

## Chapter 5 Pedestrians

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This chapter summarizes existing and future pedestrian needs in the City of Beaverton, outlines the criteria to be used in evaluating these needs, provides a number of strategies for implementing a pedestrian plan and recommends a pedestrian plan for the City of Beaverton. The needs, criteria and strategies were identified in working with the City's Traffic Commission and TSP Technical Advisory Committee. These committees and the public provided input regarding the transportation system in Beaverton, specifically exploring pedestrian needs. The methodology used to develop the pedestrian plan combined citizen and staff participation, specific Transportation Planning Rule requirements<sup>1</sup> and continuity to the regional pedestrian network?

### NEEDS

Sidewalks are provided on many of the arterial and collector roadways (see Figure 3-14) in the City of Beaverton, forming a basic existing pedestrian network. However, there are several gaps in the existing network where the sidewalks are discontinuous along a segment of roadway and the density of pedestrian facilities is not conducive to pedestrian travel. Sidewalks are linear along major streets with few direct, conflict-free access routes to activity centers. Continuity and connectivity are key issues for pedestrians in Beaverton since, generally, if there is a sidewalk available, there will be sufficient capacity. In other words, it is much more important that a continuous sidewalk be available than that it be of a certain size or type.

The most important existing pedestrian needs in Beaverton are direct linkages among various components of the existing pedestrian network, connectivity to the LRT stations and a pedestrian network between key activity centers in Beaverton. This includes safe, convenient crossings of large arterial streets which act as barriers to pedestrian movement. In the future, pedestrian needs will be similar, but there will be additional activity centers that will need to be considered and interconnected.

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<sup>1</sup> *Transportation Planning Rule, State of Oregon, DLCD, Sections 660-12-020(2)(d) and 660-12-045-3.*

<sup>2</sup> *Interim RTP Pedestrian Plan.*

## FACILITIES

Sidewalks should be built to current design standards of the City of Beaverton<sup>3</sup> (at least four feet for minimum width of sidewalks) and in compliance with the Americans with Disabilities Act (at least three feet of unobstructed sidewalk).<sup>4</sup> Wider sidewalks may be constructed in commercial districts or on arterial streets such as Murray Boulevard. Additional pedestrian facilities may include accessways on streets leading to LRT stations, pedestrian districts and pedestrian plazas, as defined in the *Transportation Planning Rule*<sup>5</sup> and the City of Beaverton Development Code<sup>6</sup>:

**Accessway:** One or more connections that provide pedestrian and/or bicycle passage either between streets or between a street and a building, school, park, transit stop or other destination.

**Pedestrian Connection:** A continuous, unobstructed, reasonably direct route between two points that is intended and suitable for pedestrian use. Pedestrian connections include but are not limited to sidewalks, walkways, accessways, stairways and pedestrian bridges.

**Pedestrian District:** A comprehensive plan designation or implementing land use regulations, such as overlay zone, that establish requirements to provide a safe and convenient pedestrian environment in an area planned for a mix of use likely to support a relatively high level of pedestrian activity. Such areas include but are not limited to: lands planned for a mix of commercial or institutional uses near lands planned for medium to high density residential use; or areas with a concentration of employment and retail activity, and which have or could develop a network of streets and accessways which provide convenient pedestrian circulation.

**Pedestrian Plaza:** A small, semi-enclosed area adjoining a sidewalk or a transit stop which provides a place for pedestrians to sit or stand. Plazas connect directly to adjacent sidewalks, walkways, transit stops or buildings.

**Reasonably Direct:** A route that does not involve a significant amount of out-of-direction travel for intended users. Out of direction travel is significant if it is more than 50 percent longer than the straight line between two points.

**Walkway:** A hard surfaced area intended and suitable for use by pedestrians.

These designations will be provided as the TSP is implemented. Any pedestrian districts, for example the downtown area, may be identified in further studies which address pedestrian issues.

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<sup>3</sup> *The City of Beaverton Development Code*, City of Beaverton, November 7, 1996

<sup>4</sup> *Americans with Disabilities Act*, Uniform Building Code.

<sup>5</sup> *Transportation Planning Rule*, State of Oregon, Department of Land Conservation and Development, OAR-660-12-005(2, 14 and 15).

<sup>6</sup> *The City of Beaverton Development Code*, Ordinance 3965, City of Beaverton, November 7, 1996.

## CRITERIA

Beaverton's Traffic Commission, the public and Technical Advisory Committee created and refined a set of goals and policies to guide transportation system development in Beaverton (see Chapter 2). Several of these policies pertain specifically to pedestrian needs:

Goal 2, Policy 1: Develop and implement public street standards that recognize the multi-purpose nature of the street right-of-way for utility, pedestrian, bicycle, transit, truck, and auto use and recognize these streets as important to community identity as well as providing a needed service.

*Develop and maintain a series of system maps and design standards for motor vehicles, bicycle, pedestrian, transit and truck facilities in Beaverton.*

Goal 2, Policy 2: Provide connectivity to each area of the City for convenient multi-modal access.

*Require the provision of an adequate local public street system for both residential and non-residential development. Give particular attention to large blocks of commercially developed properties to assure that local circulation has adequate public streets and is not forced to utilize only private parking and driveway areas or the major street systems to conduct local trips. Develop and maintain appropriate on-site loading, parking, and internal circulation standards for private development based upon adopted standards in the City's development code.*

Goal 2, Policy 3: Develop a safe, complete, attractive and efficient system of pedestrian ways and bicycle ways, including bike lanes, shared roadways, off-street pathways and sidewalks according to the pedestrian and bicycle system maps.

*Use Appendix I - Beaverton Bikeway and Pedestrian Facility Construction Standards in design of facilities. Conform to the design guidelines set forth in the "Guide for Development of New Bicycle Facilities" (current edition) as published by the American Association of State Highway and Transportation Officials (AASHTO) and the Oregon Bicycle Pedestrian Plan adopted by the Oregon Transportation Commission (OTC) and Tualatin Hills Park and Recreation District (THPRD). Bicycle and pedestrian facilities should be provided and designed to accommodate the unique requirements of various user groups and trip types (including school trips, commuter trips, neighborhood circulation trips, and recreation trips). Locale pathways to provide the "shortest path" between origins and destinations. Accommodate non-automobile movements specifically by bicyclists and pedestrians within neighborhoods. Sidewalks will continue to be the responsibility of fronting property owners. Maintain the opportunity for citizen groups to fund pathway improvements through the local improvement district process. Continue to recognize the importance of walking and bicycling as a form of transportation and recreation.*

Goal 2, Policy 5: When development or redevelopment of land occurs, provide bike and pedestrian facilities that are consistent with standards and policies of this plan.

Goal 3, Policy 5: Designate routes to schools for each school and any new residential project.

*School district ~~will~~ work with community and City in developing plans.*

Goal 3, Policy 6: Construct pathways only where they can be developed with satisfactory design components that address safety, security, maintainability and acceptable pathway use.

*Although pathways are encouraged to be separated and distant from major streets for most of their length, they are encouraged to converge at traffic controlled intersections for safe crossing. New construction of pathways along residential rear lot lines will not be encouraged unless no comparable substitute alignment is possible in the effort to connect common attractors or existing segment links. When pathways do follow rear lot lines, design treatments defined in the Beaverton Engineering Design Manual will be followed to minimize the impacts to private property.*

Goal 5, Policy 1: Construct transportation facilities to meet the requirements of the Americans with Disabilities Act.

These goals and policies are the criteria that all pedestrian improvements in Beaverton should be compared against to determine if they conform to the intended vision of the City.

## STRATEGIES

Several strategies were evaluated by the Traffic Commission and the public for future pedestrian projects in Beaverton. These strategies were aimed at providing the City with priorities to direct its funds toward pedestrian projects that meet the goals and policies of the City:

### **Strategy 1 - " Connect key pedestrian corridors to schools, parks, recreational uses and activity centers (public facilities, commercial areas, etc.)"**

This strategy provides sidewalks leading to activity centers in Beaverton, such as schools and parks, from the overall (1/2 mile) pedestrian network. This strategy provides added safety on routes to popular pedestrian destinations by separating pedestrian flow from auto travel lanes. These routes are also common places that children may walk, providing them safer routes. A key element of this strategy is to require all new development to define a reasonably direct, safe pedestrian path to parks, activity centers and schools within one mile of the development site. Reasonably direct is defined in the City of Beaverton Development Code as a route that does not involve a significant amount of out of direction travel. Out of direction travel is significant if it is more than 50 percent longer than the straight line between two points. Any gaps (off-site) will be defined (location and length).

### **Strategy 2 - " Fill in gaps in the network where some sidewalks exist"**

This strategy provides sidewalks which fill in the gaps between existing sidewalks where a significant portion of a pedestrian corridor already exists. This strategy maximizes the use of existing pedestrian facilities to create complete sections of an overall pedestrian network.

### **Strategy 3 - " Pedestrian corridors to transit stations and stops"**

This strategy puts priority on pedestrian connections to locations where transit can be accessed. Sidewalks which link the overall pedestrian network with transit stations or bus stops would be a priority.

### **Strategy 4 - Signalized Pedestrian Crossings**

This strategy focuses on providing pedestrian facilities which enhance the pedestrian's ability to cross major arterial streets that do not have controlled crossing locations. These improvements are likely to be made on streets that have high traffic volumes, multiple lanes and signals that are spaced relatively far apart. Crossing enhancements could include new traffic signals, pedestrian signals, improved pedestrian crossing warning, shortening crossing distances, medians and larger corner sidewalk areas.

### **Strategy 5 - " Pedestrian corridors that connect neighborhoods"**

This strategy puts priority on linking neighborhoods together with pedestrian facilities. This can include walkways **at** the end of cul-de-sacs and direct connections between neighborhoods (avoiding "walled" communities).

### **Strategy 6 - "One-sided to two-sided sidewalks"**

This strategy focuses on construction of pedestrian facilities that provide sidewalks on both sides of the roadway where **a** sidewalk only exists on one side of the roadway. The purpose of this strategy is to allow pedestrians **to walk** on both sides of the roadway.

### **Strategy 7- " *As* development occurs, construct sidewalks from developers"**

This strategy focuses on construction of pedestrian facilities **as** development occurs using financial funds from the developer. **A** significant emphasis in this strategy is for any new development to define connections/paths to the pedestrian grid.

### **Strategy 8 - "Pedestrian corridors that commuters might use"**

This strategy focuses on providing pedestrian facilities where commuters are likely to go such as local employment centers or leading to transit which provides access to regional employment centers.

### **Strategy 9 - "Reconstruct All Sidewalks to City of Beaverton Standards"**

This strategy focuses on upgrading any substandard sidewalks to current city Standards. Current standards are for four foot sidewalks to meet the City of Beaverton Development Code and **only** three foot sidewalks to meet American Disabilities Act<sup>7</sup> requirements. Several sidewalks exist that do not

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<sup>7</sup>*Americans with Disabilities Act*, Uniform Building Code.

meet the minimum five foot requirement. Fronting property owners are responsible for sidewalk maintenance where pavement has fallen into disrepair.

Table 5-1 provides an assessment of how each of the strategies meets the requirements of each of the goals and policies.

**Table 5-1  
Pedestrian Facility Strategies Comparisons**

Strategy	Goal-Policy						
	2-1	2-2	2-3	2-5	3-1	3-2	5-1
1. Connect key pedestrian corridors to schools, parks, recreational uses and activity centers (public facilities, commercial areas, etc.)	□	◆	■	□	■	□	□
2. Fill in gaps in network where some sidewalks exist	□	◆	◆	□	□	□	◆
3. Pedestrian corridors to transit stations and stops	□	□	■	□	□	○	□
4. Signalized pedestrian crossings	◆	□	□	□	□	□	■
5. Pedestrian corridors that connect neighborhoods	□	■	■	□	◆	■	□
6. One-sided to two-sided sidewalks	□	◆	◆	□	□	□	◆
7. As development occurs, construct sidewalk from developers	◆	□	□	■	□	□	□
8. Pedestrian corridors that commuters might use	□	◆	◆	□	□	□	○
9. Reconstruct all sidewalks to City of Beaverton standards	◆	□	□	□	□	◆	■

- Does not meet criteria
- Partially meets criteria
- ◆ Mostly meets criteria
- Fully meets criteria

## RECOMMENDED PEDESTRIAN FACILITY PLAN

Several strategies were evaluated by the City of Beaverton Traffic Commission and the public for future pedestrian projects in Beaverton. These strategies are aimed at providing the City with priorities to direct its funds toward pedestrian and bicycle projects that meet the goals and policies of the City. The Traffic Commission and the public ranked these strategies for pedestrians. Each commissioner and public participant were assigned a certain number of points that he or she could allocate to each of the strategies according to his or her vision of priorities for the City. The ranking of these strategies follows from most important to least important:

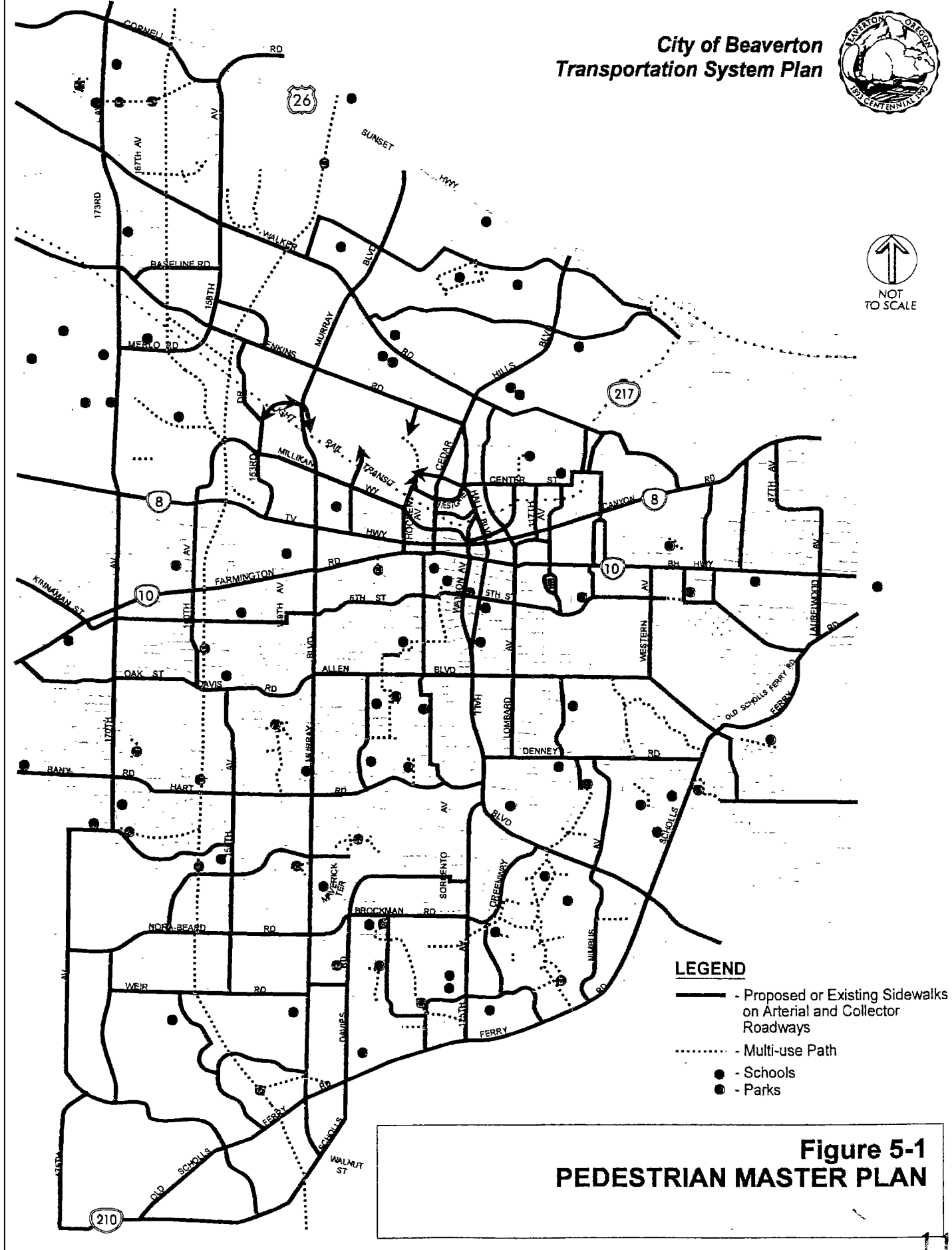
- Connect key pedestrian corridors to schools, parks, recreational uses and activity centers (public facilities, commercial areas, etc.)
- Fill in gaps in the network where some sidewalks exist
- Pedestrian corridors to transit stations and stops
- Signalized pedestrian crossings
- Pedestrian corridors that connect neighborhoods
- One-sided to two-sided sidewalks
- As development occurs, construct sidewalk from developers
- Pedestrian corridors that commuters might use
- Reconstruct all existing substandard sidewalks to City of Beaverton Standards

Based on a review of potential strategies and corresponding needs, City staff and citizens determined overall pedestrian improvement priorities. The City's priorities should be to connect key pedestrian corridors to schools, parks, recreational uses and activity centers; to eliminate gaps in the walkway network; and to provide pedestrian corridors to transit stations and stops. The City should also reconstruct existing intersections that are in need of handicap ramps to improve accessibility for all pedestrians.

Connecting key pedestrian corridors to schools, parks, recreational uses and activity centers (public facilities, commercial areas, etc.) was considered to be the highest priority for pedestrians in Beaverton. The second highest priority for pedestrians in Beaverton was filling in the gaps in the existing network where some sidewalks exist. The third highest priority for pedestrians in Beaverton was to provide pedestrian facilities to transit stations and stops. An action list was developed to focus on these three areas.

The Pedestrian Master Plan (Figure 5-1) is an overall plan and summarizes the desired framework plan to meet local and regional policy. From this Master Plan, a more specific, shorter term, Action Plan was developed which reflects the priority of strategies from the Traffic Commission and public participants and likely land use or transportation action project developments. The Action Plan (Figure 5-2 and Table 5-2) consists of projects that the City should give priority to when funding becomes available. As development occurs, streets are rebuilt and other opportunities (such as grant programs) arise, projects on the Master Plan should be pursued as well.

**City of Beaverton  
Transportation System Plan**



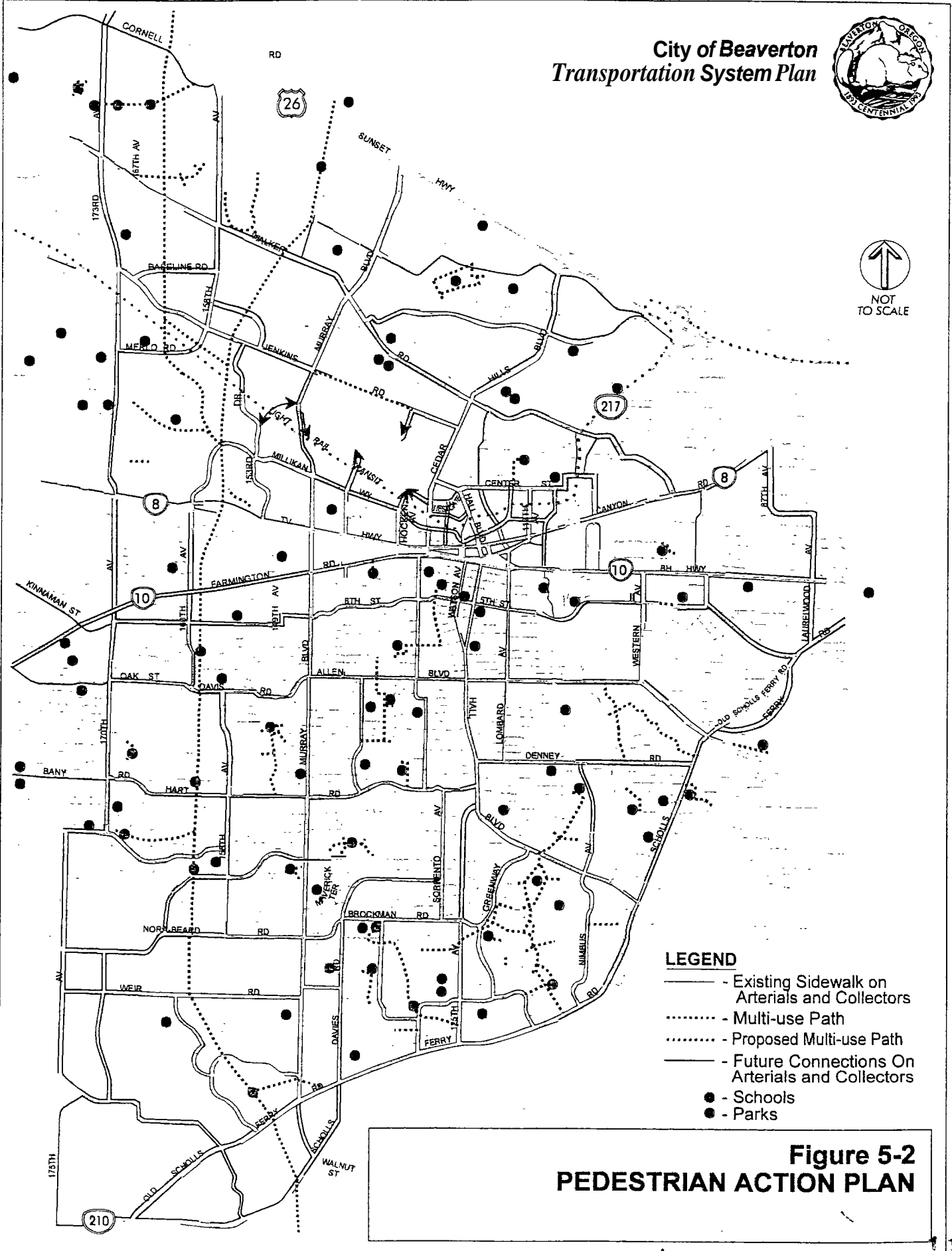
**LEGEND**

- - Proposed or Existing Sidewalks on Arterial and Collector Roadways
- ..... - Multi-use Path
- - Schools
- - Parks

**Figure 5-1  
PEDESTRIAN MASTER PLAN**



**City of Beaverton  
Transportation System Plan**



**LEGEND**

- Existing Sidewalk on Arterials and Collectors
- ..... Multi-use Path
- ..... Proposed Multi-use Path
- Future Connections On Arterials and Collectors
- - Schools
- - Parks

**Figure 5-2  
PEDESTRIAN ACTION PLAN**

## POTENTIAL PROJECT LIST

Table 5-2 outlines potential pedestrian projects in Beaverton. The City, through its Capital Improvement Program (CIP), joint funding with other agencies (Washington County, Metro) and development approval would implement these projects. The following considerations should be made for each new sidewalk installation:

- Applicable City design and construction standards should be met
- Sidewalks should be a minimum of five feet wide
- Landscape strips should be considered and are encouraged where feasible

**Table 5-2**  
**Pedestrian Action Plan Project Priorities**

Project	From	To	Approximate cost (\$1000's dollars)
<i>Priority: Connect key pedestrian corridors to schools, parks, recreational uses and activity centers</i>			
155th Avenue	Davies Road	Nora-Beard Road	357
<i>Priority: Fill in gaps in pedestrian network</i>			
Farmington Road/B-H Highway	Hocken Avenue	Erickson Avenue	42
Beaverton-Hillsdale Hwy (north side)	9 1 <sup>st</sup> Avenue	Laurelwood Avenue	64
TV Highway/Canyon Road (gaps on one-side)	170 <sup>th</sup> Avenue	87 <sup>th</sup> Avenue	323
158th Avenue (east side)	Blue Ridge Drive	approx 500 ft south	30
Cedar Hills Boulevard (west side)	Walker Road	Park Way	87
Cedar Hills Boulevard	Park Way	Butner Road	90
Murray Boulevard	Jenkins Road	Millikan Way	270
Denney Road	Nimbus Avenue	Scholls Ferry Road	210
Allen Boulevard (gaps)	Western Avenue	Scholls Ferry Road	60
Western Avenue	5 <sup>th</sup> Street	800 feet south of 5 <sup>th</sup>	48
5 <sup>th</sup> Street (south side)	Alger Avenue	Western Avenue	117
6 <sup>th</sup> Street/Division Street	Murray Boulevard	170 <sup>th</sup> Avenue	318
Davies Road (east side)	Scholls Ferry Road	Hiteon Drive	66
Scholls Ferry Road/Old Scholls Ferry Road (gaps)	Scholls/Old Scholls (west end)	Beaverton-Hillsdale Highway	1,650
SW Park Way (gaps)	Walker Road	ORE 217	186
110 <sup>th</sup> Avenue (gap-one side)	Beaverton-Hillsdale Hwy	Canyon Road	30
<i>Priority: Pedestrian corridors to transit stations and stops</i>			
153 <sup>rd</sup> Drive	Jenkins Road	Light Rail Transit	114
Connection Roadway	153 <sup>rd</sup> Avenue	Murray Boulevard	84

Millikan Way	Murray Boulevard	Hocken Avenue	180
160 <sup>th</sup> Avenue	TV Highway	Davis Road	312
117 <sup>th</sup> Avenue	Light Rail Transit	Center Street	30
Downtown Beaverton Connectivity collector roadways	Hocken Avenue/ TV Highway	110 <sup>th</sup> Avenue/ Cabot Street	900
Lombard Avenue	Center Street	Beaverdam Road	60
Jay Street	158 <sup>th</sup> Avenue	Jenkins Road	126
<b>Priority: Construct sidewalks with roadway improvement projects</b>			
125 <sup>th</sup> Avenue	Hall Boulevard	Brockman Road	168
Farmington Road	Murray Boulevard	172 <sup>nd</sup> Avenue	346
Farmington Road	172 <sup>nd</sup> Avenue	185 <sup>th</sup> Avenue	190
Nimbus Avenue	Denney Road	Cirrus Drive	120
Walker Road	ORE 217	Canyon Road	182
Walker Road (gaps)	173 <sup>rd</sup> Avenue	Mayfield Avenue	384
Davies Road	Old Scholls Ferry Road	Scholls Ferry Road	53
Murray Boulevard	Old Scholls Ferry Road	Scholls Ferry Road	96
Millikan Way	Hocken Avenue	Cedar Hills Blvd	50
170 <sup>th</sup> Avenue	Rigert Road	Alexander Street	449
170 <sup>th</sup> Avenue	Alexander Street	Baseline/Jenkins	319
170 <sup>th</sup> /173 <sup>rd</sup> Avenue	Baseline/Jenkins Road	Walker Road	192
173 <sup>rd</sup> Avenue	Walker Road	Cornell Road	206
173 <sup>rd</sup> Avenue	Cornell Road	Bronson Road	4s
Hart Road/Bany Road (gaps)	Murray Boulevard	170 <sup>th</sup> Avenue	206
Hart Road (gaps)	Hall Boulevard	Murray Boulevard	43
Cornell Road (one-side)	158 <sup>th</sup> Avenue	185 <sup>th</sup> Avenue	144
Baseline Road	158 <sup>th</sup> Avenue	166 <sup>th</sup> Avenue	96
Oak Street/Davis Road/Allen (gaps)	Murray Boulevard	170 <sup>th</sup> Avenue	144
Allen Boulevard (gaps)	Alice Lane	Western Avenue	98
Nora-Beard Road	175 <sup>th</sup> Avenue	155 <sup>th</sup> Avenue	245
Weir Road	175 <sup>th</sup> Avenue	160 <sup>th</sup> Avenue	216
175 <sup>th</sup> Avenue-Rigert Road	170 <sup>th</sup> Avenue	ORE 210	658
Merlo Road/158 <sup>th</sup> Avenue (gaps)	Jay Street	Walker Road	53
Jenkins Road	153 <sup>rd</sup> Avenue	Murray Boulevard	98
Hart Road/Bany Road	170 <sup>th</sup> Avenue	185 <sup>th</sup> Avenue	187
SW Beaverton collector roadway	Scholls Ferry Road	175 <sup>th</sup> Avenue	302
SW Beaverton circulation roadway	High Hill Lane	Nora-Beard Road	240
SW Butner Road (one side)	Murray Boulevard	Park Way	258
SW Downing Road (gaps on south side)	Murray Boulevard	Meadow Drive	36
Meadow Drive (one side)	Downing Road	Walker Road	33
Laurelwood Avenue/87 <sup>th</sup> Avenue	Canyon Road	Scholls Ferry Road	378

Jamieson Road	Pinehurst Drive/Cypress	Scholls Ferry Road	180
Cypress Street	Jamieson Road	Elm Avenue	69
Sexton Mountain Drive (gaps)	Maverick Terrace	Nora-Beard Road	258
96 <sup>th</sup> Avenue (one side)	Canyon Road	Beaverton-Hillsdale Highway	78
Pedestrian Action Plan Projects Total Cost:			<b>\$ 12,583</b>

### Complementing Land Development Actions

It is important that, as new development occurs, connections or accessways are provided to link the development to the existing pedestrian facilities in as direct a manner as possible. If a development fronts a proposed sidewalk (as shown in the Pedestrian Master Plan), the developer shall be responsible for providing the walkway facility as part of any half-street improvement required for mitigation. It is also very important that residential developments consider the routes that children use to walk to school and provide safe and accessible sidewalks to accommodate these routes.

### Safety

In the safety section of Chapter 8 Motor Vehicles, there is discussion regarding improving pedestrian safety through a safe route to school program. These programs have demonstrated benefits in improving safety for school access by children. A program is outlined in Chapter 8.