



Milwaukie Bicycle Wayfinding Signage Plan



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ACKNOWLEDGEMENTS

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PART 1 - PLAN FOR BIKEWAY SIGNAGE

INTRODUCTION

Bikeway signage is a cost-effective treatment to improve the City of Milwaukie’s bicycling environment. This plan is intended to provide the City with a comprehensive guide for the development and implementation of a wayfinding system that will enhance existing and proposed cycling infrastructure. Part 1 of this Plan provides general guidance on signage design – including dimensions, color, marking design, and layout of individual signs – that is consistent with regional and national standards and describes signing placement standards in the City of Milwaukie, along with potential landmarks and destinations within and around Milwaukie. Part 2 of this Plan provides detailed suggestions for sign locations and signed destinations.

BIKEWAY SYSTEM UPDATE

Part of this planning process included a review of the existing and proposed bikeway system adopted as part of the *2007 Milwaukie Transportation System Plan* (TSP) and identification of potential changes to the Bicycle Master Plan. This review was undertaken to ensure that wayfinding signage provides the best complement possible to the existing and future bikeway system. The proposed changes do not make major modifications to the system, but rather provide clarification to proposed routes or rerouting of proposed future facilities.

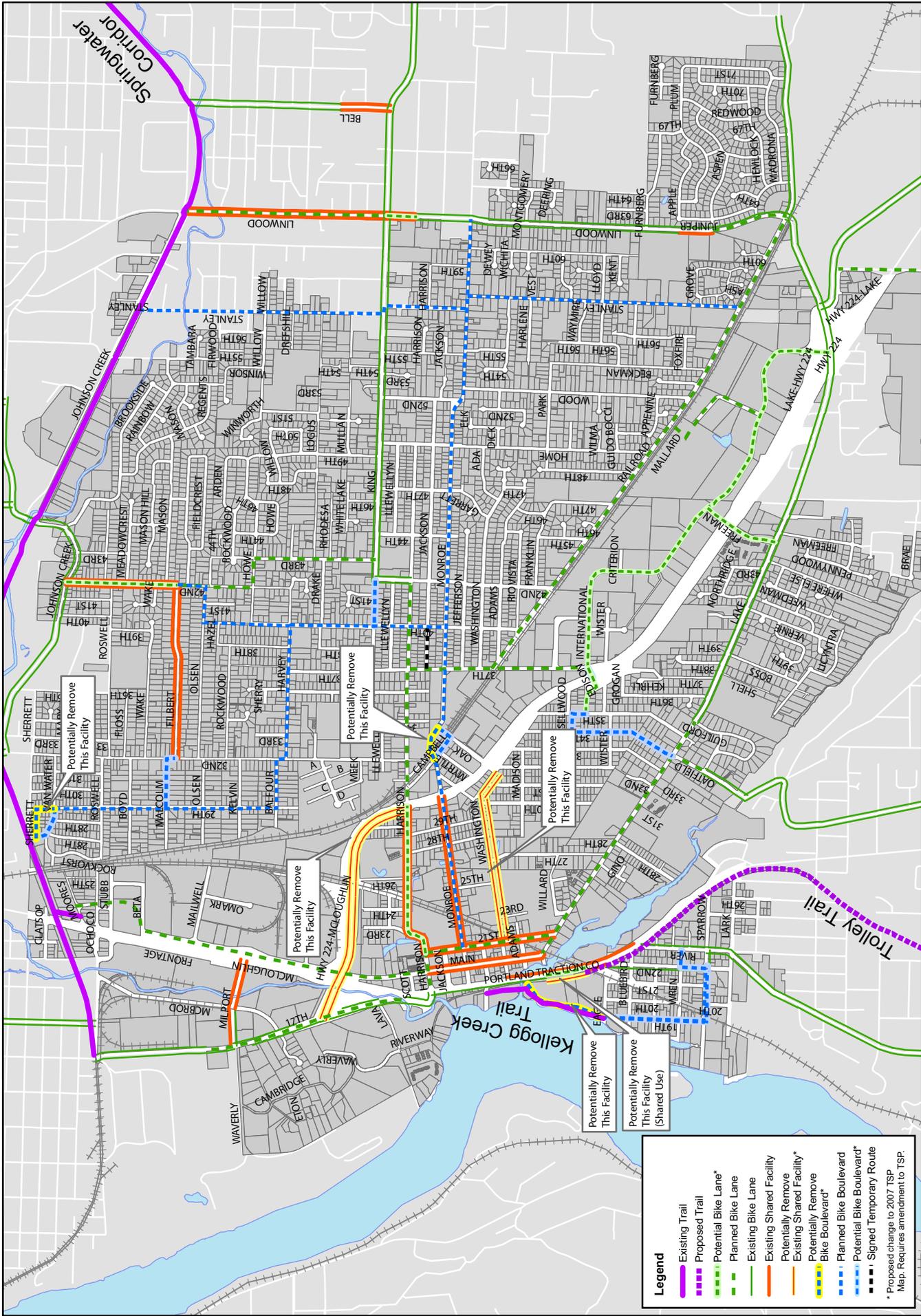
These changes were proposed by City staff and refined through public comment during development of this Plan. Map 1.1 shows the proposed facility additions and removals. ‘Planned’ bikeways are characterized as facilities approved during the TSP update; ‘potential’ facilities have not been adopted into the TSP. It is anticipated that staff will present amendments to the TSP Bicycle Master Plan for City Council adoption sometime in 2009.

NEED FOR ENHANCED BIKEWAY SIGNING

Signage can serve both wayfinding and safety purposes, including:

- Helping to familiarize users with the bikeway system;
- Helping users identify the best routes to significant destinations;
- Helping to address misperceptions about time and distance; and
- Helping to overcome a “barrier to entry” for people who do not bicycle often, but who want to get started.

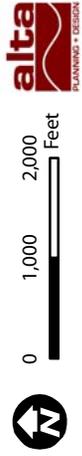
Placing signs throughout the city indicating to bicyclists their direction of travel, the location of destinations, and the riding time/distance to those destinations will make the bicycle system more accessible to all users. Wayfinding signs also provide visual cues to motorists that they are driving along a bicycle route and should use caution. Signs are typically placed at key locations leading to and along bicycle routes, including the intersection of multiple routes. Choosing the right number of signs is important, since having too many road signs can clutter the right-of-way. It is recommended that bikeway signs be posted at a level most visible to bicyclists and pedestrians.



Map 1.1 - Bicycle Master Plan Update (proposed)

Milwaukie, Oregon
 Milwaukie Bicycle Wayfinding Signage Plan

Source: City of Milwaukie, RUS
 Author: KAV
 Date: May, 2009



- Legend**
- Existing Trail
 - Proposed Trail
 - Potential Bike Lane*
 - Planned Bike Lane
 - Existing Bike Lane
 - Existing Shared Facility
 - Potentially Remove
 - Existing Shared Facility*
 - Potentially Remove Bike Boulevard*
 - Planned Bike Boulevard
 - Potential Bike Boulevard*
 - Signed Temporary Route
- * Proposed change to 2007 TSP Map. Requires amendment to TSP

BIKEWAY WAYFINDING SIGNAGE DESIGN GUIDANCE

Uniformity, legibility, and adherence to existing standards are among the elements to consider when determining the appropriate wayfinding sign design for Milwaukie. National, state, and local standards, along with local input, should guide the development of signage design.

National guidance on wayfinding signage is found in the *Manual on Uniform Traffic Control Devices* (MUTCD) and the American Association of State Highway and Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities*. State of Oregon guidelines come from the Oregon Department of Transportation (ODOT). Locally, the City of Portland has developed and employed a bicycle wayfinding system for many years. Many jurisdictions have based bicycling wayfinding signage designs on the Portland model.

MUTCD

The standards contained in this document are based on the updates to the 2003 MUTCD; it is anticipated that these updates will be adopted in 2009. The MUTCD uses highly specific language to classify design guidelines. The following terms are defined by the MUTCD:

Standard: A statement of required, mandatory, or specifically prohibitive practice regarding a traffic control device.

Option: A statement of practice that is a permissive condition and carries no requirement or recommendation.

Guidance: A statement of recommended, but not mandatory, practice in typical situations, with deviations allowed if engineering judgment or engineering study indicates the deviation to be appropriate.

For example, the speed limit sign Standard states that a speed limit sign will be placed at points of change from one speed to another, while Guidance suggests that warning signs be posted prior to a speed change to alert motorists of the upcoming change. A section on Options covers factors that may be used in addition to engineering studies to determine optimal speed limits.

Bicycle guide signs are defined by the following Standards, Options, and Guidance found in MUTCD Section 9B.20 Bicycle Guide Signs.

Bike Guide Signs

Option:

Bike Route Guide (D11-1) signs (see Figure 1, MUTCD Figure 9B-4) may be provided along designated bicycle routes to inform bicyclists of bicycle route direction changes and to confirm route direction, distance, and destination. If used, Bike Route Guide signs may be repeated at regular intervals so that bicyclists entering from side streets will have an opportunity to know that they are on a bicycle route. Similar guide signing may be used for shared roadways with intermediate signs placed for bicyclist guidance. Alternative Bike Route Guide (D11-1c) signs may be used to provide information on route direction, destination, and/or route name in place of the "BIKE ROUTE" wording on the D11-1 sign (see Figures 9B-4 and 9B-6). Destination (D1-1, D1-1a) signs, Street Name (D3) signs, or Bicycle Destination (D1-1b, D1-1c, D1-2b, D1-2c, D1-3b, D1-3c) signs (see

Figure 9B-4) may be installed to provide direction, destination, and distance information as needed for bicycle travel. If several destinations are to be shown at a single location, they may be placed on a single panel with an arrow (and the distance, if desired) for each name. If more than one destination lies in the same direction, a single arrow may be used for the destinations.

Guidance:

Adequate separation should be made between any destination or group of destinations in one direction and those in other directions by suitable design of the arrow, spacing of lines of legend, heavy lines entirely across the panel, or separate panels.

Directional Arrows

Standard:

An arrow pointing to the right, if used, shall be at the extreme right-hand side of the sign. An arrow pointing left or up, if used, shall be at the extreme left-hand side of the sign. The distance numerals, if used, shall be placed to the right of the destination names. On Bicycle Destination signs, a bicycle symbol shall be placed next to each destination or group of destinations. If an arrow is at the extreme left, the bicycle symbol shall be placed to the right of the respective arrow.

Guidance:

Unless a sloping arrow will convey a clearer indication of the direction to be followed, the directional arrows should be horizontal or vertical. The bicycle symbol should be to the left of the destination legend. If several individual name panels are assembled into a group, all panels in the assembly should have the same horizontal width.

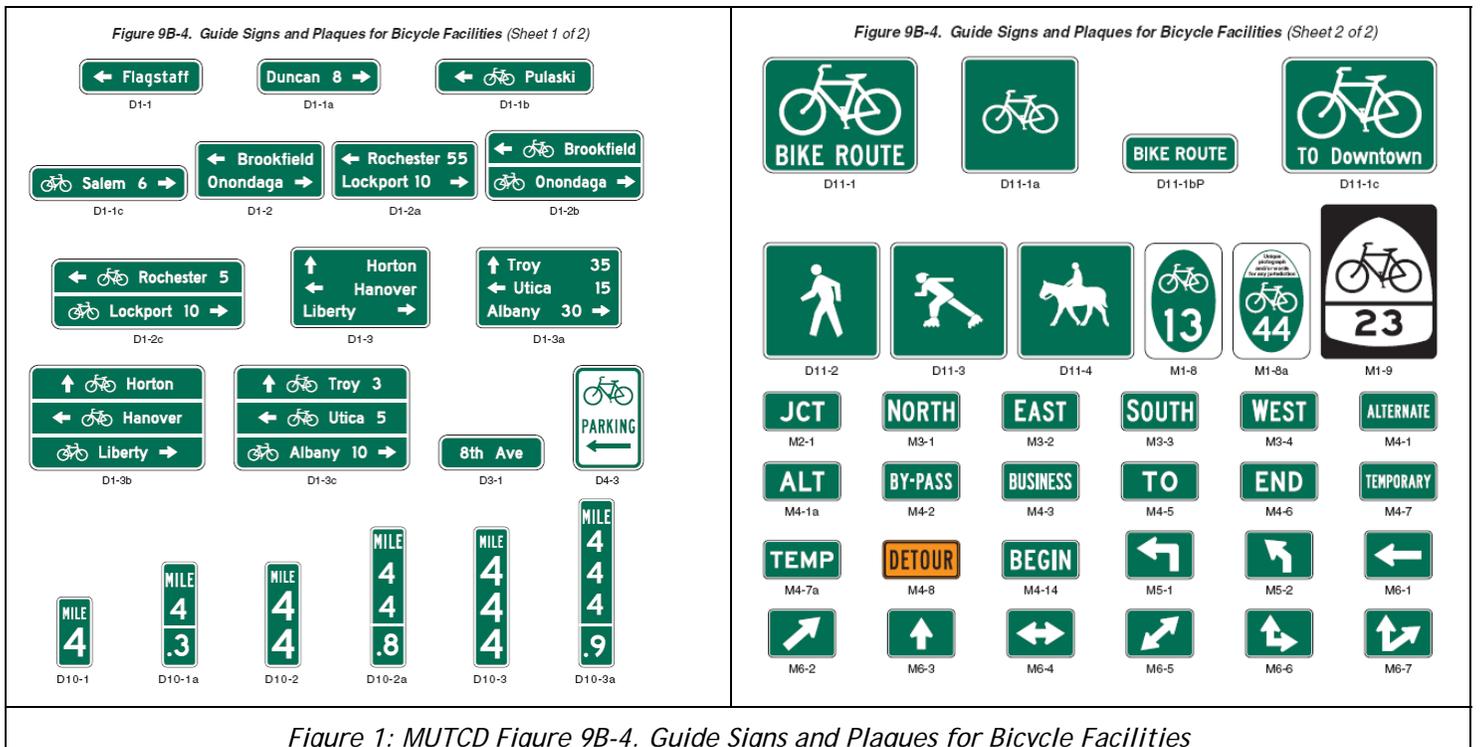


Figure 1: MUTCD Figure 9B-4. Guide Signs and Plaques for Bicycle Facilities

AASHTO

AASHTO recommends that typical (MUTCD-approved) bicycle route signs along designated bikeways include ‘destination plates’ directing cyclists to specific locations (e.g., downtown). In situations where a route is not officially designated as a bikeway, directional signage may still be used. Signs should be placed every 1,600 feet (500 meters), at all turns along the route, and at major signalized intersections. Typical sign placement is shown in Figure 2.

Oregon Department of Transportation

Shown in Figure 3, bike guide sign number OBD1-3c has been approved as a substitute for the D1-3c directional sign shown in the MUTCD. Signs within ODOT right-of-way must conform to these standards, though modifications to font and sign size can be approved by the city for use on signs not in ODOT right-of-way.

The ODOT sign is green and measures 24 inches by 30 inches with three horizontal dividers. Each divider has room for two lines of text with Series D¹ font, including one line for primary text at 2 inches in height and one line of subscript text at one inch in height. The ‘Series D’ font is from the ‘Standard Alphabet for Traffic Control Devices’ family and is supplied by the Federal Highway Administration. This sign can hold one to three destinations. If fewer than three destinations are displayed, the additional space may be used to accommodate longer destination names at the same font size by stacking labels across two lines. Appendix A contains a more detailed description of the ODOT bikeway sign, taken from Chapter 8 of the ODOT *Sign Policy* document.

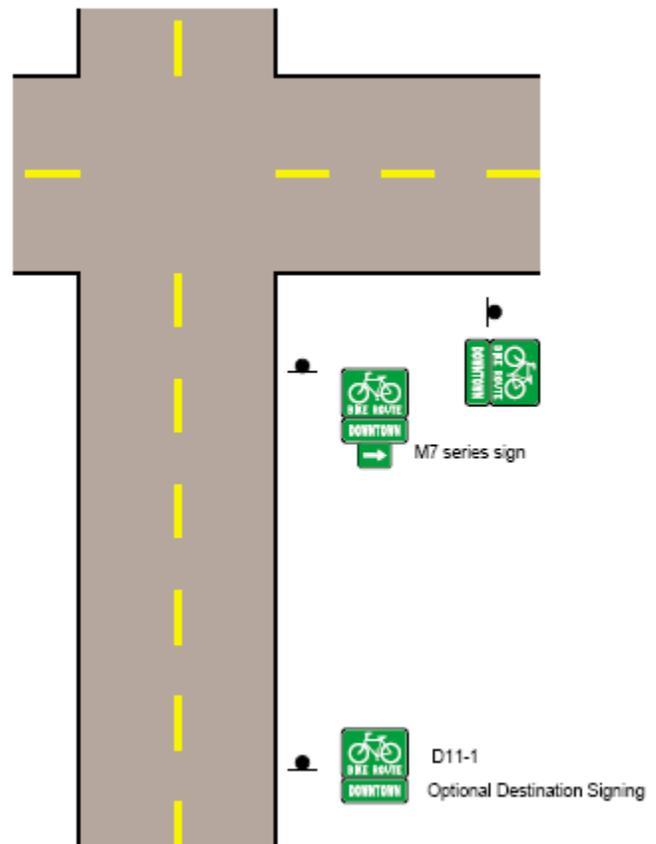


Figure 2: Typical Signed Shared Route Signing

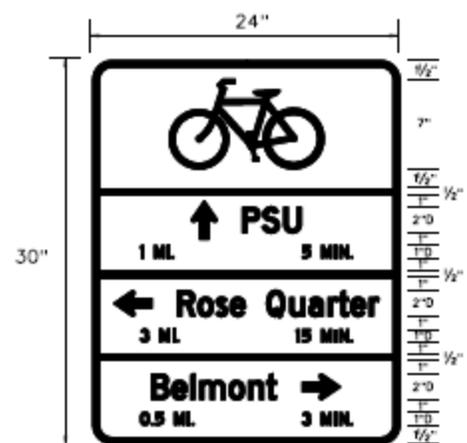


Figure 3: ODOT Approved Bicycle Wayfinding Sign OBD1-3c

¹ Standard Alphabet for Traffic Control Devices from the Federal Highway Administration. A complete description is available at http://mutcd.fhwa.dot.gov/ser-shs_millennium_eng.htm

City of Portland

The City of Portland has developed the bikeway sign shown in Figure 4 that varies slightly in the style of arrow and the font size/spacing from the version approved by ODOT. These signs are made in-house by the Portland Public Works Department. A detailed image of the sign and its dimensions is included in Appendix A. The signs are green and can accommodate approximately 20 characters per line at the standard 2-inch font size. The font size can be reduced, but this may come at the expense of the sign's legibility. It is possible to stack a destination's name in two rows if only one or two destinations are included on each sign.

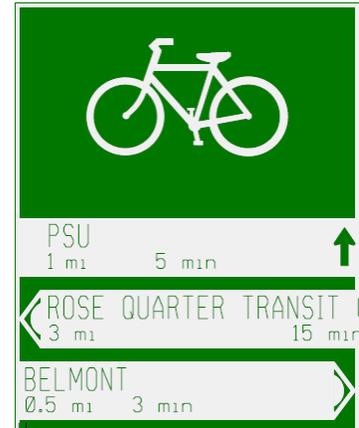


Figure 4: City of Portland Wayfinding Signage

Public Input

A stakeholder meeting was held by the City of Milwaukie on February 11, 2009. The purpose of this meeting was to gather input on sign concepts and develop a basic hierarchy of wayfinding landmarks in and around Milwaukie.

Meeting attendees felt that uniformity of bikeway signs was important. There was a concern that variation in wayfinding signs within the city limits could create confusion and reduce the ultimate usefulness of the system. The general consensus echoed at a follow-up meeting in April 2009 was that the City should adopt the ODOT-style sign for use within the city if the signs could adequately accommodate longer destination names when necessary. Additional meeting participant suggestions not directly related to wayfinding signage are found in Appendix B.

SIGNAGE AND SIGN ELEMENT RECOMMENDATIONS

- **The City should adopt the ODOT Bikeway Sign concept to establish uniformity for signs placed within city limits.** The ability to change sign size as necessary outside ODOT right-of-way provides flexibility in naming destinations, either by increasing the sign's size, abbreviating the destination name, reducing the font size, or stacking the destination's name on two lines. This sign meets MUTCD and ODOT guidelines and is similar enough in appearance to the City of Portland's sign to promote recognition and create a sense of continuity between the two systems.
- **Signs should include mileage and travel time estimates to help minimize the tendency to overestimate the amount of time it takes to travel by bicycle.** Feedback at the public meeting held on February 11, 2009 suggested that the City should consider using a slower average speed to calculate ride times on hilly routes, such as SE Harrison Street. While this idea may create more realistic estimates for hilly segments, it may confuse riders who are used to the standard already used throughout the Portland region. Therefore it is recommended that a 10 mile-per-hour (mph) speed be used to estimate travel time based on

² http://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/sign_policy.shtml

an urban average bicycling speed. This measurement conforms to time/distance estimations posted within the City of Portland.

- **Destination names may be stacked or abbreviated to accommodate longer destination names. Text size will only be reduced when necessary to accommodate route directions (e.g., via SE 29th Ave.).** The decision to abbreviate or stack text was made based on the following:
 1. A destination name is abbreviated if the abbreviation will fit on a single line (e.g., the preference would be to keep the abbreviation “Dntwn. Milwaukie” on one line).
 2. Unabbreviated destination names will be stacked on two lines if sufficient space exists on the sign.
 3. Abbreviations will be used on stacked text if necessary to accommodate long destination names.
- **Mileage and travel time for each destination will be listed when text is stacked, if possible.** Time and distance may be listed as a single line of text to the right, left, or below the destination if necessary. This practice would deviate from the ODOT standard, which is acceptable outside of ODOT rights-of-way.
- **The closest destination to each sign will be placed in the top slot.** Destinations that are further away will be placed in slots two and three. This allows the nearest destination to ‘fall off’ the sign and subsequent destinations to move up the sign as the bicyclist approaches.
- **Some signs are temporary or will contain future destinations.** Signs in some locations have space reserved for destinations that do not yet exist (e.g., the Trolley Trail and MAX light rail in downtown Milwaukie). Future destinations and temporary signs are noted in Part 2 of this Plan.
- **In locations where a bike route turns or makes a difficult transition, the City should consider using a directional change/route reinforcement sign or pavement marking in place of a destination/distance sign.** Standard bike route directional signs are shown in Figure 1 of this Plan. Sign D11-1 should be used in combination with one of the arrow placards (series M5 and M6) shown in the same figure.
- **Pavement markings may be used to help reinforce routes and directional signage.** Markings, such as those used by the City of Portland, may be used in addition to or in place of directional signs along bike routes. Pavement markings can help cyclists navigate difficult turns and provide route reinforcement. Example pavement markings and basic design guidance are found in Appendix C.
 - Suggested locations for pavement markings include:
 - The future Bicycle Boulevard following SE Edison Street/SE 35th Avenue/ SE Sellwood Street and SE 34th Avenue.
 - The bikeway route jog at SE Malcolm Street and SE Filbert Street at SE 32nd Avenue.

SIGN PLACEMENT

- **Signs should be placed along all designated city bikeways.** In cases where the bikeway does not yet exist, sign installation should occur simultaneously with, or immediately after, bikeway construction.
- **Signs should be placed in locations where the direction of the bike route is not immediately obvious (e.g., changes in direction), at intersections along all developed bikeways, at key decision points, and as guidance through difficult turns.**
- **At greater distances, area destinations (e.g., downtown and neighborhoods) should be signed as a general location.** As the distance to these areas decrease, specific destinations within the area can be named (e.g., City Hall and the Ledding Library).
- **Placement guidance from Portland suggests that signs should be placed along the right-of-way in places where the cyclist can see an upcoming sign from approximately 100 feet away.** On steep downhill segments, the sign should be placed further upstream from the intersection to provide a cyclist adequate time to make a directional decision. Signs should also be placed further from the intersection on busier streets with a center turn lane or left turn pocket to decrease the possibility of conflicting cyclist/motorist movements while preparing for a left turn.
- **Bike facilities to be signed are those included in the updated Transportation System Plan, included as Map 1.1.** Installation of signage on bikeways outside the current city limits depends on future growth and annexation of these areas by the City. In one case, a temporary route on SE Jackson Street between SE 37th Avenue and SE 40th Avenue will be used until future improvements have been completed on adjacent streets.
- **Table 1 includes the signage placement standards for rights-of-way managed by Milwaukie and ODOT.** Standards that apply to placement of signs within ODOT right-of-way also apply to bikeway signage. Installation of signs in ODOT rights-of-way should be done in upon receiving ODOT approval.

Table 1 - Signage Placement Standards

	City of Milwaukie	ODOT ³
Vertical Clearance	Seven feet	Seven feet for a single sign or multiple sign assembly. Mounting height where any sign is located over a bike route is a minimum of 8'-0" from the ground line.
Horizontal Clearance	One foot behind curb, two feet behind shoulder ⁴	Six feet to face of guardrail. Where no barrier exists check Chapter 2 of ODOT's signing policy for more information.
Post Style	Wood poles are preferred ⁵	Ground-mounted signs not protected by a guardrail or barrier must be breakaway. A four by four inch wooden post is considered to be breakaway.
Shared Support	Each sign should be on its own support. Signs may not be placed on utility poles.	Allowed.

SIGNED DESTINATIONS

Prior to selection of specific destinations, the Project Team gathered input on the relative importance of general landmark categories. Input from City staff and the public was used to develop a hierarchy of destinations of primary and secondary importance. Rankings were developed in part based on the stakeholder group's agreement that the primary target of these signs is recreational users or other cyclists not familiar with the city of Milwaukie.

A destination's ranking in the hierarchy was used to help determine the physical distance from which locations are signed (e.g., one-quarter mile, or one-half mile). If more than three destinations can be signed at a potential location, those destinations considered to be more important were signed. Table 2 shows the general landmark categories and their standing in the signing hierarchy.

³ Comprehensive signing placement standards can be found in Chapter 2 of ODOT's *Signing Policy*. http://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/sign_policy.shtml

⁴ In commercial areas where sidewalks do not contain a planter strip, signs may be placed in concrete. Sign faces should be at least one foot behind the back of the curb, with at least five feet of horizontal clearance for pedestrians to meet ADA and zoning code requirements.

⁵ In downtown and commercial areas where a planter strip may not be available, signs may be placed on metal posts. Metal posts must be breakaway posts and require a receptacle (i.e., a metal sleeve embedded in the concrete that a sign post would fit into).

Table 2 - Wayfinding Landmark Categories and Hierarchy

Landmark Category	Hierarchy
Downtown	Primary
Commercial Center	Primary
Regional Parks and Trails (e.g., Springwater Trail)	Primary
Adjacent Cities and Neighborhoods	Primary
Public Transit Sites	Primary/Secondary
Civic/Community	Primary/Secondary
Local Parks and Trails	Secondary
Hospitals	Secondary
Schools	Secondary

Based on this exercise, a detailed list of potential destinations was developed, as shown in Table 3 and on Maps 2.1 through 2.3.

As mentioned in the previous section, several destination names are too long to fit on a single line of text while still meeting ODOT sign standards. Outside ODOT right-of-way on McLoughlin Boulevard and Highway 224, the City chose to accommodate longer destination names by moving distance and travel time text, abbreviating destination names, and stacking name destinations on two lines. In a small number of cases font size was decreased by approximately ten percent to accommodate destinations reached via the “29th St. Bike Boulevard.”

Table 3 - Destinations for Wayfinding Signage

Place #	Destination	Signed As	Landmark Type	Class	Figure	Comments
	Downtown Sub-area					
1	Downtown Milwaukie	Dntwn. Milwaukie	Downtown	Primary	2.1	
56	Riverfront Park	Riverfront Park	Regional Park	Primary	2.3	
4	Trolley Trail	Trolley Trail	Regional Trail	Primary	2.2	
5	Springwater Trail	Springwater Trail	Regional Trail	Primary	2.2	
8	City Hall	City Hall	Civic	Secondary	2.2	
9	Ledding Library	Ledding Library	Civic	Secondary	2.2	
18	Milwaukie High School	Milwaukie H.S.	School	Secondary	2.2	
21	Rowe Middle School	Rowe M.S.	School	Secondary	2.2	
57	Kronberg Park	Kronberg Park	Local Park	Secondary	2.3	
59	Sellwood	Sellwood	Adj. Neighborhood	Secondary	2.1	Becomes Primary at some point
17	Milwaukie Elementary	Milwaukie Elem.	School	Secondary	2.2	
	Island Station Sub-area					
35	Spring Park	Spring Park	Regional Park	Primary	2.3	
33	Elk Rock Island	Elk Rock Is.	Regional Park	Secondary	2.3	Will list when Spring Park is listed if sign spacing is not constrained
67	Island Station	Island Station	Neighborhood	Secondary	2.1	
6	Kellogg Creek Trail	Kellogg Creek Tr.	Local Trail	Secondary	2.2	
68	Oak Lodge	Oak Lodge	Adj. Neighborhood	Secondary	2.1	Becomes Primary at some point
	32nd and Harrison Sub-area					
7	Public Safety Building	Public Safety Building	Civic	Primary	2.2	
2	Milwaukie Marketplace and Oak Street Square	Oak St. Commercial Ctr.	Commercial Center	Primary	2.2	
13	Providence Milwaukie Hospital	Hospital	Hospital	Secondary	2.2	
	Central Residential Milwaukie Sub-area					
5	Springwater Trail	Springwater Trail	Public Transit	Primary	2.2	
3	King Road Shopping Center	King Rd. Commercial Ctr.	Commercial Center	Primary	2.2	
76	I-205 Bike Path	I-205 Path	Public Transit	Primary	3.2	Primary on east side of town
77	Green Line MAX stops (I-205)	MAX Green Line	Public Transit	Secondary	2.3	May be combined with I-205 Path
37	Ardenwald Park	Ardenwald Park	Local Park	Secondary	2.3	
39	Ball-Michel Park	Ball-Michel Park	Local Park	Secondary	2.3	
40	Water Tower Park	Water Tower Park	Local Park	Secondary	2.3	
42	Homewood Park	Homewood Park	Local Park	Secondary	2.3	
47	Century Park	Century Park	Local Park	Secondary	2.3	

Milwaukie Bicycle Wayfinding Signage Plan

Place #	Destination	Signed As	Landmark Type	Class	Figure	Comments
14	Ardenwald Elementary	Ardenwald Elem.	School	Secondary	2.2	
15	Lewelling Elementary	Lewelling Elem.	School	Secondary	2.2	
19	Campbell Elementary	Campbell Elem.	School	Secondary	2.2	
	Harmony Road Sub-area					
52	North Clackamas Park	N. Clackamas Park	Regional Park	Primary	2.3	
53	Milwaukie Center	Milwaukie Ctr. (?)	Civic	Secondary	2.3	Will list when North Clackamas Park is listed if sign spacing is not constrained
76	I-205 Bike Path	I-205 Path	Public Transit	Primary	2.3	Primary on east side of town
77	Green Line MAX stops (I-205)	MAX Green Line	Public Transit	Secondary	2.3	May be combined with I-205 Path
79	Clackamas Town Center	Clackamas Town Ctr.	Commercial Center	Secondary	2.3	Primary on east side of town
78	North Clackamas Aquatic Park	N. Clackamas Aquatic Park	Recreational Facility	Secondary	2.3	
48	Stanley Park	Stanley Park	Local Park	Secondary	2.3	
49	Furnberg Park	Furnberg Park	Local Park	Secondary	2.3	
43	Wichita Park	Wichita Park	Local Park	Secondary	2.3	
20	Linwood Elementary	Linwood Elem.	School	Secondary	2.2	
81	Clackamas Community College	Clackamas C.C.	School	Secondary	2.2	
80	Oregon Institute of Technology	OIT	School	Secondary	2.2	

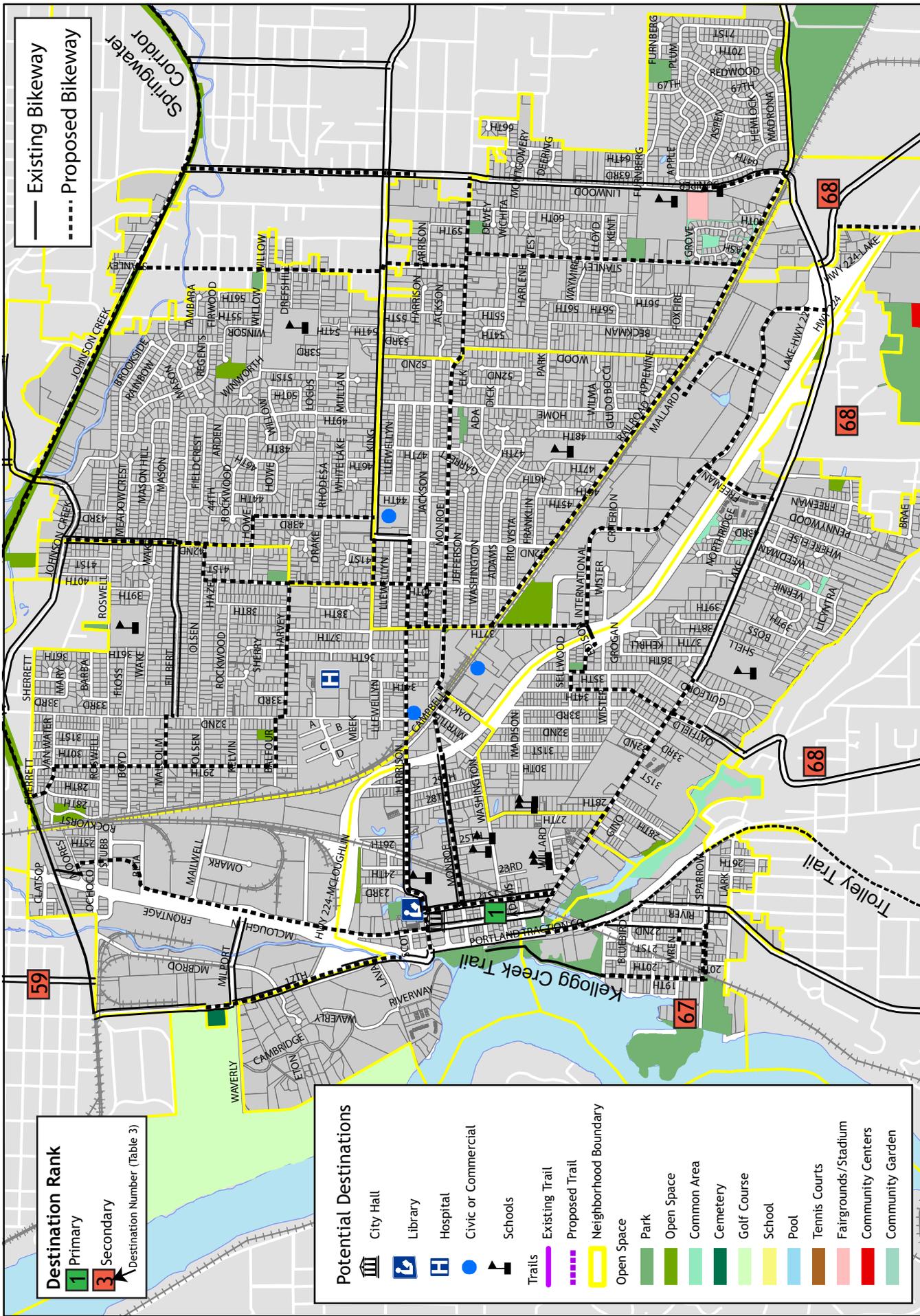
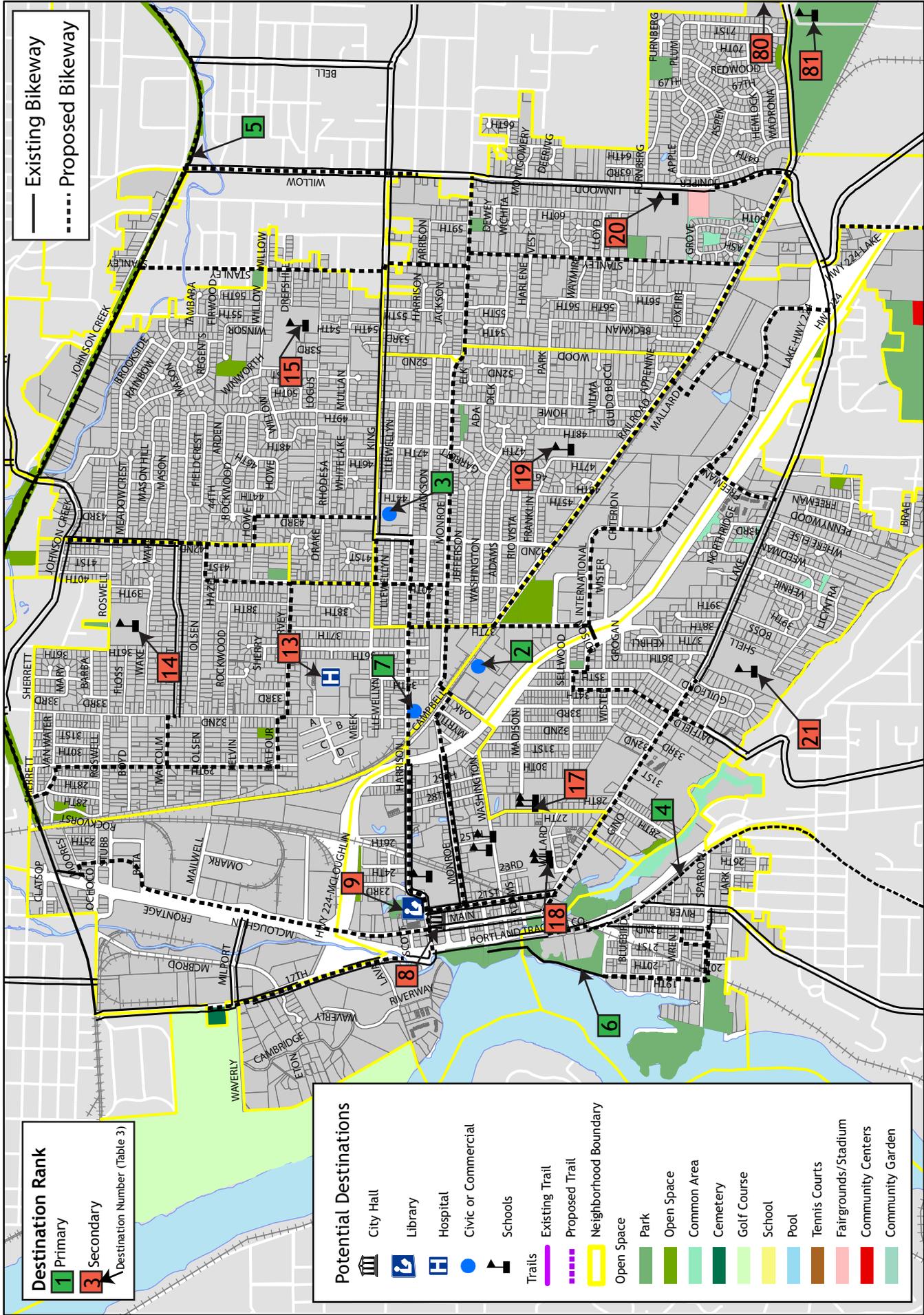
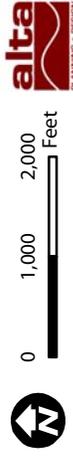


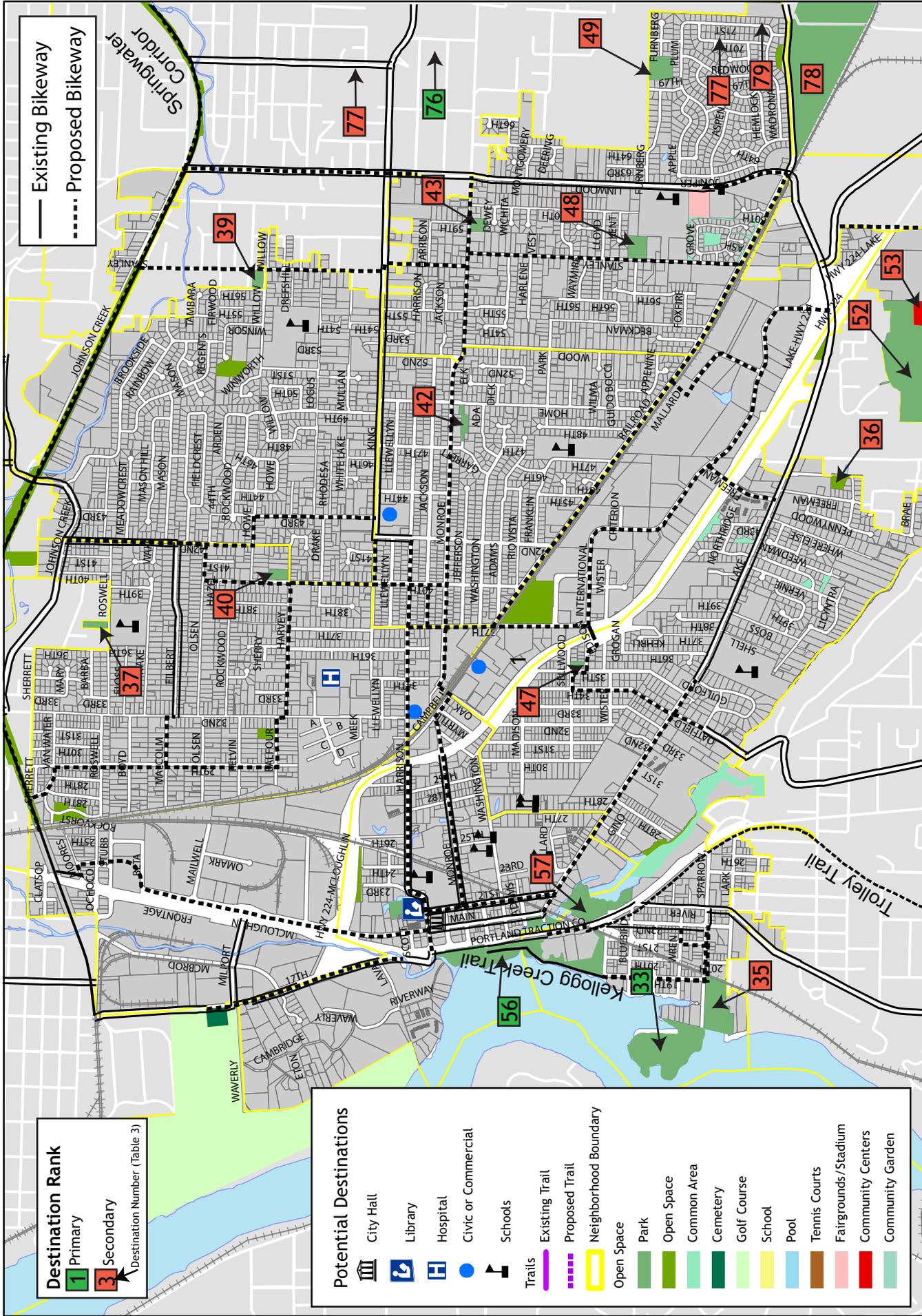
Figure 2.1 - Bicycle Destinations (Neighborhoods)



Map 2.2 - Bicycle Destinations (Commercial, Transit and Other Points of Interest)

Milwaukie, Oregon
 Milwaukie Bicycle Wayfinding Signage Plan
 Source: City of Milwaukie, RLUS
 Author: KAV
 Date: May, 2009





Map 2.3 - Potential Bicycle Destinations (Parks and Open Space)

SIGN PHASING

Installation of signs will occur in several phases. Priority routes were chosen based on public input, staff input, safety analysis, connectivity to destinations, and geographic equity. Some routes already have existing bike facilities (e.g., bike lanes on SE King Road) and can safely accommodate cyclists; other routes are designated as future routes (e.g., SE Railroad Avenue and SE Monroe Street) and may not be ideal routes for cyclist use at this point. Several routes, generally those designated as future Bicycle Boulevards (e.g., SE 29th Avenue and portions of SE 40th Avenue) can be signed immediately or in the near future as they are improved to provide a satisfactory level of cyclist safety and comfort. Map 3.1 shows priority routes and Map 3.2 shows sign locations and phasing recommendations. Phase 1 signs will be installed in two rounds, due to funding availability. Table 5 contains a summary of sign phasing recommendations. Tables 6 through 9 break down the signs to be installed during each phase.

- **Phase 1A** – This phase will include approximately 50 signs to form a loop that will include the Springwater Trail, downtown Milwaukie, portions of SE Monroe Street, and SE 29th Avenue. Phase 1A installation will occur during the summer of 2009.
- **Phase 1B** – This phase contains the remainder of signs along, or leading onto, Phase 1 priority routes. Signs will be installed primarily on SE King Road, the Kellogg Creek Trail, and within the Island Station neighborhood. This phase is not yet funded.
- **Phase 2** – Phase 2 includes signs along, or leading to, existing facilities that provide a satisfactory level of cyclist safety and comfort.
- **Phase 3** – Signs included in Phase 3 occur along, or would lead to, routes that do not currently provide a satisfactory level of cyclist safety and comfort. Signs in this phase should be installed as bikeways are constructed and the sign costs should be included in each facility cost estimate.

Table 5 - Sign Phasing

Sign	Phase
1 - 1	2
1 - 2	2
1 - 3	2
1 - 4	2
1 - 5	2
1 - 6	2
1 - 7	2
1 - 8	2
1 - 9	2
1 - 10	2
1 - 11	2
1 - 12	2
1 - 13	2
1 - 14	2
1 - 15	3
1 - 16	3
1 - 17	3
1 - 18	2
1 - 19	2
1 - 20	2
1 - 21	2
1 - 22	1B
1 - 23	1B
1 - 24	2
1 - 25	1B
1 - 26	2
1 - 27	2
1 - 28	3
1 - 29	1B
1 - 30	1B
1 - 31	3
1 - 32	3
1 - 33	3
1 - 34	3
1 - 35	1A
1 - 36	3
1 - 37	3
1 - 38	3
1 - 39	3
1 - 40	3
1 - 41	3
1 - 42	2
1 - 43	3
1 - 44	2
1 - 45	2
1 - 46	3

Sign	Phase
1 - 47	3
2 - 1	3
2 - 2	3
2 - 3	3
2 - 4	3
2 - 5	2
2 - 6	2
2 - 7	3
2 - 8	3
2 - 9	3
2 - 10	2
2 - 11	2
2 - 12	3
2 - 13	2
2 - 14	3
2 - 15	3
2 - 16	3
2 - 17	3
2 - 18	3
2 - 19	3
2 - 20	3
2 - 21	3
2 - 22	3
2 - 23	3
2 - 24	2
2 - 25	2
2 - 26	2
2 - 27	2
2 - 28	2
2 - 29	2
2 - 30	2
2 - 31	2
2 - 32	2
2 - 33	2
3 - 1	1B
3 - 2	1B
3 - 3	1A
3 - 4	1B
3 - 5	1A
3 - 6	1B
3 - 7	3
3 - 8	3
3 - 9	3
3 - 10	3
3 - 11	3
3 - 12	3

Sign	Phase
3 - 13	3
3 - 14	3
3 - 15	3
3 - 16	3
3 - 17	3
3 - 18	3
3 - 19	3
3 - 20	3
3 - 21	3
3 - 22	3
3 - 23	3
3 - 24	3
3 - 25	2
3 - 26	3
3 - 27	3
3 - 28	1B
3 - 29	1B
3 - 30	1B
3 - 31	3
3 - 32	3
3 - 33	3
3 - 34	3
3 - 35	3
3 - 36	3
3 - 37	3
3 - 38	3
3 - 39	2
3 - 40	2
3 - 41	3
3 - 42	3
3 - 43	2
3 - 44	2
3 - 45	3
3 - 46	1B
3 - 47	1B
3 - 48	1B
3 - 49	1B
3 - 50	3
4 - 1	2
4 - 2	1A
4 - 3	1A
4 - 4	1A
4 - 5	1A
4 - 6	1A
4 - 7	1A
4 - 8	1A

Milwaukee Bicycle Wayfinding Signage Plan

Sign	Phase
4 - 9	1A
4 - 10	1A
4 - 11	1A
4 - 12	1A
4 - 13	2
4 - 14	1A
4 - 15	2
4 - 16	2
4 - 17	2
4 - 18	2
4 - 19	2
4 - 20	2
4 - 21	1B
4 - 22	1B
4 - 23	1A
4 - 24	1A
4 - 25	3
4 - 26	3
4 - 27	3
4 - 28	1B
4 - 29	3
4 - 30	1B
4 - 31	1A
4 - 32	1A
4 - 33	1A

Sign	Phase
4 - 34	1A
4 - 35	1A
4 - 36	1A
4 - 37	1A
4 - 38	1B
4 - 39	1A
4 - 40	1A
4 - 41	1A
4 - 42	1A
4 - 43	3
4 - 44	1A
4 - 45	3
4 - 46	1A
4 - 47	3
4 - 48	3
4 - 49	3
4 - 50	1A
4 - 51	1A
4 - 52	1A
4 - 53	1A
4 - 54	3
4 - 55	3
4 - 56	3
4 - 57	3
4 - 58	3

Sign	Phase
4 - 59	1A
4 - 60	1A
4 - 61	1A
4 - 62	1A
4 - 63	1A
4 - 64	1A
4 - 65	1A
4 - 66	1A
4 - 67	1B
4 - 68	3
4 - 69	3
4 - 70	1B
4 - 71	1A
4 - 72	1A
4 - 73	3
4 - 74	1A
4 - 75	1A
4 - 76	1B
4 - 77	1A
4 - 78	1A
4 - 79	1B
4 - 80	1B
4 - 81	1B
4 - 82	2

Table 6 - Signs Included in Phase 1A

Sign	Phase
1 - 35	1A
3 - 3	1A
3 - 5	1A
4 - 2	1A
4 - 3	1A
4 - 4	1A
4 - 5	1A
4 - 6	1A
4 - 7	1A
4 - 8	1A
4 - 9	1A
4 - 10	1A
4 - 11	1A
4 - 12	1A
4 - 14	1A
4 - 23	1A

Sign	Phase
4 - 24	1A
4 - 31	1A
4 - 32	1A
4 - 33	1A
4 - 34	1A
4 - 35	1A
4 - 36	1A
4 - 37	1A
4 - 39	1A
4 - 40	1A
4 - 41	1A
4 - 42	1A
4 - 44	1A
4 - 46	1A
4 - 50	1A
4 - 51	1A

Sign	Phase
4 - 52	1A
4 - 53	1A
4 - 59	1A
4 - 60	1A
4 - 61	1A
4 - 62	1A
4 - 63	1A
4 - 64	1A
4 - 65	1A
4 - 66	1A
4 - 71	1A
4 - 72	1A
4 - 74	1A
4 - 75	1A
4 - 77	1A
4 - 78	1A

Table 7 - Signs Included in Phase 1B

Sign	Phase
1 - 22	1B
1 - 23	1B
1 - 25	1B
1 - 29	1B
1 - 30	1B
3 - 1	1B
3 - 2	1B
3 - 4	1B
3 - 6	1B
3 - 28	1B

Sign	Phase
3 - 29	1B
3 - 30	1B
3 - 46	1B
3 - 47	1B
3 - 48	1B
3 - 49	1B
4 - 21	1B
4 - 22	1B
4 - 28	1B
4 - 30	1B

Sign	Phase
4 - 38	1B
4 - 67	1B
4 - 70	1B
4 - 76	1B
4 - 79	1B
4 - 80	1B
4 - 81	1B

Table 8 - Signs Included in Phase 2

Sign	Phase
1 - 1	2
1 - 2	2
1 - 3	2
1 - 4	2
1 - 5	2
1 - 6	2
1 - 7	2
1 - 8	2
1 - 9	2
1 - 10	2
1 - 11	2
1 - 12	2
1 - 13	2
1 - 14	2
1 - 18	2
1 - 19	2
1 - 20	2
1 - 21	2

Sign	Phase
1 - 24	2
1 - 26	2
1 - 27	2
1 - 42	2
1 - 45	2
2 - 5	2
2 - 6	2
2 - 10	2
2 - 11	2
2 - 13	2
2 - 24	2
2 - 25	2
2 - 26	2
2 - 27	2
2 - 28	2
2 - 29	2
2 - 30	2
2 - 31	2

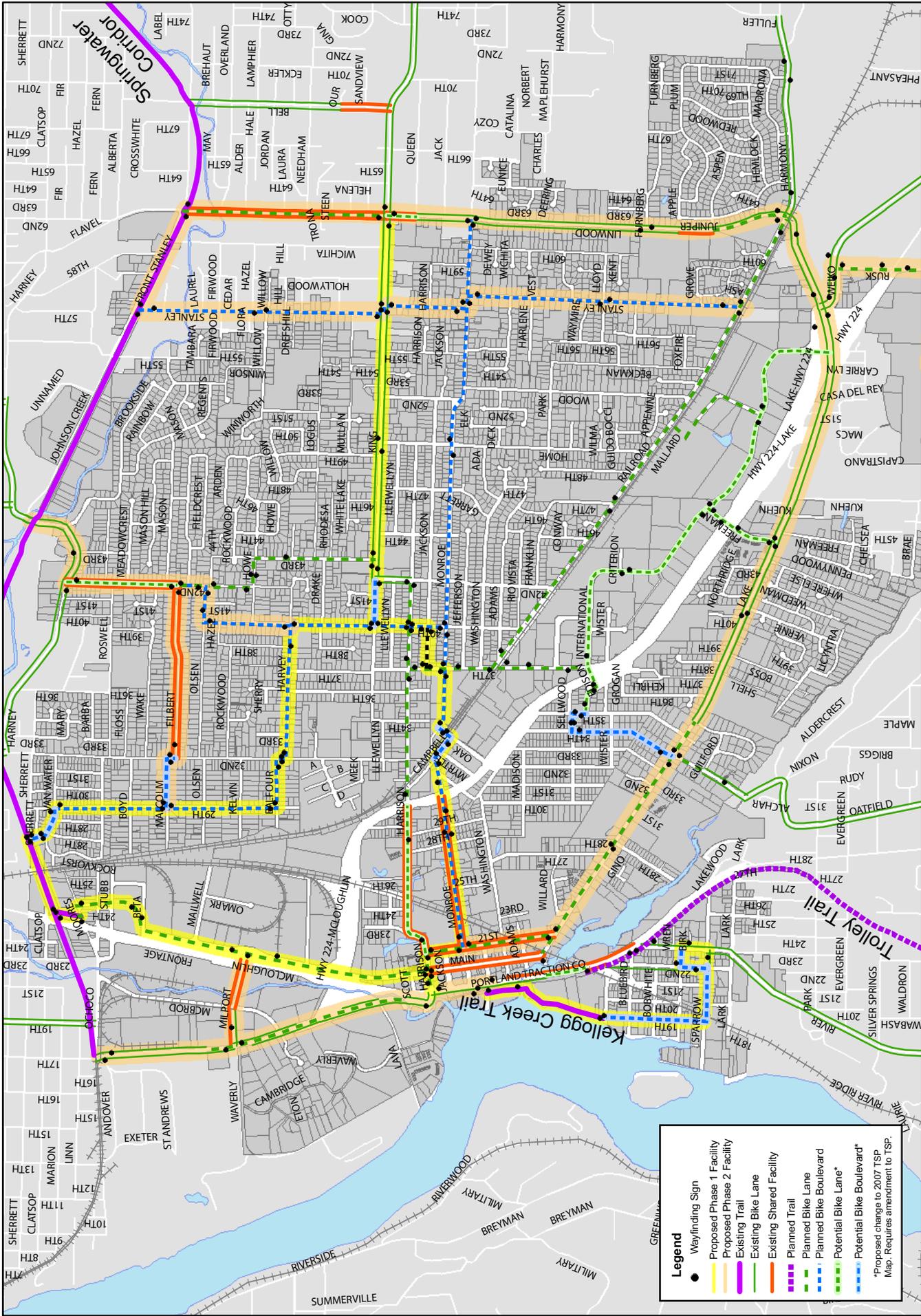
Sign	Phase
2 - 32	2
2 - 33	2
3 - 25	2
3 - 39	2
3 - 40	2
3 - 43	2
3 - 44	2
4 - 1	2
4 - 13	2
4 - 15	2
4 - 16	2
4 - 17	2
4 - 18	2
4 - 19	2
4 - 20	2
4 - 82	2

Table 9 - Signs Included in Phase 3

Sign	Phase
1 - 15	3
1 - 16	3
1 - 17	3
1 - 19	3
1 - 28	3
1 - 31	3
1 - 32	3
1 - 33	3
1 - 34	3
1 - 36	3
1 - 37	3
1 - 38	3
1 - 39	3
1 - 40	3
1 - 41	3
1 - 43	3
1 - 46	3
1 - 47	3
2 - 1	3
2 - 2	3
2 - 3	3
2 - 4	3
2 - 7	3
2 - 8	3
2 - 9	3
2 - 12	3
2 - 14	3
2 - 15	3
2 - 16	3

Sign	Phase
2 - 17	3
2 - 18	3
2 - 19	3
2 - 20	3
2 - 21	3
2 - 22	3
2 - 23	3
3 - 7	3
3 - 8	3
3 - 9	3
3 - 10	3
3 - 11	3
3 - 12	3
3 - 13	3
3 - 14	3
3 - 15	3
3 - 16	3
3 - 17	3
3 - 18	3
3 - 19	3
3 - 20	3
3 - 21	3
3 - 22	3
3 - 23	3
3 - 24	3
3 - 26	3
3 - 27	3
3 - 31	3
3 - 32	3

Sign	Phase
3 - 33	3
3 - 34	3
3 - 35	3
3 - 36	3
3 - 37	3
3 - 38	3
3 - 41	3
3 - 42	3
3 - 45	3
3 - 50	3
4 - 25	3
4 - 26	3
4 - 27	3
4 - 29	3
4 - 43	3
4 - 45	3
4 - 47	3
4 - 48	3
4 - 49	3
4 - 54	3
4 - 55	3
4 - 56	3
4 - 57	3
4 - 58	3
4 - 68	3
4 - 69	3
4 - 73	3

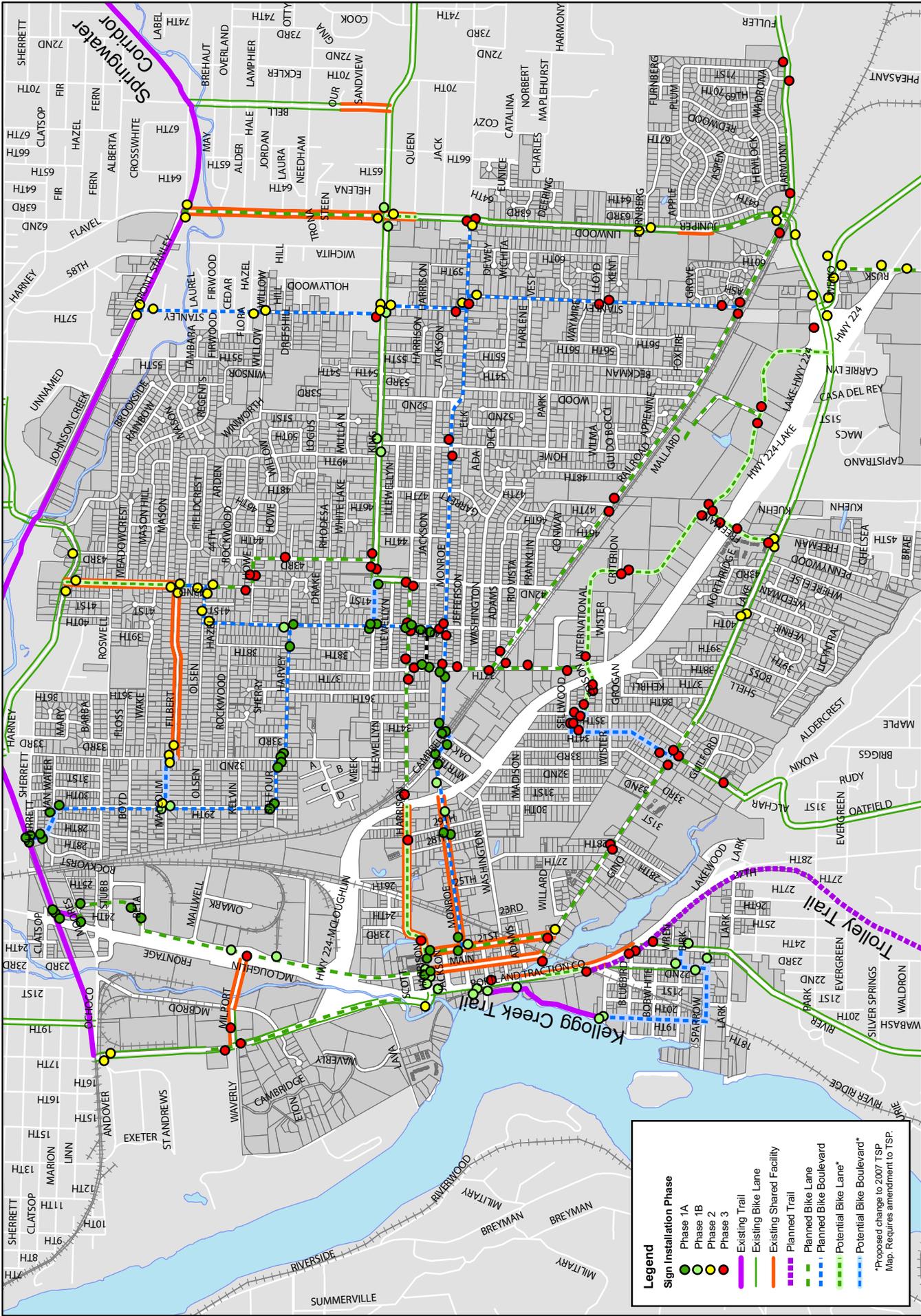


Map 3.1 - Existing Bikeway Facilities for Phases 1 and 2 of Sign Installation

Milwaukie, Oregon
 Milwaukie Bicycle Wayfinding Signage Plan
 Source: City of Milwaukie, RIUS
 Author: KAV
 Date: May, 2009

0 1,000 2,000 Feet

alta
 PLANNING + DESIGN



Legend

Sign Installation Phase

- Phase 1A (Green circle)
- Phase 1B (Yellow circle)
- Phase 2 (Red circle)
- Phase 3 (Blue circle)

Facility Type

- Existing Trail (Purple dashed line)
- Existing Bike Lane (Green solid line)
- Existing Shared Facility (Orange solid line)
- Planned Trail (Blue dashed line)
- Planned Bike Lane (Green dashed line)
- Planned Bike Boulevard (Blue dashed line)
- Potential Bike Lane* (Green dashed line)
- Potential Bike Boulevard* (Blue dashed line)

*Proposed change to 2007 TSP Map. Requires amendment to TSP.

Map 3.2 - Proposed Wayfinding Sign Phasing

Milwaukie, Oregon
 Milwaukie Bicycle Wayfinding Signage Plan
 Source: City of Milwaukie, RUS
 Author: KAV
 Date: May, 2009



FUTURE SIGN PLACEMENT

Signs designated for future placement should be installed at the time of bikeway development (e.g., the installation of signs 4-48 and 4-49 should coincide with the striping of bike lanes on SE Harrison Street). Installation of signs on future bikeways should not occur without field verification at the proposed location to ensure that conditions along the route have not changed significantly. A significant change, such as the addition of a curb and sidewalk, will likely require slight adjustments to the recommended installation location to ensure consistency with current standards. Many signs have blank slots that can be filled with destinations that currently do not exist (e.g., Trolley Trail) or that may become more prominent over time (e.g., Kronberg Park). Tables 6 through 9 contain the signs recommended for installation in each Phase.

FUTURE PLAN UPDATES

This Plan is a living document that should be updated over time. While this Plan does take future roadway and bike route conditions into account, it is likely that some changes will occur with route installation, route priority, and destination locations. This Plan should be reviewed and updated in conjunction with future TSP updates to ensure that the wayfinding signage system continues to fit the needs of cyclists.

PART 2 - SIGN PLACEMENT DETAILS

PROPOSED SIGN LOCATIONS

The proposed sign locations are shown on four context maps contained at the beginning of sections 4.1 through 4.4. Map 4.0 shows the area covered by each map. As noted above, the phasing of sign installation is reflected in Tables 5 through 9 in Part 1.

The corresponding context maps are followed by tables showing placement information and sign contents. These tables show:

1. Photos of each recommended sign location (a bright yellow vertical line representing the location).
2. An approximate distance from specific landmarks (e.g., stop lines, crosswalks, utility poles, etc.).
3. Direction of travel (e.g., westbound is abbreviated as “WB”).
4. Travel destinations.
5. Distance (in miles) and riding time (in minutes) to each destination⁶.

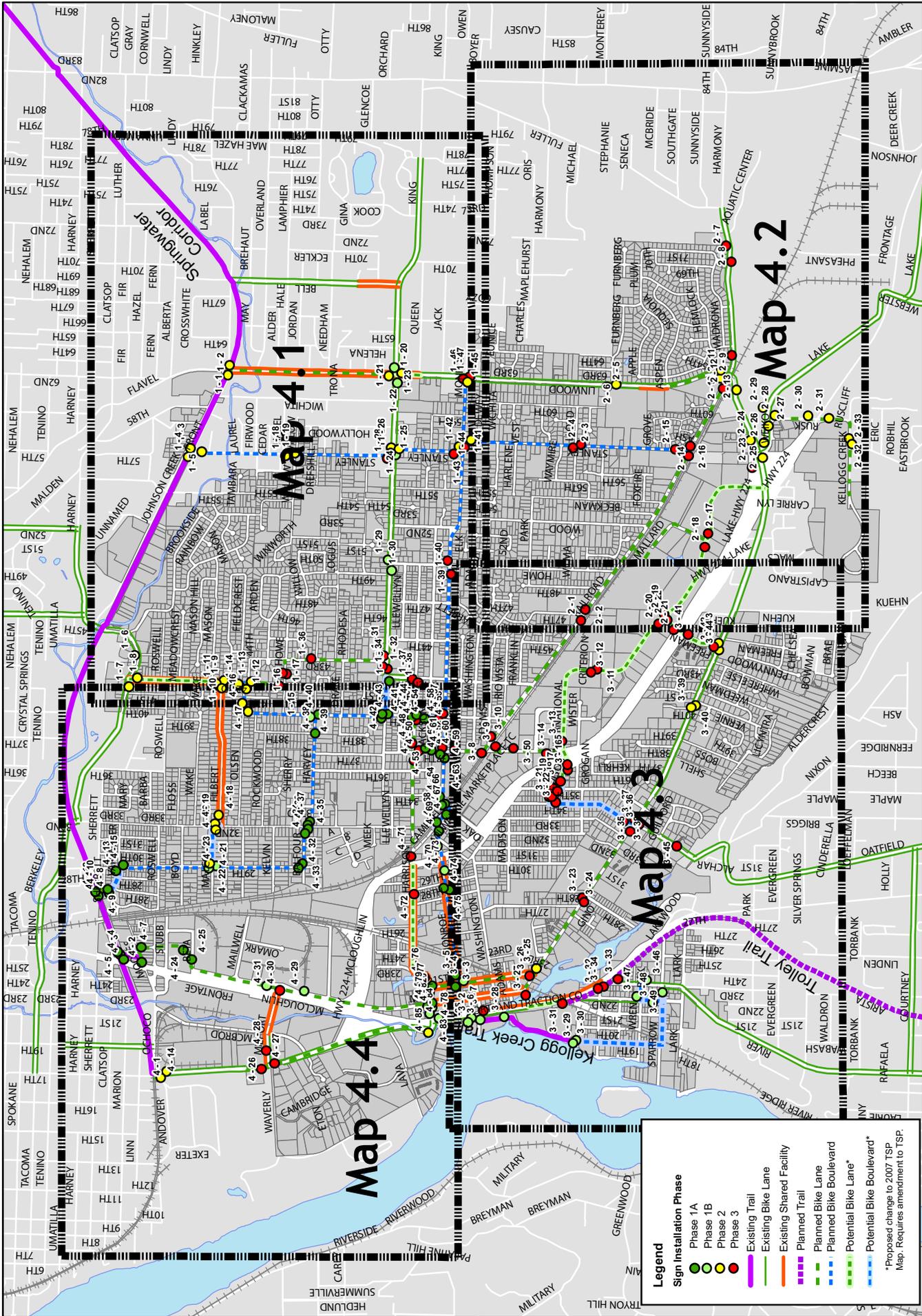
ABBREVIATIONS

Table 10 contains the list of abbreviations used to describe the approximate placement of signs.

Table 10 - Abbreviation Table

Abbreviation	Phrase
E	Existing
BOC	Back of Curb
BL	Bollard
CW	Crosswalk
EOP	Edge of Pavement
EOSW	Edge of Sidewalk
FOC	Face of Curb
LP	Light Pole
PS	Planter Strip
SL	Stop Line
SW	Sidewalk
NB	Northbound
SB	Southbound
EB	Eastbound
WB	Westbound

⁶ Most signs contain distance and time measurements. Signs may not contain this information if the estimated travel time was less than one minute (assumed 10 miles per hour).



Map 4.0 - Wayfinding Signage Location Map Detail

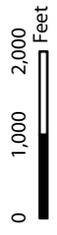
Milwaukie, Oregon

Milwaukie Bicycle Wayfinding Signage Plan

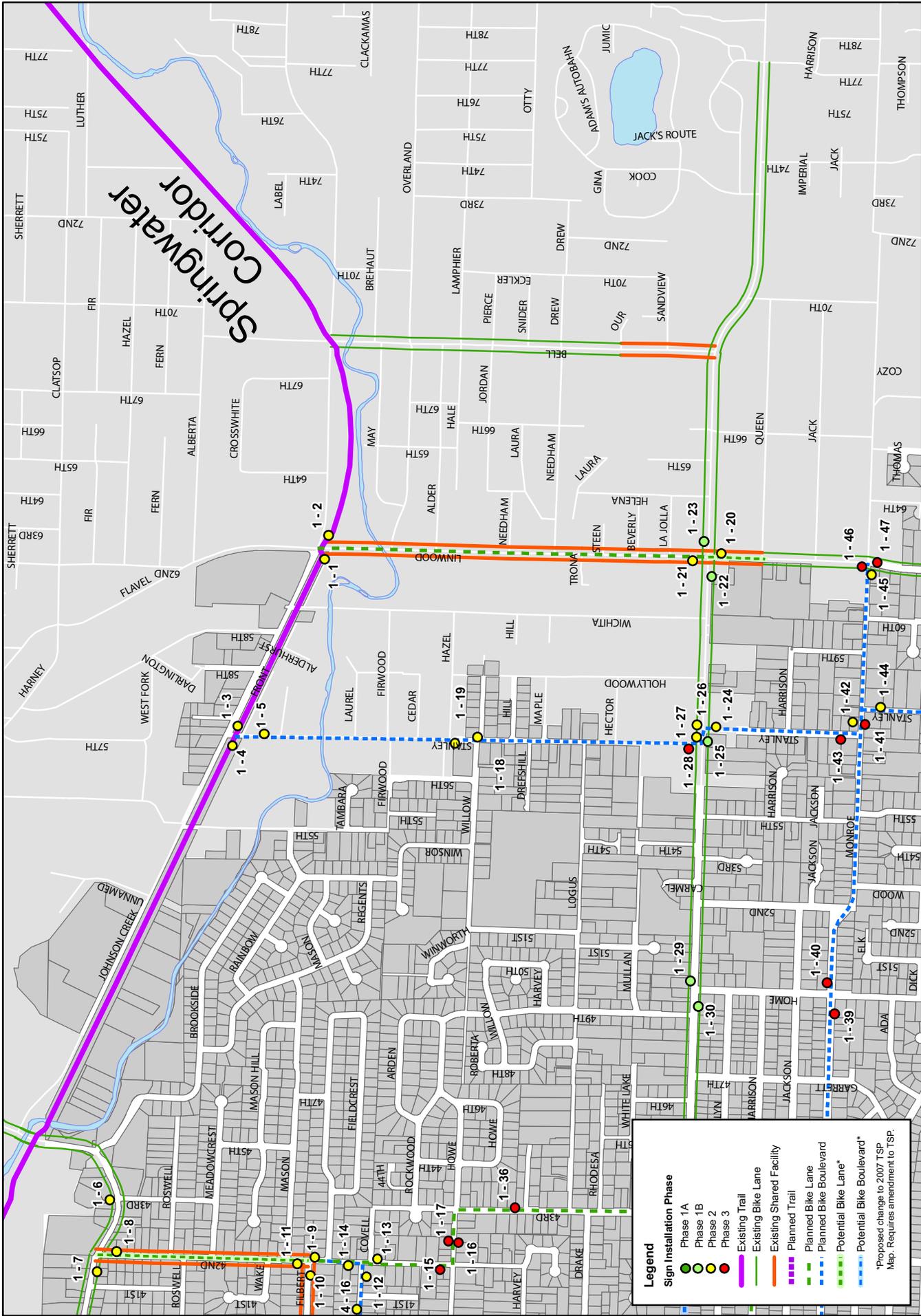
Source: City of Milwaukie, RIUS

Author: KAV

Date: May, 2009



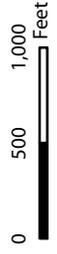
SECTION 4.1 - PROPOSED SIGN LOCATIONS 1-1 TO 1-48

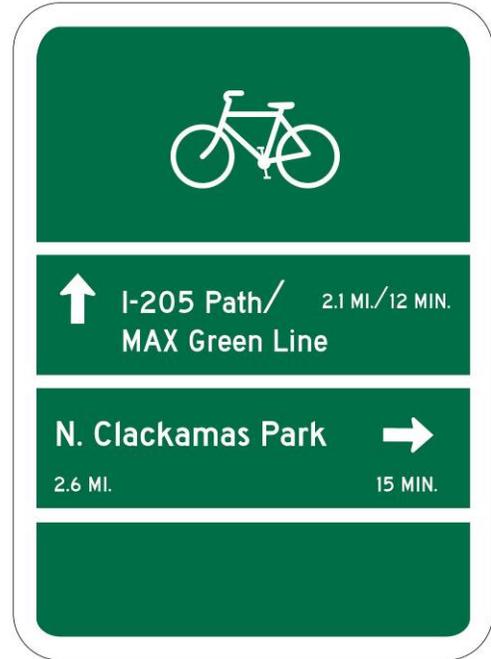


Map 4.1 - Wayfinding Signage Detail Map (NE Milwaukie)

Milwaukie, Oregon
 Milwaukie Bicycle Wayfinding Signage Plan

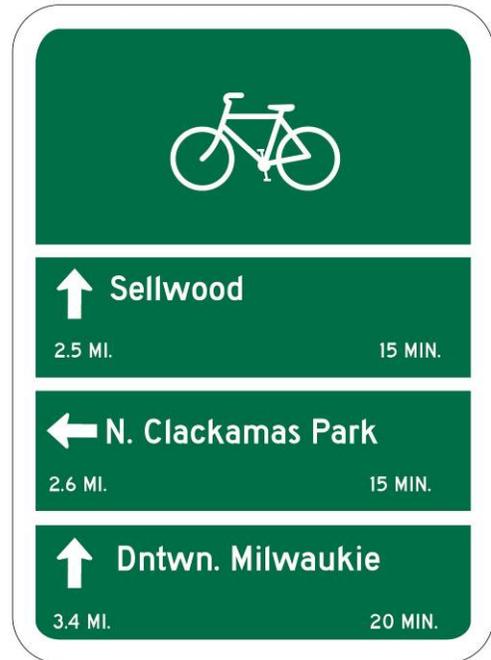
Source: City of Milwaukie, RLIS
 Author: KAV
 Date: May, 2009





1-1; Springwater Trail at SE Linwood Ave. (EB)

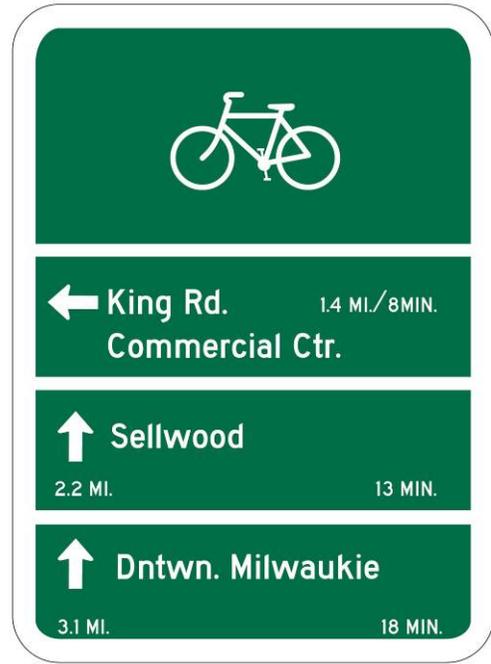
~60' of west E BL at SE Linwood Ave.; 2' from EOP



1-2; Springwater Trail at SE Linwood Ave. (WB)

~60' of east E BL @ SE Linwood Ave.; 2' from edge of trail

Milwaukie Bicycle Wayfinding Signage Plan



1-3; Springwater Trail at SE Stanley Ave. (WB)

~60' of east E BL @ SE Stanley Ave.; 2' from edge of trail



1-4; Springwater Trail at SE Stanley Ave. (EB)

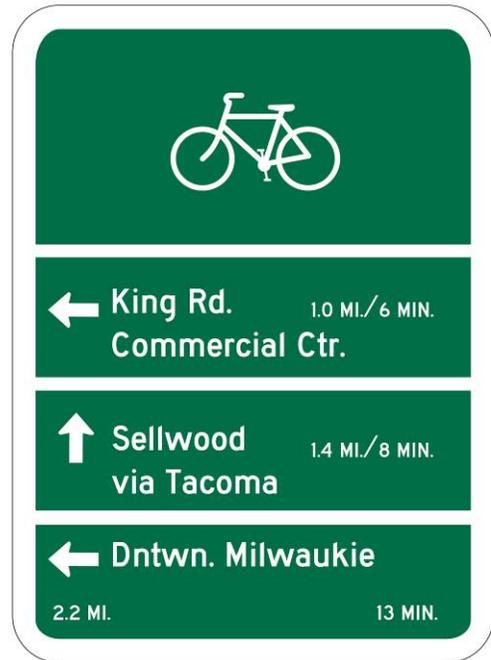
~60' of west E BL @ SE Stanley Ave.; 2' from edge of trail

Milwaukie Bicycle Wayfinding Signage Plan



1-5; SE Stanley Ave. at the Springwater Trail (NB)

~ 100' of S of the Springwater Trail at SE Stanley Ave.; 4' from EOP



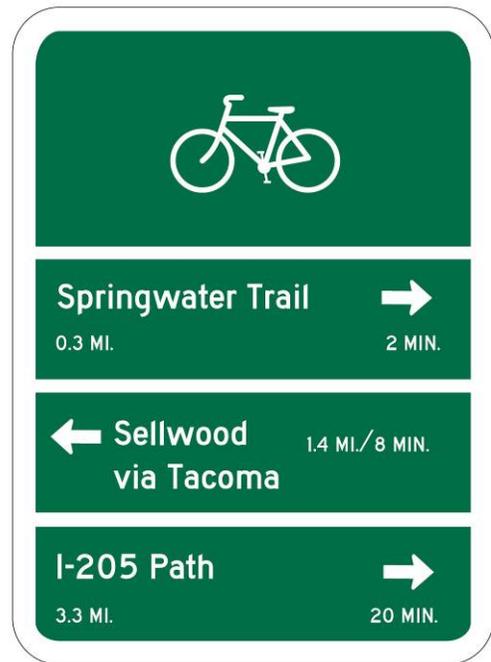
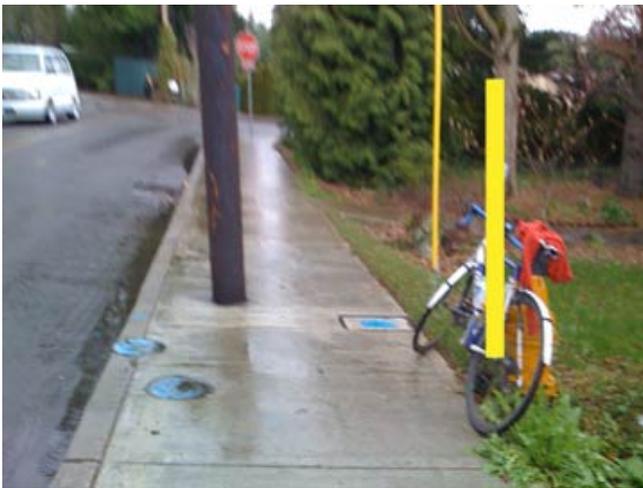
1-6; Johnson Creek Blvd. at SE 42nd Ave. (WB)

~ 140' E of SE 42nd Ave.; 1' from EOSW



1-7; Johnson Creek Blvd. at SE 42nd Ave. (EB)

~ 450' E of SL at SE 42nd Ave.; 2' from EOSW



1-8; SE 42 Ave. at Johnson Creek Blvd. (NB)

~ 23' S of SL at Johnson Creek Blvd.; 2' from EOC



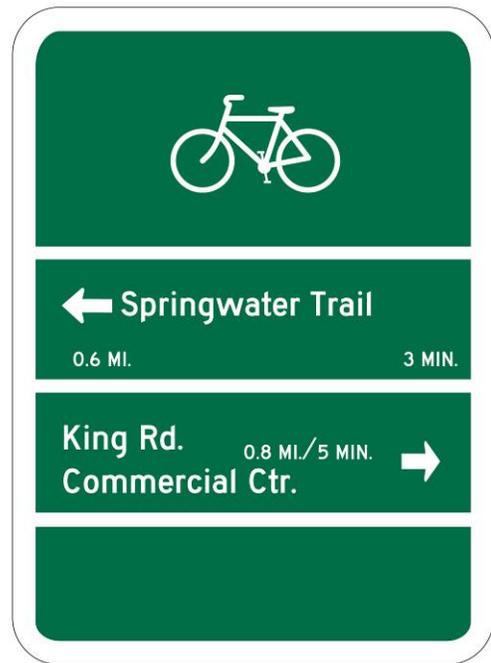
1-9; SE 42nd Ave. at SE Filbert St. (NB)



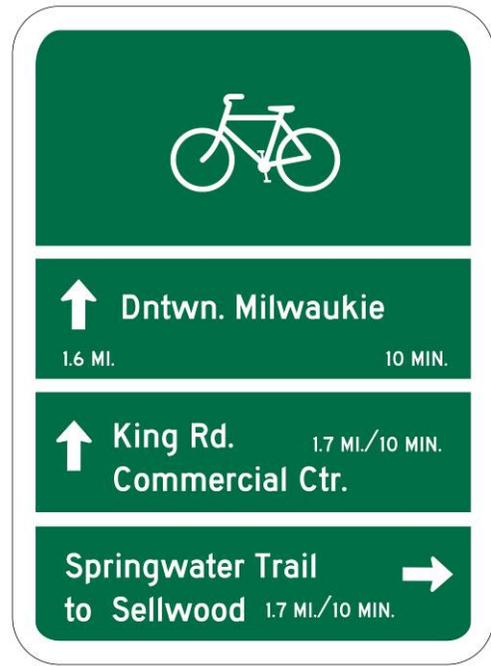
~ 38' E S of utility pole at SE Filbert St.; 2' from BOC



1-10; SE Filbert St. at SE 42nd Ave. (EB)



~ 164' W of SS at SE 42nd Ave.; 2' from BOC



1-11; SE 42nd Ave. at SE Filbert St. (SB)

~ 94' N of SE Filbert St.; 1' from EOSW



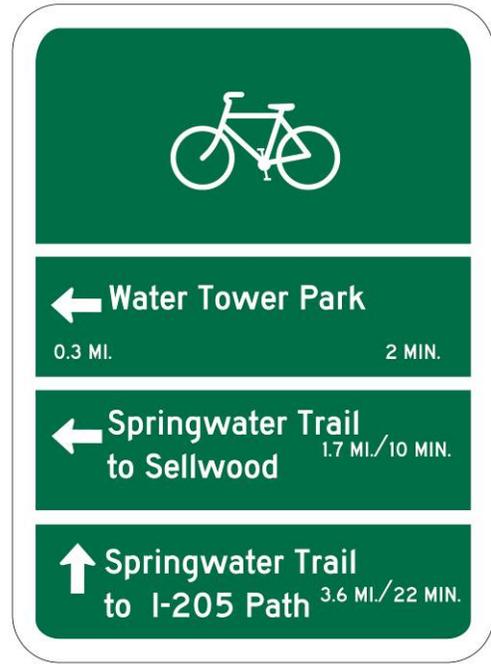
Add double ended arrow placard

1-12; SE Olsen St. at SE 42nd Ave. (EB)

~ 190' N of SL at SE 42nd Ave.; 1' from EOSW



1-13; SE 42nd Ave. at SE Olsen St. (NB)



~ 70' S of SE Olsen St.; 1' from EOSW



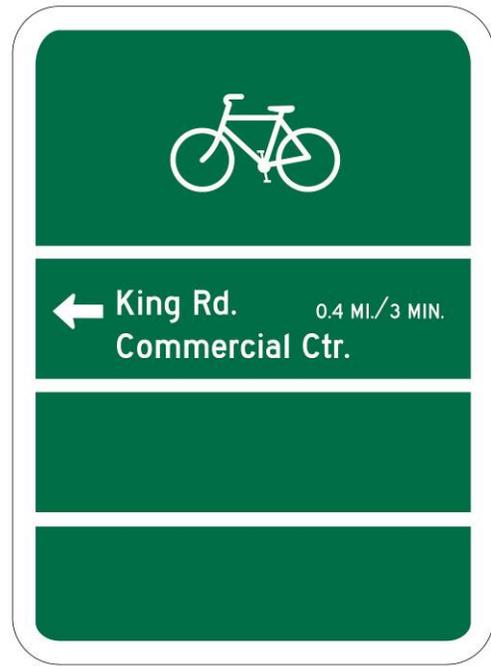
1-14; SE 42nd Ave. at SE Olsen St. (SB)



~ 55' N of SE Olsen St.; 1' from EOSW



1-15; SE 42nd Ave. at SE Howe St. (SB)



~ 55' N of SL at SE Howe St.; 1' from EOSW



1-16; SE Howe St. Midblock (EB)



Add right facing arrow placard

~ 93' W of SE 42nd Ave.; 8' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



1-17; SE Howe St. Midblock (WB)



Add right facing arrow placard

~ 94' E of SE 42nd Ave.; 10' from EOP



**1-18; SE Stanley Ave. at SE Willow St.
(SB)**



Add straight facing arrow placard

~ 4' S of SE Willow St.; 4' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



**1-19; SE Stanley Ave. at SE Willow St.
(NB)**



Add straight facing arrow placard

~ 12' S of SE Willow St.; 1' from EOSW

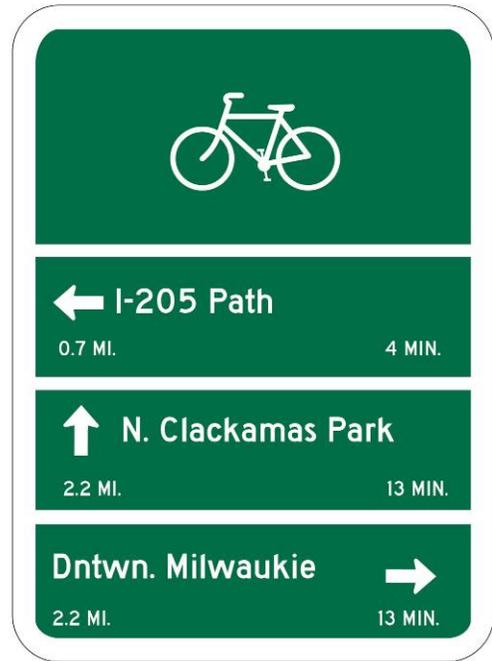


**1-20; SE Linwood Ave. at SE King Rd.
(NB)**



This sign should not be installed until bike lanes exist NB on SE Linwood Ave.

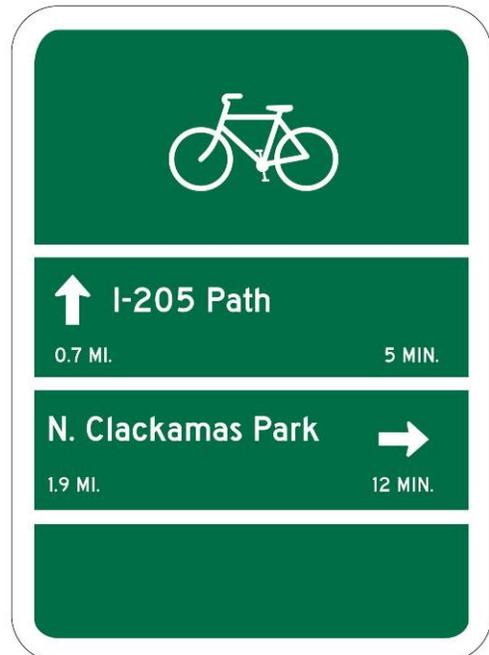
~93' S of CW at SE King Rd.; 2' from EOP



This sign should not be installed until bike lanes exist NB on SE Linwood Ave.

1-21; SE Linwood Ave. at SE King Rd. (SB)

~ 58' N of CW at SE King Rd.; 1' from EOSW



This sign should not be installed until bike lanes exist NB on SE Linwood Ave.

1-22; SE King Rd. at SE Linwood Ave. (EB)

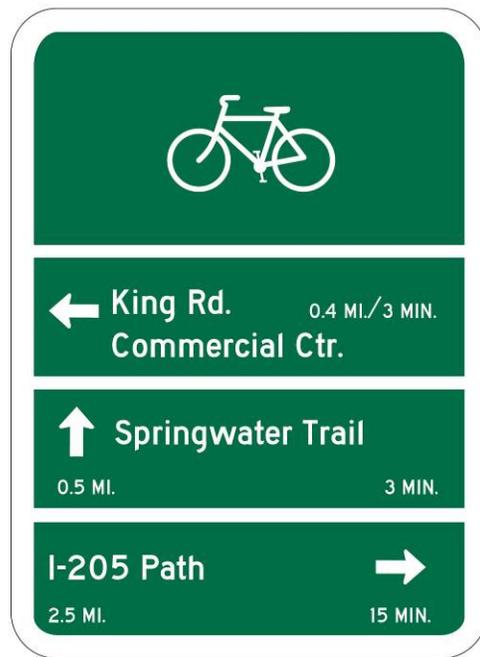
~326' W of CW at SE Linwood Ave; 2' from EOSW



Consider sending riders north on SE Linwood Ave. to access Springwater Trail once bike lanes are installed

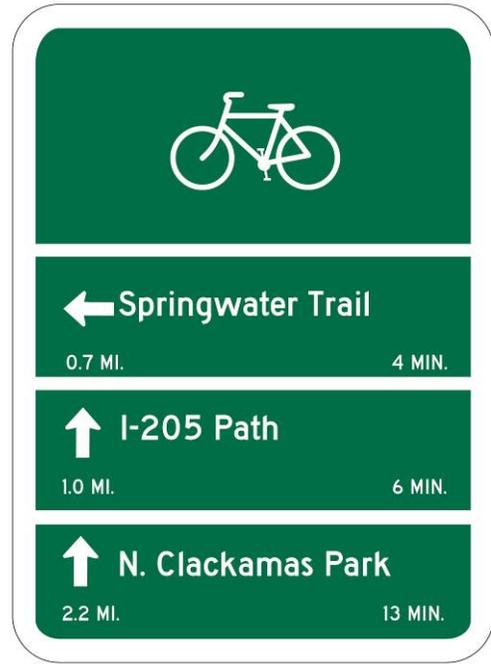
1-23; SE King Rd. at SE Linwood Ave. (WB)

~ 80' E of CW at SE Linwood Ave.; 2' from BOC



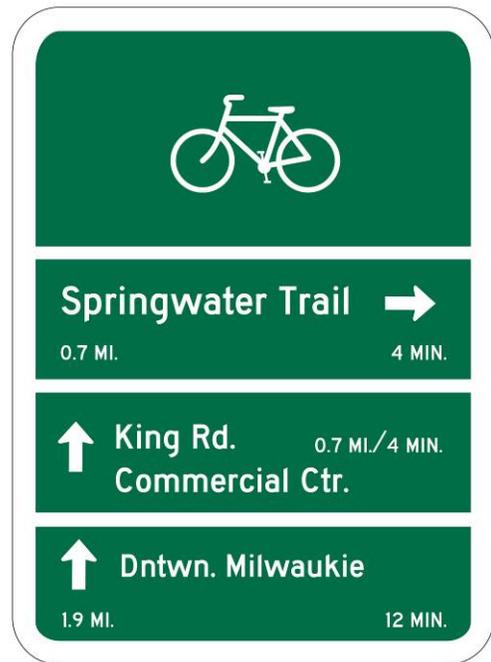
1-24; SE Stanley Ave. at SE King Rd. (NB)

~ 5' S of SL at SE King Rd.; 5' EOP



**1-25; SE King Rd. at SE Stanley Ave.
(EB)**

~ 185' of W SL at SE Stanley Ave.; 2' from EOSW



**1-26; SE King Rd. at SE Stanley Ave.
(WB)**

~ 100' of E of SL SE Stanley Ave.; 2' from EOSW

Milwaukie Bicycle Wayfinding Signage Plan



**1-27; SE King Rd. at SE Stanley Ave.
(WB)**

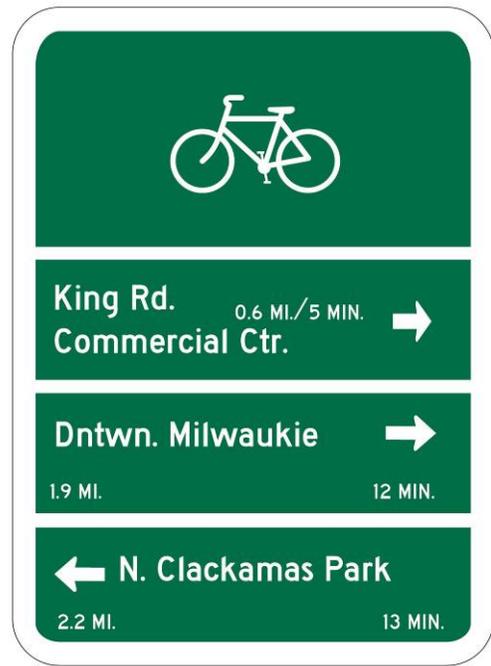


Add right facing arrow placard

~ 5' W of bus stop; 1' from EOSW



**1-28; SE Stanley Ave. at SE King Rd.
(SB)**

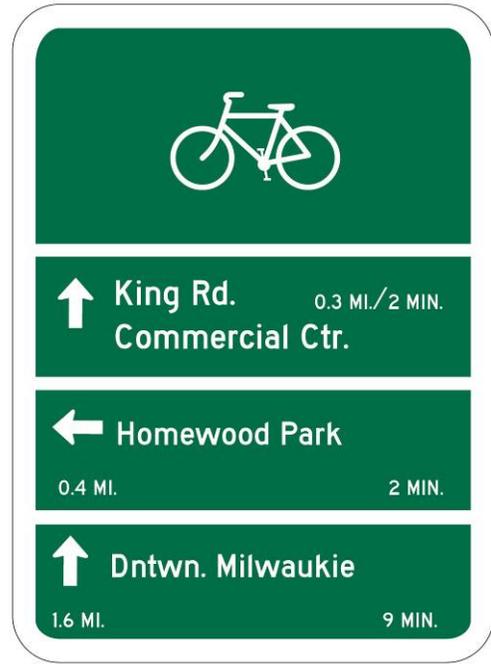


~ 150' S of SL at King Road.; 2' from EOP; 3' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



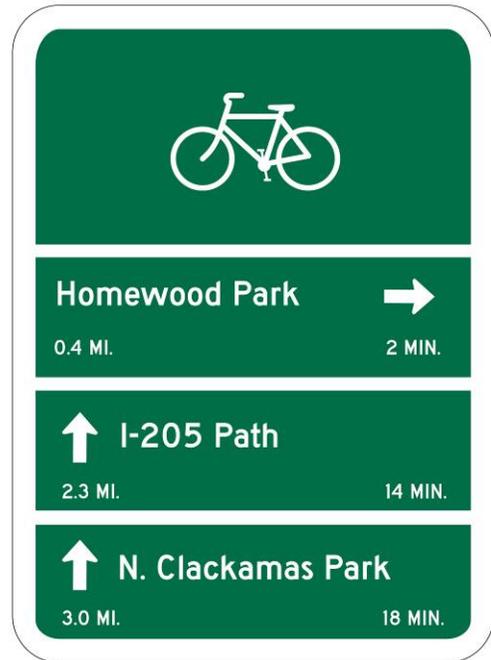
1-29; SE King Rd. at SE Home Ave. (WB)



~ 93' E of CW at SE Home Rd.; 1' from EOSW

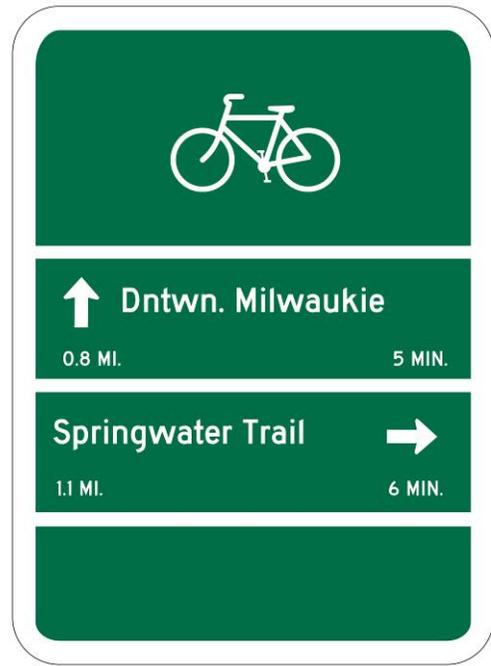


1-30; SE King Rd. at SE Home Ave. (EB)



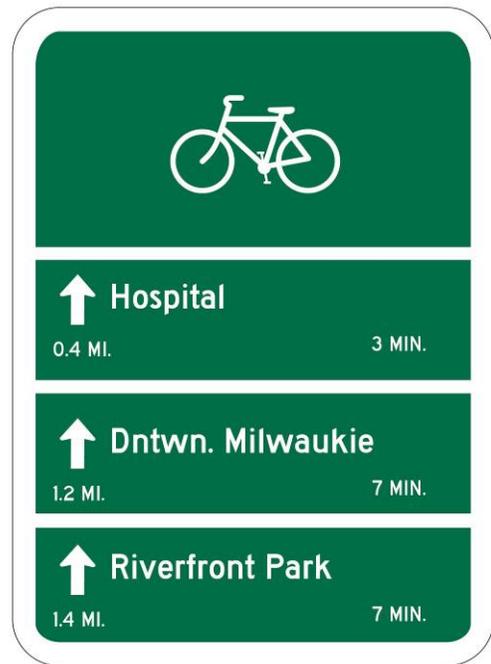
~ 20' W of CW at SE Home Ave.; 2' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



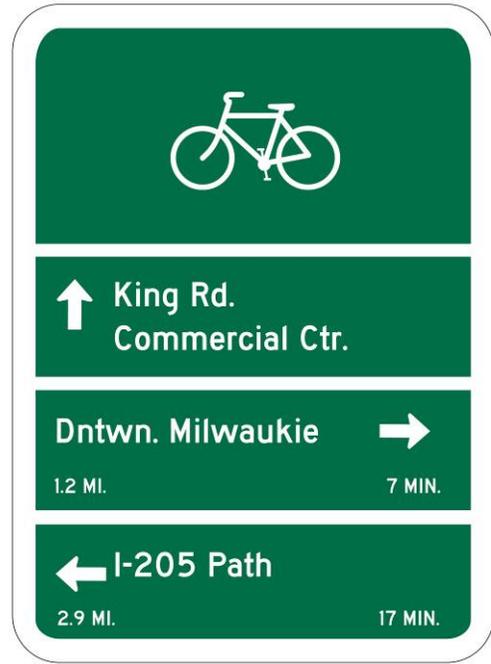
1-31; SE King Rd. at SE 43rd Ave. (WB)

~ 83° E of SL at SE 43rd Ave.; 1' from EOSW



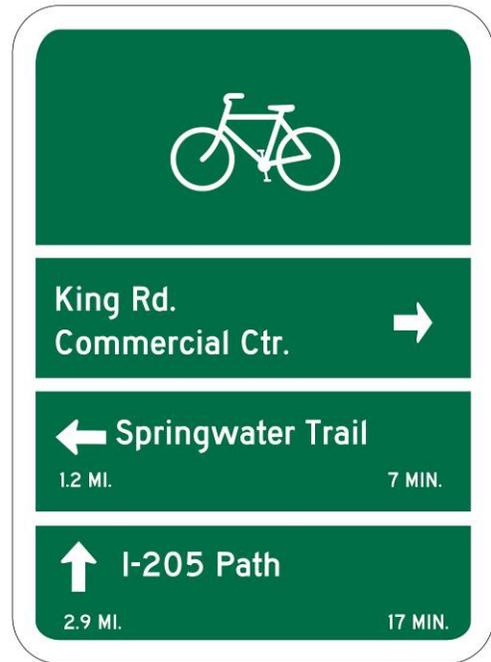
1-32; SE King Rd. at SE 42nd Ave. (WB)

~ 78° E of SE 42nd Ave.; 2' from EOSW



1-33; SE 43rd Ave. at SE King Rd. (SB)

~ 200' N of SL at SE King Rd.; 6' from EOP

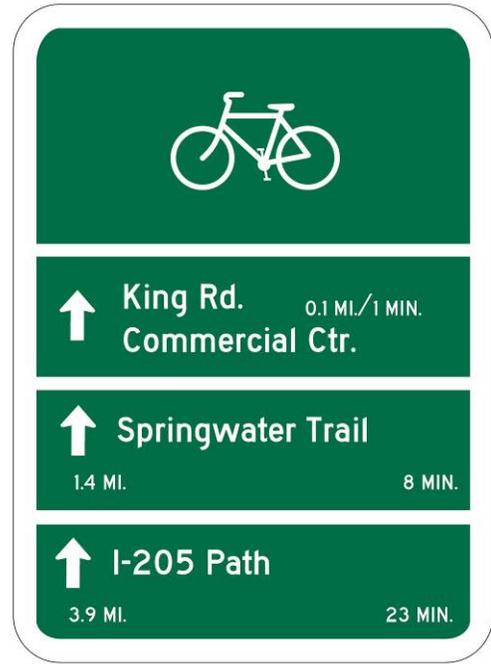


1-34; SE King Rd. at SE 43rd Ave. (EB)

~ 120' W of SL at SE 43rd Ave.; Center of PS



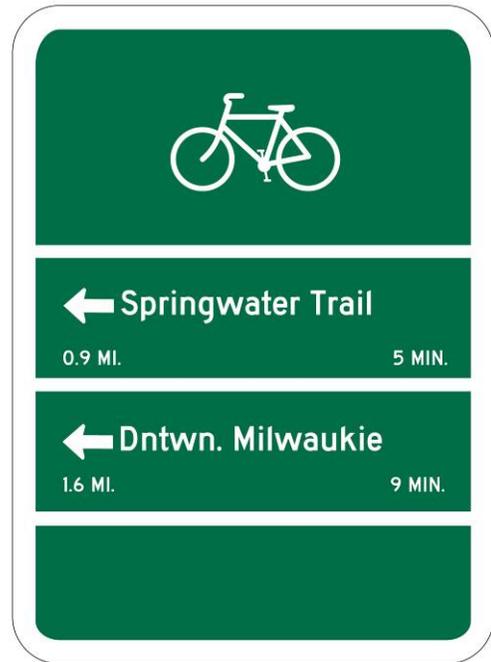
1-35; SE King Rd. at SE 42nd Ave. (EB)



~ 26' W of SL at SE 42nd Ave.; Center of PS



1-36; SE 43rd Ave. at SE Howe St. (NB)



~ 420' S of SE Howe St.; 6' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



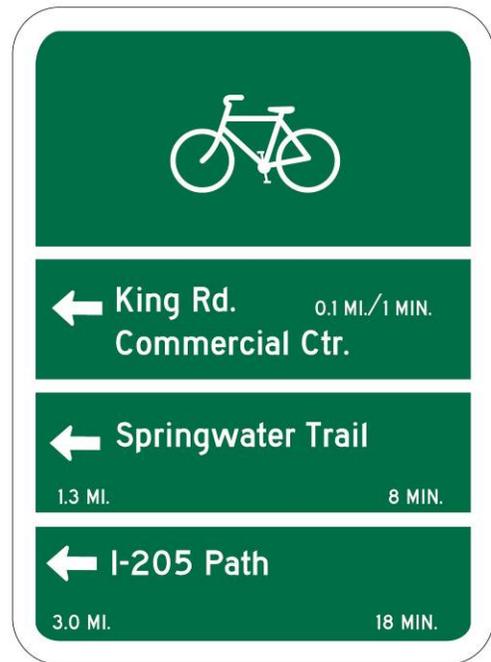
1-37; SE 42nd Ave. at SE Harrison St.
(SB)



~ 156' N SL at SE Harrison St.; 2' from BOC



1-38; SE Harrison St. at SE 42nd Ave.
(EB)

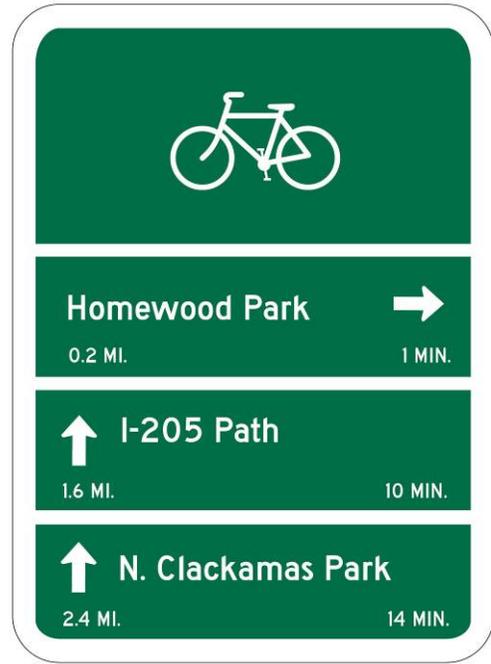


~ 156' S of SL at SE 42nd Ave.; 2' from BOC

Milwaukie Bicycle Wayfinding Signage Plan



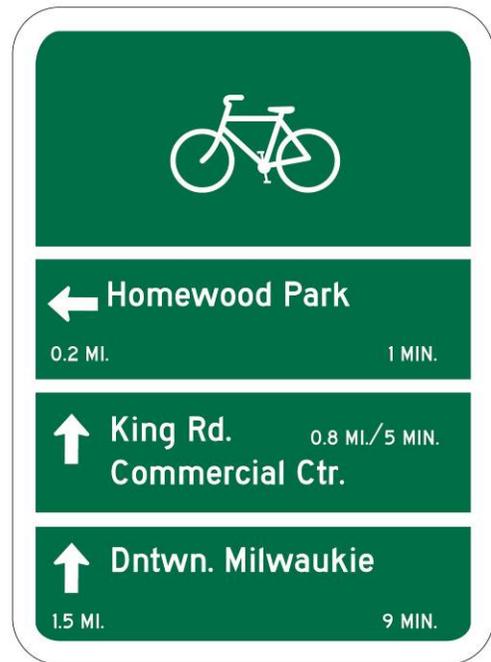
**1-39; SE Monroe St. at SE Home Ave.
(EB)**



~ 55' W of SL at SE Home Ave.; 12' from EOP

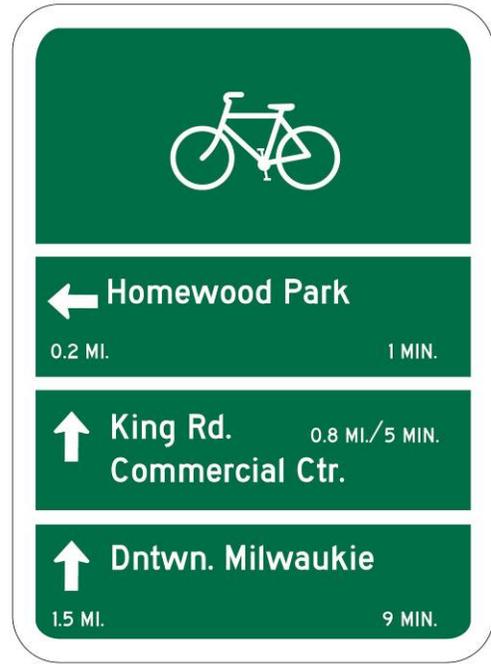


**1-40; SE Monroe St. at SE Home Ave.
(WB)**



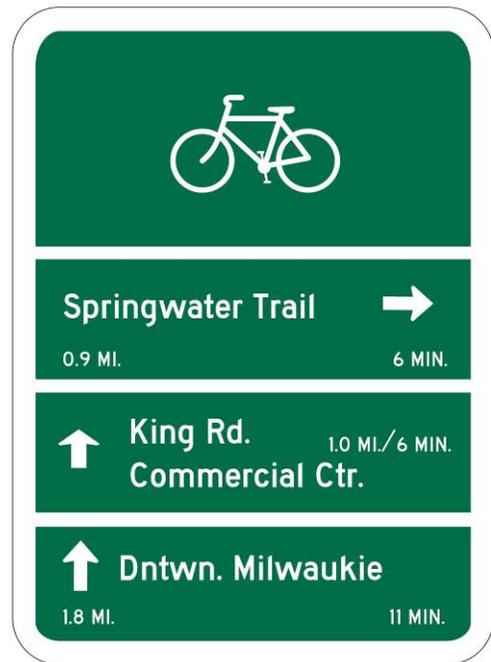
~ Mid-block at utility pole; approx 200' E of SE Home Ave.; 10' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



1-41; SE Monroe St. at SE Stanley Ave. (EB)

~ 100' W of SE Stanley Ave.; 6' from EOP



1-42; SE Monroe St. at SE Stanley Ave. (WB)

Consider using standard 'Bike Route' sign (right arrow) until SE Monroe St. is improved

~ 100' E of SE Stanley St.; 5' from EOP



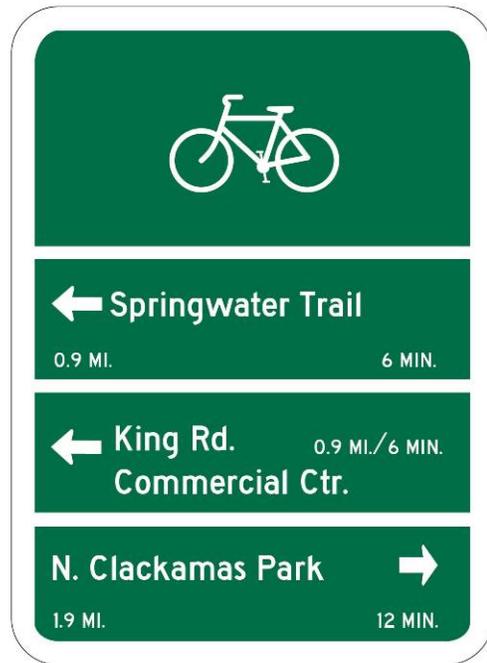
1-43; SE Stanley Ave. at SE Monroe St. (SB)



~ 30' S of SS at SE Monroe St.; 2' from edge of fence



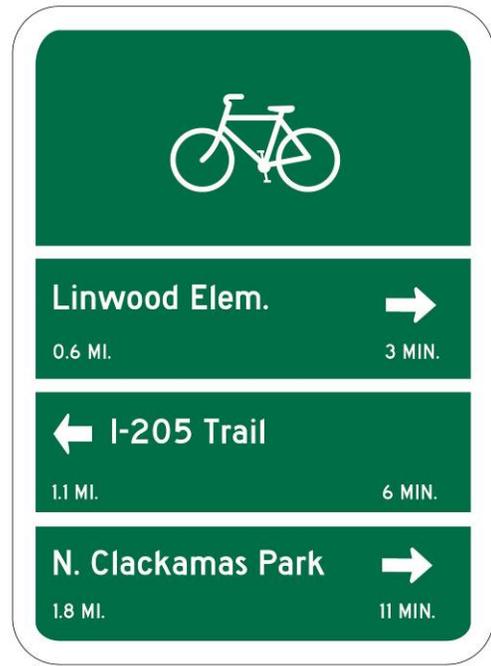
1-44; SE Stanley Ave. at SE Monroe St. (NB)



Consider using standard 'Bike Route' sign (left arrow) until SE Monroe St. is improved

~ 85' S of SE Monroe Ave; 8' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



1-45; SE Monroe St. at SE Linwood Ave. (EB)

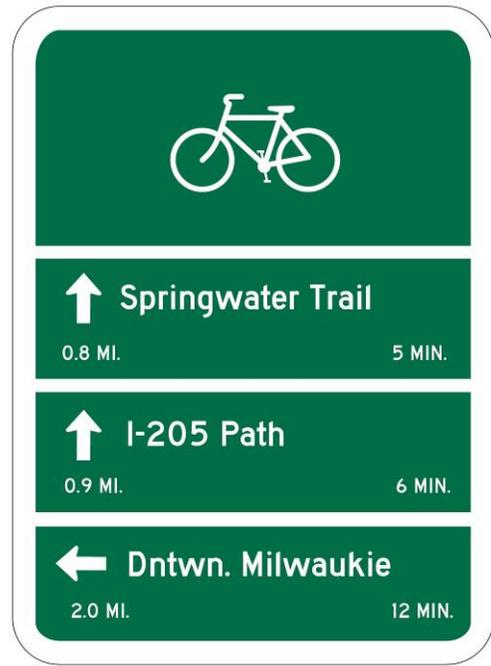
~ 75' W of SE Linwood Ave.; 4' from EOP



1-46; SE Linwood Ave. at SE Monroe St. (SB)

~ 75' from SE Monroe St.; Center of PS

Milwaukie Bicycle Wayfinding Signage Plan



**1-47; SE Linwood Ave. at SE Monroe St.
(NB)**

~ 10' N of "Johnson Creek Watershed" sign; Inline with "Johnson Creek Watershed" and "No Parking" signs

SECTION 4.2 - PROPOSED SIGN LOCATIONS 2-1 TO 2-32



Map 4.2 - Wayfinding Signage Detail Map (SE Milwaukie)

Milwaukie, Oregon
 Milwaukie Bicycle Wayfinding Signage Plan

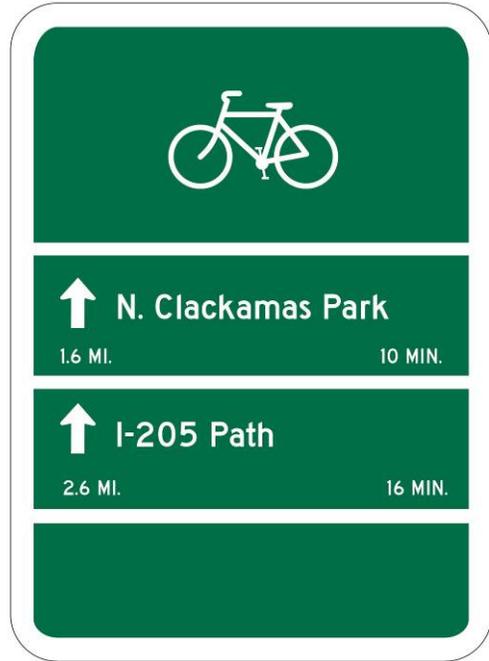
Source: City of Milwaukie, RLIS
 Author: KAV
 Date: May, 2009

0 500 1,000 Feet





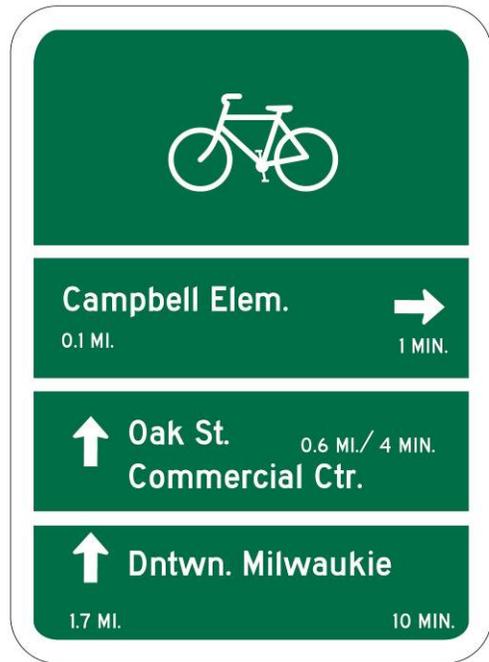
**2-1; SE Railroad Ave. at SE 47th Ave.
(EB)**



~ 94' W of SE 47th Ave.; 3' from EOP



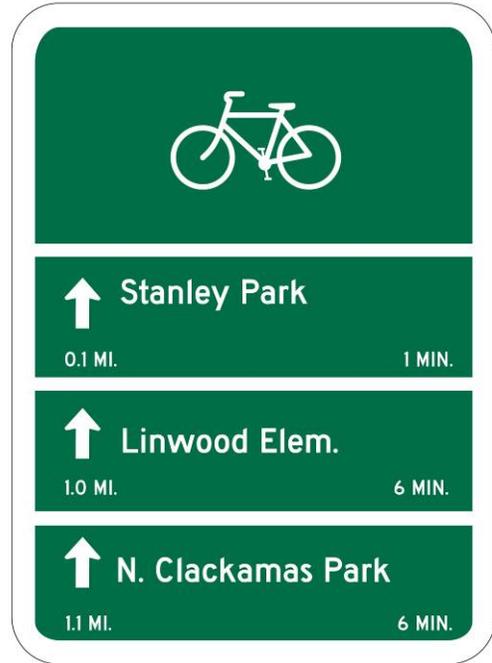
**2-2; SE Railroad Ave. at SE 47th Ave.
(WB)**



~ 94' E of SE 47th Ave.; 2' from EOP



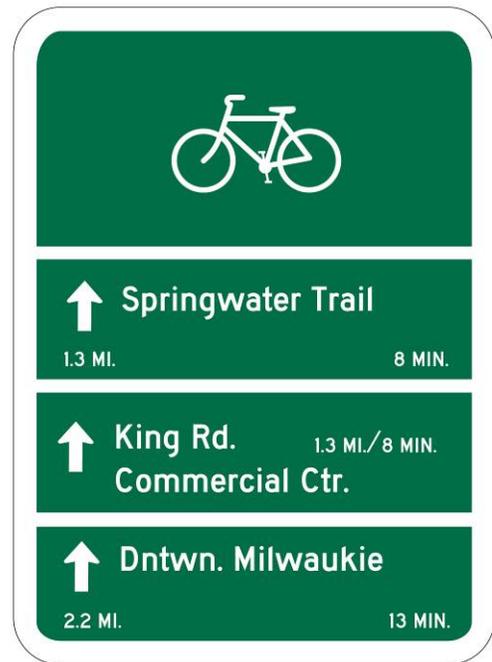
2-3; SE Stanley Ave. at SE Lloyd St. (SB)



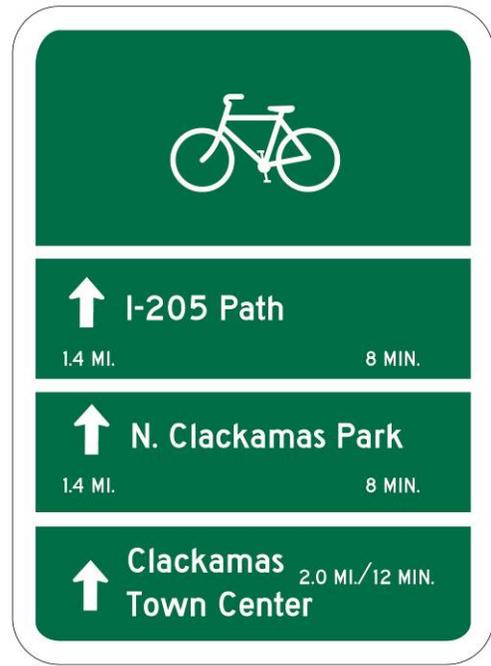
~ 75' N of SE Lloyd St.; 1' from EOSW



2-4; SE Stanley Ave. at SE Lloyd St. (NB)

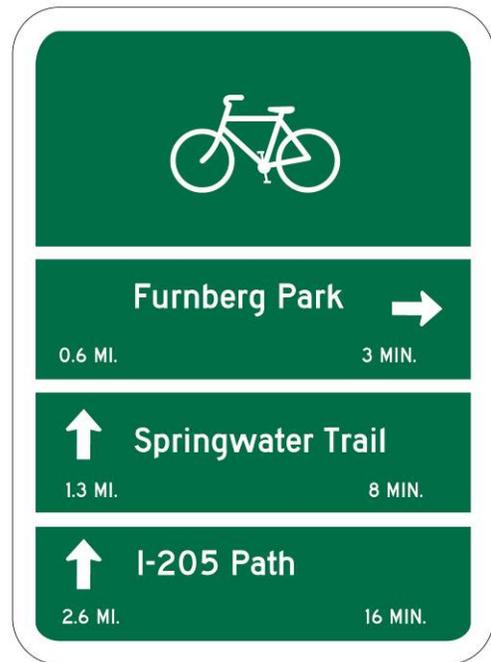


~130' S of SE Lloyd St.; 2' from EOP



2-5; SE Linwood Ave. at SE Furnberg St. (SB)

~65' N of SE Furnberg St.; 6' from EOP



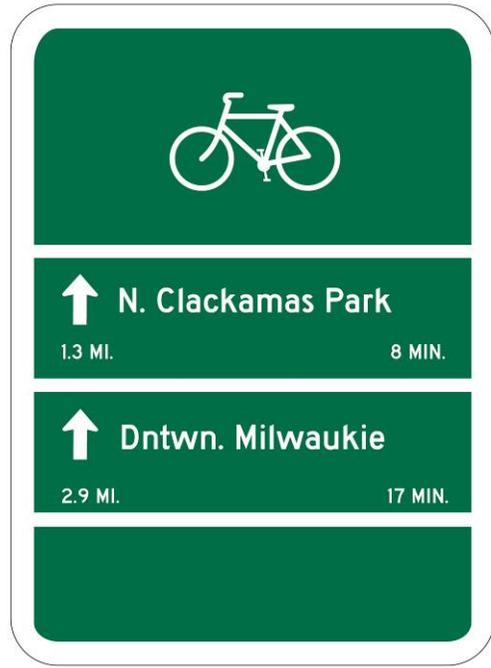
2-6; SE Linwood Ave. at SE Furnberg St. (NB)

~82' S of SE Furnberg St.; inline with utility pole

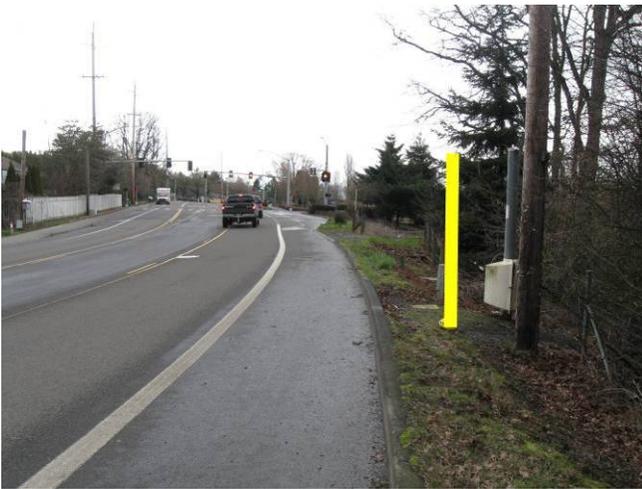
Milwaukie Bicycle Wayfinding Signage Plan



2-7; SE Harmony Rd. and SE 71st St. (WB)



~10' W of 'Welcome to Milwaukie' sign; 2' from BOC

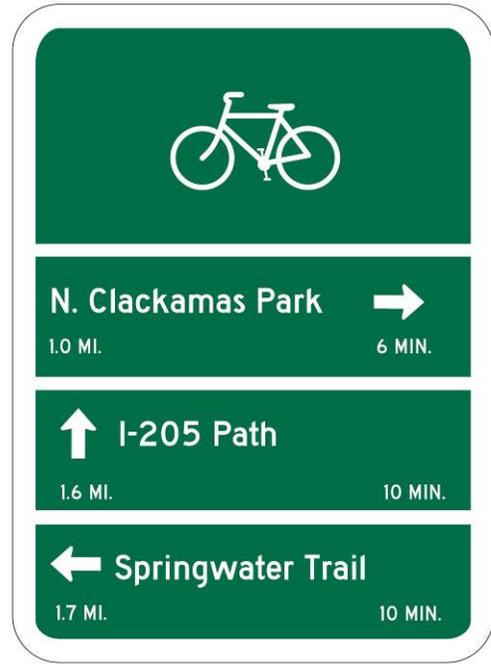


2-8; SE Harmony Rd. at SE 71st St. (EB)



~250' W of Aquatic Park Driveway; 6' from BOC

Milwaukie Bicycle Wayfinding Signage Plan



2-9; SE Railroad Ave. at SE Linwood Ave. (EB)

~ 275' E of SE Linwood Ave.; 2' from BOC



Add straight facing arrow placard

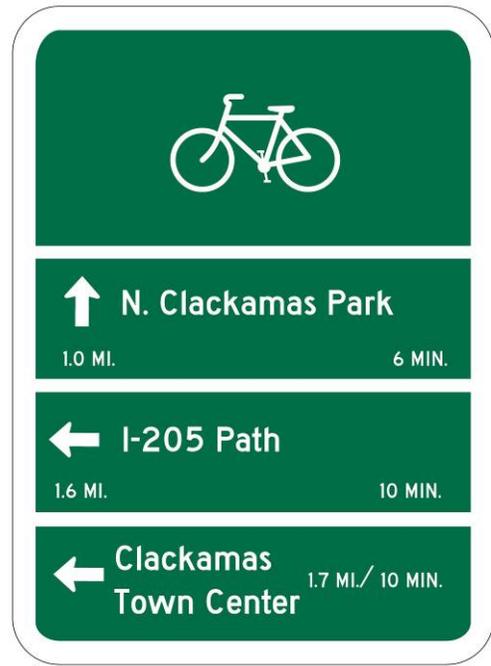
2-10; SE Linwood Ave. at SE Harmony Rd. (NB)

~ 108' N of SE Harmony Rd.; 3' from EOSW



2-11; SE Linwood Ave. at SE Harmony Rd. (SB)

~ 188' N of SL at SE Harmony Rd.; 2' from EOP



2-12; SE Railroad Ave. at SE Linwood Ave. (WB)

~ 185' W of SE Linwood Ave.; 4' from BOC

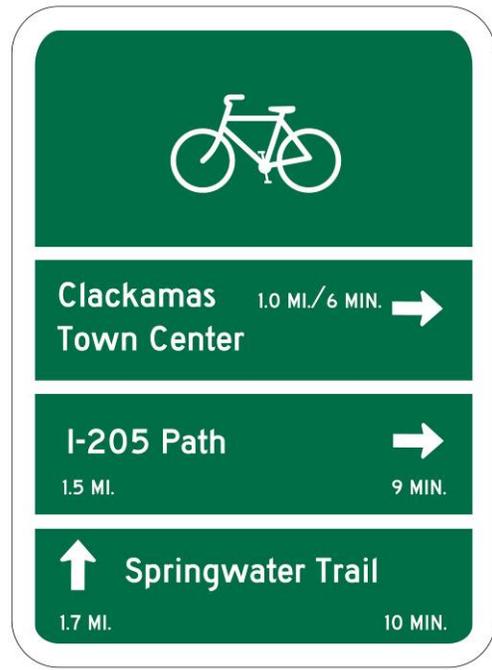


Milwaukie Bicycle Wayfinding Signage Plan



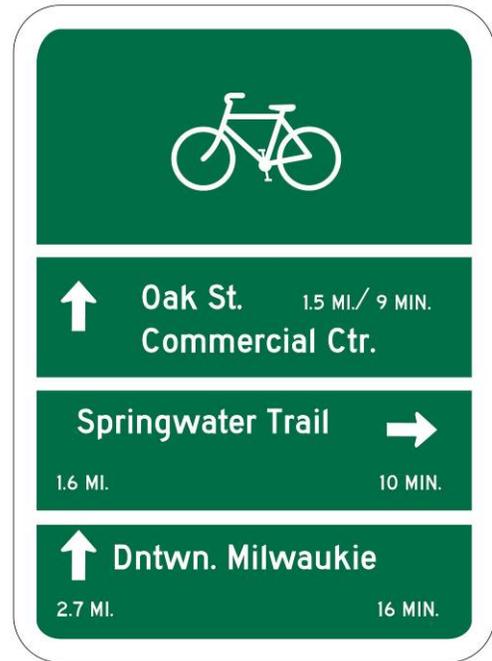
**2-13; SE Lake Rd. at SE Linwood Ave.
(NB)**

~ 200' S of railroad tracks at SE Linwood Ave.; 1' from BOC

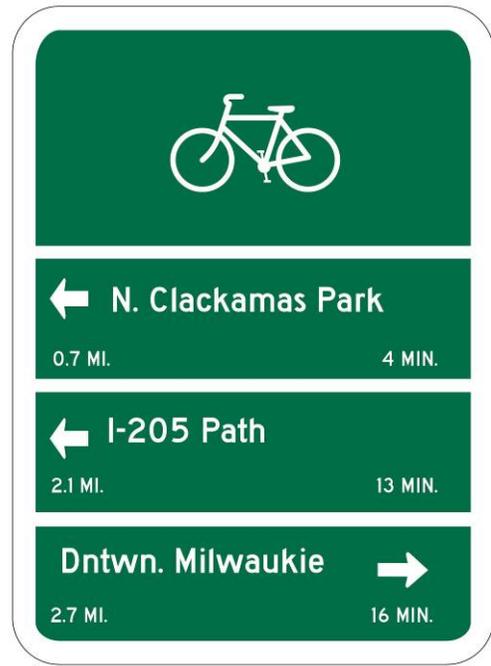


**2-14; SE Railroad Ave. at SE Stanley Ave.
(WB)**

~ 93' E of SE Stanley Ave.; 6' from EOP

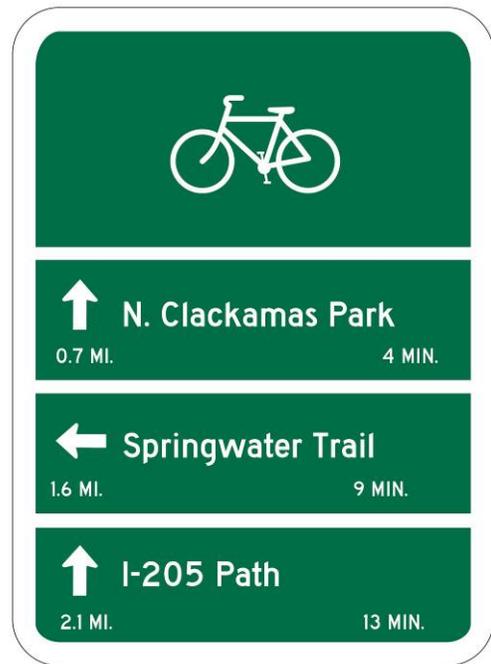


Milwaukie Bicycle Wayfinding Signage Plan



2-15; SE Stanley Ave. at SE Railroad Way

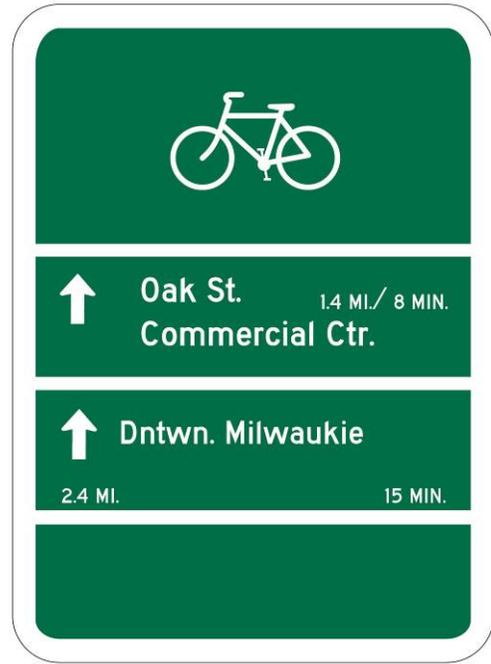
~74' N of SE Railroad Way.; 3' from EOP



2-16; SE Railroad Ave. at SE Stanley Ave. (EB)

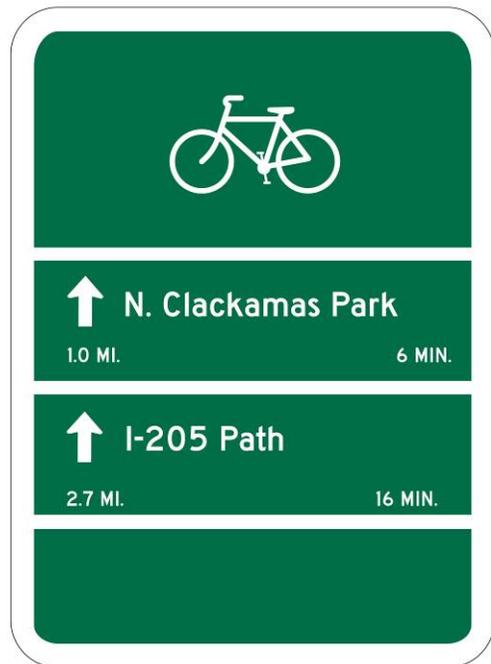
~ 64' W of SE Stanley Ave.; 4' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



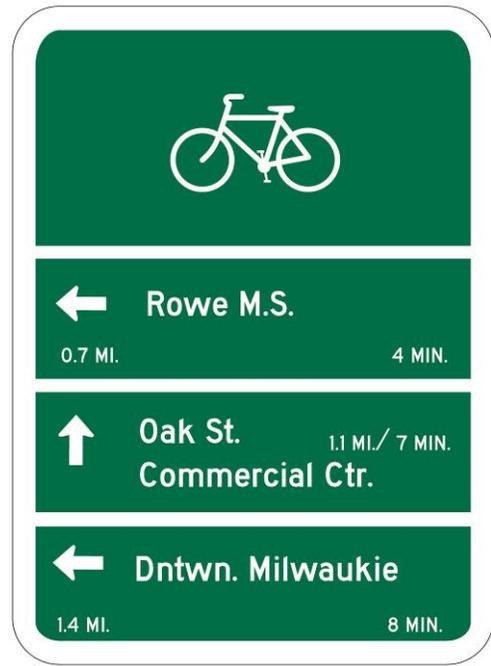
2-17; SE International Way at SE Mallard Way (WB)

~ 84' E of SE Mallard Way; 15' from EOP



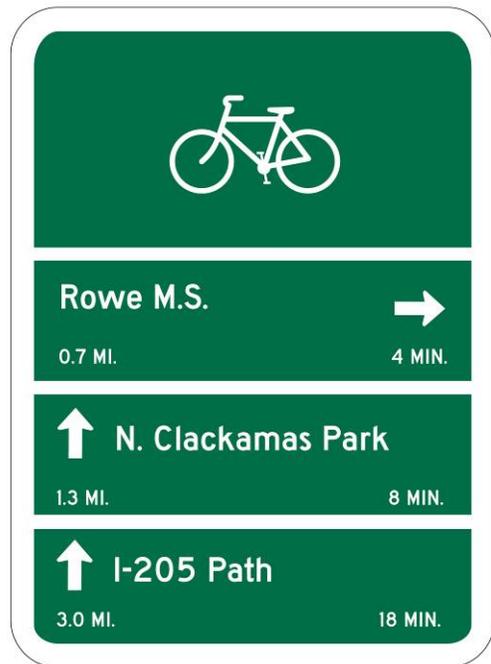
2-18; SE International Way at SE Mallard Way (EB)

~ 125' W of SE Mallard Way; Center of PS



2-19; SE International Way at SE Freeman Way (WB)

~ 140' from SL at SE Freeman Way; 6' from EOP



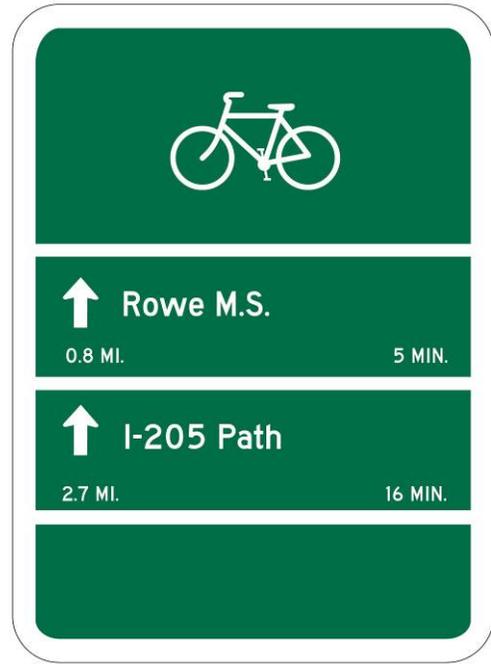
2-20; SE International Way at SE Freeman Way (EB)

~ 64' from SL at SE Freeman Way; 2' from EOSW

Milwaukie Bicycle Wayfinding Signage Plan



2-21; SE Freeman Way at Hwy 224 (SB)



~ 75' from Hwy 224; 3' from EOSW



2-22; SE Freeman Way at SE International Way (NB)



~ 90' S of SL at SE International Way; 5' from EOSW

Milwaukie Bicycle Wayfinding Signage Plan



2-23; SE International Way at SE Lake Rd. (SB)

~ 500' N of SE Lake Rd.; 3' from EOP

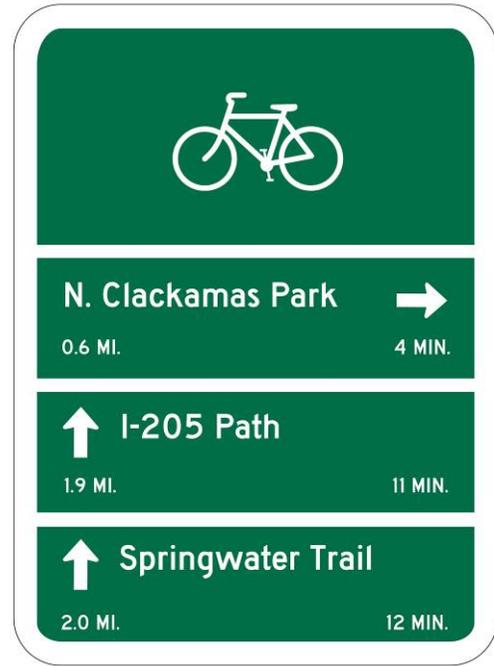


2-24; SE Lake Rd. at SE International Way (WB)

~ 150' E of SE International Ave.; 3' from BOC



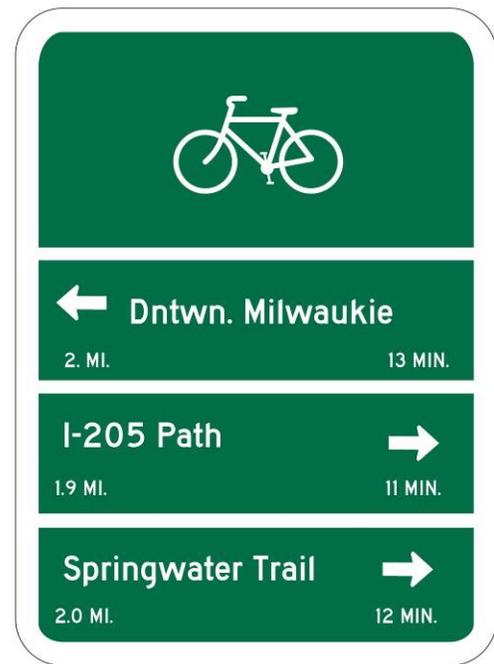
2-25; SE Lake Rd. at SE International Way (EB)



~ 50' E of CW at SE Lake/International Intersection; 3' from EOP

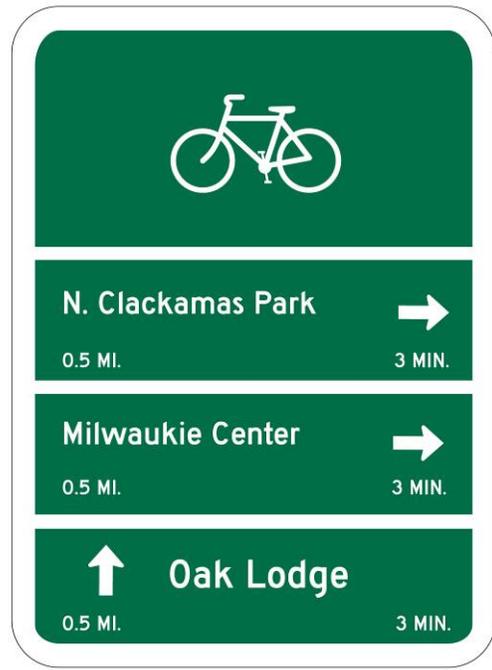


2-26; SE Lake Rd. at SE Harmony Rd. (NB)



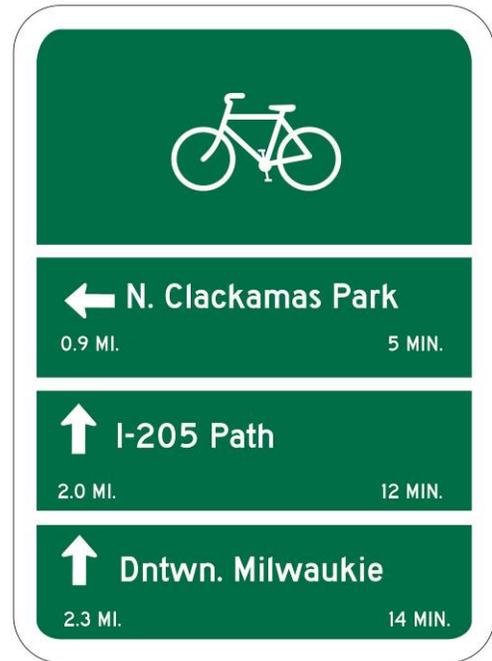
~500' S of existing CW at SE Harmony Rd.; behind guardrail

Milwaukie Bicycle Wayfinding Signage Plan



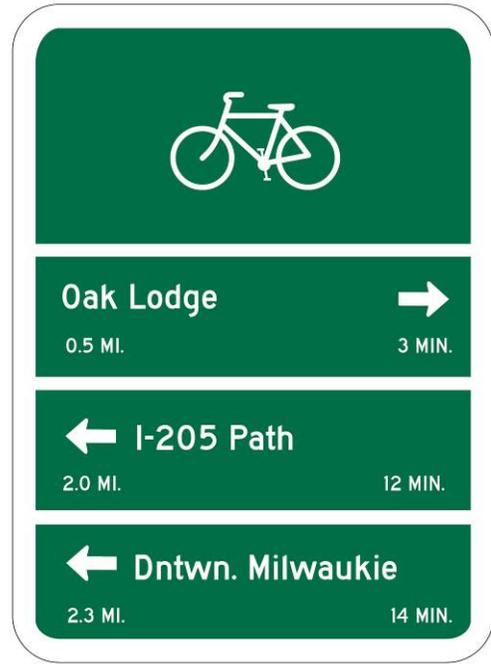
2-27; SE Lake Rd. at SE Rusk Rd. (EB)

~ 150' W of SE Rusk Rd.; behind guardrail



2-28; SE Lake Rd. at SE Rusk Rd. (WB)

~ 75' E of SE Rusk Rd.; 2' from EOP



2-29; SE Rusk Rd. at SE Lake Rd. (NB)

~ 144' S of SL at SE Lake Rd.; 3' from EOP



2-30; SE Rusk Rd. at Highway 224 (SB)

Add straight facing arrow placard

~ 70' N of Highway 224; 8' from EOP behind railroad tie

Milwaukie Bicycle Wayfinding Signage Plan



2-31; SE Rusk Rd. at Milwaukie Expressway (NB)

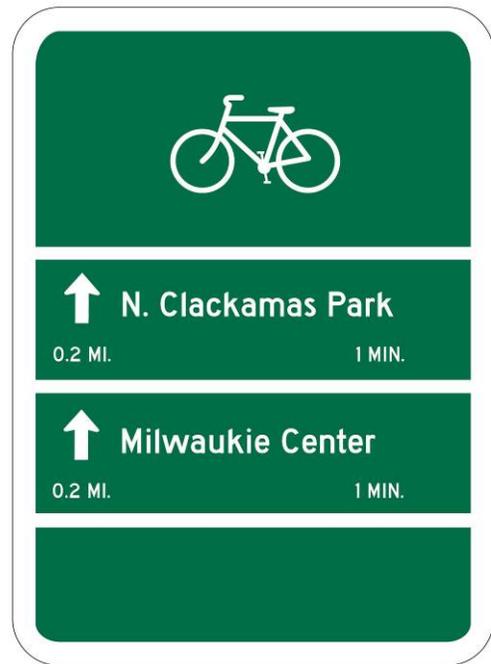


Add straight facing arrow placard

~ 156' S SL at SE Milwaukie Expressway; 4' from EOP



2-32; SE Rusk Rd. at Kellogg Creek Dr. (WB)

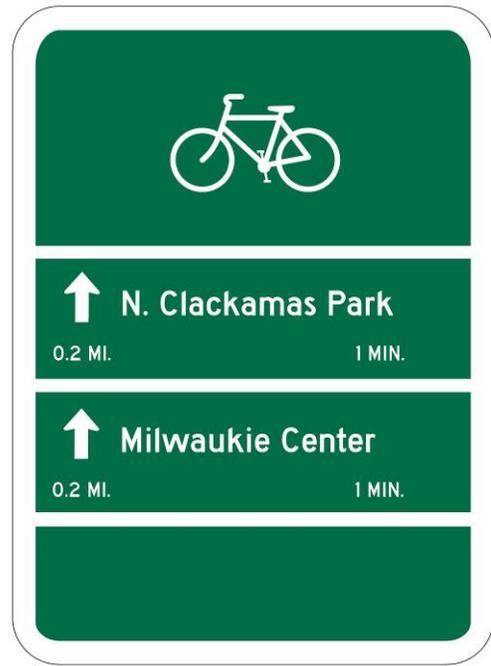


~ 72' E of "Welcome to North Clackamas Park" sign; 1' from EOSW

Milwaukie Bicycle Wayfinding Signage Plan

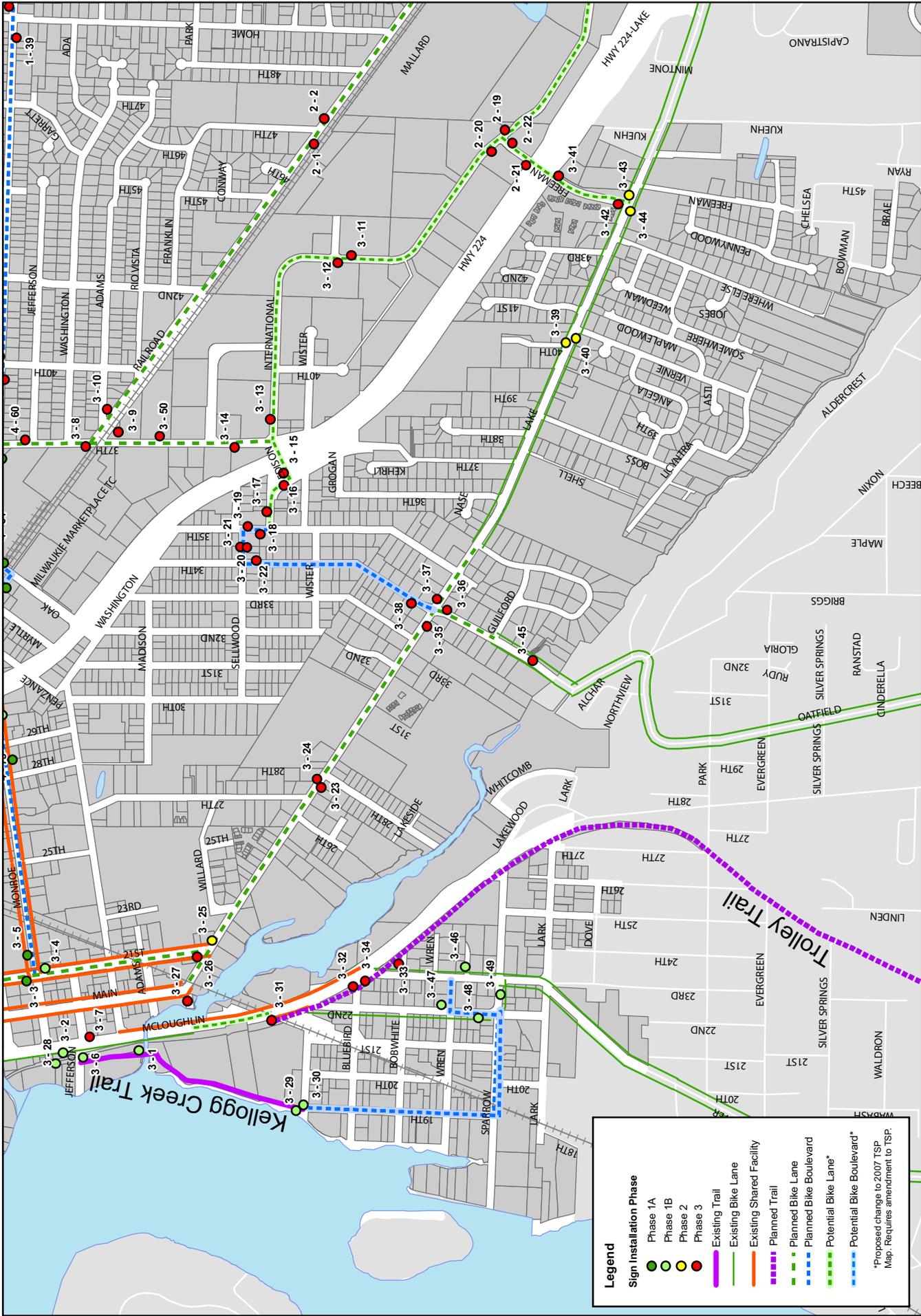


**2-33; SE Rusk Rd. at Kellogg Creek Dr.
(EB)**



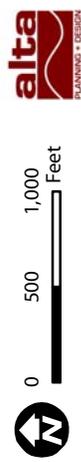
~ 44' W of SL at SE Rusk Rd.; 2' from EOP

SECTION 4.3 - PROPOSED SIGN LOCATIONS 3-1 TO 3-50



Map 4.3 - Wayfinding Signage Detail Map (SW Milwaukie)

Milwaukie, Oregon
 Milwaukie Bicycle Wayfinding Signage Plan
 Source: City of Milwaukie, RUS
 Author: KAV
 Date: May, 2009





3-1; Kellogg Creek Trail at Sewage Treatment Plant Driveway (NB)

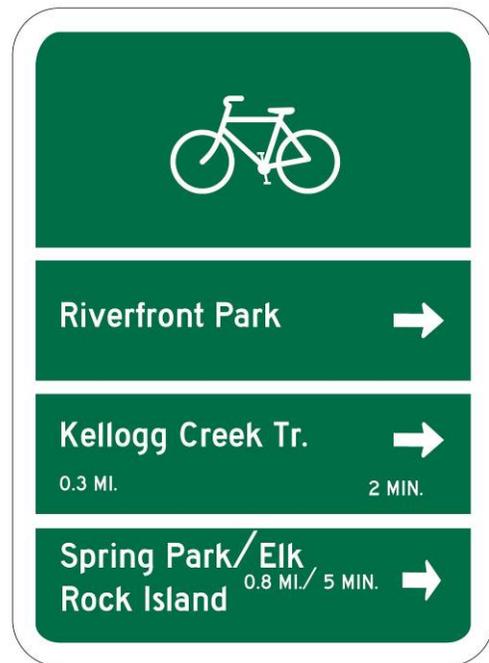


Add straight directional arrow placard

~6' S of Sewage Treatment Plant Driveway; 2' from EOP



3-2; McLoughlin Blvd. at SE Jefferson St. (SB)



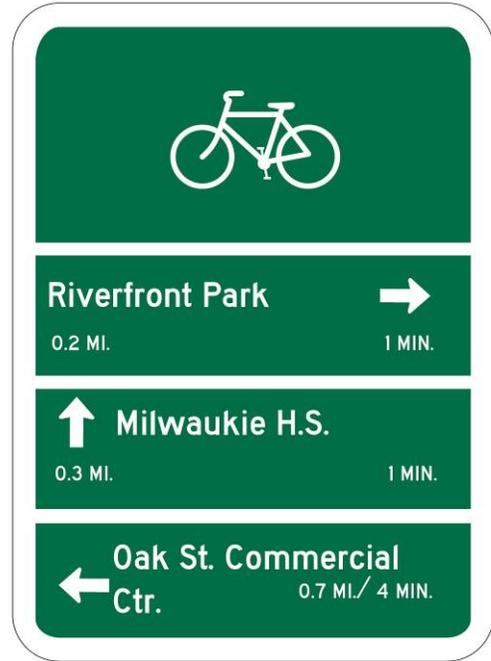
Consider adding the Trolley Trail to this sign as a future destination

~ 300' S of SL at SE Railroad Ave.; 2' from BOC

Milwaukie Bicycle Wayfinding Signage Plan



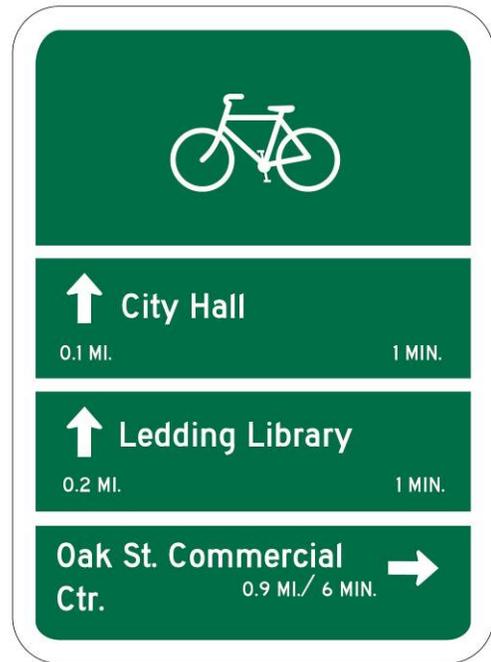
3-3; SE 21st Ave. at SE Monroe St. (SB)



~ 88' N of SS at SE Monroe St.; 2' from BOC

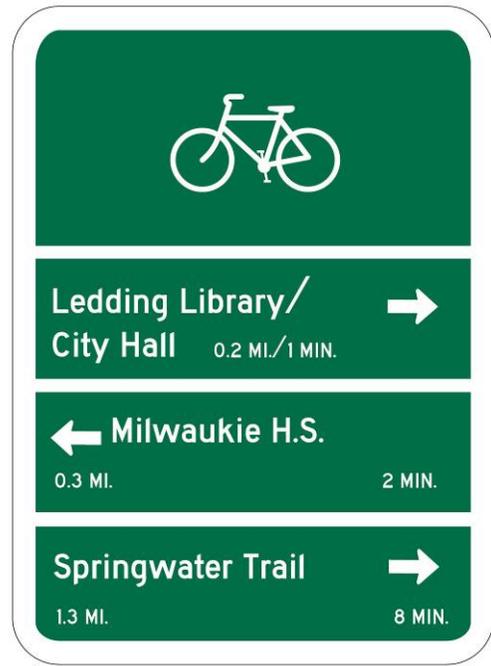


3-4; SE 21st Ave. at SE Monroe St. (SB)



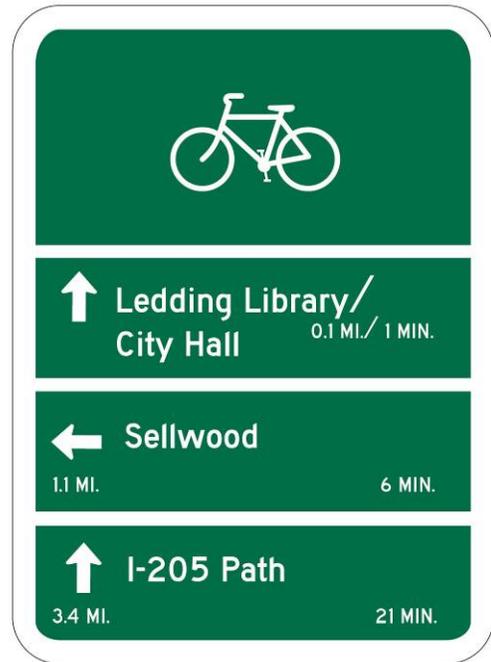
~ 88' N of SS at SE Monroe St.; 2' from BOC

Milwaukie Bicycle Wayfinding Signage Plan



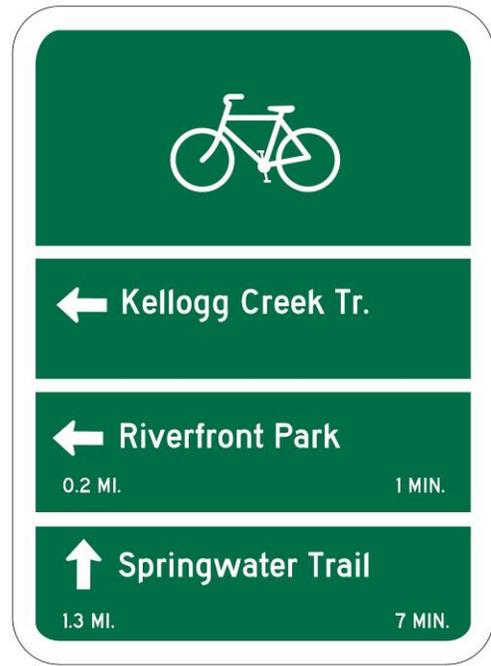
3-5; SE Monroe St. at SE 21st Ave. (WB)

~ 64' from SS at SE 21st Ave.; 5' from EOSW



3-6; Riverfront Park at McLoughlin Blvd. (EB)

~ 84' W of SL at CW at McLoughlin Blvd.; 2' from BOC



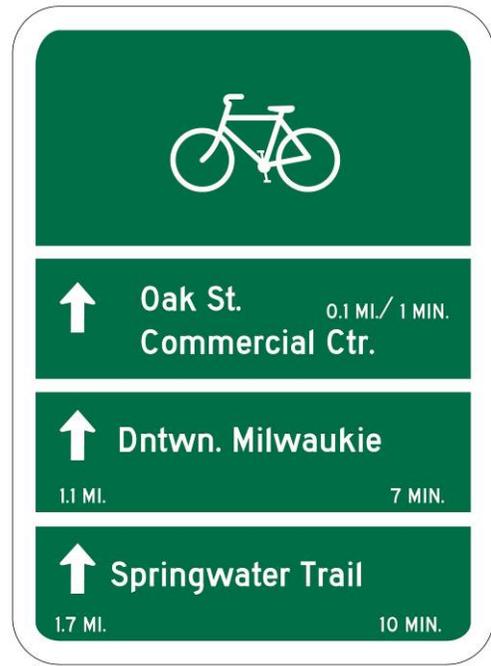
3-7; SE McLoughlin Blvd. at SE Washington St. (NB)

~ 210' S of SL at SE Jefferson St.; behind guardrail



3-8; SE 37th Ave. at SE Railroad Ave. (SB)

~238' N of SL at SE Railroad Ave.; 8' from EOP



3-9; SE 37th Ave. at SE Railroad Ave. (NB)

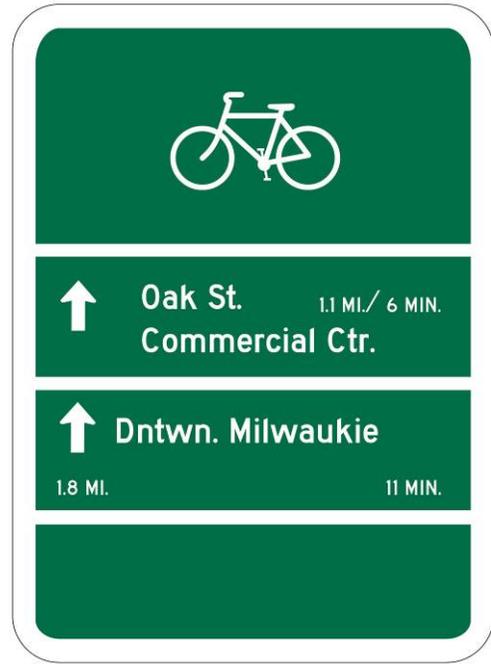
~ 300' S of SL at SE Railroad Ave.; 2' from BOC



Add right facing arrow placard

3-10; SE Railroad Ave. at SE 37th Ave. (WB)

~94' E of SL at SE Railroad Ave.; 4' from EOP



3-11; SE International Way at SE Criterion Ct. (NB)

~ 100' S of SE Criterion Ct.; 2' from EOSW



3-12; SE International Way at SE Criterion Ct. (SB)

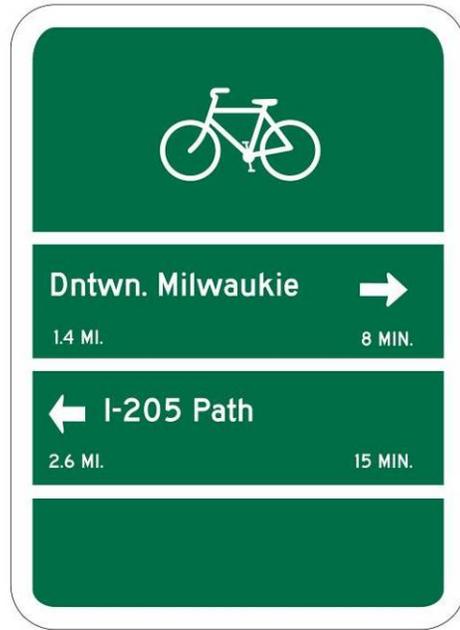
~ 100' N of SE Criterion Ct.; 2' from EOSW

Milwaukie Bicycle Wayfinding Signage Plan



3-13; SE International Way at SE 37th Ave. (WB)

~ 50' E of SL at SE 37th Ave.; 2' from EOSW

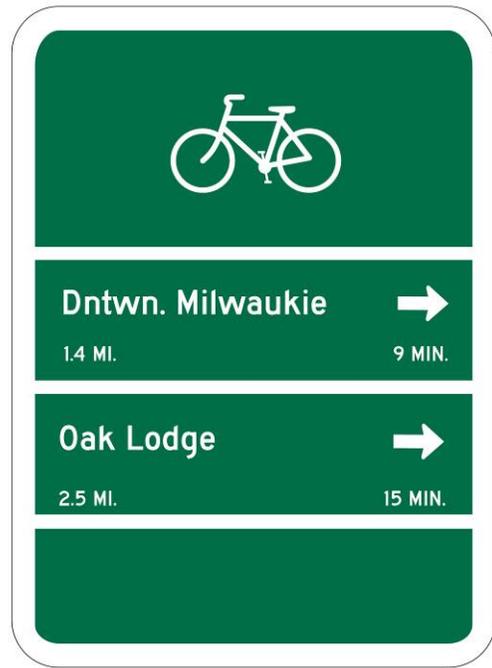


Consider adding the Trolley Trail to this sign as a future destination

3-14; SE 37th Ave. at Milwaukie Expressway (SB)

~ 250' N of SL at Milwaukie Expressway; 2' from BOC

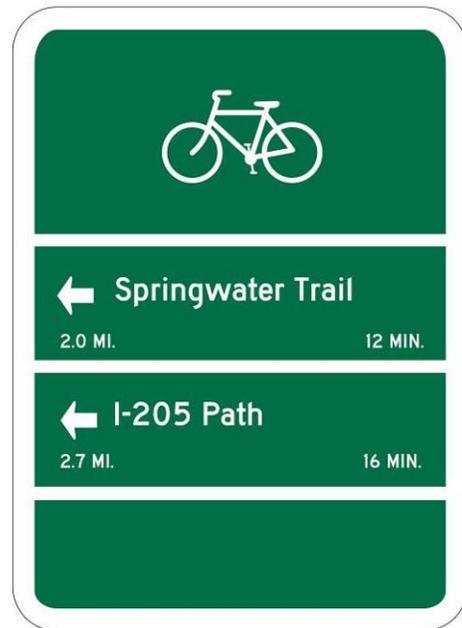
Milwaukie Bicycle Wayfinding Signage Plan



Consider adding the Trolley Trail to this sign as a future destination

3-15; SE Edison St. at SE 37th Ave. (WB)

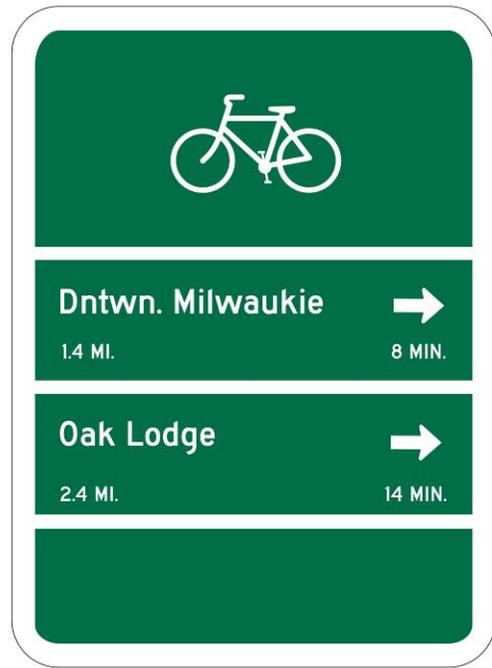
~ 80' N of SL at SE 37th Ave.; 6' from EOSW



Consider adding the Trolley Trail to this sign as a future destination

3-16; SE Edison St. at SE 37th Ave. (SB)

~ 64' N of SS at SE 37th Ave.; 6' from EOP



Consider adding the Trolley Trail to this sign as a future destination

3-17; SE Edison St. at SE 35th Ave. (WB)

~ 100' N of SL at SE Lake Rd.; 2' from EOSW



Add left facing arrow placard

3-18; SE 35th Ave. Midblock (SB)

~ 50' N of SE Edison St.; 2' from EOSW



3-19; SE 35th Ave. Midblock (NB)

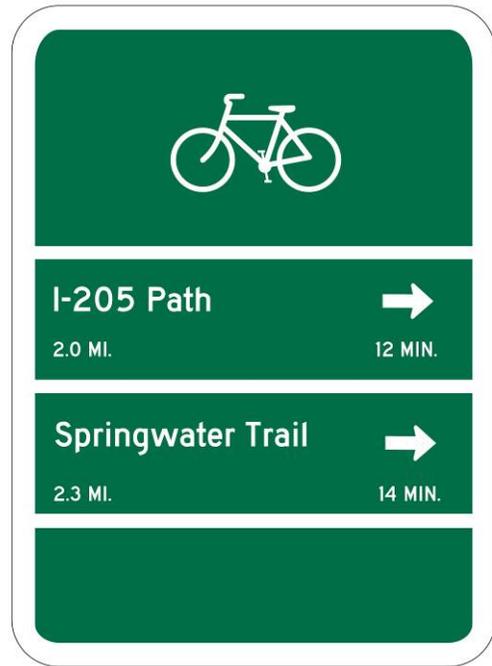


Add left facing arrow placard

~ 15' S of SE Sellwood St.; 2' from EOSW



3-20; SE Sellwood St. Midblock (EB)



Consider adding the Trolley Trail to this sign as a future destination

~ 100' W of SE 35th Ave.; 2' from BOC

Milwaukie Bicycle Wayfinding Signage Plan



3-21; SE Sellwood St. Midblock (WB)



Add left facing arrow placard

~ 2' E of utility pole on N side of SE Sellwood St.;
2' from BOC



3-22; SE 34th St. at SE Sellwood St. (NB)



Add right facing arrow placard

~ 220' S of SE Sellwood St.; 2' from EOSW

Milwaukie Bicycle Wayfinding Signage Plan



3-23; SE Lake St. at SE 28th St. (WB)



Add straight facing arrow placard

~ 125' E of SE 28th St.; Center of PS



3-24; SE Lake St. at SE 26th St. (EB)



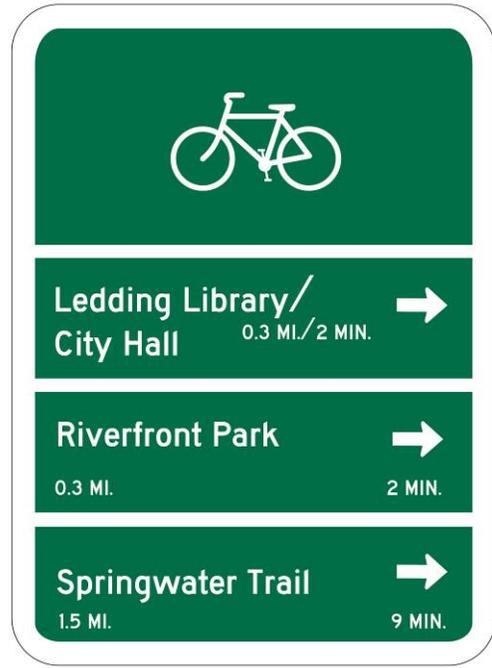
Add straight facing arrow placard

~70' W of SE 26th St.; Center of PS

Milwaukie Bicycle Wayfinding Signage Plan



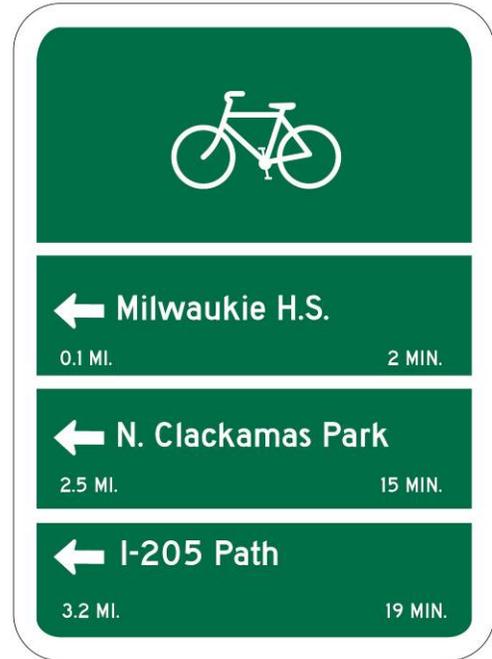
3-25; SE Lake Rd. at SE 21st Ave. (WB)



~150' E of SE 21st Ave.; 1' from EOSW



3-26; SE 21st Ave. at SE Lake St. (SB)



~ 88' N of SE Lake St.; 1' from EOSW



3-27; SE Main St. at SE Lake Rd. (SB)

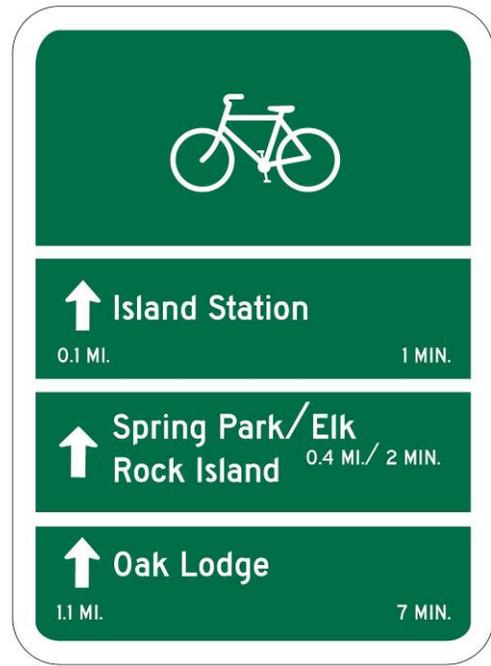
~ 38' from CW at SE Lake Rd.; Center of PS



Add straight facing arrow placard

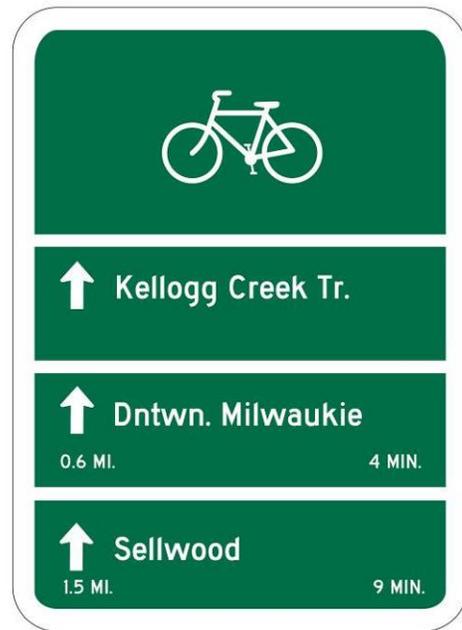
3-28; Riverfront Parkway at Boat Launch Driveway (SB)

~14' S of Boat Launch Driveway; 2' from EOSW



3-29; Kellogg Creek Trail at SE 19th Ave. (SB)

~ 20' from BL at SE 19th Ave.; 2' from EOP



Consider adding the Trolley Trail to this sign as a future destination

3-30; Kellogg Creek Trail at SE 19th Ave. (NB)

~ 75' from BL at SE 19th Ave.; 5' from EOP



Add 'Oak Lodge via Trolley Trail' with a straight arrow once facilities are completed. This sign must adhere to ODOT standards if placed in ODOT ROW

~ Under railroad bridge at McLoughlin Blvd (just N of SE 22nd Ave.; behind guard rail

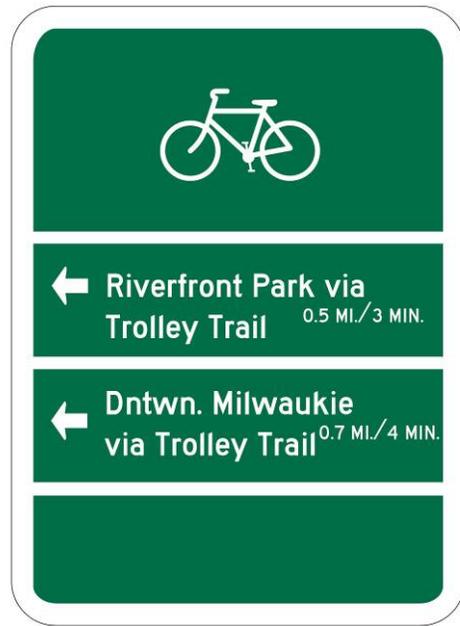
3-31; McLoughlin Blvd at SE 22nd Ave. (SB)



This sign should be installed with the completion of the Trolley Trail. This sign must adhere to ODOT standards if placed in ODOT ROW

~ 50' from intersection of SE River Rd.; 10' from EOP (Final Placement may change)

3-32; Trolley Trail at SE River Rd. (SB)



Consider adding the Trolley Trail to this sign as a future destination

3-33; SE River Rd. at Future Trolley Trail (NB)

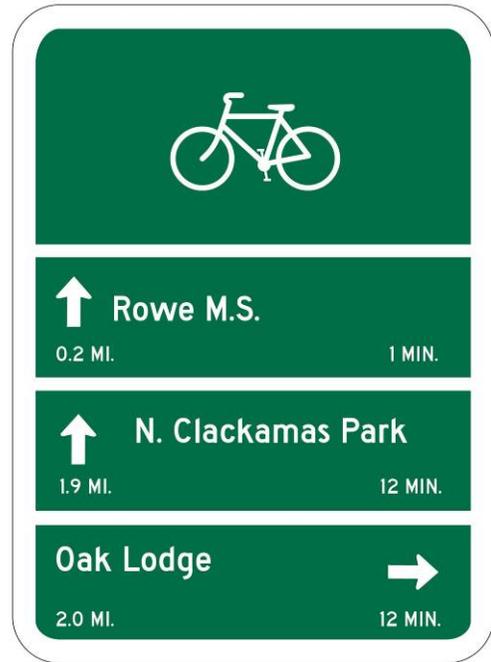
~ 56' N of SL at SE McLoughlin Blvd.; 4' from EOP



This sign must adhere to ODOT standards if placed in ODOT ROW

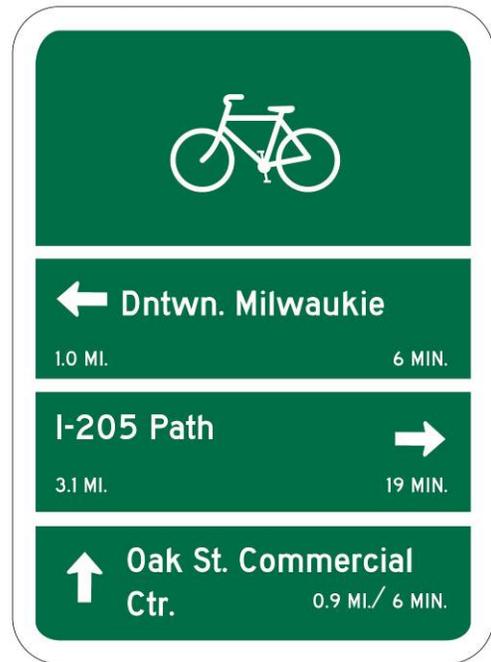
3-34; SE Bluebird St. at Future Trolley Trail (NB)

~ 10' S of SE Bluebird St.; 2' from EOP (of future Trolley Trail)



3-35; SE Lake Rd. at SE 34th Ave. (EB)

~ 100' W of SL at SE 34th Ave.; 1' from EOSW



3-36; SE Oatfield Rd. at SE Lake Rd. (NB)

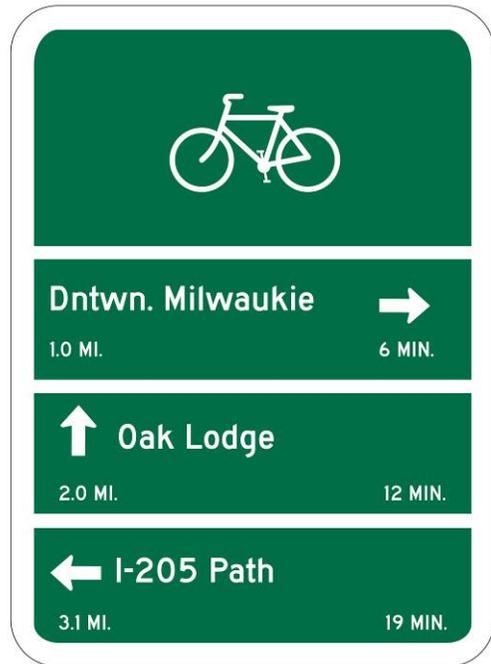
~ 110' S of SL at SE Lake Rd.; 1' from EOSW

Milwaukie Bicycle Wayfinding Signage Plan



3-37; SE Lake Rd. at SE 34th Ave. (WB)

~ 125' E of SL at SE 34th Ave.; Center of PS



3-38; SE 34th Ave. at SE Lake Rd. (SB)

~ 100' N of SL at SE Lake Rd.; 2' from EOSW

Milwaukie Bicycle Wayfinding Signage Plan



3-39; SE Lake Rd. at SE 40th Ave. (WB)



Add straight facing arrow placard

~ 100' E of SE 40th Ave.; 2' from EOP



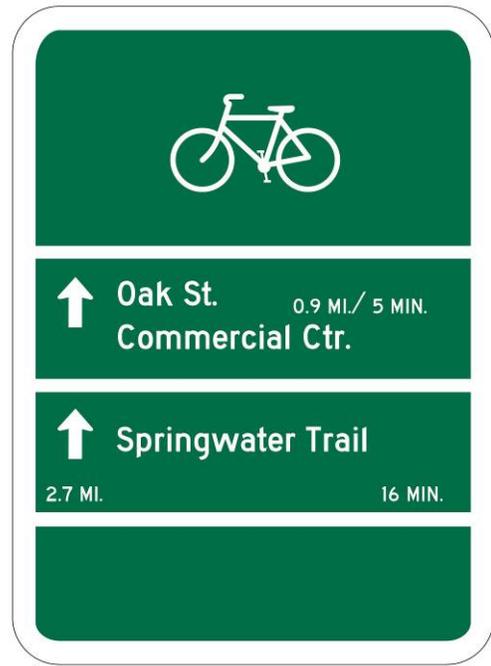
3-40; SE Lake Rd. at SE 39th Ave. (EB)



Add straight facing arrow placard

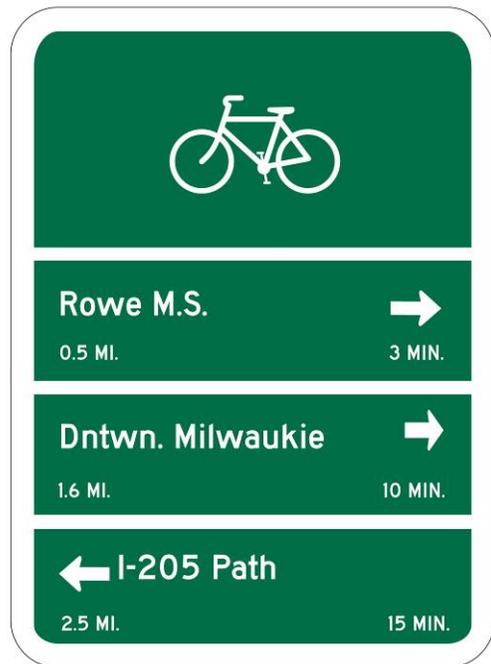
~ 100' W of SE 40th Ave.; 2' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



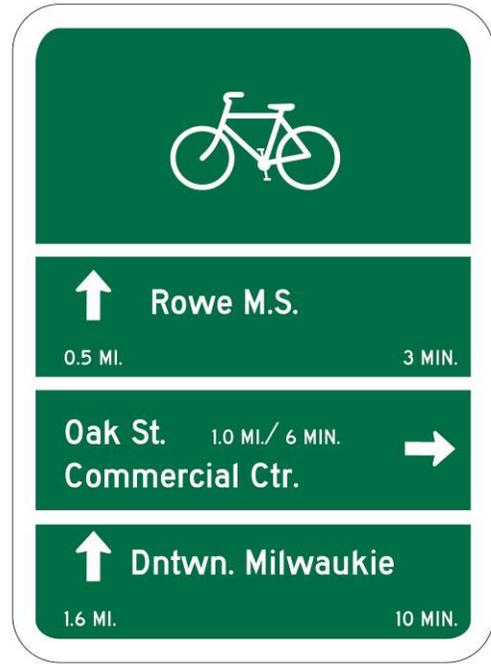
3-41; SE Freeman Way at Milwaukie Expressway (NB)

~ 85' S of CW at Milwaukie Expressway; 2' from EOSW



3-42; SE Freeman Way at SE Lake Rd. (SB)

~ 168' S of SL at SE Lake Rd.; 2' from EOP



Consider adding the Trolley Trail to this sign as a future destination

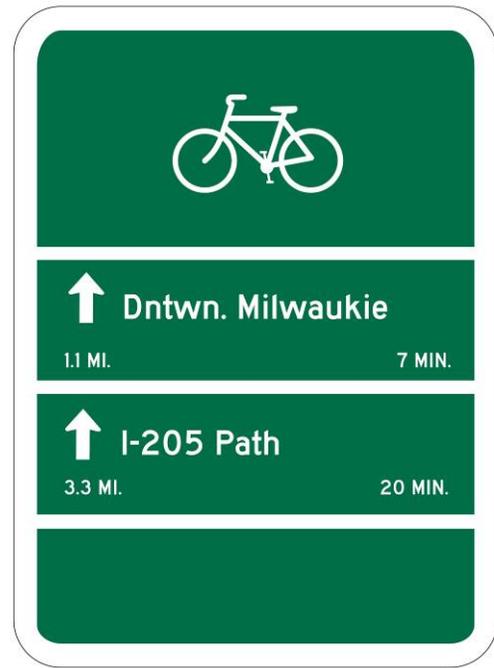
3-43; SE Lake Rd. at SE Freeman Way (WB)

~ 166' E of SE Freeman Way; 2' from EOP



3-44; SE Lake Rd. at SE Freeman Way (EB)

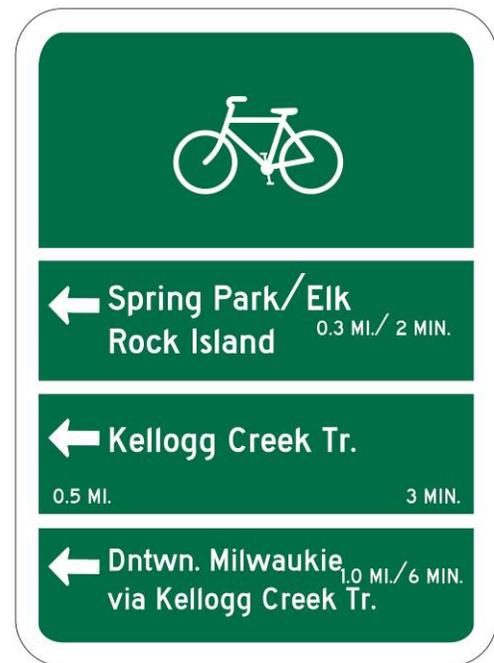
~ 94' W of SE Freeman Way; 6' from EOP



Consider adding the Trolley Trail to this sign as a future destination

3-45; SE Oatfield Rd. Midblock (NB)

~ 90' N of "Welcome to Milwaukie" sign; 4' from EOP



3-46; SE River Rd. at SE Wren Rd. (NB)

~ 30' S of SE Wren Rd.; 4' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



3-47; SE Wren St. at SE 22nd Ave (WB)

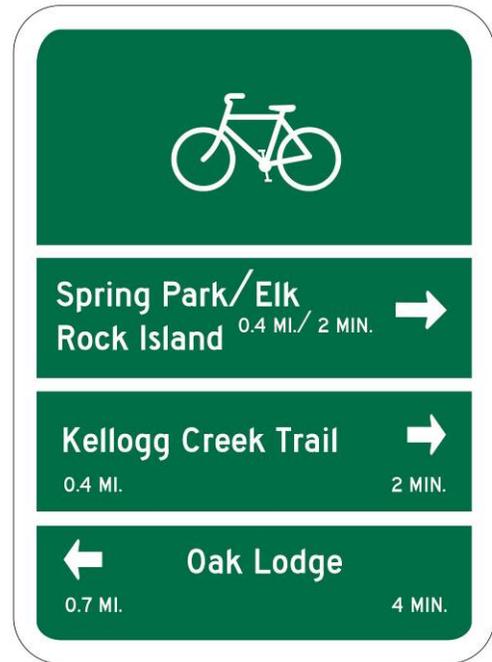


Add left facing arrow placard

~ 30' S of SL at SE 22nd Ave.; 4' from EOP



3-48; SE 22nd Ave at SE Sparrow Rd. (SB)



~ 50' from SE Sparrow Rd.; behind guardrail



**3-49; SE Sparrow St. at SE River Rd.
(EB)**



Add double ended arrow placard

~ 50' from SL at SE River Rd.; 3' EOSW

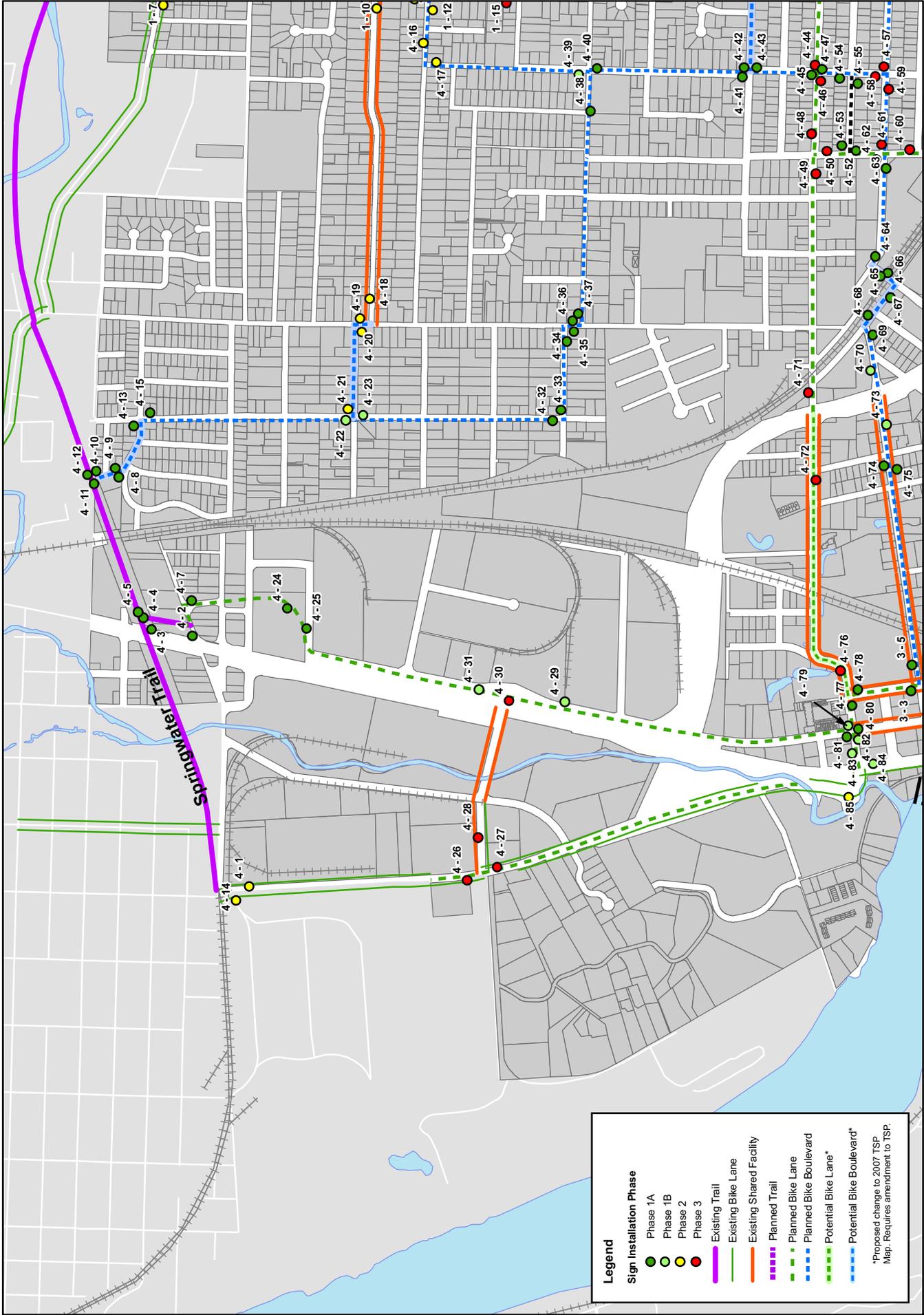
Location Photo Not Provided



3-50; SE 37th Ave. Midblock (NB)

~ 570' S of Railroad Tracks at SE Railroad Ave.

SECTION 4.4 - PROPOSED SIGN LOCATIONS 4-1 TO 4-82



Legend

Sign Installation Phase

- Phase 1A
- Phase 1B
- Phase 2
- Phase 3

— Existing Trail

— Existing Bike Lane

— Existing Shared Facility

— Planned Trail

— Planned Bike Lane

— Planned Bike Boulevard

— Potential Bike Lane*

— Potential Bike Boulevard*

*Proposed change to 2007 TSP Map. Requires amendment to TSP.

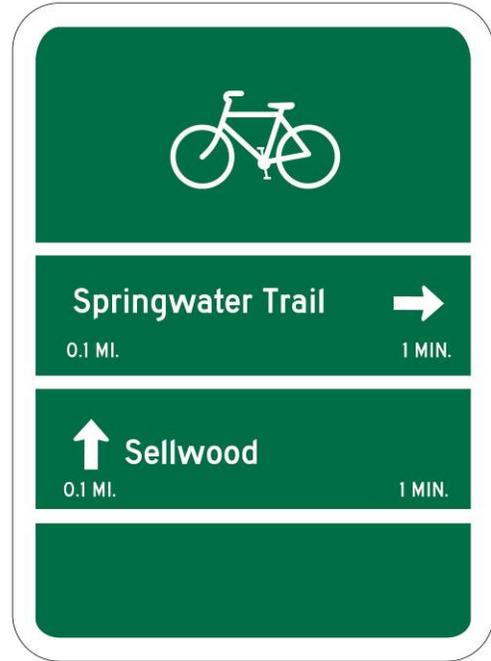
Map 4.4 - Wayfinding Signage Detail Map (NW Milwaukie)

Milwaukie, Oregon
 Milwaukie Bicycle Wayfinding Signage Plan
 Source: City of Milwaukie, RLIS
 Author: KAV
 Date: May, 2009

alta
PLANNING + DESIGN

0 500 1,000 Feet

↑ N



4-1; SE 17th Ave. at SE Ochoco St. (NB)

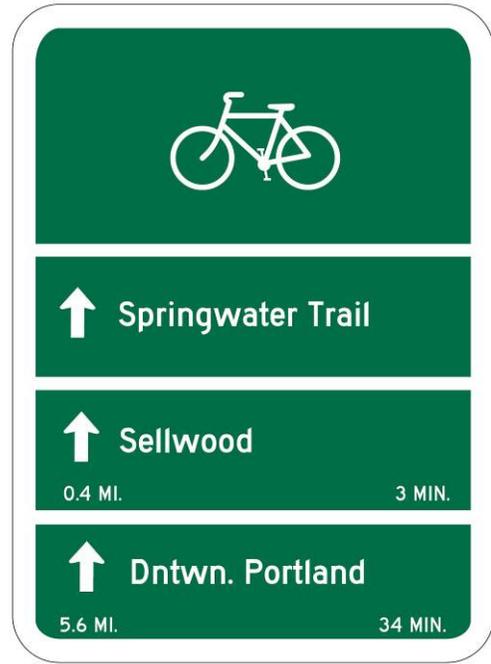
~ 250' S of SL at SE Ochoco St.; 2' from EOP



Add right facing arrow

4-2; SE Moores St. at McLoughlin Blvd. (WB)

~ 8' E of SL at SE McLoughlin Blvd.; 2' from EOSW



Sign should be oriented to be visible from both the sidewalk and the trail entrance

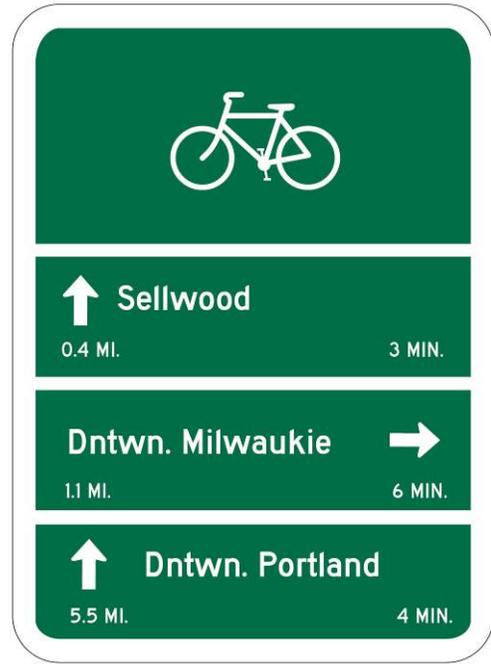
4-3; Springwater Trail at McLoughlin Blvd. (SB)

~ 5' from SW at McLoughlin Blvd.; 4' from EOP



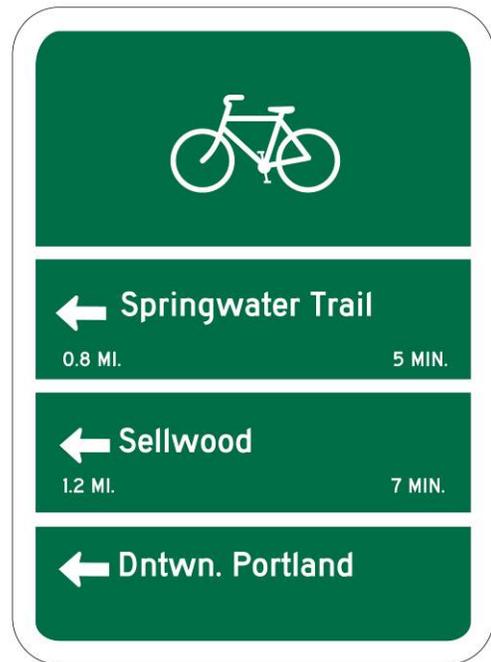
4-4; Springwater Trail at McLoughlin Blvd. (EB)

~10' W of Access Trail; 6' from EOP



4-5; Springwater Trail at McLoughlin Blvd. (WB)

~10' E of Access Trail; 5' from EOP



4-6; Main St. at SE Moores St. (NB)

~ 28' S of SL at SE Moores St.; 1' from EOSW

Milwaukee Bicycle Wayfinding Signage Plan



4-7; SE 28th Ave. Midblock (SB)



Add straight facing arrow placard

~ 2' from EOP



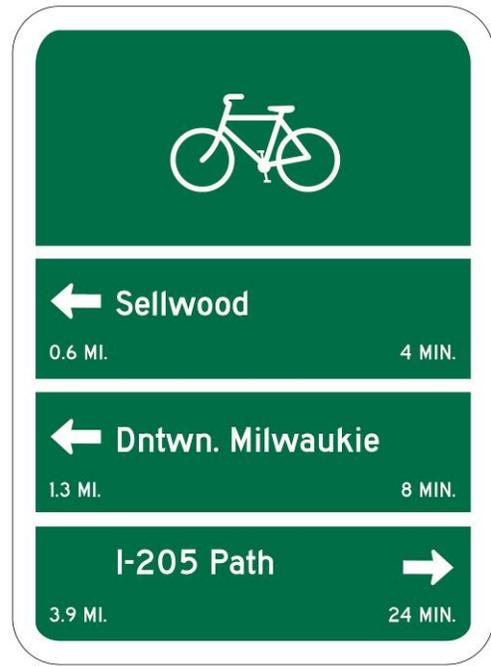
4-8; SE 28th Ave. Midblock (NB)



Add straight facing arrow

~ 4' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



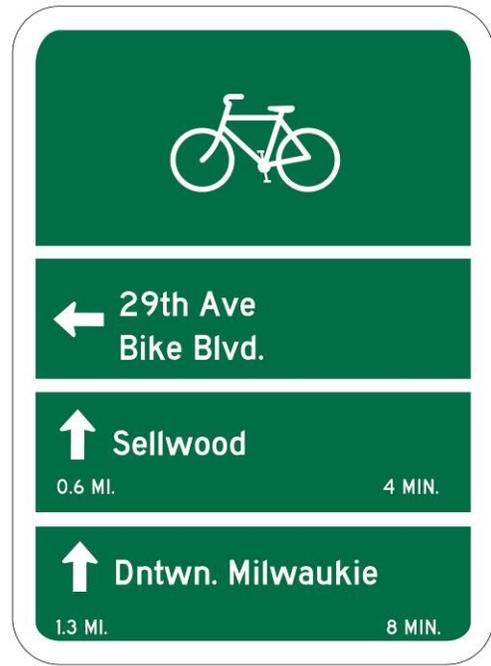
4-9; SE 29th Ave. at SE Sherrett St. (NB)

~ 30' S of Springwater Trail; 4' from crushed gravel
Access Trail



4-10; Springwater Trail at SE Sherrett St. (EB)

~ 140' W of SE Sherrett St.; 5' from EOP



4-11; Springwater Trail at SE Sherrett St. (WB)

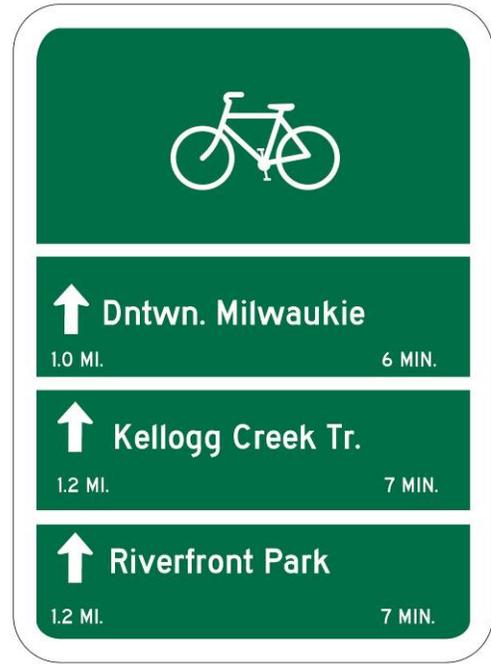
~ 145' E at SE Sherrett St.; 5' from EOP



Add right facing arrow placard

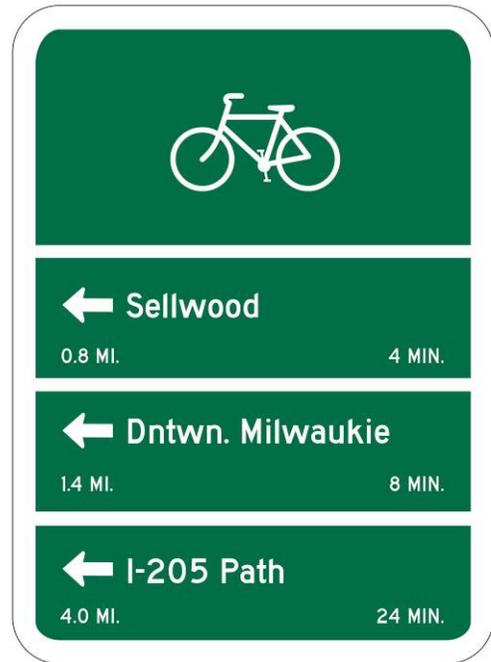
4-12; SE Van Water St. at SE 29th Ave. (EB)

~ 48' W of SE 29th Ave. (on property line); 8' from EOP



4-13; SE 17th Ave. at SE Ochoco St. (SB)

~ 30' S of "Buckle Up Oregon" sign; 5' from EOP



4-14; SE 29th Ave. at SE Van Water St.
(NB)

~ 30' S of grate; 8' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



4-15; SE Olsen St. at SE 40th Ave. (WB)



Add left facing arrow placard

~ 17' E of SE 40th Ave.; 2' from BOC

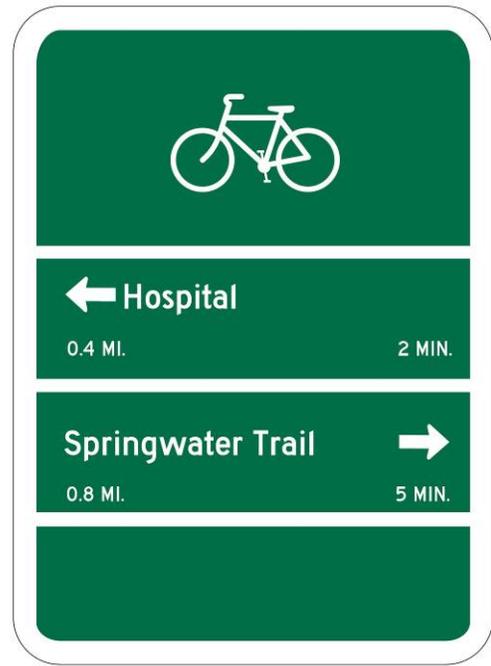


4-16; SE 40th Ave. at SE Olsen St. (NB)



Add right facing arrow placard

~ 8' S of SE Olsen St.; 1' from EOSW



4-17; SE Filbert St. at SE 32nd Ave. (WB)

~ 158' E of SL at SE 29th Ave.; 2' from BOC



4-18; SE 32nd St. at SE Malcolm St. (NB)

Add left facing arrow placard

~ 40' S of SE Malcolm St. sign post; 2' from EOSW

Milwaukie Bicycle Wayfinding Signage Plan



4-19; SE 32nd Ave. at SE Filbert St. (SB)



Add left facing arrow placard

~ 23' S of SL at Johnson Creek Blvd.; 2' from EOC

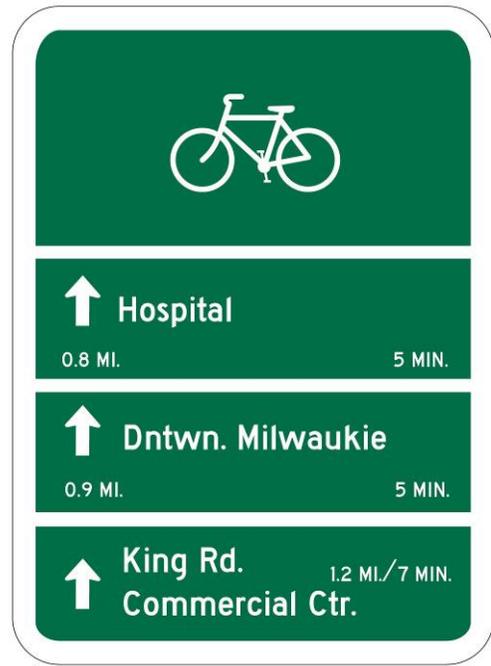


4-20; SE Malcolm St. at SE 32nd Ave.
(EB)



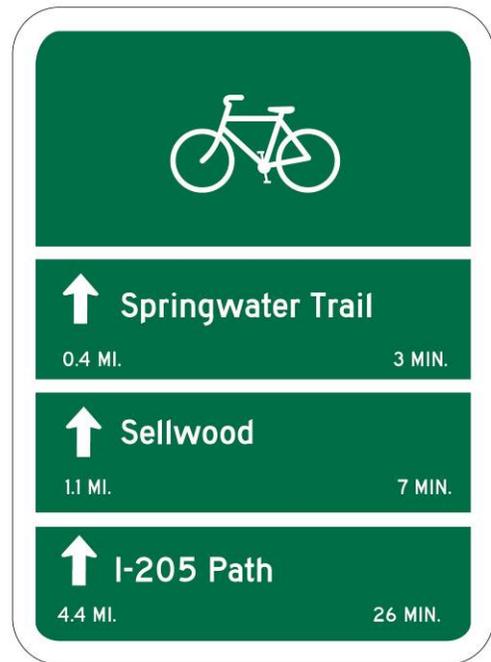
Add right facing arrow placard

~ 30' E of W 32nd Ave.; Inline with telephone pole



4-21; SE 29th Ave. at SE Malcolm St. (SB)

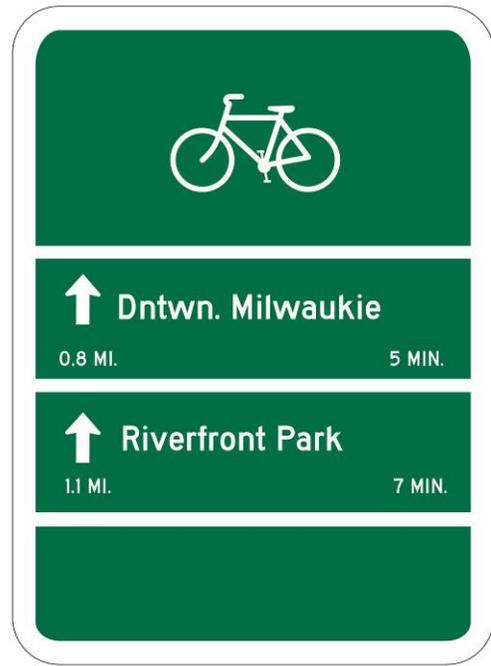
~ 158' N of SE Malcom St.; 2' from EOP



4-22; SE 29th Ave. at SE Malcolm St. (NB)

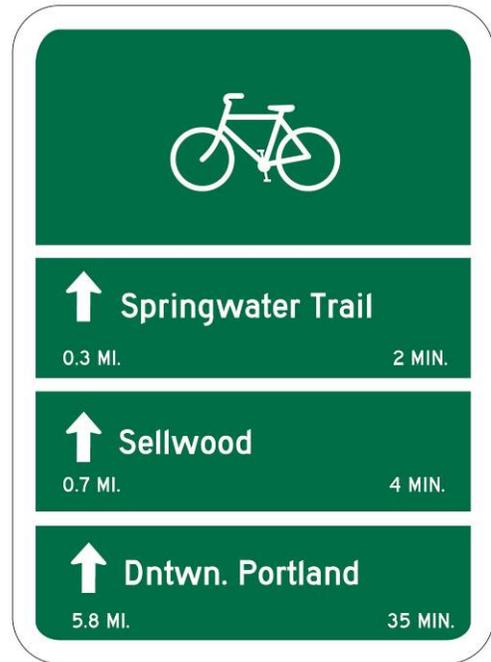
~ 75' S of SE Malcolm St.; 10' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



4-23; Main St. at SE Beta St. (SB)

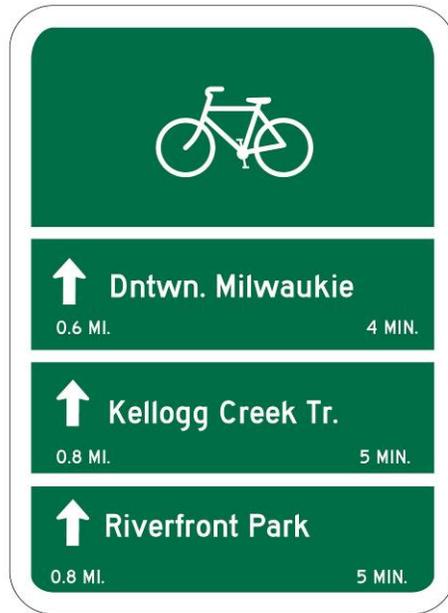
~ 200' N of SE Beta St.; 2' from EOSW



4-24; Main St. at SE Beta St. (NB)

~ 200' S of SE Beta St.; 2' from EOSW

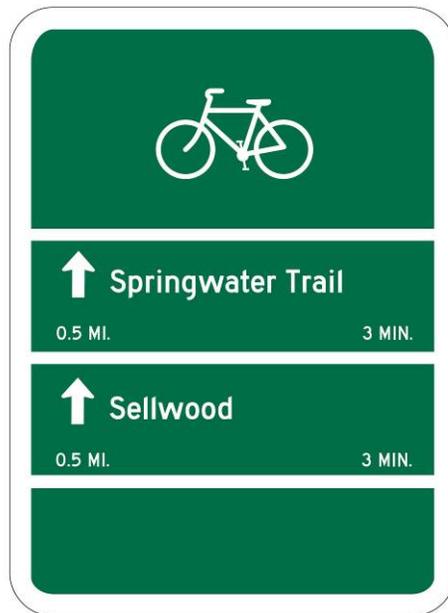
Milwaukie Bicycle Wayfinding Signage Plan



Consider Trolley Trail or Downtown Milwaukie via Main St. as future destinations

4-25; SE 17th Ave. at SE Milport Rd. (SB)

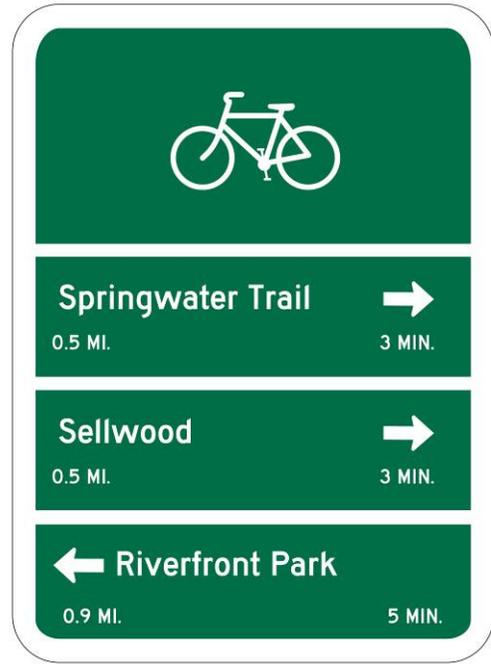
~ 95' N of SL at SE Milport Rd.; 2' from EOP



Consider Downtown Milwaukie via Milport Rd. as a future destination

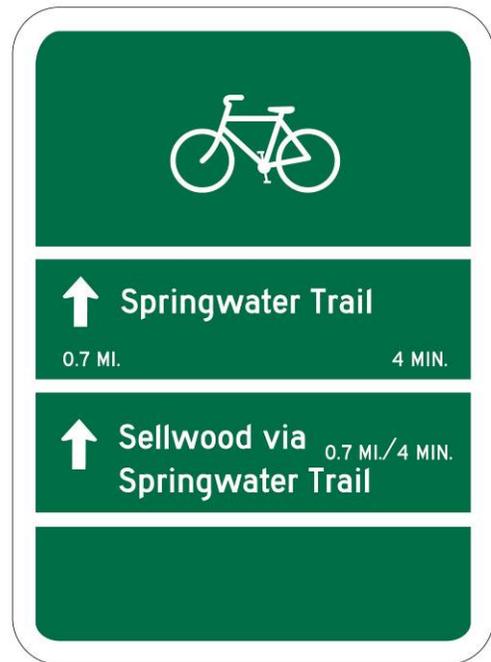
4-26; SE 17th Ave. at SE Milport Rd. (NB)

~ 50' S of SL at SE Milport Rd.; 2' from BOC



**4-27; SE Milport Rd. at SE 17th Ave.
(WB)**

~ 213' E of SL at SE 17th Ave.; 6' from EOP

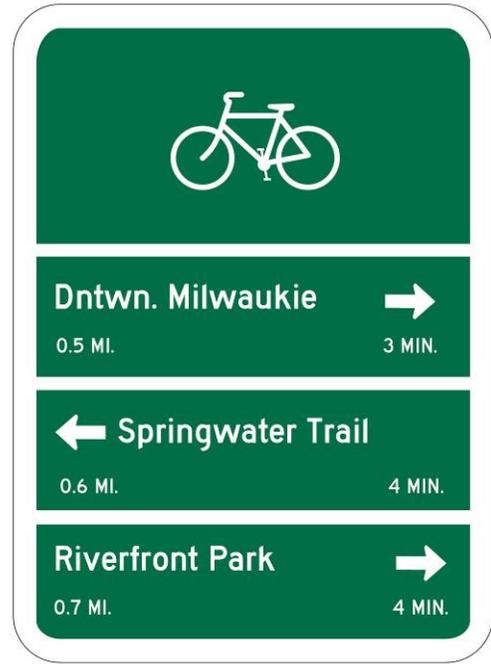


Consider Sellwood via 17th Ave. as a future destination

4-28; SE Main St. at SE McLoughlin Blvd. (NB)

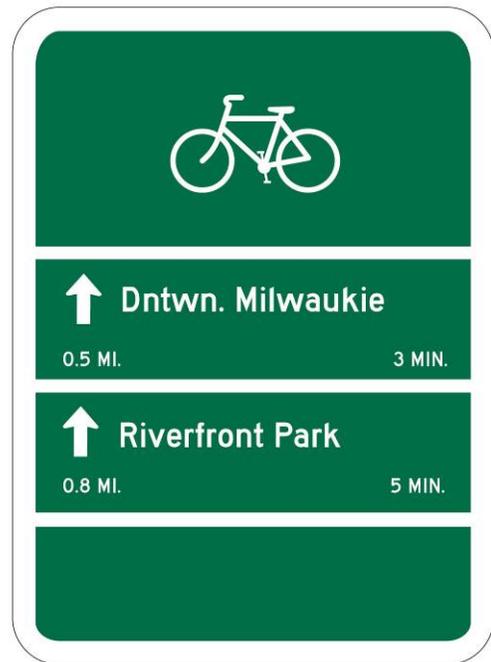
~ 200' S of CW at SE McLoughlin Blvd.; 2' from BOC

Milwaukie Bicycle Wayfinding Signage Plan



**4-29; SE Milport Ave. at SE Main St.
(EB)**

~ 18' W of CW at SE Main St.; 2' from BOC



Consider Sellwood via 17th Ave. as a future destination

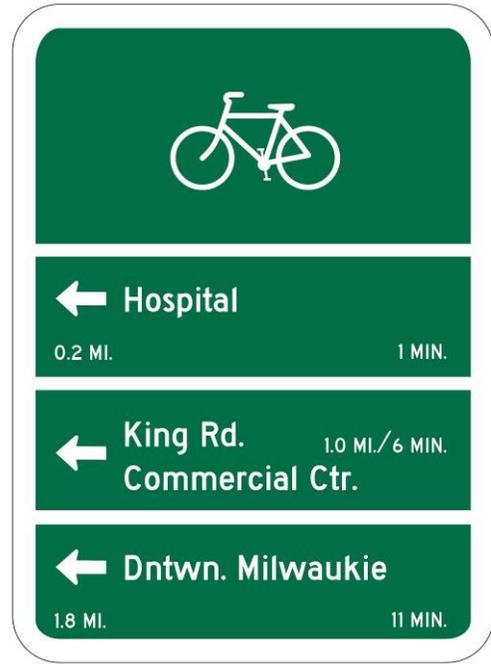
**4-30; SE Main St. at McLoughlin Blvd.
(SB)**

~ 125' N of SL at SE McLoughlin Blvd.; 2' from BOC

Milwaukie Bicycle Wayfinding Signage Plan



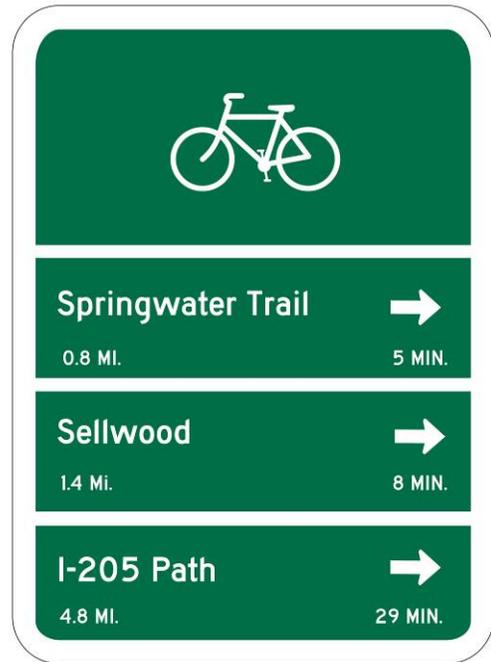
4-31; SE 29th Ave. at SE Balfour St. (SB)



~ 10' N of SE Balfour St.; 5' from EOP



4-32; SE Balfour St. at SE 29th Ave. (WB)



~ 55' E of SE 29th Ave.; 10' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



4-33; SE Balfour St. at SE 32nd Ave. (EB)

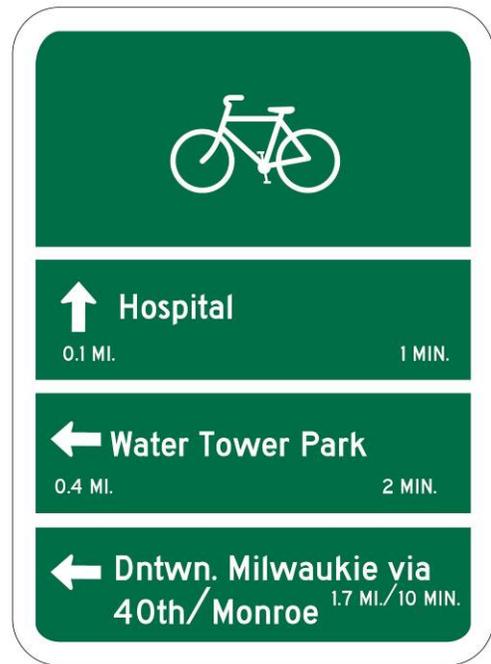


Add right facing arrow placard

~ 50' W of SL at SE 32nd Ave.; 16' from EOP

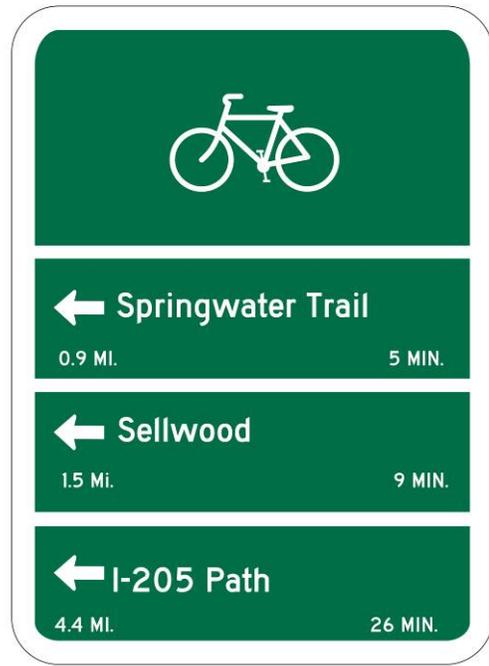


4-34; SE 32nd Ave. at SE Harvey St. (SB)



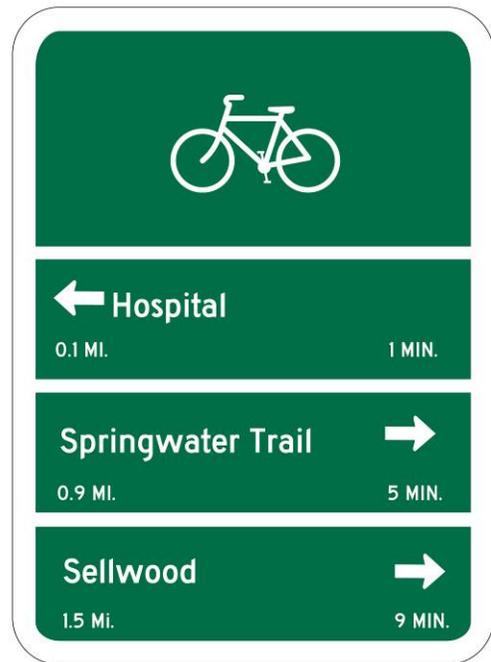
~ 42' S of SE Balfour St.; 1' from EOSW

Milwaukie Bicycle Wayfinding Signage Plan



4-35; SE 32nd Ave. at SE Harvey St.
(NB)

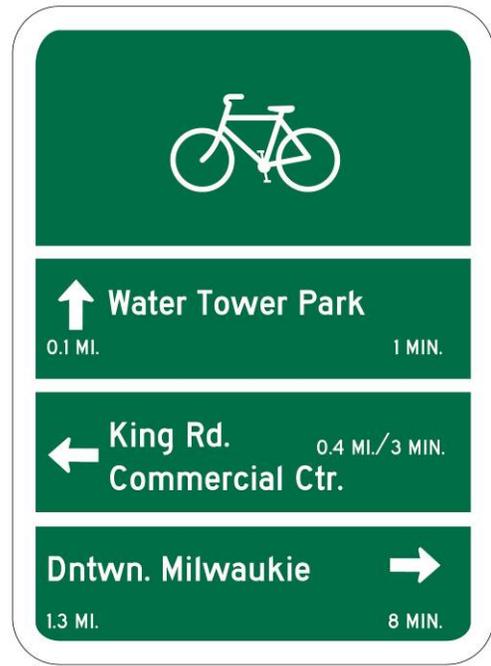
~ 42' S of SE Balfour St.; 1' from EOSW



4-36; SE Harvey St. at SE 32nd Ave.
(WB)

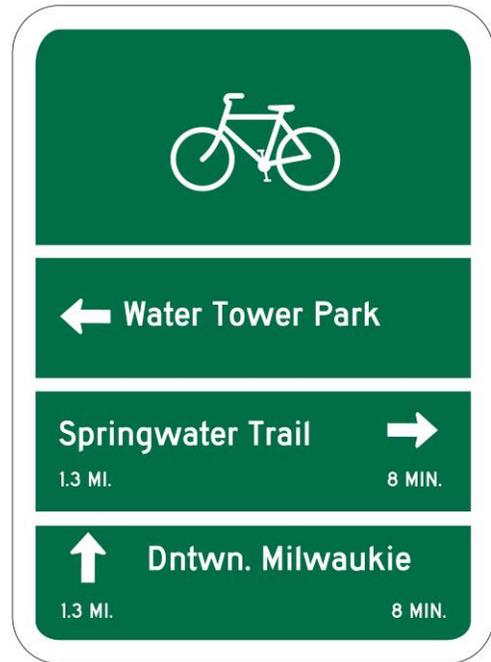
~ 102' E of SL at SE 32nd Ave.; 2' from BOC

Milwaukie Bicycle Wayfinding Signage Plan



4-37; SE Harvey St. at SE 40th Ave. (EB)

~ 270' W of SS at SE 40th Ave.; 2' from BOC



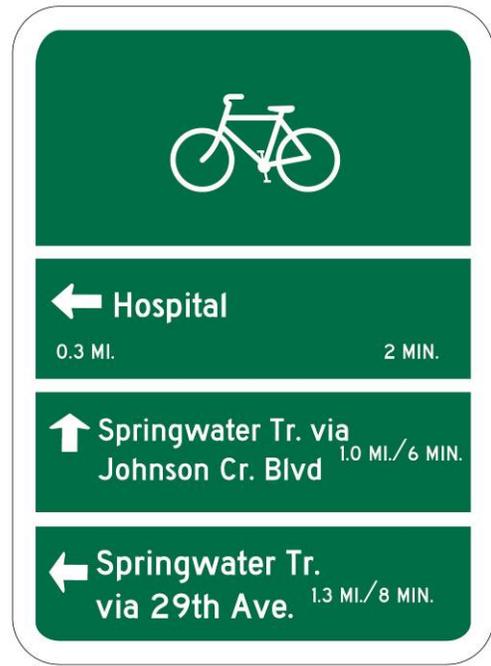
4-38; SE 40th Ave. at SE Harvey St. (SB)

~ 134' N of SE 40th Ave.; 2' from EOSW

Milwaukie Bicycle Wayfinding Signage Plan



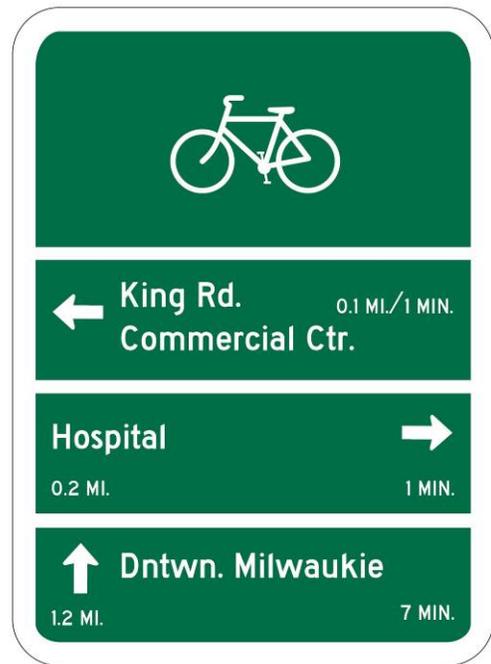
4-39; SE 40th Ave. at SE Harvey St. (NB)



~ 35' S of SS at SE Harvey St.; Center of PS



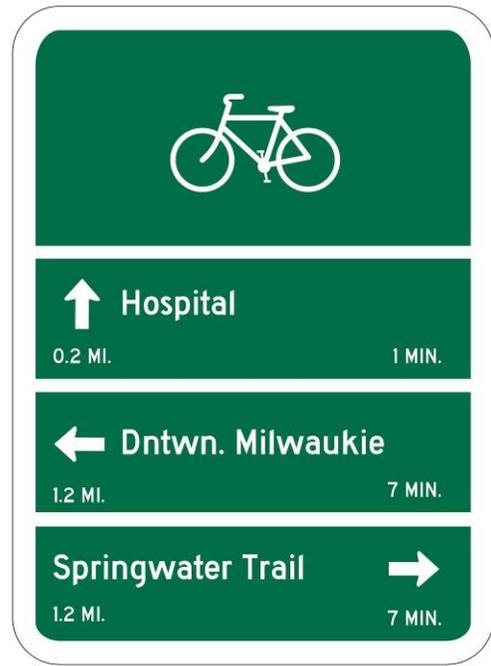
4-40; SE 40th Ave. at SE King Rd. (SB)



~ 62' N of SL at SE King Rd.; 2' S of utility pole



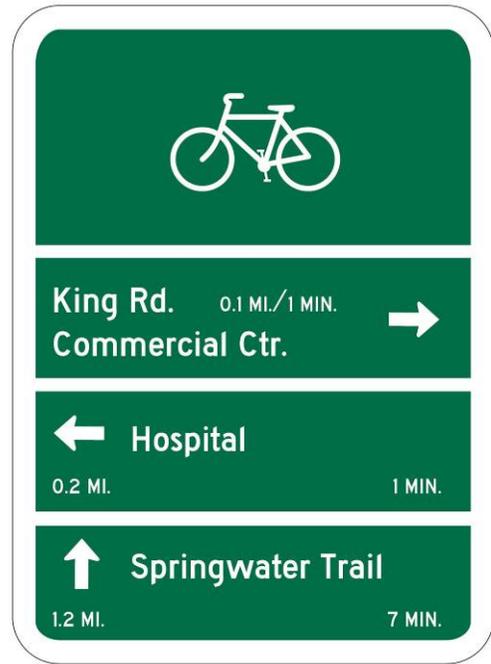
4-41; SE King Rd. at SE 40th Ave. (WB)



~ 26' E of SL at SE King Rd.; 2' from EOSW

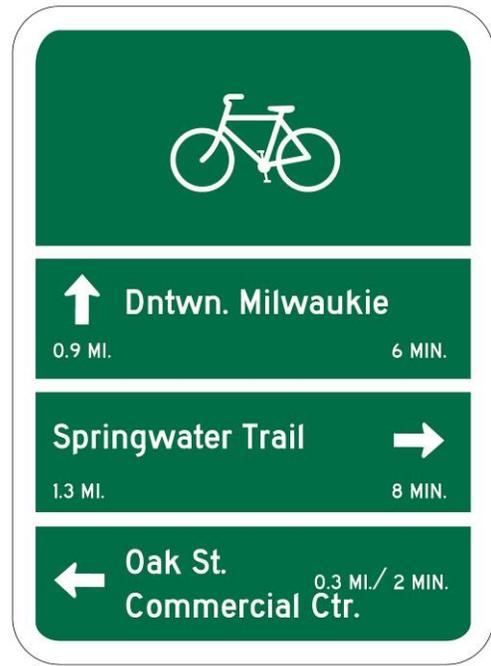


4-42; SE 40th Ave. at SE King Rd. (NB)



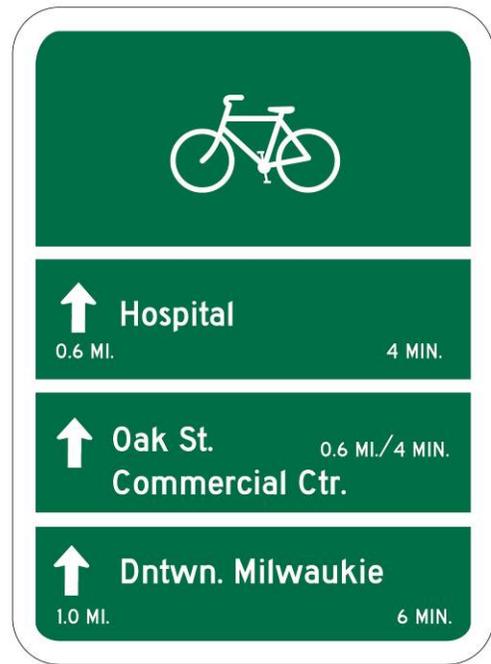
~ 10' S of SL at SE King Rd.; 1' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



4-43; SE Harrison St. at SE 40th Ave.
(WB)

~ 75' S of SS at SE 40th Ave.; 25' from EOP

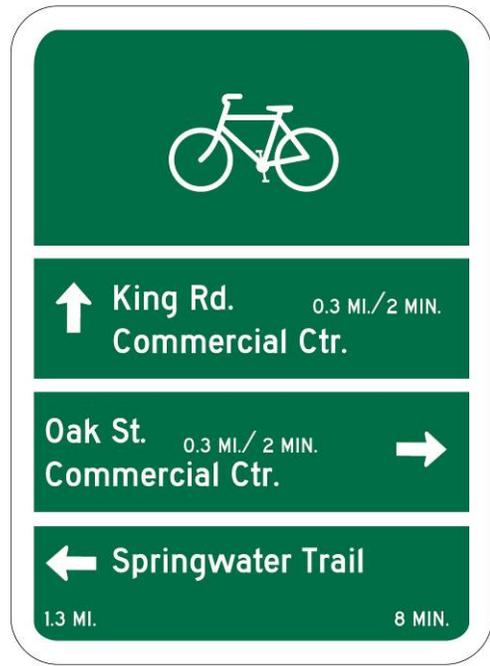


4-44; SE Monroe St. at SE 37th Ave.
(WB)

~45' E of CW at SE 37th Ave.; 3' from BOC



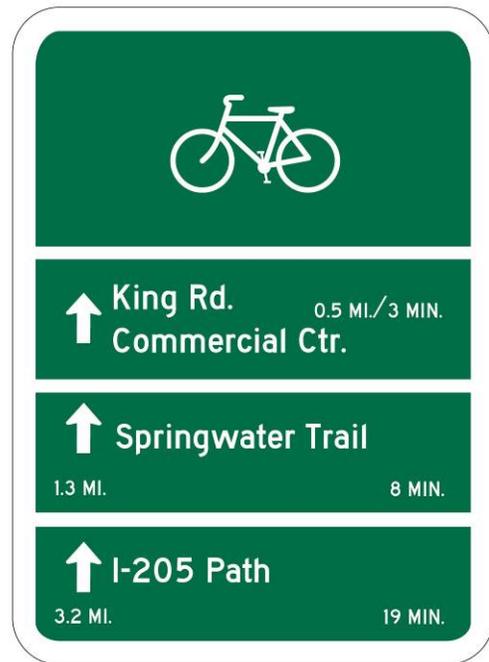
4-45; SE Harrison St. at SE 40th Ave.
(EB)



~ 90° W of SE 40th Ave.; Center of PS



4-46; SE 40th Ave. at SE Harrison St.
(NB)



~ 118' S of SS at SE Harrison St.; 10' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



4-47; SE Harrison St. at SE 37th Ave.
(WB)



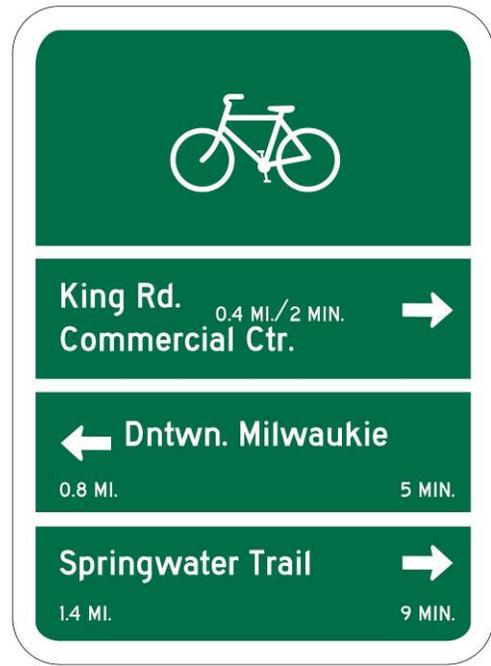
~ 45' W of SE 37th Ave.; Center of PS



4-48; SE Harrison St. at SE 37th Ave.
(EB)



~ 50' W of SE 37th Ave.; Center of PS



4-49; SE 37th Ave. at SE Harrison St. (NB)

~ 50' S of SL at SE Harrison St.; Center of PS



Add right facing arrow placard

Temporary sign, route will be removed when SE Monroe Street is improved

4-50; SE 37th Ave. at SE Jackson St. (NB)

~ 14' S of SE Jackson St.; Center of PS



Add left facing arrow placard

Temporary sign, route will be removed when SE Monroe Street is improved

~ 30' E of SL at SE 37th Ave.; 4' from EOP

4-51; SE Jackson St. at SE 37th Ave. (WB)



Add right facing arrow placard

Temporary sign, route will be removed when SE Monroe Street is improved

~ 12' N of SE Jackson St. 12' from EOP

4-52; SE 40th St. at SE Jackson St. (SB)

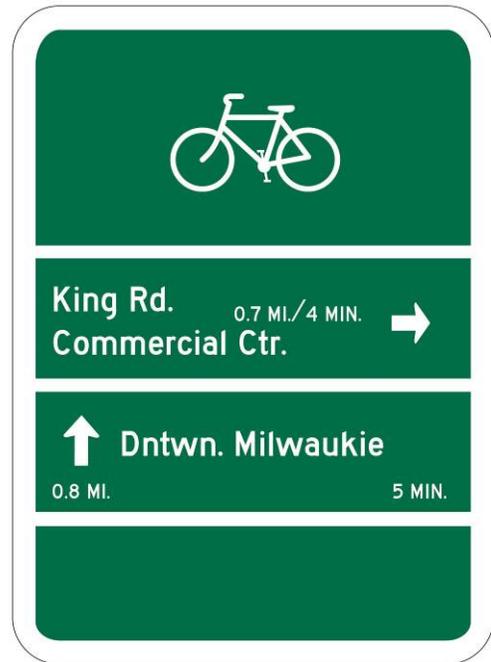


Add left facing arrow placard

Temporary sign, route will be removed when SE Monroe Street is improved

4-53; SE Jackson St. at SE 40th Ave. (EB)

~ 30' W of SL at SE 40th St.; 8' from EOP

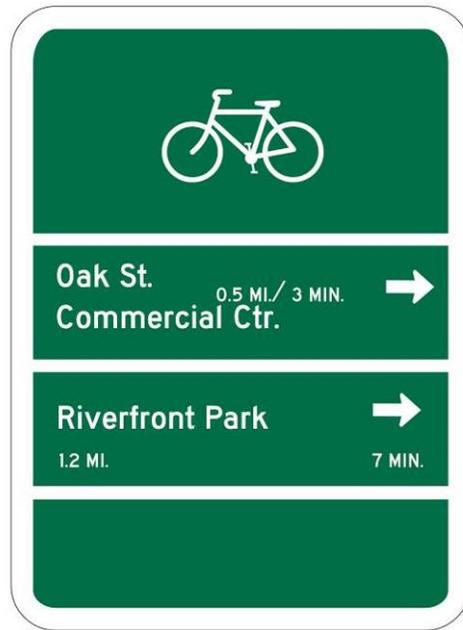


Consider adding the Trolley Trail to this sign as a future destination

4-54; SE Monroe St. at SE 40th Ave. (WB)

~ 15' E of SE 40th Ave.; Center of PS

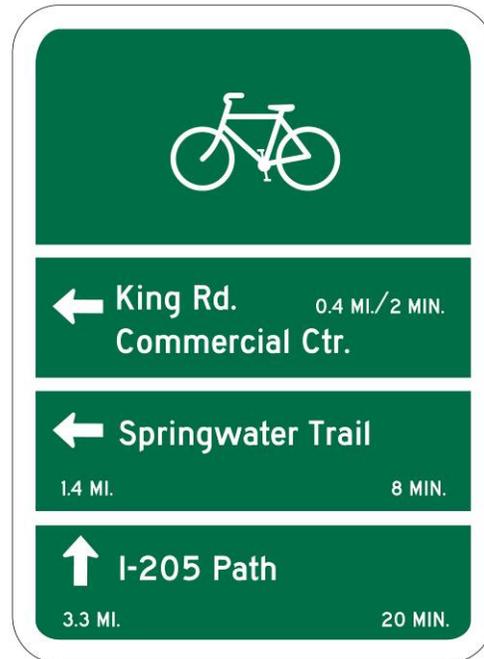
Milwaukie Bicycle Wayfinding Signage Plan



Consider adding the Trolley Trail to this sign as a future destination

4-55; SE 40th Ave. at SE Monroe St. (SB)

~ 100' N of SE Monroe St.; 8' from EOP



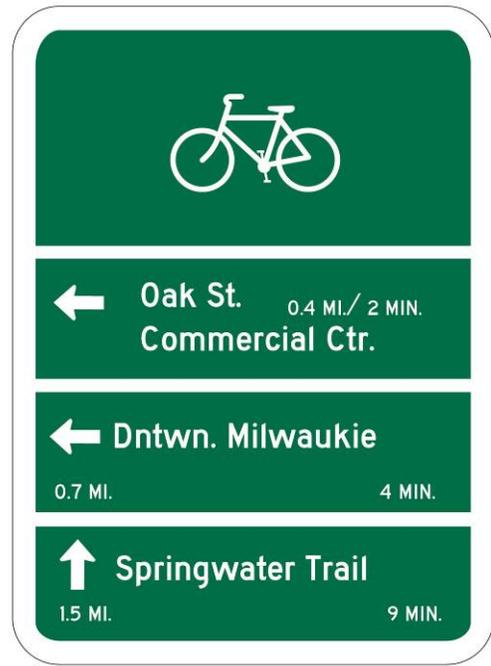
4-56; SE Monroe St. at SE 40th Ave. (EB)

~ 55' W of SE 40th Ave.; Center of PS

Milwaukie Bicycle Wayfinding Signage Plan



4-57; SE 37th Ave. at SE Monroe St.
(NB)



~ 94' S of CW at SE Monroe St.; 2' from EOSW



4-58; SE Monroe St. at SE 37th Ave.
(WB)



Consider adding the Trolley Trail to this sign as a future destination

~45' E of CW at SE 37th Ave.; 3' from BOC

Milwaukie Bicycle Wayfinding Signage Plan



Consider adding the Trolley Trail to this sign as a future destination

4-59; SE 37th Ave. at SE Monroe St. (SB)

~85' S CW at SE Monroe St.; 2' from EOSW



Avoid directing people down Monroe until route is improved

4-60; SE Monroe St. at SE 37th Ave. (EB)

~ 75' W of CW at SE 27th Ave.; Center of PS



**4-61; SE Railroad Ave. at SE Oak St.
(WB)**



Consider adding the Trolley Trail to this sign as a future destination

~ 100' E of SL at SE Oak St.; 2' from BOC



**4-62; SE Oak St. at SE Campbell St.
(WB)**



Consider adding the Trolley Trail to this sign as a future destination

~ 64' E of SL for train signal; 2' from BOC



4-63; SE Oak St. at SE Railroad Ave. (NB)

~ 64' from SE Railroad Ave.; 2' from EOSW



4-64; SE Campbell St. at SE Oak St. (SB)

~ 85' W of SE Oak St.; 2' from EOSW

Milwaukee Bicycle Wayfinding Signage Plan



**4-65; SE Campbell St. at SE Monroe St.
(NB)**



~ 64' E of utility pole at SE Monroe St.; 2' from BOC



**4-66; SE Monroe St. at SE Campbell St.
(WB)**

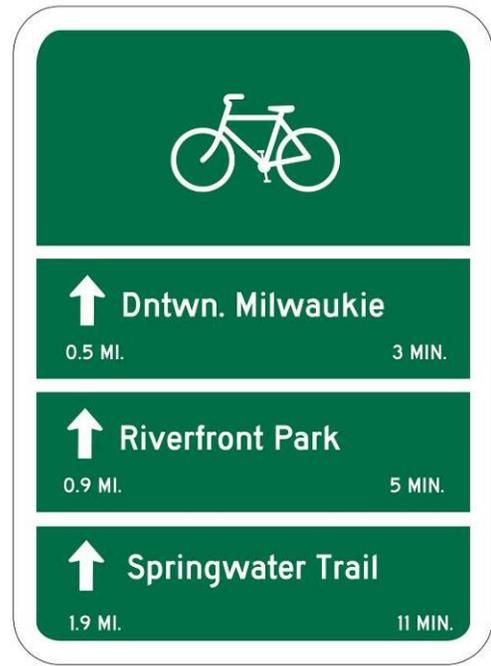


Add right facing arrow placard

~ 85' E of SE Campbell St.; 2' from EOSW



4-67; SE Monroe St. at Milwaukie Expressway (WB)

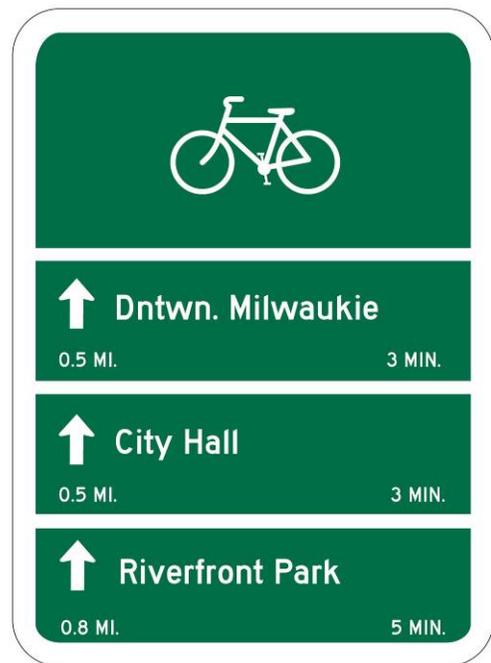


Consider adding the Trolley Trail to this sign as a future destination

~ 88' W of SL at Milwaukie Expressway; 2' from EOSW



4-68; SE Harrison St. at Milwaukie Expressway (WB)

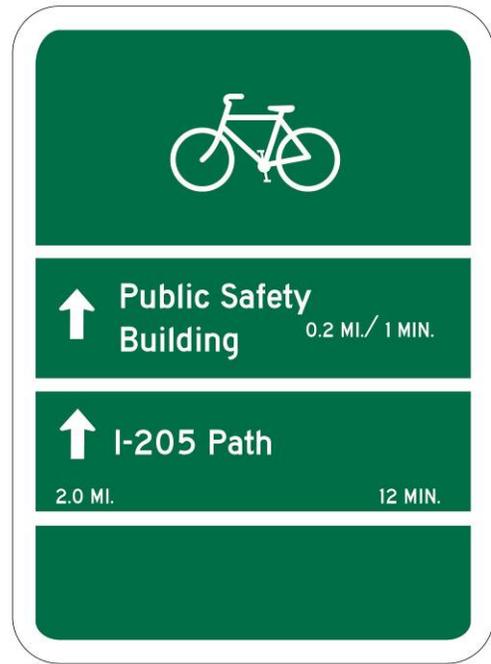


~ 144' E of CW at Milwaukie Expressway; 1' from EOP

Milwaukie Bicycle Wayfinding Signage Plan



**4-69; SE Harrison St. at SE 29th Ave.
(EB)**



~ 23' S W of utility pole at SE 29th Ave.; 4' from BOC

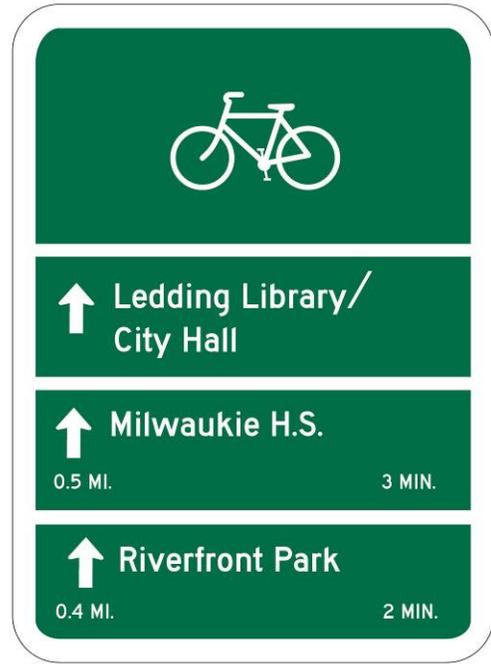


**4-70; SE Monroe St. at Milwaukie
Expressway (EB)**



~ 125' E of SL at Milwaukie Expressway; 2' from EOSW

Milwaukie Bicycle Wayfinding Signage Plan



4-71; SE Monroe St. between SE 28th Ave. and SE 29th Ave. (WB)

~ 68' E of SE 28th Ave.; 2' from EOSW

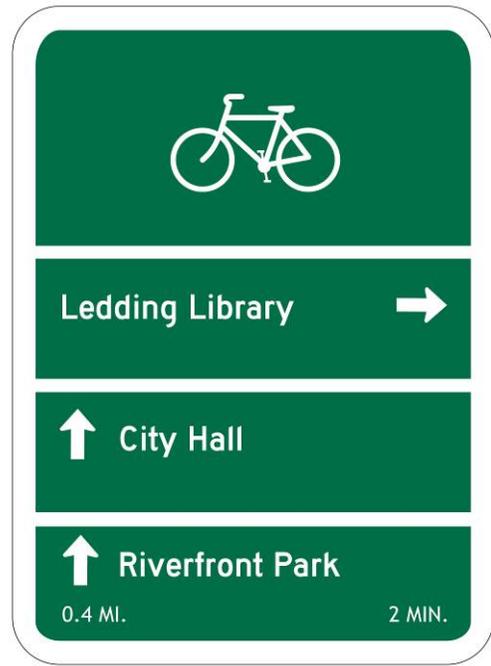


4-72; SE Monroe St. between SE 28th Ave. and SE 29th Ave. (EB)

~ 78' E of SE 28th Ave.; 2' from EOSW



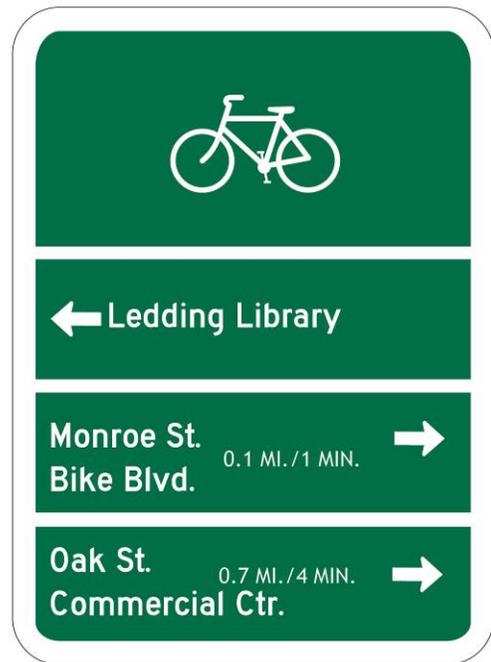
**4-73; SE Harrison St. at SE 21st Ave.
(WB)**



~ 118' E of CW at SE 21st Ave.; Center of PS

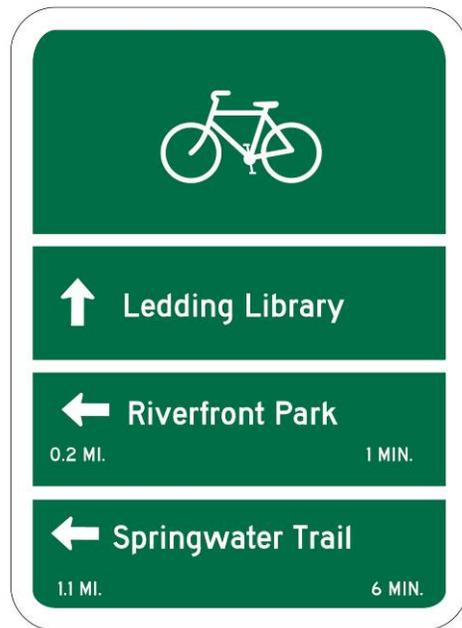


**4-74; SE Harrison St. at SE 21st Ave.
(EB)**



Could add King Rd. Commercial Center once SE Harrison St. is improved

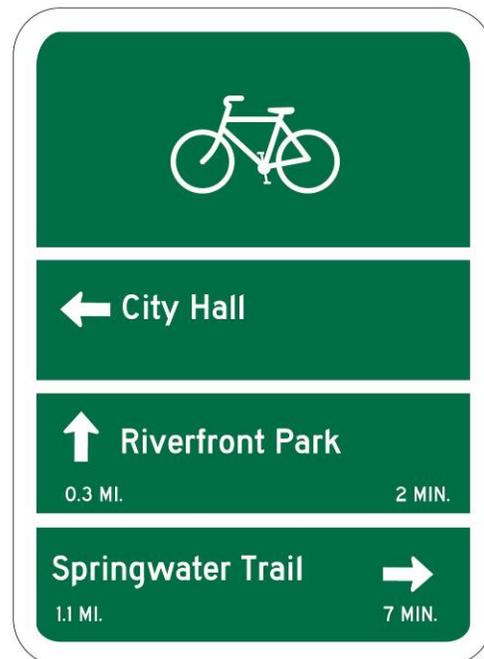
~ 63' W of SL at SE 21st Ave.; Center of PS



Could add King Rd. Commercial Center once SE Harrison St. is improved

**4-75; SE 21st Ave. at SE Harrison St.
(NB)**

~ 25' S of SE Harrison St.; 1' from EOSW



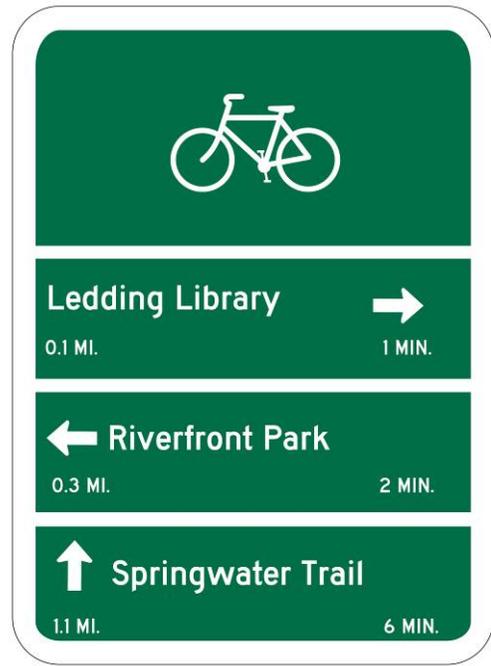
**4-76; SE Harrison St. at SE Main St.
(WB)**

~ 40' E of CW at SE Main St.; 2' from BOC



4-77; SE Main St. at SE Harrison St. (NB)

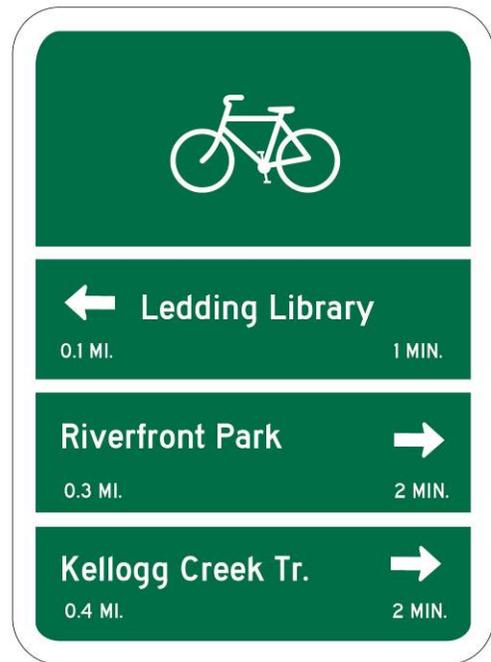
~ 108' S of SS at SE Harrison St.; 2' from BOC

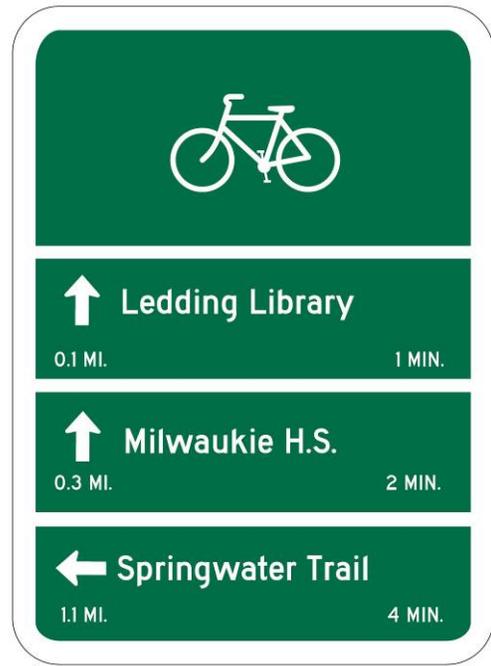


4-78; SE Main St. at SE Harrison St. (SB)

Consider adding Trolley Trail as a combined future destination with Kellogg Creek Trail

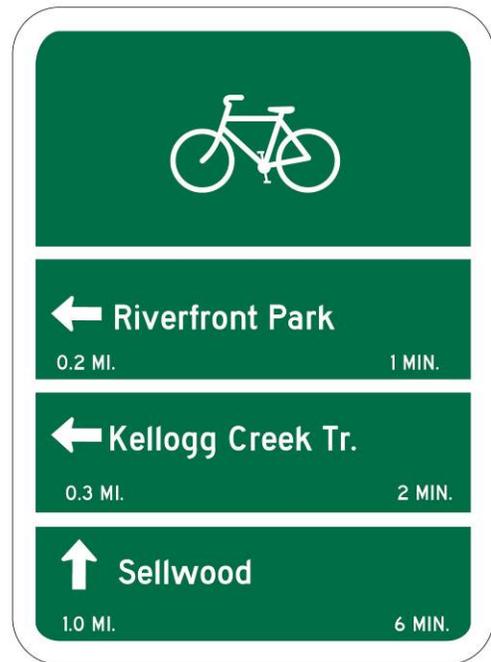
~ 22' N SL at of SE Harrison St.; 2' from BOC





4-79; SE Harrison St. at SE Main St. (EB)

~ 44' W of SS at SE Main St.; 2' from BOC



4-80; SE Harrison St. at McLoughlin Blvd. (WB)

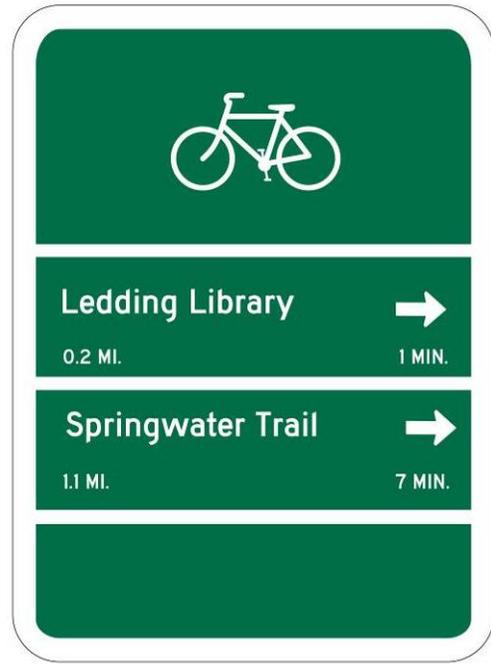
Consider adding Trolley Trail as a combined future destination with Kellogg Creek Trail

~ 144' E of CW at SE McLoughlin Blvd.; 2' from BOC

Milwaukie Bicycle Wayfinding Signage Plan



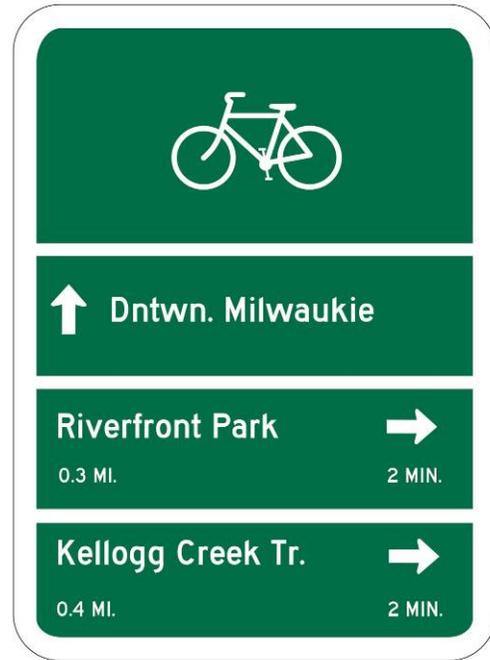
4-81; McLoughlin Blvd. at SE Harrison St. (NB)



~ 100' S of CW at SE Harrison St.; Center of PS



4-82; SE 17th Ave. at McLoughlin Blvd. (EB)

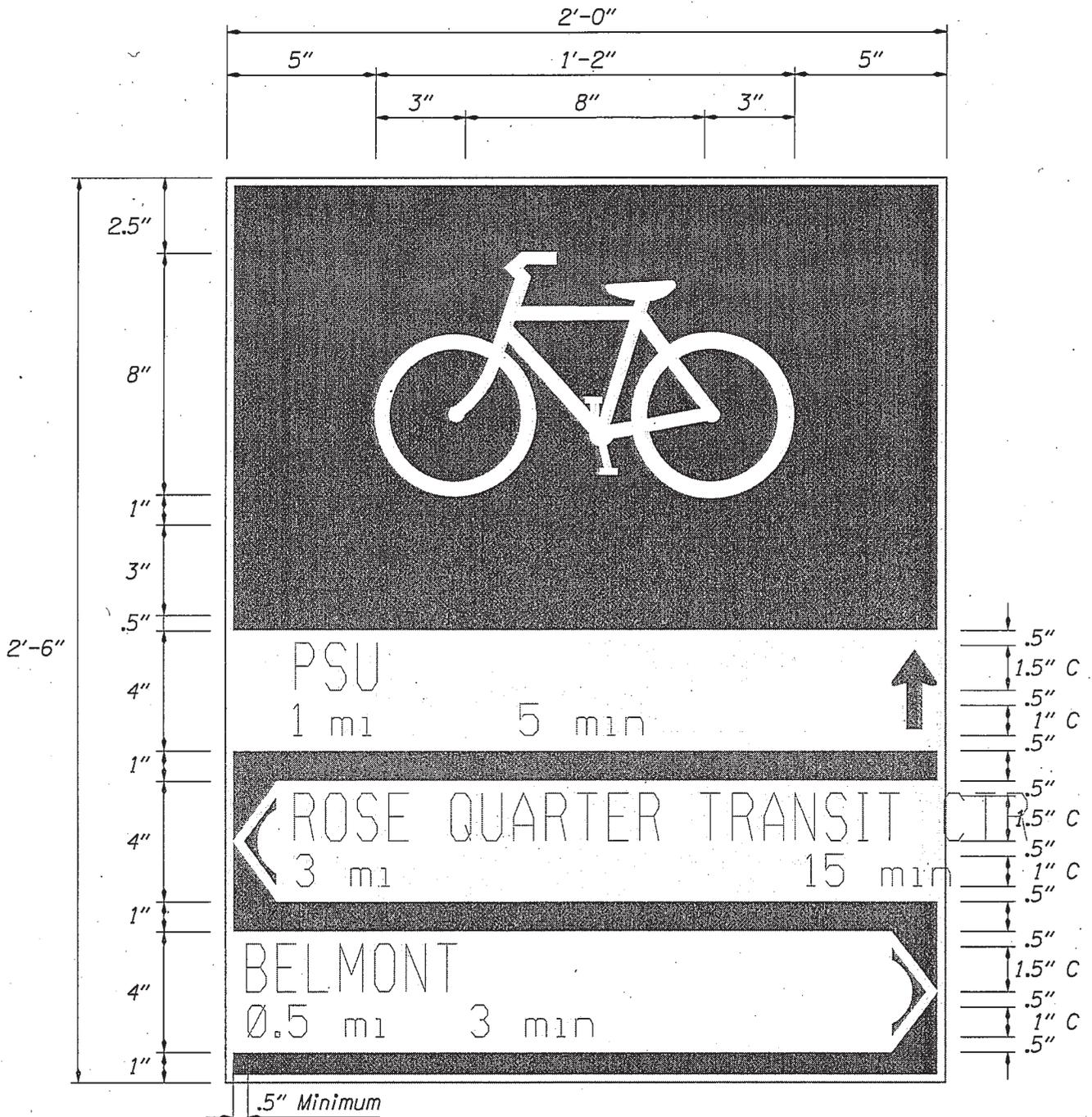


Consider adding Trolley Trail as a combined future destination with Kellogg Creek Trail

~ 750' W of SL at McLoughlin Blvd.; Behind guardrail

APPENDIX A - WAYFINDING SIGNAGE DETAILS

City Of Portland Bikeway Guide Sign



Detail Note:

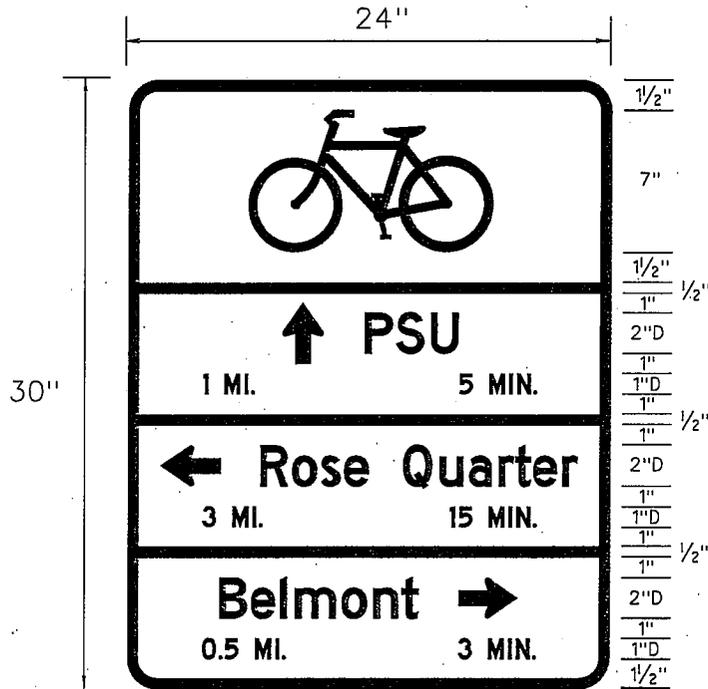
All text shown on detail has 50% reduced spacing.

BIKE SIGN

STRAIGHT AHEAD, LEFT AND RIGHT TURNS

* Destination font is now 2" tall

Sign No. OBD1-3c



Sign Background: Green, Retro-Reflective

Sign Legend: White, Retro-Reflective

The bike directional sign can be used as a replacement for the D1-3c sign shown in the MUTCD.

SIGNSTDPG.F.15

OREGON DEPARTMENT OF TRANSPORTATION

Approved By: S.T.E.

Date: 7/08

Publication Date: 7/08

APPENDIX B - ADDITIONAL RECOMMENDATIONS

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Stakeholder meetings were held in February and April 2009 to gather public feedback and solicit input on sign design, destinations and destination hierarchy, sign placement, and route prioritization. During this process, the stakeholder group discussed ideas that could further enhance the bicycling experience in Milwaukie but were not directly related to the development of wayfinding signage. These ideas included:

- **Addition of supplemental information to the wayfinding sign system.** Feedback from the public meeting held on February 11, 2009 indicated an interest in adding additional information to wayfinding signs, such as warnings of steep routes ahead. This additional information may be beneficial, though is not part of the project scope. Additional information placards could create busy and distracting situations that endanger roadway users. Also, it may be difficult for signage users to distinguish which route the informational placard is referencing. Additional route information could be provided on paper maps distributed by the City and on maps posted at key entry and exit points. Such information could also be included as stickers that could be placed on sign placards or poles.
- **Placing maps of the existing bikeways at key entry and exit points.** Feedback from the public meeting held in February indicated an interest in placing a map of the city bikeway system at key entry and exit points. This project would complement the current wayfinding plan. The City should pursue this project as time and funding allow.
- **Installation of shared lane markings (also known as “Sharrows”) at key locations to improve route safety and visibility.** Public input indicated strong support for at several locations to improve cyclist safety and comfort along portions of several routes:
 - **SE Stanley Avenue** between SE King Road and the Springwater Trail
 - **SE Monroe Street** between SE Stanley Avenue and SE Linwood Avenue
 - **SE Monroe Street** between SE Oak Street and SE 40th Avenue

APPENDIX C - PAVEMENT MARKING SPECIFICATIONS

DIRECTIONAL PAVEMENT MARKINGS

Pavement markings can be used to supplement or replace bicycle route signs. These directional pavement markings are intended to provide directional guidance, unlike shared lane markings, which provide guidance for cyclist positioning on the roadway.

Directional pavement markings should be used to direct cyclists through difficult intersections, locations where the route is circuitous, and other locations where cyclists may benefit from route reinforcement. Figures 1 and 2 provide basic design and placement guidance used in the City of Portland.

Figure 1: City of Portland Bicycle Boulevard Markings

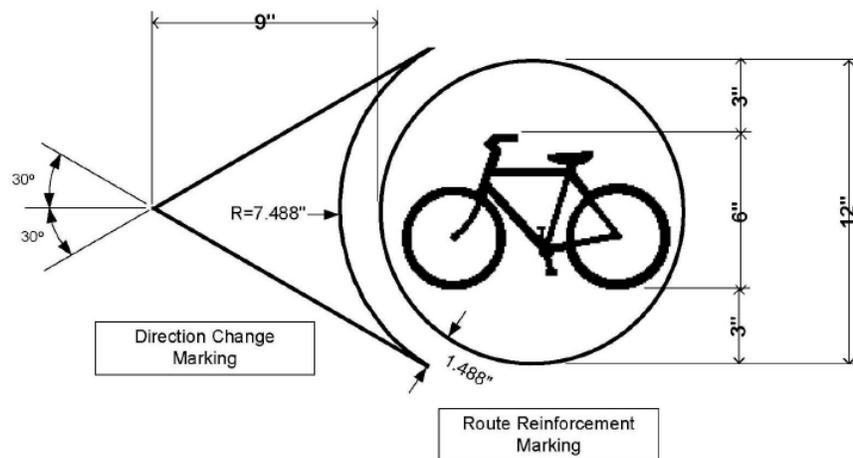


Figure 2: Bicycle Boulevard Markings Placed for Wayfinding

