisition and development of multi-use paths. Multi-use trails are an integral part of the County's proposed pedestrian network. The Portland Traction Line and the Molalla River Pathway are proposed as multi-use facilities.

CAPITAL IMPROVEMENT 20 YEAR PROJECTS

The Capital Improvement Plan lists the proposed sidewalk construction projects for the next 20 years. Because of financial constraints, the 20 year plan will not complete all the projects

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necessary to complete the essential pedestrian network. Initially, they will continue the focus started in the Pedway Program to improve safety around schools and will form an integral part of the proposed network.

Evaluation Criteria

The estimated cost of the improvements exceeds existing and anticipated revenues. The limited financial resources constrain the number of projects that can be constructed annually. Therefore, to prioritize projects for the Capital Improvements Plan, evaluation criteria were developed to rank projects. A discussion of the evaluation criteria is found in Appendix C.

The Pedestrian and Bikeway Citizens Advisory Committee and the public identified several roads that should be part of the pedestrian and bicycle network. Recognizing the limits of funding and the need for a network of pedestrian facilities, the Citizens Advisory Committee recommends that under certain circumstances, a bikelane will be considered an adequate interim pedestrian facility for Capital Improvements Plan purposes. Bikelanes, while not the most desirable pedestrian facility, do provide an area for pedestrians to walk relatively safely. Conversely, a sidewalk or pedway is not a bicycle facility. Furthermore, curbs and sidewalks in the wrong location may preclude future bike facility improvements. The criteria for allowing bikelanes to be a joint interim pedestrian facility are:

- sufficient width to allow pedestrians and bicyclists to pass;
- relatively slow traffic speeds;
- absence of sight distance problems or other road alignment problems.

Roads meeting these criteria will not be ranked or included in the 20 year Capital Improvements Plan. However, the CIP includes biannual review. These roads will be evaluated as part of the

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review to determine if changing road conditions warrant inclusion in the 20 year improvements plan.

The County roads that meet the standards for a joint facility are:

- | | |
|------------------|------------------------|
| 1. River Rd. | 4. Webster Rd. |
| 2. Oatfield Rd. | 5. Johnson Creek Blvd. |
| 3. Courtney Ave. | |

20 Year Projects

The projects identified in the list below and on Map 3 are planned for construction during the 20 year period covered by the Capital Improvements Plan. Map 4 shows the projected 20 year network based on these projects being completed. Project rankings are found in Appendix D.

The cost of the projects does not exceed the projected 7.5 million dollars available for pedestrian improvements during the 20 year period. If additional funds become available, new projects can be added as part of the Capital Improvements Plan review process.

20 YEAR PEDWAY CAPITAL IMPROVEMENTS PROJECTS			
ROAD	SEGMENT	COST	FUNDING SOURCE
High Priority			
1 Oak Grove Blvd	Rupert-99E	78,000	county
2 Thompson	Monroe-Fuller	114,000	county
3 Concord	River-Oatfield	487,000	county; grant
4 Johnson	Lake-Clackamas	185,000	county
5 Price-Fuller	King-Harmony	226,000	county; TC UR-p.o; SDC
6 Linwood	King-Johnson Creek	133,000	county
7 Wall St. (Colton)	Hwy. 211-Farris CT	655,000	county
8 Arista/Traction ROW	Milwauke-Gladstone		grants
9 Thiessen	Oatfield-Hill Rd	444,000	county
10 Courtney	River-99E	45,000	county
11 Lake	Webster-Johnson	129,000	county
12 Stanley	King-Willow	237,000	county
13 Ivy (Canby)	99W-SE13th	150,000	county
14 Roethe	99e-River	117,000	DR-porllon
15 Thiessen	Carol-Johnson	116,000	county
16 Johnson Creek Blvd	Bell-82nd	329,000	county; SDC

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17 North Clackamas Trail Medium Priority	Park Complex-Mather		TC&CI UR;grants;parks
18 Harmony	overpass-Milwaukie Ct.	96,000	county
19 Park	River-99E	30,000	county
20 Hill	All	556,000	county
21 Rusk	all	347,000	county
22 Hillcrest	Stevens-92nd	105,600	county; TC UR
23 Bell	King-Johnson Creek Blvd	221,000	county; grant
24 Stevens	92nd-Mt. Scott school	155,000	
25 Concord	Oatfield-LaBorila	105,000	county
26 Roots	Webster-Lark	190,000	rd.reconstruct
27 Courtney Low Priority	99E-Oatfield	44,000	county
28 92nd	City-to existing	180,000	SDC
29 122nd	Sunnyside-Hubbard		DR-partion
30 Monterey	finish south side		DR-all
31 132nd	Sunnyside-Hubbard		Development Review(DR)
32 Sunnyside	102nd-152nd		Grant
33 97th	Sunnyside-Lawnfield		DR-all
34 Thlessen	Webster-Anna Marie Ct	57,000	DR-all
35 Sunnybrook	split diamond		grant
36 142nd Ave	Sunnyside-south		DR-Sunnyside Village
37 152nd	Sunnyside-south		DR-Sunnyside Village
38 SE Hubbard Rd	Se 122nd-SE130th		DR-most
39 Salmon River Rd	Welches GS-Fairway Ave	350,000	county
40 Jennings	99E-River Rd	93,000	county

DR=Development
Review
UR=Urban renewal
TC= Town Center
CI= Clackamas Industrial Area
SDC=Systems Deveioption Charge

FUNDING OPTIONS

The key to a successful Capital Improvements Plan to establish the essential pedestrian network is funding. A limited number of sidewalks will be added to the network through new development. The majority of new pedways will be funded through the Capital Improvements Plan. Currently, the primary source of funding is through the state gas tax that is funneled to the County. The Oregon bicycle law requires a minimum of 1 percent of these funds received by the county be used for pedestrian and bicycle

improvements. The outlay from this source since the Pedway program began has averaged approximately \$750,000 a year. On average this funds 10 projects. This includes pedways and bike lanes. The Pedway program has leveraged this outlay through grants, road reconstruction projects and joint projects with local jurisdictions.

Outside funding is available from several sources. The status of these funds is subject to the Congressional budget process. Therefore, these funds should not be heavily relied on to fund the construction of the pedestrian network. They include:

- **Intermodal Surface Transportation Efficiency Act (ISTEA) funds** are federal transportation dollars from the Federal Gas Tax. They are available for regionally significant pedestrian projects. The dollars are administered through METRO, and are available for multi-use commute to work routes.
- **Community Block Grant funds** for bike and pedestrian projects. Funding is limited to low income neighborhoods.
- **Congestion Management and Air Quality (CMAQ) funds** are part of the ISTEA fund. They are available for projects that can be shown to result in cleaner air.

Local sources of funds include:

- **Local Improvement Districts:** formed by property owners on a street who want road improvements. Improvements can include sidewalks or pedways. The County could consider offering matching funds to leverage commitments from property owners. Criteria could be established for the percentage match.

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- **County Gas Tax:** A tax would require a vote in Clackamas County. A percentage of the moneys collected could be used for pedestrian and bicycle facilities improvements.
- **Bonds:** Voters could be asked to fund capital improvements through a bond measure. A key would be having improvements on major pedestrian routes in each general neighborhood. Like a county gas tax, this is a unlikely source of funds
- **Urban Renewal District:** within district boundaries, capital sidewalk improvements may be made using funds from the Clackamas Town Center and Clackamas Industrial Area Urban Renewal District.

ACTION 25: The County will actively seek outside funding to supplement the county funds for pedway capital improvements. ongoing

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APPENDIX A

CURRENT PEDWAY DESIGN STANDARDS

CLACKAMAS COUNTY

STANDARD DRAWINGS FOR
ROADWAY IMPROVEMENT

1990

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APPENDIX B

LIST OF LOCAL COUNTY ROADS ON THE ESSENTIAL SIDEWALK NETWORK

The Essential Sidewalk Network for the urban area consists of all arterial roads, collectors (whether major collectors or neighborhood collectors), and selected local streets. The significance of roads on the Essential Sidewalk Network is that while these roads may not have been initially developed with sidewalks, it is now deemed essential to add or complete sidewalks along them. Sidewalks will not be waived along these roads in the development process. The County will encourage formation of Local Improvement Districts (LIDs) for property owners to build sidewalks, or the County will build a select few sidewalks on this network annually as the Capital Improvement Program allows.

It is recognized that if sidewalks can be retrofitted on only two of these local streets per year it would take in excess of 75 years to complete the network. The criteria for prioritizing County capital expenditures are important in determining which sidewalks are retrofitted each year. These priorities are set biannually in the County's Capital Improvement Program (CIP). The list below consists of those local streets identified on the map of the Essential Pedestrian Network. All new development on these streets will be required to construct sidewalks. The local streets will also be included in future capital improvements projects after the 20 year plan is completed, or additional money becomes available.

The following criteria were used for selection of the existing local streets appearing on this list:

- 1) Streets having commercial or industrial frontage. Extend Essential Network designation at least 1/4 mile from commercial or industrial zoning. CRITERION F
- 2) Streets with frontage that is more than 25% vacant. CRITERION V
- 3) Streets connecting to collectors or arterials and within 1/4 mile of an existing or planned school or park. CRITERIA S and P
- 4) Streets connecting two or more collectors, or arterials. CRITERION C

- 5) Streets connecting transit stops to neighborhoods. Extend Essential Network designation at least 1/4 mile from transit stop. CRITERION T
- 6) Streets where filling in small gaps in the existing or planned network of sidewalks would result in continuity. CRITERION G
- 7) Streets are in a Metro designated 2040 Regional Center or Town Center. CRITERION M

Existing local streets meeting the above criteria are listed below followed by the criteria that qualifies the street for inclusion.

Direct routes are specified to be provided through several excessively long blocks. Street connections are usually preferred, unless ODOT prohibits motor vehicular access. If a street connection is prohibited, or impractical due to topography, an accessway shall be provided.

- | | | | |
|-----|----------------|---|----------------------|
| 1. | 29th Ave., | (Evergreen Ave. to Park Ave.) | F all |
| 2. | 65th Ave., | (King Rd. to Monroe St.) | C all, T all |
| 3. | 70th Ave., | (Alberta St. to County line) | T all |
| 4. | 70th Ave., | (King Rd. to Monroe St.) | C all, T all |
| 5. | 74th Ave., | (King Rd. to Thompson Rd.) | S all, C all, T all |
| 6. | 77th Ave., | (King Rd. to Thompson Rd.) | C all, T all |
| 7. | 80th Ave., | (Harmony Rd. to McBride St.) | F all, M all, P all |
| 8. | 85th Ave., | (Monterey Ave. to Causey Ave.) | G all, M all |
| 9. | 85th Ave., | (Spencer Dr. to King Rd.) | G all |
| 10. | 90th Ave., | (Adams St. to Jannsen Rd.) | T all, F part, S all |
| 11. | 91st Ave., | (Johnson Creek Blvd. south to Con Battin St.) | F part, V part, G |
| 12. | 91st Ave., | (Tolbert St. to Jannsen Rd.) | T all, F all, S all |
| 13. | 92nd Ave., | Clark St., (82nd Dr. to 91st Ave.) | T all, F all, S all |
| 14. | 92nd Ave., | Hillcrest Rd., (Stevens Rd. to Stevens Rd.) | C all, S all |
| 15. | 93rd Ave., | (Clackamas Rd. to Tolbert St.) | F all |
| 16. | 94th Ave., | (Clackamas Rd. to Tolbert St.) | F all |
| 17. | 96th Ave., | (Stevens Rd. to Idleman Rd.) | C all, S part |
| 18. | 99th Dr., | (Stevens Rd. to Idleman Rd.) | C all, S part |
| 19. | 102nd Ave., | (Hwy 212 south to dead end) | T all, F all |
| 20. | 117th Ave., | (Sunnyside Rd. north to Westgate Dr.) | T future |
| 21. | 124th Ave., | (Sunnyside Rd. south to Mather Rd.) | F part, T future |
| 22. | 126th Ave., | (Sunnyside Rd. north to Imperial Crest St.) | T future |
| 23. | 128th Ave., | (Sunnyside Rd. south to Mather Rd.) | T future |
| 24. | 132nd Ave., | (Sunnyside Rd. north to dead end) | S part, T future |
| 25. | Abernethy Ln., | (Jennings Rd. to Glen Echo Ave.) | F part, T all, C all |

26. Adams St., (90th Ave. to 82nd Dr.) F all, T all
27. Addie St (Boardman Ave. to Jennings Rd.) F part, T all
28. Allen Rd., (Oatfield Rd. to Wallace Rd.) T all
29. Ambler Rd., (82nd Dr. north to dead end) F all, T all
30. Arista Dr., (Courtney Ave. to Oak Grove Blvd.) C all, S all (2), F part
31. Arista Dr., (Jennings Ave. to Boardman Ave.) F part, T all
32. Arista Dr., (Oak Grove Blvd. to Creighton Ave.) F part, S part
33. Ash St., (Willamette Ave. to Kellogg Rd.) V part
34. Battin St., (92nd Ave. west to dead end) F all, V part
35. Battin St., Malloy Pl., (Fuller Rd. to dead end) F all
36. Bluff Rd., Denny St., Laurie Ave., (Courtney Ave. to Cottonwood Park) P
all
37. Boardman Ave., (River Rd. to school accessway) F part, T all, S part, C
part
38. Boyer Dr., (82nd Ave. to 85th Ave.) F part, T all
39. Cardinal St., (Ash Ave to Crestview Ave.) V part
40. Carpenter Dr., (120th Ave. to Capps Rd.) F all, C all
41. Casa Del Rey Dr. and 51st Ave. (Lake Rd. to N.C. Park) T all, P all
42. Cason Ln., Charolais Dr., (Cason Rd. to Webster Rd.) C all, T part
43. Cedar Ave., (Oak Grove Blvd. to Maple St.) S all
44. Center Ave., (Hill Rd. to Aldercrest Rd.) V part
45. Chestnut St., (McLoughlin Blvd. to Oatfield Rd.) C all, T all, F part
46. Chestnut St., Woodland Way, Pine Ln., (McLoughlin Blvd. to Bunnell Park)
F part, T all, P all
47. Church St., (92nd Ave. to 94th Ave.) F all, T all, S all
48. Clackamas Rd., (SPRR west to I-205 ROW) T all, F all, S all, G part
49. Clackamas Rd., (Webster Rd. west to Stohler Rd.) T all, V part
50. Clackamas St., (82nd Ave. westward to dead end) F part
51. Clatsop St., (82nd Ave. to Fuller Rd.) C all, F part, T all
52. Clayson Ave., (Portland Ave. to Oatfield Rd.) T all
53. Con Battin St., (92nd Ave. west to dead end) V part
54. Con Battin St., (Fuller Rd. eastward to dead end) F all
55. Concord Rd., (Oatfield Rd. east to Wanda Dr.) S part, T part
56. Cornwell Ave., Garden Ln. (82nd Ave. to Fuller Rd.) F part, T all, C all
57. Cornwell St., (82nd Ave. to 80th Ave.) F part, T all, V part
58. Courtney Ave., Fairoaks Ave., Fairoaks Way, (River Rd. to Cottonwood
Park) T part, P part
59. Creighton Ave., (River Rd. to Rupert Dr.) T all
60. Cypress Ave., (Webster Rd. to Johnson Dr.) C all, T part
61. East Ave., Risley Ave., Orville Ave., (Oak Grove Blvd. to Concord Rd.) F
part, C all, G part
62. Evergreen Ave., (McLoughlin Blvd. to Oatfield Rd.) F part, C all
63. Evergreen St., (River Rd. to PTC ROW) T part, F part
64. Fern Ave., (67th Ave. to 72nd Ave.) T all

65. Fir Ave., (67th Ave. to 72nd Ave.) T all
66. Ford St., (122nd Ave. to 130th Ave.) F all, C all, G part
67. Glen Echo Ave., (Portland Ave. to 1/4 mile west of River Rd.) F part, C part, T part, V part
68. Glencoe St., (82nd Ave. to 79th Ave.) F part, T all
69. Gray St., (82nd Ave. to dead end) F part
70. Greenview Ave., (Thiessen Rd. to Clackamas Rd.) C all
71. Hager Ln., (Oatfield Rd. to Risley Ave.) T part
72. Harmony Dr., (Fuller Rd. to McEachron Ave.) S part, T part
73. Harold Ave., (Concord Rd. to Roethe Rd.) S part, C all
74. Herbert Ct., (82nd Dr. west to dead end) F all, T all
75. Hinkley Ave., (82nd Ave. to Fuller Rd.) F part, T all, C all
76. Hinkley Ave., (92nd Ave. west to dead end) F all, V part
77. Holly Ave., (McLoughlin Blvd. to Oatfield Rd.) C all, T all, F part
78. Hull Ave., (Wilmot Rd. to Oatfield Rd.) F part, S part (2), C part, T part
79. Ina Ave. (McLoughlin Blvd. to accessway to school) F part, S all
80. Jannsen Rd. (82nd Dr. west to I-205 ROW) F all, T all, G part
81. Jennings Ave., (River Rd. westward 1/4 mile) T all
82. Jennings Ave., (Fragrance Ave., (Webster Rd. to Strawberry Ln.) C all, T part
83. Johnson Rd., (Clackamas Rd. to Roots Rd.) C all, T part
84. Jordan Ave. Needham Ct., (Linwood Ave. to Bell Ave.) C all, T all
85. Kellogg Ave. (Oak Grove Blvd. to Risley Ave.) F all,
86. Kellogg Cr. Dr. Russcliff Rd. (N.C.Park to end of Russcliff Rd.) P all, S all, V part
87. Kellogg Rd. (Aldercrest Rd. to Willamette Ave.) V part
88. King Rd. (82nd Ave. to Owen Dr.) F part
89. Kuehn Rd. (Lake Rd. to Aldercrest Rd.) connect two segments with accessway over cliff C all, T part, V part
90. La Bonita Way (Concord Rd. to Thiessen Rd.) F part,
91. Lamphier St., (Bell Ave. to 82nd Ave.) F part, C all
92. Lark Ave., (Clackamas Rd. to Roots Rd.) C all, T part
93. Lee Ave. and Ruby Dr., (Oak Grove Blvd. to Risley Park) F part, S part, P part
94. Lee Ave. (Courtney Ave. to Oak Grove School) S all
95. Linden Ln. Chestnut St., Park Rd., (Courtney Ave. to Bunnell Park) P all
96. Lindy St. (82nd Ave. to dead end) F part, T all
97. Loeffelman Rd. (Oatfield Rd. to Briggs St.) T all
98. Mabel Ave. (Webster Rd. west 1/4 mile) T all
99. Mangan Dr. Water Ave., (Evelyn St. to boat ramp) P all, F all, V part
100. Maple St. (Laurie Ave. to Rupert Dr.) F part, T all, S all
101. Maple St. (McLoughlin Blvd. to Oatfield Rd.) C all, T all, F part
102. Maple St. (Woodland Way, Walnut St., (McLoughlin Blvd. to Bunnell Park) F part, P all

103. Maplehurst St. (Monroe St. to McEachron Ave.) S part, V part
104. Marigold St., Primrose Ave., (Johnson Rd. to back of school) S all
105. McBride St. (Southgate St. to 82nd Ave.) F part, T part, S part, M all
106. McEachron Ave. (Maplehurst St. to South 1400 Ft.) S part, V part
107. McNary Rd. (Oatfield Rd. to Norma Rd.) T part, S part, G part
108. Meldrum Ave. (Glen Echo Ave. to Abernethy Ln.) F part, T all, C part
109. Michael Dr. (Fuller Rd. to McEachron Ave.) S all, T all
110. Molt St., Aldercrest Ct. (Webster Rd. to Thiessen Rd.) C all, T part
111. Naef Rd. (River Rd. to Wallace Rd.) F part, C part, T all
112. Naef Rd. Oetkin Rd., (Oatfield Rd. to Thiessen Rd.) C all, T part
113. Needham St. (Linwood Ave. to Bell Ave.) C all
114. Nixon Ave. (Oatfield to 1/4 mile south) T part
115. Norma Rd. Cordova Ct., (Oetkin Rd. to McNary Rd.) S all, V part
116. Oakland Ave. Viewcrest Dr. (Oatfield Rd. to Norma Rd.) T part, S part
117. Orchard Ln. (82nd Ave. eastward to dead end) F all
118. Otty St., 73rd Ave., Drew Ave. (Bell Ave. to 82nd Ave.) F part, C all, T part
119. Overland St. (Linwood Ave. to 82nd Ave.) F part, C all, T all, P part
120. Owen Dr. (King Rd. to Marcus St.) G all
121. Park Ave. (Oatfield Rd to 32nd Ave.) T all
122. Pinehurst Ave. (Oatfield Rd. to 1/4 mile east) T all
123. Portland Ave. (Glen Echo Ave. to Clayson Ave.) S all, C part
124. Queen Rd. (Linwood Ave. to 70th Ave.) T all
125. Raymond St. (Harold Ave. to Oatfield Rd.) T all
126. Risley Ave. (River Rd. to Garland Ln.) F part, P part, T all, C part
127. River Dr. (River Rd. westward 1/4 mile) T all
128. River Forest Rd. (River Rd. to intersection with River Forest Place) T all
129. Robin Rd. (Oatfield Rd. east to Wanda Dr.) S part
130. Roethe Rd. (Oatfield Rd. east to Byron Dr.) T all, S part
131. Rupert Ave. (Oak Grove Blvd. to Creighton Ave.) F part
132. Rupert Dr. (Courtney Ave. to Oak Grove Blvd.) C all, F part
133. San Marcos Ave. Delrey Ave., (Webster Rd. to Cypress Ave.) T part
134. Silver Springs Rd. (River Rd. to Oatfield Rd.) push street through across
McLoughlin Blvd. C all, F part, T part
135. Southgate St. (82nd Ave. to Fuller Rd.) F part, T part, S part, M all
136. St. Helens St. (90th Ave. to 82nd Dr.) F all, T all
137. Stanley Ave. (Monroe St. to Johnson Creek Blvd.) C all, T part
138. Stephanie Ct., (Fuller Rd. to dead end) T all, S all, M all
139. Sunnyside Dr. (82nd Ave. to Fuller Rd.) F part, T part, P part, M all
140. Swain Ave. (River Rd. to Arista Dr.) T all P all
141. Tiara Dr. Bonnie Way and Topaz Ave., (Lake Rd. to Thiessen Rd.) C all, P
part, S part
142. Tolbert St. (94th Ave. west to dead end) F all, T all, S all
143. Topaz Ave. Chickory St., Carol Ave., Cypress Ave., Topaz Ave., (Thiessen
Rd. to Clackamas Rd.) C all, P part

144. Torbank Rd. (River Rd. to McLoughlin Blvd.) push street through C all, T all, S part
145. Valley View Terrace (Sunnyside Rd. north to Otty Rd.) T part, F part, C future
146. View Acres Rd. (Oatfield Rd. to Hill Rd.) C all, S part
147. Vineyard Rd. (River Rd. to Harold Ave.) F part, C part, T all
148. Wabash Ave., (Silver Springs Rd. to Torbank Rd.) S all
149. Wallace Rd. (Thiessen Rd. to Viewcrest Dr.) S part
150. Walnut St. Bunnell Ave., Park Entrance, (Rupert Dr. to Bunnell Park) S all, P all
151. Westview Ave. (Arista Dr. to McLoughlin Blvd.) require accessway through to McLoughlin Blvd. F part, T part
152. Wichita Ave. (King Rd. to Johnson Creek Blvd.) C all, P part, T part
153. Willamette Ave. (Fernridge Ave. east to dead end) V part
154. Wilshire St. Tamarack Way and Bevington Ave., (Webster Rd. to Thiessen Rd.) C all, T part, P part

**APPENDIX C
DRAFT PEDWAY PROJECT EVALUATION CRITERIA**

CRITERION	POINTS
A. POTENTIAL USE:	
RESIDENTIAL ZONE DENSITY:	
• Multi-Family	5
• Single Family	3
DESTINATIONS:	
• School	10
• Other Major destinations {park, store, church, , library, bus stop, }	5 (each/max. 20)
DISTANCE TO DESTINATION:	
< 1/4 mile	10
>1/4 m. < 1/2 m	5
> 1/2 < 1 mile	3
B. SAFETY:	
TRAFFIC VOLUME	
• High > 3000 daily trips	10
• Med. > 1500	5
• Low <1500	3
SAFETY FACTORS:	
• Inadequate Sight distance	5
• narrow shoulders	5
• no pedestrian facility	3

C. COST EFFECTIVENESS:

- outside funding source 5
- coordinated w. planned road project 5

D. EXTRA CREDIT

- provides off road facility 2
- provides bike facility 2
- completes link 5

Explanation of Criterion:

1. POTENTIAL USE:

Projects with the most potential for pedestrian use receive the most points. Factors of consideration were residential zoning density, major destinations along the project route and the distance to the destination.

- **Density:** Higher density zones are usually located along higher volume streets and are closer to major pedestrian attractors like stores, transit and schools than low density neighborhoods. People living in multi-family units are more likely to rely on alternative modes of transportation such as walking.
- **Major Destinations:** Schools, parks, neighborhood convenience or video stores, libraries and transit stops are major pedestrian destinations. . These are travel trip attractors. Some of these destinations are typically within walking distance of most neighborhoods. Therefore, there is an opportunity to increase the use of pedestrian facilities to travel to these places.
- **Distance:** Time is a major consideration in deciding how to travel to a destination. National walking surveys show that 25

percent of all trips are less than 1 mile and 40 percent are less than 2 miles. Because time is an important variable in deciding which mode of transportation to use, distance is a key factor in the decision to walk and therefore in the potential use of a sidewalk.

2. SAFETY:

Projects on higher volume roads with unsafe conditions such as narrow shoulders or no pedestrian facility are given a higher priority than projects with low traffic volumes and no unusual safety conditions.

3. COST EFFECTIVENESS:

The funds available for capital improvements are limited. As identified in the Capital Improvements Plan, there are potential outside funding sources including grants, urban renewal district dollars, and joint projects with cities. The County must be flexible in selecting projects to take advantage of these opportunities to enable the County to get the greatest number of pedestrian facilities for the least cost. Points will be given to projects receiving outside funds.

4. EXTRA CREDIT:

Projects that complete a link in the network, provides a multi-use facility or off-road facility receive extra points.