



**To:** Members of the Technical Committee for the City of Milwaukie's Transportation System Plan 2023-2025 Update

**From:** Laura Weigel, Planning Manager  
Ryan Dyar, Associate Planner

**Date:** April 10, 2025, for Wednesday, April 16, 2025, TSPTC Meeting #8

**Subject:** Meeting Materials

Dear Committee Members,

Spring has sprung! I hope you all are enjoying some time outside!

Great news - the memo for this meeting is very short and contains the draft project maps! It is a work in progress, and we'll spend our meeting going through the identified pedestrian and bicycle projects to get your feedback and potentially add projects that we inadvertently left off the list.

I've also attached the same draft Functional Classification memo from our last meeting to use as an additional resource for reviewing the projects.

We thank you once again for dedicating your time and energy to this process and are excited to be developing a transportation system that benefits all Milwaukie residents. Should you have any questions or require further information, please do not hesitate to reach out.

We look forward to seeing you next Wednesday.

Sincerely,

Laura Weigel, Planning Manager  
Ryan Dyar, Associate Planner

**Attachments:**

- Exhibit A. Draft Future Conditions and Solutions Memorandum
- Exhibit B. Draft Multimodal Functional Classification Memorandum

# DRAFT FUTURE CONDITIONS AND SOLUTIONS MEMO

**Date:** April 10, 2025

**To:** Project Management Team

**From:** Kittelson & Associates, Inc. and City of Milwaukie

**Project:** Milwaukie Transportation System Plan

**Subject:** DRAFT Future Conditions and Solutions (Pedestrian and Bicycle Project Focus)

**\*\*\* Note to Reviewer (04/10/25). This memorandum is DRAFT. This dated version only contains the initial list of Pedestrian and Bicycle projects. Project lists for all other modes along with a full evaluation/cost assessment and will be presented in future updates. \*\*\***

## Executive Summary

This memorandum (memo) summarizes transportation gaps and deficiencies identified in the Transportation System Conditions, Needs, and Gaps Memo, and with a focus on the TSP Vision and Goals develops an initial project list to address these gaps and deficiencies.

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*Vision Statement: Milwaukie will have a complete network of sidewalks, bike lanes, and paths along with well-maintained streets and a robust transit system that connects our community. Travel within and through Milwaukie is safe, efficient, equitably planned, and meets the needs of the entire community.*

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## Project List

In the last planning effort, the project team identified transportation needs and gaps based on several factors including a Pedestrian Level of Traffic Stress (PLTS) analysis, a Bicycle Level of Traffic Stress (BLTS) analysis, a vehicular/safety analysis of select intersections, a review of projects previously identified in other local and regional transportation planning documents, and review of previous committee/public feedback. From these efforts, this section presents the draft modal projects that are being considered for inclusion in the Milwaukie Transportation System Plan (TSP).

Details on the process for identifying projects are documented in the modal and evaluation sections of this memorandum. More details on modal network classifications is included in the Functional Classification Memo.

## Pedestrian Facilities

Pedestrian facilities refer to infrastructure designed for people walking or using mobility devices and typically include sidewalks, on-street pathways, multi-use trails, and street crossings. A well-connected pedestrian network provides safe and efficient links between pedestrian trip generators like schools, parks, commercial areas, neighborhood hubs, residential neighborhoods, and other pedestrian attractors. To help ensure these connections are made and prioritized at the planning level, Figure 1 illustrates the proposed pedestrian street classifications. As shown, all roadways in Milwaukie will be classified as either a Major City Walkway, City Walkway, Neighborhood Walkway, or Local Service Walkway. While the classifications do not prescribe a specific facility type or treatment (e.g., bicycle lane, multi-use pathway, curb-extensions, etc.), they do indicate the role of a facility within the larger modal network and the infrastructure expectations for meeting that role.

Pedestrian travel in Milwaukie is challenged by an incomplete sidewalk network, local street connectivity limitations, and barriers created by two major highways (224 and 99E) and light and freight rail corridors. Only 15 percent of the existing roadway network in Milwaukie achieves a Pedestrian Level of Traffic Stress (PLTS) score of 1 or 2, due to the lack of sidewalk facilities or obstructions that limit the effective sidewalk width to levels that can impede walking and rolling. Figure 2 illustrates the pedestrian needs and gaps overlaid on priority focus areas.



To begin to address these needs, Table 1 and Figure 3 list and illustrate the proposed pedestrian projects. These projects fill some of the identified gaps along Major City Walkways, City Walkways, and Neighborhood Walkways and enhance/make new connections to/from/within Milwaukie's priority focus areas. The project lists also include SAFE projects and connectors on Local Service Walkways that overlap with priority focus areas.










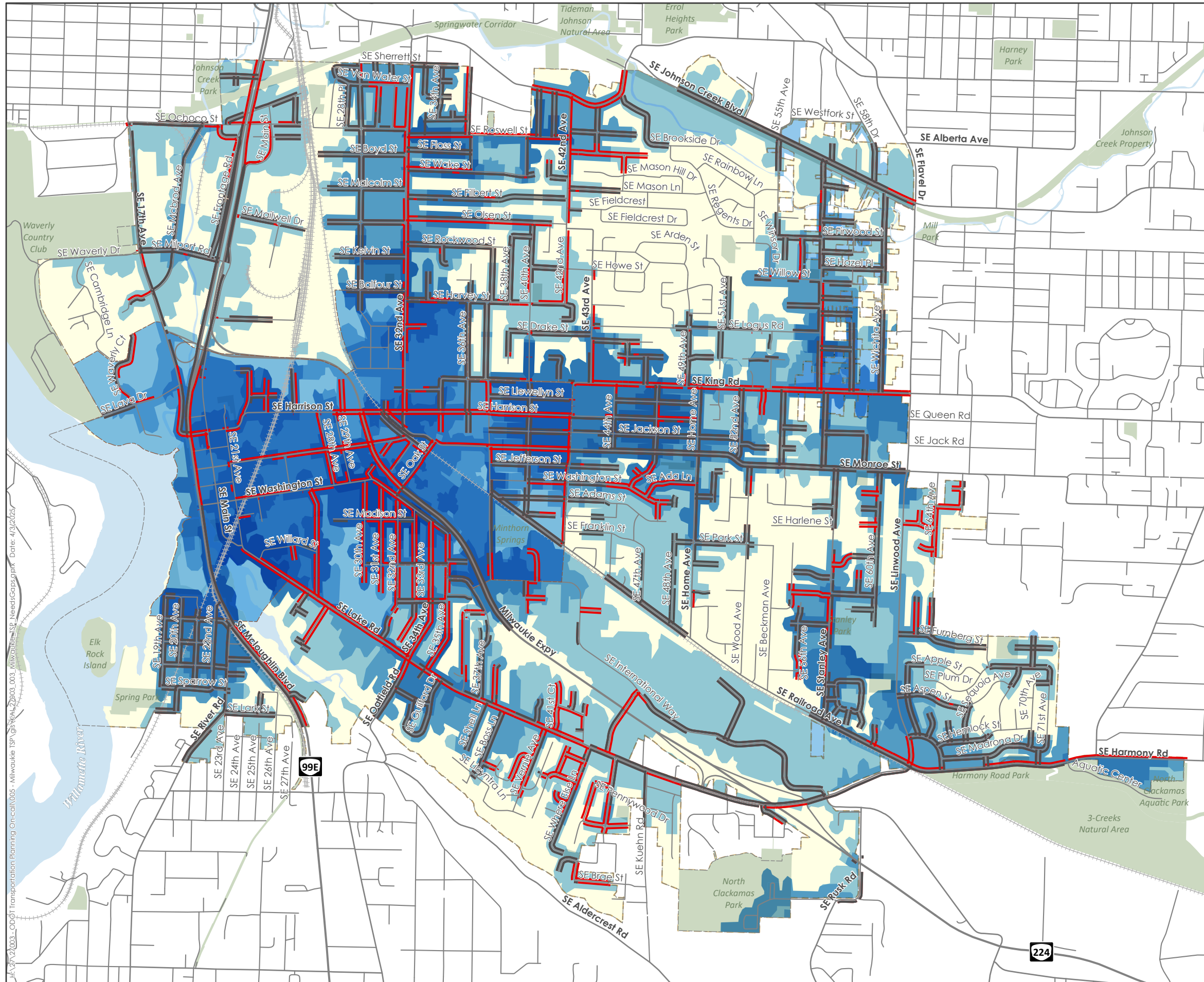
**FIGURE 2**  
**Pedestrian Gaps and Deficiencies**  
**Priority Focus Areas**

**Legend**

-  Pedestrian Facility Does Not Meet the PLTS 2 Target
-  No Sidewalk/Does Not Meet the PLTS 2 Target

**Density of Focus Area Walksheds**

-  6 (Walkshed Layers)
-  3 (Walkshed Layers)
-  1 (Walkshed Layer)
-  Milwaukie City Limits
-  Parks



Generated On: 4/3/2025

Data Sources: City of Milwaukie, ODOT

0 0.25 0.5 0.75 Miles



224

Table 1 - Pedestrian Projects

| Project ID | Street                | Start Extents         | End Extents              | Current Condition  | Detailed Project Description (for cost estimating purposes)   | Ped Classification   | Roadway Classification |
|------------|-----------------------|-----------------------|--------------------------|--|---|----------------------|------------------------|
| P-1        | SE Moores St          | HWY 99E               | SE Main Street           | Narrow sidewalk, PLTS 3/4  | Reconstruct and widen to 6ft curb-tight sidewalk (south side)   | Major City Walkway   | Local Street           |
| P-2        | SE 32nd Ave           | SE Sherrett St        | SE Harrison St           | SAFE Project. Sidewalks under 5ft in width; mailboxes and Utilites poles limiting effective width of sidewalk; PLTS 3/4              | Reconstruct 6 ft curb-tight sidewalks (both sides) and remove utility obstructions                            | Major City Walkway   | Collector              |
| P-3        | SE Johnson Creek Blvd | SE 40th Ave           | SE 45th Ave              | Mailboxes and utility poles limiting effective sidewalk width, PLTS 3/4  | Reconstruct 6 ft curb-tight sidewalks (both sides) and remove utility obstructions                            | Major City Walkway   | Collector              |
| P-4        | SE King Rd            | SE 34th Ave           | SE 40th Ave              | Missing sidewalks, PLTS 4  | Construct new 5ft minimum curb-tight sidewalk (north side)  | Neighborhood Walkway | Local Street           |
| P-5        | SE Harmony Rd         | SE Linwood Ave        | Aquatic Center Access Rd | SAFE Project. Missing sidewalk on the south side, PLTS 4; narrow sidewalk on the north side, PLTS 3                                  | Construct 8-10ft ped/bike pathway on south sides of road  | Major City Walkway   | Arterial               |
| P-6        | SE Lake Rd            | SE 34th Ave           | SE Harmony Rd            | Missing sidewalk between 34th-37th, 39th-40th, 43rd-International Way; frequent sidewalk obstructions on existing sidewalk, PLTS 3/4 | Construct 5ft landscape buffer and 6ft sidewalk (where gaps exist)  | Major City Walkway   | Arterial               |
| P-7        | SE Johnson Creek Blvd | West city limits      | SE Linwood Ave           | Missing sidewalk, PLTS 4   | Coordinate with City of Portland to ensure construction of 6 ft curb-tight sidewalks (north side)             | Major City Walkway   | Arterial               |
| P-8        | SE Oatfield Rd        | SE Lake Rd            | City Limits              | SAFE Project. Missing sidewalk, PLTS 4   | Construct new buffered 8ft sidewalks (both sides)   | Major City Walkway   | Arterial               |
| P-9        | SE 34th Ave           | SE Washington St      | SE Lake Rd               | Narrow sidewalks, PLTS 3   | Construct 8-10ft ped/bike pathway on west side of road. Reconstruct 6ft curb-tight sidewalk on the east side. | Major City Walkway   | Collector              |
| P-10       | SE 37th Ave           | SE Washington St      | SE International Way     | Sidewalk gaps on east side of roadway, PLTS 4  | Construct new 6ft curb-tight sidewalk on the east side of road.   | Major City Walkway   | Collector              |
| P-11       | SE Washington St      | SE Oak St             | SE 34th Ave              | Narrow or missing sidewalk, PLTS 3/4   | Construct 8-10ft ped/bike pathway on south side of road.  | Major City Walkway   | Collector              |
| P-12       | SE Lake Rd            | SE 23rd Ave           | SE 34th Ave              | Narrow/obstructed sidewalk environment, PLTS 3/4   | Remove sidewalk obstructions (north side)   | Major City Walkway   | Arterial               |
| P-13       | SE Harrison St        | HWY 99E               | SE Main Street           | Narrow/obstructed sidewalk segments, PLTS 3  | Remove utility obstructions   | Major City Walkway   | Arterial               |
| P-14       | SE Monroe St          | SE 21st St            | OR 224                   | Narrow sidewalks, PLTS 3   | Reconstruct 6ft curb-tight sidewalks (both sides)   | Major City Walkway   | Collector              |
| P-15       | SE Monroe St          | OR 224                | SE Campbell St           | Narrow sidewalks, PLTS 3   | Reconstruct 6ft curb-tight sidewalks (both sides)   | Major City Walkway   | Collector              |
| P-16       | SE Harrison St        | SE 29th St            | SE 32nd Ave              | Narrow sidewalks, PLTS 4   | Reconstruct buffered 6ft sidewalks (both sides)   | Major City Walkway   | Arterial               |
| P-17       | SE Harrison St        | SE 32nd Ave           | SE 42nd Ave              | SAFE project. Narrow sidewalks, PLTS 3/4   | Reconstruct buffered 6ft sidewalks (both sides)   | Major City Walkway   | Arterial               |
| P-18       | SE Campbell St        | SE Monroe St          | SE Oak St                | Narrow/missing sidewalks, PLTS 3/4   | Reconstruct 6ft curb-tight sidewalks (both sides)   | Major City Walkway   | Collector              |
| P-19       | SE River Rd           | SE Lark St            | South City Limit         | Missing sidewalk, PLTS 4   | Construct new 8ft curb-tight sidewalk on both sides of road.  | City Walkway         | Arterial               |
| P-20       | SE Harvey St          | SE 32nd St            | SE 42nd St               | Narrow/missing/obstructed sidewalks, PLTS 3/4  | Construct 5ft minimum curb-tight sidewalks (north side)   | City Walkway         | Neighborhood Route     |
| P-21       | SE 42nd Ave           | SE Harvey St          | SE Johnshon Creek Blvd   | Frequent sidewalk obstructions   | Remove sidewalk obstructions (both sides) and opportunities allow   | City Walkway         | Collector              |
| P-22       | SE Stanley Ave        | SE Johnson Creek Blvd | SE King Rd               | Missing sidewalks, PLTS 4  | Construct 8-10ft ped/bike pathway on one side of road   | City Walkway         | Collector              |
| P-23       | SE 43rd Ave           | SE King Rd            | SE Howe St               | Frequent sidewalk obstructions (east side)   | Remove sidewalk obstructions (east side)  | City Walkway         | Collector              |
| P-24       | SE Washington St      | SE 37th Ave           | SE Garrett Dr            | Narrow/missing sidewalks, PLTS 3/4   | Construct 5ft minimum curb-tight sidewalks (both sides)   | City Walkway         | Collector              |
| P-25       | SE Monroe St          | SE 37th Ave           | SE Garrett Dr            | Narrow/Missing Sidewalks, PLTS 3/4   | Construct 6ft minimum curb-tight sidewalks (both sides)   | Neighborhood Walkway | Collector              |
| P-26       | SE Monroe St          | SE Garrett Dr         | SE Linwood Ave           | Missing sidewalks, PLTS 4  | Construct buffered 7ft minimum sidewalks (north side)   | City Walkway         | Collector              |
| P-27       | SE Railroad Ave       | SE 37th Ave           | SE Harmony               | Missing sidewalks, PLTS 4  | Construct 8-10ft ped/bike pathway on north side of road   | Major City Walkway   | Collector              |

Table 1 - Pedestrian Projects

| Project ID | Street               | Start Extents         | End Extents      | Current Condition  | Detailed Project Description (for cost estimating purposes)   | Ped Classification    | Roadway Classification |
|------------|----------------------|-----------------------|------------------|--|---|-----------------------|------------------------|
| P-28       | SE International Way | SE Freeman Way        | SE Lake Rd       | SAFE project. Missing sidewalks, PLTS 4                                | Construct 5ft minimum curb-tight sidewalks (both sides)   | Major City Walkway    | Collector              |
| P-29       | SE Rusk Rd           | SE Lake Rd            | HWY 224          | 30 mph missing sidewalks, PLTS 4                                       | Coordinate with Clackamas County to ensure construction of 6 ft curb-tight sidewalks (west side)              | City Walkway          | Collector              |
| P-30       | SE Rusk Rd           | HWY 224               | South City Limit | 30 mph, missing sidewalk buffer on the west side, PLTS 3               | Coordinate with Clackamas County to ensure construction of 6 ft curb-tight sidewalks (west/north side)        | City Walkway          | Collector              |
| P-31       | SE 29th Ave          | SE Sherrett St        | SE Balfour St    | Missing sidewalks, PLTS 4  | Maintain shared roadway environment with signing and striping enhancements                                    | Neighborhood Walkway  | Local Street           |
| P-32       | SE Llewellyn St      | SE 32nd Ave           | SE 34th Ave      | Sidewalk gaps, PLTS 4  | Construct 8-10ft ped/bike pathway on north side of road   | Neighborhood Walkway  | Local Street           |
| P-33       | SE 34th Ave          | SE King Rd            | SE Harrison St   | Missing sidewalks, PLTS 4  | Construct 8-10ft ped/bike pathway on west side of road. Reconstruct 6ft curb-tight sidewalk on the east side. | Neighborhood Walkway  | Local Street           |
| P-34       | SE 34th Ave          | SE Harrison St        | SE 34th Dead End | Sidewalks under 5 ft in width, PLTS 4                                  | Construct 8-10ft ped/bike pathway on west side of road. Reconstruct 6ft curb-tight sidewalk on the east side. | Neighborhood Walkway  | Local Street           |
| P-35       | SE Roswell St        | SE 29th Ave           | SE 32nd St       | Missing sidewalks, PLTS 4  | Construct 5ft curb-tight sidewalk (north side)  | Neighborhood Walkway  | Local Street           |
| P-36       | SE Roswell St        | SE 32nd Ave           | SE 42nd Ave      | Frequent sidewalk obstructions (32nd to 36th and 39th to 42nd), PLTS 4 | Remove sidewalk obstructions (south side)   | Neighborhood Walkway  | Neighborhood Route     |
| P-37       | SE Olsen St          | SE 29th Ave           | SE 32nd Ave      | Missing sidewalk, PLTS 4   | Construct 5ft curb-tight sidewalk (north side)  | Neighborhood Walkway  | Neighborhood Route     |
| P-38       | SE Olsen St          | SE 32nd Ave           | SE 42nd Ave      | SAFE project. Missing sidewalk, PLTS 4                                 | Construct 5ft curb-tight sidewalk (north side)  | Neighborhood Walkway  | Local Street           |
| P-39       | SE Willow St         | SE Winsor Dr          | SE 49th Ave      | Sidewalk gaps  | Construct 5ft curb-tight sidewalk (south side) to connect Glover Street Alley                                 | Neighborhood Walkway  | Neighborhood Route     |
| P-40       | SE 49th Ave          | SE Willow Ave         | SE King Rd       | SAFE project. Missing sidewalks, PLTS 4                                | Construct 5ft curb-tight sidewalk (west side)   | Neighborhood Walkway  | Neighborhood Route     |
| P-41       | SE Logus Rd          | SE 43rd Ave           | SE 49th Ave      | Missing sidewalks, PLTS 4  | Construct 5ft curb-tight sidewalk (south side)  | Neighborhood Walkway  | Neighborhood Route     |
| P-42       | SE Stanley Ave       | SE King Rd            | SE Monroe St     | Sidewalk missing on both sides   | Construct 5ft minimum curb-tight sidewalks (both sides)   | Neighborhood Walkway  | Collector              |
| P-43       | SE Stanley Ave       | SE Monroe St          | SE Railroad Ave  | Sidewalk missing on both sides   | Construct 5ft minimum curb-tight sidewalks (both sides)   | Neighborhood Walkway  | Collector              |
| P-44       | SE 51st Ave          | SE Logus Rd           | SE Winworth Ct   | SAFE project. Sidewalks missing on both sides                          | Construct 5ft curb-tight sidewalk (east side)   | Local Service Walkway | Local Street           |
| P-45       | SE Willow St         | SE Windsor Dr         | SE 51st Ave      | Unimproved ped/bike pathway  | Construct a 10ft multi-use path   | Neighborhood Walkway  | (off street)           |
| P-46       | SE Willow Ave alley  | SE Winworth Ct        | SE 49th Ave      | Unimproved ped/bike pathway  | Construct a 10ft multi-use path   | Neighborhood Walkway  | (off street)           |
| P-47       | SE 37th Ave          | SE Wister St Path     | SE Edison St     | Missing sidewalk, PLTS 4   | Construct 5ft curb-tight sidewalk (south/west side)   | Not designated        | Neighborhood Route     |
| P-48       | SE Brookside Drive   | SE Johnson Creek Blvd | SE Regents Dr    | SAFE project. Missing sidewalk, PLTS 4                                 | Construct 5ft curb-tight sidewalk (south side)  | Not designated        | Neighborhood Route     |
| P-49       | SE Regents Dr        | SE Brookside Dr       | SE Winso Dr      | SAFE project. Missing sidewalk, PLTS 4                                 | Construct 5ft curb-tight sidewalk (south side)  | Not designated        | Neighborhood Route     |
| P-50       | SE Mason Ln          | SE 42nd Ave           | SE Regents Dr    | SAFE project. Missing sidewalk, PLTS 4                                 | Construct 5ft curb-tight sidewalk (south side)  | Not designated        | Neighborhood Route     |
| P-51       | SE 44th Ave          | SE Monroe St          | SE Harrison St   | Missing sidewalk, PLTS 4   | Construct 5ft curb-tight sidewalk (both sides)  | Not designated        | Local Street           |
| P-52       | SE Harrison St       | SE 44th Ave           | SE Home St       | Missing/obstructed sidewalks, PLTS 3/4                                 | Construct 5ft curb-tight sidewalk (both sides)  | Not designated        | Local Street           |
| P-53       | SE 27th Ave          | SE Lake Rd            | SE Washington St | Narrow/obstructed sidewalks on east side, PLTS 3/4                     | Reconstruct 5 ft curb-tight sidewalks (east side) and remove utility obstructions                             | Local Service Walkway | Neighborhood Route     |
| P-54       | SE Edison St         | SE 35th Ave           | OR 224           | Missing sidewalk, PLTS 4   | Construct 5ft curb-tight sidewalk (north side)  | Not designated        | Local Street           |
| P-55       | SE Bluebird St       | SE 19th Ave           | SE 22nd Ave      | Missing sidewalk, PLTS 4   | Maintain shared roadway environment with signing and striping enhancements                                    | Neighborhood Walkway  | Local Street           |

Table 1 - Pedestrian Projects

| Project ID                                      | Street                      | Start Extents                  | End Extents          | Current Condition                       | Detailed Project Description (for cost estimating purposes)                                     | Ped Classification    | Roadway Classification |  |
|---|-----------------------------|--------------------------------|----------------------|---|---|-----------------------|------------------------|--|
| P-56  | SE 19th Ave                 | SE Eagle St                    | SE Sparrow St        | Missing sidewalk, PLTS 4                | Maintain shared roadway environment with signing and striping enhancements                      | Neighborhood Walkway  | Local Street           |  |
| P-57  | SE Sparrow St               | SE 19th Ave                    | SE River Rd          | Missing sidewalk, PLTS 4                | Construct 5ft curb-tight sidewalk (south side)  | Neighborhood Walkway  | Local Street           |  |
| P-58  | SE Ochoco St                | SE 17th Ave                    | Springwater Trail    | SAFE project. Incomplete trail corridor | Coordinate with City of Portland to ensure construction of a 10ft multi-use path                | Major City Walkway    | Collector              |  |
| P-59  | SE Ochoco St                | Springwater Trail              | SE McBrod Ave        | SAFE project. Missing sidewalk, PLTS 4  | Coordinate with City of Portland to ensure construction of 5ft curb-tight sidewalk (north side) | Not designated        | Collector              |  |
| P-60  | SE Mallard Way              | End of road                    | SE International Way | Missing sidewalk, PLTS 4                | Construct 5ft minimum curb-tight sidewalks (both sides)   | Not designated        | Local Street           |  |
| P-61  | SE 42nd Ave/SE Roswell St   | intersection                   |                      | Increase pedestrian safety              | Install RRFB across SE 42nd Ave   | City Walkway          | Collector              |  |
| P-62  | SE 32nd Ave/SE Meek St      | intersection                   |                      | Increase pedestrian safety              | Install RRFB across SE 32nd Ave   | City Walkway          | Collector              |  |
| P-63  | SE King Rd/SE Home St       | Intersection                   |                      | Increase pedestrian safety              | Install RRFB across SE King Rd  | Major City Walkway    | Arterial               |  |
| P-64  | SE King Rd/SE Stanley Ave   | Intersection                   |                      | Increase pedestrian safety              | Install RRFB across SE King Rd  | Major City Walkway    | Arterial               |  |
| P-65  | SE Railroad Ave/SE Home Ave | Intersection                   |                      | Increase pedestrian connectivity        | Construct at grade bike/ped crossing of Railroad Ave and adjacent rail line to SE Mallard Way   | Major City Walkway    | Collector              |  |
| P-66  | OR 224/SE Freeman Way       | Intersection                   |                      | Increase pedestrian safety              | Improve pedestrian crossing   | City Walkway          | Regional Route         |  |
| P-67  | SE Stanley Ave/SE Logus Rd  | Intersection                   |                      | Increase pedestrian safety              | Install RRFB across SE Stanley Ave  | City Walkway          | Collector              |  |
| P-68  | OR 224/SE 37th Ave          | Intersection                   |                      | Increase pedestrian safety              | Improve pedestrian crossing   | Major City Walkway    | Regional Route         |  |
| P-69  | OR 224/SE Oak St            | Intersection                   |                      | Increase pedestrian safety              | Improve pedestrian crossing   | Major City Walkway    | Regional Route         |  |
| P-70  | OR 224/SE Monroe St         | Intersection                   |                      | Increase pedestrian safety              | Improve pedestrian crossing   | Major City Walkway    | Regional Route         |  |
| P-71  | OR 224/SE Harrison St       | Intersection                   |                      | Increase pedestrian safety              | Improve pedestrian crossing   | Major City Walkway    | Regional Route         |  |
| P-72  | SE Olsen St                 | Western extents of SE Olsen St | SE Mailwell Dr       | Increase pedestrian connectivity        | Construct bike/ped crossing of rail line to SE Mailwell Dr                                      | Not designated        | Local Street           |  |
| P-73  | SE Stanley Ave/SE Monroe St | Intersection                   |                      | Increase pedestrian safety              | Install RRFB across SE Monroe St  | City Walkway          | Collector              |  |
| P-74  | SE King Rd                  | SE 44th Ave                    | SE Linwood Ave       | Narrow sidewalks, PLTS 3                | Construct 8-10ft ped/bike pathway on north and south side of road                               | Major City Walkway    | Arterial               |  |
| P-75  | SE 32nd Ave                 | SE Meek St                     | SE Llewellyn St      | Already PLTS 2                          | Construct a new 8-10ft ped/bike pathway on east side of road                                    | Major City Walkway    | Collector              |  |
| P-76  | OR 224/SE Rusk Rd           | Intersection                   |                      | Increase pedestrian safety              | Improve pedestrian crossing   | Major City Walkway    | Collector              |  |
| P-77  | SE Olsen St/SE 42nd Ave     | Intersection                   |                      | Increase pedestrian safety              | Improve pedestrian crossing   | City Walkway          | Collector              |  |
| P-78  | SE Millport Rd              | 99E                            | SE 17th Ave          | Missing sidewalks, PLTS 4               | Construct 5ft minimum curb-tight sidewalks (both sides)   | Not designated        | Local Street           |  |
| P-79  | 99E/SE Ochoco St            | Intersection                   |                      | Increase pedestrian safety              | To Be Determined  | Not designated        | Regional Route         |  |
| P-80  | 99E/SE Milport RD           | Intersection                   |                      | Increase pedestrian safety              | To Be Determined  | Not designated        | Regional Route         |  |
| P-90  | SE Garrett St               | SE Washington St               | SE Monroe St         | Narrow sidewalks, PLTS 3                | Reconstruct 5ft minimum curb-tight sidewalks (both sides)                                       | City Walkway          | Local Street           |  |
| P-106   | SE Harlow St/SE 56th Ave    | SE 56th Ave                    | SE Stanley Ave       | Missing sidewalks, PLTS 4               | Reconstruct 5ft minimum curb-tight sidewalks (south side)                                       | Local Service Walkway | Local Street           |  |
| P-107   | SE Hazel Pl                 | SE Stanley Ave                 | SE Wichita Ave       | Missing sidewalks, PLTS 4               | Reconstruct 5ft minimum curb-tight sidewalks (south side)                                       | Local Service Walkway | Local Street           |  |
| P-108   | SE Wichita Ave              | SE Kind Rd                     | SE Hazel Pl          | Missing sidewalks, PLTS 4               | Reconstruct 5ft minimum curb-tight sidewalks (west side)  | Local Service Walkway | Local Street           |  |
| P-109   | SE Boss Ln                  | SE Lake Rd                     | SE Licyntra Ln       | Missing sidewalks, PLTS 4               | Reconstruct 5ft minimum curb-tight sidewalks (east side)  | Local Service Walkway | Local Street           |  |
| <b>SAFE Projects Up To 2024 (not completed)</b> |                             |                                |                      |   |   |                       |                        |  |
| P-91  | King Road                   | 40th Avenue                    | 43rd Avenue          |   | SAFE Project - Details TBD  | Neighborhood Walkway  | Neighborhood Route     |  |



Table 1 - Pedestrian Projects

| Project ID | Street                         | Start Extents        | End Extents                  | Current Condition | Detailed Project Description (for cost estimating purposes) | Ped Classification    | Roadway Classification |
|------------|--------------------------------|----------------------|------------------------------|-------------------|---|-----------------------|------------------------|
| P-92       | Main St                        | Harrison St          | Expressway (OR 224)          |                   | SAFE Project - Details TBD                                  | Major City Walkway    | Collector              |
| P-93       | Mailwell Drive                 | Main Street          | UPRR                         |                   | SAFE Project - Details TBD                                  | Local Service Walkway | Local Street           |
| P-94       | Sparrow Street                 | River Road           | Trolley Trail / 26th Avenue  |                   |   |                       |                        |
| P-95       | Balfour Street                 | 32nd Avenue          | Balfour Park                 |                   |   |                       |                        |
| P-96       | Park Street/ Lloyd Street      | Home Avenue          | Stanley Avenue               |                   | SAFE Project - Details TBD, SRTS                            | Local Service Walkway | Local Street           |
| P-97       | 26th Avenue                    | Lake Road            | Lake Village Apartments      |                   | SAFE Project - Details TBD                                  | Local Service Walkway | Local Street           |
| P-98       | 28th Avenue - Van Water Street | Springwater Corridor | 32nd Avenue                  |                   | SAFE Project - Details TBD, SRTS                            | Local Service Walkway | Local Street           |
| P-99       | Logus Road                     | Stanley              | 43th Avenue                  |                   | SAFE Project - Details TBD, SRTS                            | Neighborhood Walkway  | Neighborhood Route     |
| P-100      | Lava Drive / Waverly Court     | 17th Avenue          | Highland Apartments Entrance |                   | SAFE Project - Details TBD                                  | City Walkway          | Local Street           |
| P-101      | Where Else Lane                | Lake Road            | Bowman and Brae Park         |                   | SAFE Project - Details TBD                                  | Local Service Walkway | Neighborhood Route     |
| P-102      | Aspen - Furnberg Street        | Lindwood Avenue      | Furnberg Park                |                   | SAFE Project - Details TBD                                  | Local Service Walkway | Local Street           |
| P-103      | 47th Avenue                    | Franklin Street      | Railroad Avenue              |                   | SAFE Project - Details TBD                                  | Local Service Walkway | Local Street           |
| P-104      | 35th Avenue                    | Lake Road            | Edison Street                |                   | SAFE Project - Details TBD                                  | Local Service Walkway | Local Street           |
| P-105      | 28th Avenue                    | Washington Street    | Harrison Street              |                   | SAFE Project - Details TBD, SRTS                            | Local Service Walkway | Local Street           |

- Sidewalks
- On-street bike/ped pathway
- Ped project at intersection
- Ped/Rail crossing

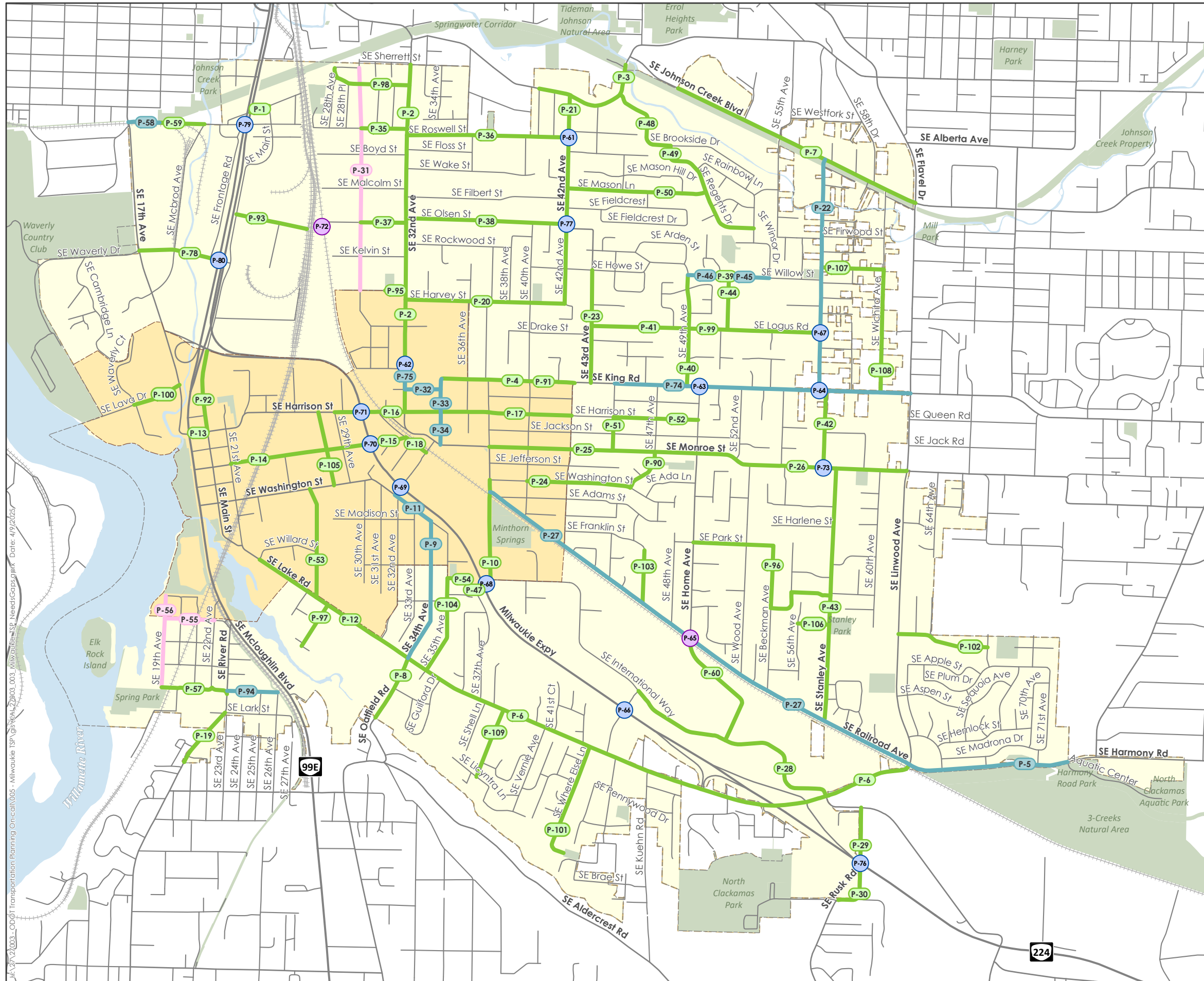


**FIGURE 3**

**Pedestrian Projects**  
**DRAFT**

Legend

- Pedestrian Project at Intersection
- Pedestrian/Rail Crossing Project
- Sidewalk Project
- On-street Bike/Ped Pathway Project
- Shared Roadways
- Milwaukie City Limits
- Milwaukie Town Center
- Parks



Generated On: 4/9/2025

Data Sources: City of Milwaukie, ODOT



## Bicycle Facilities

Bicycle facilities serve a variety of trips, including trips to major attractions such as schools, parks, retail centers, and public facilities; commuter trips; recreational trips; and access to transit. The existing bicycle system in the City of Milwaukie consists of dedicated bicycle lanes, shared use on-street pathways, multiuse trails, and paved shoulders. Figure 4 illustrates the proposed bicycle street classifications, including Major City Bikeways, City Bikeways, Neighborhood Bikeways, and Local Service Bikeways.

Under existing conditions, approximately 30% of the roadways in Milwaukie do not meet the City's BLTS 1 target. Most of these deficient roadways are concentrated along the Arterial and Collector network. Figure 5 illustrates the bicycle needs and gaps overlayed on priority focus areas.






To address some of these needs, Table 2 and Figure 5 list and illustrate the proposed bicycle projects. These projects generally fill identified gaps along Major City Bikeways, City Bikeways, and Neighborhood Bikeways. The project lists also include SAFE projects and key connectors on Local Service Bikeways that overlap with priority focus areas.

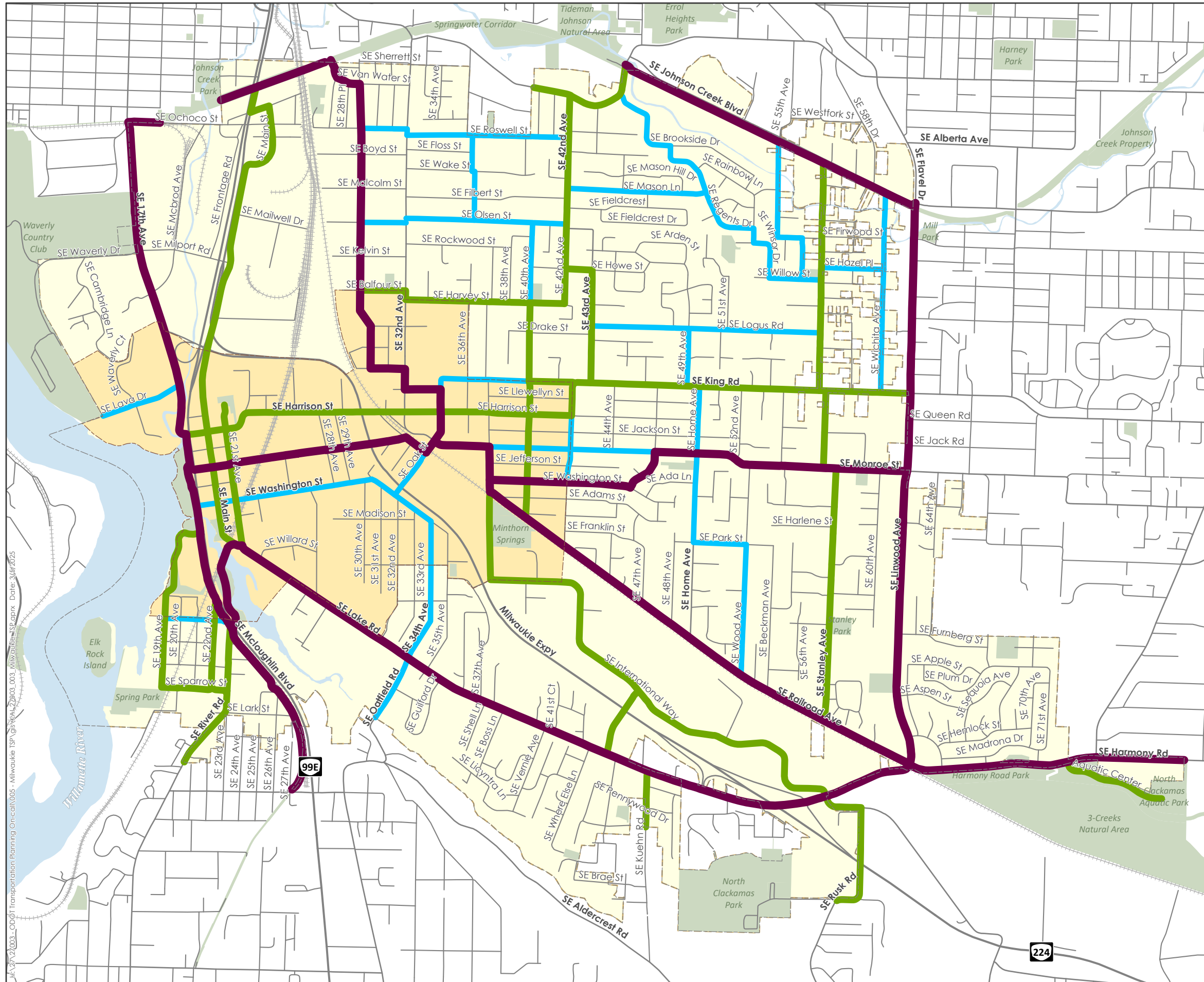


FIGURE 4

Proposed  
Bike Classifications

Legend

-  Major City Bikeway
-  City Bikeway
-  Neighborhood Bikeway
-  Local Service Bikeway
-  Milwaukie City Limits
-  Milwaukie Town Center
-  Parks



Generated On: 3/5/2025

Data Sources: City of Milwaukie, ODOT





11-17-2023... 001 Transportation Planning On-call:005 - Milwaukie TSP... Date: 3/5/2025








**FIGURE 4**  
**Bicycle Gaps and Deficiencies**  
**Priority Focus Areas**

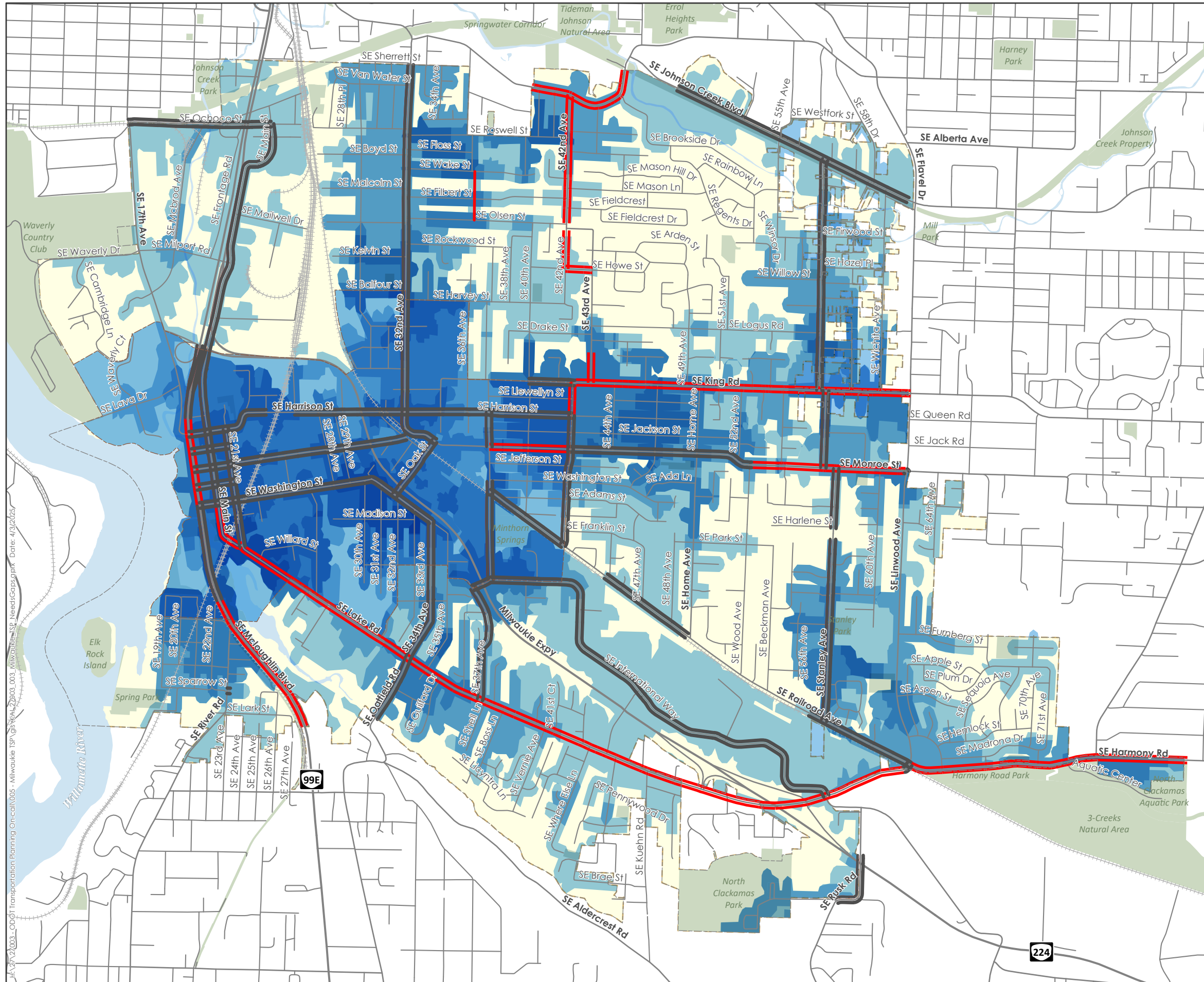
**Legend**

-  Bicycle Facility Does Not Meet the BLTS 1 Target
-  No Bicycle Facility/Does Not Meet the PLTS 2 Target

**Density of Focus Area Bikesheds**

-  6 (Bikeshed Layers)
-  3 (Bikeshed Layers)
-  1 (Bikeshed Layer)

-  Milwaukie City Limits
-  Parks



Generated On: 4/3/2025

Data Sources: City of Milwaukie, ODOT

0 0.25 0.5 0.75 Miles



Table 2 - Bicycle Projects

| Project ID | Street                   | Start Extents                                   | End Extents              | Current Condition  | Detailed Project Description (for cost estimating purposes)   | Bike Classification  | Roadway Classification |
|------------|--------------------------|---|--------------------------|--|---|----------------------|------------------------|
| B-1        | SE Ochoco St             | SE 17th Ave                                     | Springwater Corridor     | BLTS 3; no bike facility; 25mph  | Coordinate with City of Portland to ensure construction of a 10ft multi-use path                              | Major City Bikeway   | Collector              |
| B-2        | SE Main St               | SE Moores St                                    | SE Hanna Harvester Dr    | BLTS 4; 35mph; no formally striped bike facility. <b>SAFE Project</b>              | Construct 8-10ft ped/bike pathway on east side of road  | City Bikeway         | Collector              |
| B-3        | SE 32nd Ave              | SE Meek St                                      | SE Llewellyn St          | BLTS 3; no bike facility; 25mph  | Construct 8-10ft ped/bike pathway on east side of road  | Major City Bikeway   | Collector              |
| B-4        | SE Johnson Creek Blvd    | SE 40th   | SE 45th Ave              | BLTS 2; 5ft bike lanes present; 25mph  | Restripe roadway to a 5.5' bike lane (both directions)  | City Bikeway         | Collector              |
| B-5        | SE 42nd Ave              | SE Johnson Creek Blvd                           | SE Howe St               | BLTS 3; shared lane; 25mph   | To Be Determined  | City Bikeway         | Collector              |
| B-6        | SE 43rd Ave              | End of multi-use path<br>South of SE Rhodesa St | SE King Rd               | BLTS 3; multi-use path drops to <5' bike lane                                      | Construct 8-10ft ped/bike pathway on west side of road  | City Bikeway         | Collector              |
| B-7        | SE King Rd               | SE 44th Ave                                     | SE Linwood Ave           | BLTS 3; swtiches from 25mph to 35mph at 44th; 5ft bicycle lanes                    | Construct 8-10ft ped/bike pathway on north and south side of road   | City Bikeway         | Arterial               |
| B-8        | SE Stanley Ave           | SE Johnson Creek Blvd                           | SE King Rd               | BLTS 3; no bike facility; 25mph  | Construct 8-10ft ped/bike pathway on one side of road   | City Bikeway         | Collector              |
| B-9        | SE Stanley Ave           | SE King Rd                                      | SE Monroe St             | BLTS 2; unmarked centerline; no bike facility                                      | Construct 5.5ft bike lanes (both directions)  | City Bikeway         | Collector              |
| B-10       | SE Stanley Ave           | SE Monroe St                                    | SE Railroad Ave          | BLTS 2; unmarked centerline; no bike facility                                      | Construct 5.5ft bike lanes (both directions)  | City Bikeway         | Collector              |
| B-11       | SE Monroe St             | SE Garrett Dr                                   | SE Linwood Ave           | BLTS 2; shared lane; 25mph   | Install shared roadway lane markings, signage, and traffic calming improvements                               | Major City Bikeway   | Collector              |
| B-12       | SE Railroad Ave          | SE 37th Ave                                     | SE Harmony               | BLTS 3; no bike facility; 35mph  | Construct 8-10ft ped/bike pathway on north side of road   | Major City Bikeway   | Collector              |
| B-13       | SE Harmony Rd            | SE Linwood Ave                                  | Aquatic Center Access Rd | <b>SAFE Project</b> BLTS 3; no bike facility; 35mph                                | Construct 8-10ft ped/bike pathway on south sides of road  | Major City Bikeway   | Arterial               |
| B-14       | SE International Way     | SE 37th Ave                                     | SE Freeman Way           | <b>SAFE</b> project. BLTS 3; 3 lanes until SE Freeman Wy; 25mph                    | Restripe roadway to include 7ft buffered bike lanes (both directions)   | City Bikeway         | Collector              |
| B-15       | SE International Way     | SE Freeman Way                                  | SE Lake Rd               | <b>SAFE</b> project. BLTS 3; 2 lanes until Lake Rd; 25mph                          | Construct 7ft buffered bike lanes (both directions)   | City Bikeway         | Collector              |
| B-16       | SE Rusk Rd               | SE Lake Rd                                      | SE Kellog Creek Rd       | BLTS 3; no bike facility; 30mph until HWY 224 / 25 mph south of HWY 224            | Construct 5.5' bike lanes (both directions) Coordinate with Clackamas County on bicycle facility enhancements | City Bikeway         | Collector              |
| B-17       | SE Lake Rd               | SE Kuehn Ct                                     | SE Harmony Rd            | BLTS 3; on street bike facility; 40mph   | Construct 8-10ft ped/bike pathway on south side of road   | Major City Bikeway   | Arterial               |
| B-18       | SE 34th Ave              | SE King Rd                                      | SE 34th Dead End         | BLTS 1   | Construct 8-10ft ped/bike pathway on east side of road  | Major City Bikeway   | Local Street           |
| B-19       | SE Oatfield Rd           | SE Lake Rd                                      | City limits              | <b>SAFE</b> project. BLTS 3; no formal bike facility; 30mph                        | Construct 5.5ft bike lanes (both directions)  | Neighborhood Bikeway | Arterial               |
| B-20       | SE Oak St                | SE Monroe St                                    | SE Campbell St           | BLTS 3; no bike facility; 25mph; 3 lanes   | Construct 8-10ft ped/bike pathway on both sides of road   | Major City Bikeway   | Arterial               |
| B-21       | SE Railroad Ave          | SE 37th Ave                                     | SE Harmony               | BLTS 3; no bike facility; 35 mph   | Construct 8-10ft ped/bike pathway on north side of road   | Major City Bikeway   | Collector              |
| B-22       | SE Monroe St             | SE 21st Ave                                     | SE Campbell St           | BLTS 3; no bike facility; unmarked centerline; 25mph                               | Install shared roadway lane markings, signage, and traffic calming improvements                               | Major City Bikeway   | Collector              |
| B-23       | SE Harrison St           | SE 21st Ave                                     | SE 24th Ave              | BLTS 3; no bike facility; 20mph until SE 21st Ave / 25mph                          | Remove on-street parking and construct 5.5ft bike lanes (both directions)                                     | City Bikeway         | Arterial               |
| B-24       | SE Harrison St           | SE 26th Ave                                     | SE 42nd Ave              | <b>SAFE</b> project. BLTS 3; no bike facility; 25mph; 2 lanes + parking both sides | Construct 5.5ft bike lanes (both directions)  | City Bikeway         | Arterial               |
| B-25       | SE King Rd               | SE 34th Ave                                     | SE 40th Ave              | BLTS 3; no bike facilities; 25mph; unmarked centerline                             | Improve roadway surface and install shared lane markings (both directions)                                    | Neighborhood Bikeway | Local Street           |
| B-26       | SE 42nd Ave              | SE Harrison St                                  | SE Washington St         | BLTS 2; 25mph; no bike facilities; 2 lanes + parking                               | Remove on street parking and construct 5.5ft bike lane (both directions)                                      | Neighborhood Bikeway | Collector              |
| B-27       |                          |   |                          |  |   |                      |                        |
| B-28       | SE Ochoco St/SE 17th Ave | Intersection                                    |                          | Challenging Intersection   | Improve safety of crossing at intersection  | Major City Bikeway   | Arterial               |
| B-29       | SE Lava Dr & SE 17th Ave | Intersection                                    |                          | Challenging Intersection   | Improve safety of crossing at intersection  | Major City Bikeway   | Arterial               |

Table 2 - Bicycle Projects

| Project ID | Street                               | Start Extents         | End Extents           | Current Condition            | Detailed Project Description (for cost estimating purposes)                     | Bike Classification       | Roadway Classification |
|------------|--------------------------------------|-----------------------|-----------------------|------------------------------|---|---------------------------|------------------------|
| B-30       | SE Railroad Ave & SE Linwood Ave     | Intersection          |                       | Challenging Intersection     | Improve safety of crossing at intersection                                      | Major City Bikeway        | Arterial               |
| B-31       | SE Lake Rd & SE International Way    | Intersection          |                       | Challenging Intersection     | Improve safety of crossing at intersection                                      | Major City Bikeway        | Arterial               |
| B-32       | OR 224/SE Rusk Rd                    | Intersection          |                       | Challenging Intersection     | Improve safety of crossing at intersection                                      | Major City Bikeway        | Collector              |
| B-33       | OR 224/SE Freeman Way                | Intersection          |                       | Challenging Intersection     | Improve safety of crossing at intersection                                      | City Bikeway              | Local Street           |
| B-34       | OR 224/SE 37th Ave                   | Intersection          |                       | Challenging Intersection     | Improve safety of crossing at intersection                                      | City Bikeway              | Collector              |
| B-35       | OR 224/SE Oak St                     | Intersection          |                       | Challenging Intersection     | Improve safety of crossing at intersection                                      | Neighborhood Bikeway      | Collector              |
| B-36       | OR 224/SE Monroe St                  | Intersection          |                       | Challenging Intersection     | Improve safety of crossing at intersection                                      | Major City Bikeway        | Collector              |
| B-37       | OR 224/SE Harrison St                | Intersection          |                       | Challenging Intersection     | Improve safety of crossing at intersection                                      | City Bikeway              | Arterial               |
| B-38       | SE Harrison St/SE 21st Ave           | Intersection          |                       | Challenging Intersection     | Improve safety of crossing at intersection                                      | Major City Bikeway        | Arterial               |
| B-39       | SE King Rd/SE Stanley Ave            | Intersection          |                       | Challenging Intersection     | Improve safety of crossing at intersection                                      | City Bikeway              | Collector              |
| B-40       | SE Harrison St/SE 42nd Ave           | Intersection          |                       | Challenging Intersection     | Improve safety of crossing at intersection                                      | City Bikeway              | Collector              |
| B-41       | SE Johnson Creek Blvd/SE Stanley Ave | Intersection          |                       | Challenging Intersection     | Improve safety of crossing at intersection                                      | City Bikeway              | Collector              |
| B-42       | SE Rosewell Ave                      | SE 29th Ave           | SE 42nd Ave           | Meeting BLTS 1               | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Neighborhood Route     |
| B-43       | SE Olsen St                          | SE 29th Ave           | SE 42nd Ave           | SAFE project. Meeting BLTS 1 | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Neighborhood Route     |
| B-44       | SE Mason Ln                          | SE 42nd Ave           | SE Regents Dr         | Meeting BLTS 1               | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Neighborhood Route     |
| B-45       | SE Regents Dr                        | SE Brookside Dr       | SE Windsor Dr         | SAFE project. Meeting BLTS 1 | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Neighborhood Route     |
| B-46       | SE Brookside Dr                      | SE Johnson Creek Blvd | SE Regents Dr         | SAFE project. Meeting BLTS 1 | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Neighborhood Route     |
| B-47       | SE Windsor Dr                        | SE Regents Dr         | SE Willow St          | SAFE project. Meeting BLTS 1 | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Neighborhood Route     |
| B-48       | SE Willow St                         | SE Windsor Dr         | SE Stanley Ave        | Meeting BLTS 1               | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Neighborhood Route     |
| B-49       | SE Logus Rd                          | SE 43rd Ave           | SE Stanley Ave        | Meeting BLTS 1               | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Neighborhood Route     |
| B-50       | SE 49th Ave                          | SE King Rd            | SE Logus Rd           | SAFE project. Meeting BLTS 1 | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Neighborhood Route     |
| B-51       | SE Hazel St                          | SE Stanley Ave        | SE Wichita Ave        | Meeting BLTS 1               | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Local Street           |
| B-52       | SE Wichita Ave                       | SE King Rd            | SE Johnson Creek Blvd | Meeting BLTS 1               | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Local Street           |
| B-53       | SE Hazel St                          | SE Stanley Ave        | SE Wichita Ave        | Meeting BLTS 1               | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Local Street           |
| B-54       | SE Home Ave                          | SE King Rd            | SE Park St            | Meeting BLTS 1               | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Neighborhood Route     |
| B-55       | SE Park St                           | SE Home Ave           | SE Wood Ave           | Meeting BLTS 1               | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Neighborhood Route     |
| B-56       | SE Wood Ave                          | SE Park St            | SE Railroad Ave       | Meeting BLTS 1               | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Neighborhood Route     |
| B-57       | SE Washington St                     | SE 37th Ave           | SE Garrett Dr         | Meeting BLTS 1               | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Local Street           |
| B-58       | SE Garrett Dr                        | SE Washington St      | SE Monroe St          | Meeting BLTS 1               | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Local Street           |
| B-59       | SE 40th Ave                          | SE Olsen St           | SE Railroad Ave       | Meeting BLTS 1               | Install shared roadway lane markings, signage, and traffic calming improvements | City/Neighborhood Bikeway | Neighborhood Route     |

Table 2 - Bicycle Projects

| Project ID | Street                               | Start Extents        | End Extents           | Current Condition                        | Detailed Project Description (for cost estimating purposes)                     | Bike Classification       | Roadway Classification |
|------------|--------------------------------------|----------------------|-----------------------|--|---|---------------------------|------------------------|
| B-60       | SE 19th Ave                          | SE Bluebird St       | SE Sparrow St         | Meeting BLTS 1                           | Install shared roadway lane markings, signage, and traffic calming improvements | City/Neighborhood Bikeway | Local Street           |
| B-61       | SE Bluebird St                       | SE 22nd Ave          | SE 19th Ave           | Meeting BLTS 1                           | Install shared roadway lane markings, signage, and traffic calming improvements | City/Neighborhood Bikeway | Local Street           |
| B-62       | SE Sparrow St                        | SE 19th Ave          | SE 22nd Ave           | Meeting BLTS 1                           | Install shared roadway lane markings, signage, and traffic calming improvements | City/Neighborhood Bikeway | Local Street           |
| B-63       | SE Kuehn Rd                          | SE Lake Rd           | City limits           | Meeting BLTS 1                           | Install shared roadway lane markings, signage, and traffic calming improvements | City/Neighborhood Bikeway | Local Street           |
| B-64       | SE 34th Ave                          | SE Lake Rd           | SE Washington St      | BLTS 3; no bike facility; 25mph          | Construct 8-10ft ped/bike pathway on west side of road                          | Neighborhood Bikeway      | Collector              |
| B-65       | SE Washington St                     | SE Oak St            | SE 34th Ave           | BLTS 3; no bike facility; 25mph          | Construct 8-10ft ped/bike pathway on west side of road                          | Neighborhood Bikeway      | Collector              |
| B-66       | SE Freeman Way                       | SE International Way | SE Lake Rd            | Meeting BLTS 1                           | Remove on-street parking and stipe 5.5ft bike lanes (both directions)           | City Bikeway              | Local Street           |
| B-67       | SE 29th Ave                          | SE Van Water St      | SE Meek St            | Meeting BLTS 1                           | Install shared roadway lane markings, signage, and traffic calming improvements | Major City Bikeway        | Local Street           |
| B-68       | SE Harvey St                         | SE 32nd Ave          | SE 40th Ave           | Meeting BLTS 1                           | Install shared roadway lane markings, signage, and traffic calming improvements | City Bikeway              | Neighborhood Route     |
| B-69       | SE 55th Ave                          | SE Firwood St        | SE Johnson Creek Blvd | Meeting BLTS 1                           | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Neighborhood Route     |
| B-70       | SE Oak St                            | SE Campbell St       | SE Washington St      | BLTS 3; no bike facility; 25mph; 3 lanes | Install shared roadway lane markings, signage, and traffic calming improvements | Neighborhood Bikeway      | Collector              |
| B-71       | SE Lake Road                         | SE Kuehn Rd          | SE 21st Ave           | BLTS 2                                   | Construct 8-10ft ped/bike pathway on south side of road                         | Major City Bikeway        | Arterial               |
| B-72       | SE Johnson Creek Blvd/SE 45 Pl       | Intersection         |                       | Challenging Intersection                 | Improve safety of crossing at intersection. Coordinate with City of Portland.   | Major City Bikeway        | Arterial               |
| B-73       | SE Johnson Creek Blvd/SE Wichita Ave | Intersection         |                       | Challenging Intersection                 | Improve safety of crossing at intersection                                      | Neighborhood Bikeway      | Collector              |
| B-74       | SE Harmony Rd/Aquatic Center         | Intersection         |                       | Challenging Intersection                 | Improve safety of crossing at intersection                                      | City Bikeway              | Arterial               |

- Shared lanes
- Bike lanes
- On-street bike/ped pathway
- Bike project at intersection



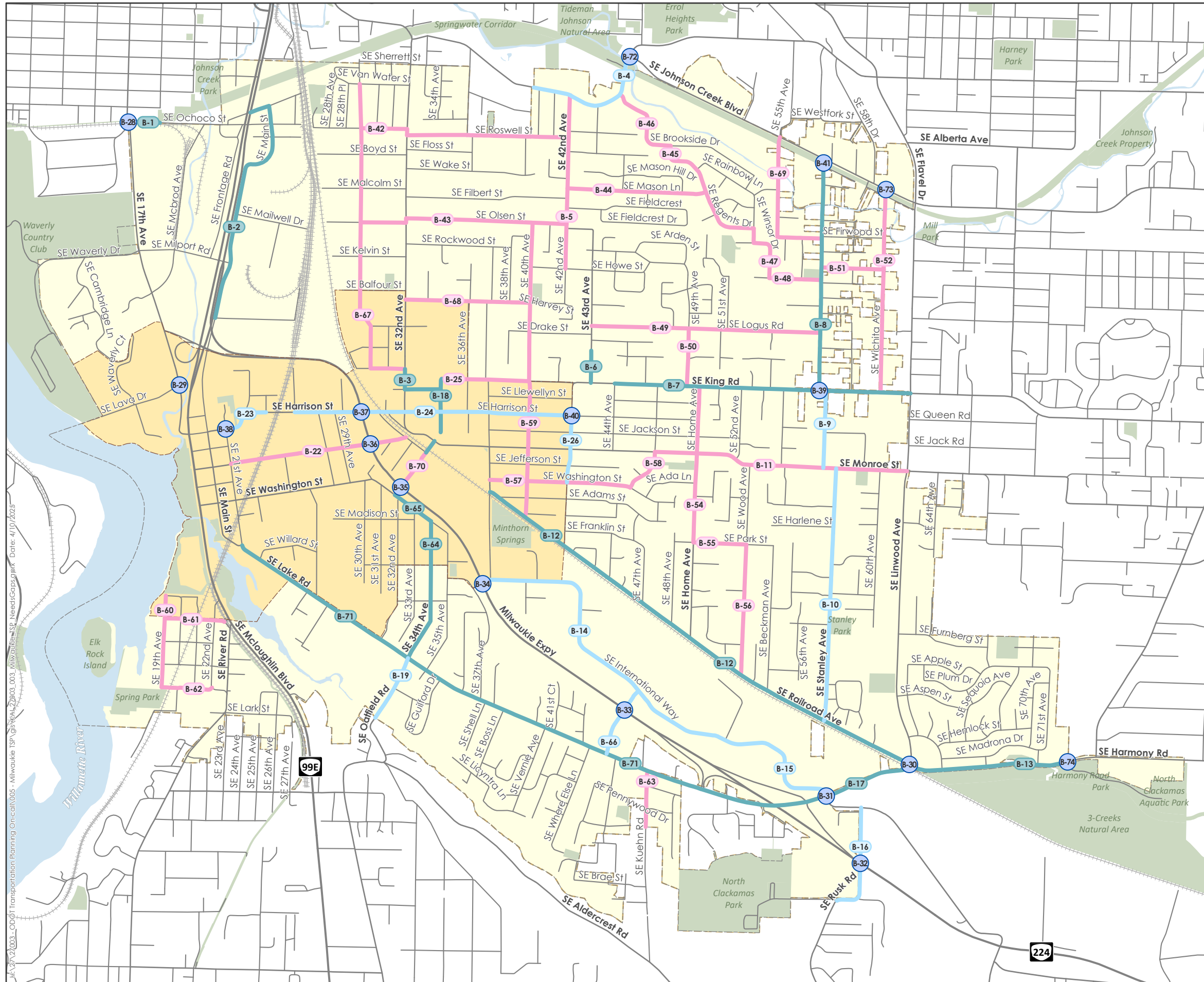


**FIGURE 5**

**Bicycle Projects**  
**DRAFT**

Legend

- Bike Project at Intersection
- Bike Lane Project
- On-street Bike/Ped Pathway Project
- Shared Lane Project
- Milwaukie City Limits
- Milwaukie Town Center
- Parks



Generated On: 4/9/2025

Data Sources: City of Milwaukie, ODOT



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# EXHIBIT B. MULTIMODAL FUNCTIONAL CLASSIFICATION MEMORANDUM & DESIGN BEST PRACTICES

**Date:** February 12, 2025

**To:** Transportation System Plan Advisory Committee (TSPAC)

**From:** Project Management Team (PMT)

**Project:** Milwaukie Transportation System Plan

**Subject:** Functional Classification

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# Introduction

The vehicular functional classification system originated in the early 20th century. As transportation networks expanded and became more complex, engineers and planners needed a systematic way to manage traffic. Functional classification systems attempt to impose order by categorizing roads and streets based on their intended function within a larger network. Milwaukie's current roadway functional classification divides roads into the following hierarchy: arterials, collectors, neighborhood collectors, and local streets. Each classification serves a different role in facilitating mobility and access.

As part of its needs and gaps analysis, the city and its consultants are recommending that a functional classification system be adopted for each mode of transportation considered in the Transportation System Plan, including walking, cycling, public transit, and freight. These networks would not replace but accompany the functional classification used for automobiles. This memo summarizes that need, proposes a classification for each mode, and presents modal maps with draft classification assignments.

## Expanding the Functional Classification System

### Why expand the functional classification system to other modes?

The city's current roadway functional classification system—arterial, collector, etc.—is fundamentally rooted in the efficient movement of vehicular traffic. While the system does consider and allow for the allocation of space for other modes of transportation, such as bicycles and pedestrians, these modes remain secondary to the focus on vehicular flow. This inherent bias towards motorized vehicles within the framework suggests that adopting a separate, distinct, functional classification for other modes is warranted. Such a classification would better reflect the unique needs of each mode and ensure that their infrastructure is considered with the same level of intentionality and priority as vehicular infrastructure. For example, cyclists and pedestrians can and do leverage different facilities, such as off-street trails, pathways, and plazas; additionally, they are generally considered to be more sensitive to out-of-direction travel, grade changes, and the surrounding land-use and transportation context.

### How will the expanded classification system be used?

The expanded functional classification system will be used for the new Milwaukie Transportation System Plan (TSP) and for future updates of the TSP. In this context, it will primarily inform network analysis, guide the development of policy recommendations related to facility design, traffic management strategies, and land-use planning. Additionally, it will help with TSP project prioritization, ensuring that limited resources are directed toward the most critical facilities.

The functional classification system will also be used to implement the TSP through the city's development review process and associated land-use planning projects, such as area plans, corridor plans, and zoning amendments. Classification designations won't specify specific treatments or designs but will signal to staff what role the facility is intended to play within the modal network. Consequently, staff should be better able to avoid potential modal conflicts, consider the impact that new development might have on the network, and determine appropriate dedications and public improvement requirements.

## Functional classifications versus facility types and treatments

As noted, the functional classification system does not prescribe a specific facility type (e.g., bicycle lane, multi-use pathway) or treatment (e.g., curb-extensions, Rectangular Rapid Flashing Beacons) for each road segment. While classifications indicate the role of a facility within the larger modal network, the exact facility type, or treatment needed will depend on several factors. These factors include the surrounding land-use, transportation context, and other practical constraints, such as limited right-of-way and available funding.

### *Example: Monroe Greenway*

The Monroe Greenway Project provides a clear example of how facility needs and treatments can vary along a single route when considering factors like traffic volumes and adjacent land uses.

While the entire project (from McLoughlin Boulevard to Linwood Avenue) has been discussed as a greenway, the specific multimodal treatments will differ depending on the adjacent land uses and transportation context. For instance, the eastern segment, which runs through low-density residential development and has an average daily traffic count less than 1000, will be improved with neighborhood greenway type treatments such as curb extensions, speed cushions, street markings, and signage. In contrast, the central segment crosses major roads like Highway 224 and serves busy commercial destinations such as Milwaukie Marketplace. In this area, an on-street multi-use pathway was installed near the 7 Acres Apartment complex to provide a separated walking and biking environment. At the crossing of Highway 224, features like bicycle/pedestrian-only diverters and limitations on turning movements for automobiles are being planned to improve multimodal travel in a busy vehicle environment. While the entire route would be classified as a Major City Bikeway under the proposed system, the applied treatments would respond to the adjacent land use and travel conditions.

## Speaking of...what's happening to neighborhood greenways?

In short, nothing will change— we're just giving them a new name in the TSP. All greenway-style treatments are still part of the city's toolkit to improve comfort and safety for people walking and rolling in Milwaukie.

The neighborhood greenway designation in the 2007 TSP can be thought of as the city's first attempt to establish a functional classification or network plan for cycling. From a vision perspective, the streets designated as neighborhood greenways in the 2007 TSP are still essential parts of the city's bicycle network. These routes largely remain low-speed, low-volume, and attractive for cyclists. As such, the treatments considered for these facilities will continue to come from the "neighborhood greenway" toolkit, which focuses on calming traffic, prioritizing bicycle movement, and signaling bicycle priority.

Except for Monroe Street, which is proposed to be designated as a Major City Bikeway, all other greenways will be reclassified as City Bikeways under the new system. As discussed below, both Major City Bikeways and City Bikeways are designed to offer direct, convenient bicycle access to key destinations and accommodate larger volumes of cyclists. The design guidance (see the Improvements subsection for these classifications) includes a variety of treatments aimed at maximizing cyclist comfort. While the best treatment approach will vary depending on factors like available right-of-way, funding, land use, and traffic volumes, in many cases, treatments will still involve interventions to calm traffic and maintain lower vehicular volumes along these routes.

*Neighborhood greenway is a useful term that we'll probably keep using*

The National Association of City Transportation Officials (NACTO) refers to low-traffic, low-speed streets that prioritize cycling as "bicycle boulevards." NACTO's [Bicycle Urban Design Guide](#) points out that communities across the country have used different terms, like "neighborhood greenway," to brand these routes. The City of Milwaukie will likely continue to use the term "neighborhood greenway" for improvement projects, as it's widely understood in the region to refer to low-traffic, low-speed streets. However, for the purposes of the TSP, these facilities will be classified under the new functional system.

### Functional classifications and level of traffic stress

As the Transportation System Plan Advisory Committee (TSPAC) is aware, the updated [Transportation Planning Rule](#) (TPR) requires the city to adopt new performance standards for non-vehicular modes of transportation. The City's consultant recommended, and the committee agreed, that Pedestrian Level of Traffic Stress (PLTS) and Bicycle Level of Traffic Stress (BLTS) are useful companions to more traditional, vehicular-based measures, such as Level of Service (LOS). These measures move beyond a simple focus on infrastructure presence (i.e., is there a bike lane); instead, they ask the city to consider and track how the type and quality of infrastructure, combined with adjacent environmental factors (traffic speeds, traffic volumes, and land-use), alters the sense of safety and comfort for cyclists and pedestrians.

While the city initially considered adopting single citywide mode-specific level of traffic stress (PLTS and BLTS) targets, the introduction of a functional classification system clarifies which routes are most critical for bicycle and pedestrian travel, allowing the city to assign different stress targets based on classification. Below you'll see that new PLTS targets have been proposed for Major City Walkways (adjusting from a citywide target of PLTS 2 to PLTS 1 for these facilities). For its bicycle network, the city has retained the BLTS 1 target for all facilities.

# Proposed Street Classifications

## Pedestrian Classification Hierarchy and Descriptions

**Major City Walkway:** Major City Walkways provide safe, convenient, and attractive pedestrian accommodations along major streets and trails with the highest level of pedestrian activity supported by current and planned land uses. These include streets in Milwaukie's 2040 Town Center, streets with frequent-transit lines, and high-demand off-street trails like the Trolley Trail. Major City Walkways can also be routes providing continuous pedestrian connections across the city.

- **Level of Traffic Stress Target:** PLTS 1
- **Land Use:** Major City Walkways generally serve areas in Milwaukie's Region 2040 Town Center, where land is zoned for high density residential, commercial, and mixed-use development, but also run along major streets through predominantly low-density residential areas. Where auto-oriented land uses are allowed on Major City Walkways, site development standards should address the needs of pedestrians for access.
- **Improvements:** Major City Walkways should have regularly spaced marked crossings (with closer spacing in the Region 2040 Town Center and in other commercial and mixed-use areas, such as Milwaukie Marketplace). Major City Walkways should have wide sidewalks, and a pedestrian realm that can accommodate higher volumes of pedestrian activity.
- **Milwaukie Example:** 32<sup>nd</sup> Avenue is an example of a proposed Major City Walkway. It is a street with a frequent transit route (Route 75), has planned high-density residential uses (Hillside Manor), community service uses (Providence Hospital), and provides access to multiple commercial businesses (Milwaukie Café). It also serves as one of the few continuous north/south connections in the city, connecting Harrison Street to Johnson Creek Boulevard.

**City Walkway:** City Walkways provide safe, convenient, and attractive pedestrian access along major streets with moderate levels of pedestrian activity supported by current and planned land uses. These include streets with non-frequent transit lines, and streets that provide direct connections between Major City Walkways, and key destinations.

- **Level of Traffic Stress Target:** PLTS 2
- **Land Use:** City Walkways provide access along major streets, connecting residential neighborhoods with low and moderate density development to Major City Walkways, Neighborhood Hubs, schools, and other local key destinations.
- **Improvements:** City Walkways should have regularly spaced marked crossings (with closer spacing in commercial and mixed-use areas), sidewalks, and a pedestrian realm that can accommodate moderate levels of pedestrian activity.
- **Milwaukie Example:** International Way is an example of a proposed City Walkway. It provides access to various businesses, connects two proposed Major City Walkways (37<sup>th</sup> Avenue and Lake Road) and is a street with an infrequent transit line (Route 152). International Way runs through exclusively commercial and industrial land uses and sees moderate pedestrian activity (likely due to the auto-oriented nature of development).

**Neighborhood Walkway:** Neighborhood Walkways provide safe and convenient connections from residential neighborhoods to Major City Walkways, City Walkways, and nearby key destinations such as schools, parks, and Neighborhood Hubs. Neighborhood Walkways are primarily routes that have low levels of motor vehicle traffic or do not allow motor vehicle traffic.

- **Level of Traffic Stress Target:** PLTS 2
- **Land Use:** Neighborhood Walkways are usually located in residential or natural areas on low-volume streets or connections that do not allow motor vehicles.
- **Improvements:** Neighborhood Walkways should be designed to provide a safe and comfortable walking environment but may take many forms depending on the context. Design types may include sidewalks, shoulders, shared streets, woonerfs, pedestrian-only paths, multi-use paths, soft-surface trails, and ramps/stairs.
- **Milwaukie Example:** Roswell Street is an example of a proposed Neighborhood Walkway. It is primarily serving neighborhood residents, acts as a critical connector to a school (Ardenwald Elementary).

**Local Service Walkway:** Local

Service Walkways provide the local circulation needs for pedestrians and provide safe and convenient access to local destinations.

- **Level of Traffic Stress Target:** PLTS 2
- **Land Use:** Local Service Walkways support all land uses by providing direct access to properties.
- **Improvements:** Local Service Walkways should be designed to provide a safe and comfortable walking environment but may take many forms depending on the context. Design types may include sidewalks, shoulders, shared streets, woonerfs, pedestrian-only paths, multi-use paths, soft-surface trails, and ramps/stairs.
- **Milwaukie Example:** Local service walkways are any street/route not designated as a Major City Walkway, City Walkway, or Neighborhood Walkway.





## Bicycle Classification Hierarchy and Descriptions

**Major City Bikeway:** Major City Bikeways are the foundation of Milwaukie's bicycle network, accommodate higher volumes of bicycle traffic, and generally provide continuous routes through the city for cyclists traveling longer distances. Major City Bikeways connect cyclists to City Bikeways, Neighborhood Bikeways, and generally connect to regional bicycle facilities.

- **Level of Traffic Stress Target:** BLTS 1
- **Land Use:** Major City Bikeways support a variety of land-use types. Where appropriate, development standards should preserve the functionality of the facility to maintain safe and comfortable conditions for high volumes of cyclists.
- **Improvements:** Major City Bikeways should be designed to accommodate larger numbers of cyclists, maximize their comfort, and minimize delays. Motor vehicle lanes and possibly on-street parking may be removed on Major City Bikeways to provide added width for separated in-roadway facilities where compatible with adjacent land uses. Where improvements to the bicycling environment are needed but the ability to reallocate road space is limited, consider alternative approaches that include property acquisition, or dedication, parallel routes and/or less desirable facilities.
- **Milwaukie Example:** Linwood's Avenue multiuse pathways are an example of a proposed Major City Bikeway. It serves as a continuous comfortable connection through the city and connects Portland, Milwaukie, and Clackamas. Moreover, the two separated pathways, each over 10 ft wide, are designed to accommodate many cyclists and to maximize their comfort (the pathways are raised, separated from automobile traffic by a curb and landscape strip).

**City Bikeway:** City Bikeways establish direct and convenient bicycle access between key destinations within Milwaukie and between Major City Bikeways. City Bikeways accommodate higher volumes of cyclists and connect cyclists across longer distances than neighborhood bikeways.

- **Level of Traffic Stress Target:** BLTS 1
- **Land Use:** City Bikeways support a variety of land-use types. Where appropriate, development standards should preserve the functionality of the facility to maintain safe and comfortable conditions for high volumes of cyclists
- **Improvements:** City Bikeways should also be designed to accommodate large numbers of cyclists, to maximize their comfort and to minimize delays. Motor vehicle lanes and possibly on-street parking may be removed from City Bikeways to provide needed width for separated-in-roadway facilities where compatible with adjacent land uses and only after taking into consideration the essential movement of all modes. Where improvements to the bicycling environment are needed but the ability to reallocate road space is limited, consider alternative approaches that include property acquisition, or dedication, parallel routes and/or less desirable facilities. City Bikeways developed as shared roadways use all appropriate tools to achieve BLTS 1.
- **Milwaukie Example:** 29<sup>th</sup> Avenue is an example of a proposed City Bikeway. It serves as a direct and comfortable connection between a Major City Bikeways (Springwater Corridor Trail) and a significant residential development (Hillside Manor).

**Neighborhood Bikeway:** Neighborhood Bikeways provide connections from residential neighborhoods to Major City Bikeways, City Bikeways, and nearby destinations such as schools, parks, transit stops, and commercial areas.

- **Level of Traffic Stress Target:** BLTS 1
- **Land Use:** Neighborhood Bikeways are usually supported by low and moderate density residential development.
- **Improvements:** Neighborhood Bikeways should be designed to provide a safe and comfortable cycling environment but may take many forms depending on the context. Design types may include minimal treatments, signage and markings, or may be a shared road environment that utilizes significant traffic calming and operation management strategies. Separated facilities are generally not provided on Neighborhood Bikeways.
- **Milwaukie Example:** Logus Road is an example of a proposed Neighborhood Bikeway. It connects two City Bikeways ( 43<sup>rd</sup> Avenue and Stanley Avenue) and connects nearby properties to a school (Lewelling Elementary).

**Local Service Bikeway:** Local Service Bikeways serve local circulation needs for bicyclists and provide access to adjacent properties. Streets that are not classified as Major City Bikeways, Neighborhood Bikeways, or City Bikeways are classified as a Local Service Bikeway.

- **Level of Traffic Stress Target:** BLTS 1.
- **Land Use:** Local Service Bikeways support all land uses by providing direct access to properties.
- **Improvements:** Consider the following design treatments for Local Service Bikeways: shared roadways, traffic calming, bicycle lanes, and extra-wide curb lanes. Crossings of Local Service Bikeways with other rights-of-way should minimize conflicts. On-street parking on Local Service Bikeways should not be removed to provide bicycle lanes.
- **Milwaukie Example:** As noted, local service bikeways are any street/route not designated as a Major City Bikeways, City Bikeways, or Neighborhood Bikeways.



## Transit Classification Hierarchy and Descriptions

**Regional Transitway:** Regional Transitways facilitate regional transit trips with fast and reliable service over long distances, operating in right-of-way that is either reserved exclusively for transit use or enhanced for high-capacity transit accommodations.

- **Land Use:** Land near Regional Transitways is typically zoned for major regional attractions, high-density residential and mixed-use development. Auto-oriented development is discouraged at or near Regional Transitway stops.
- **Improvements:** Use transit-preferential treatments to facilitate fast and reliable transit operations. Provide signal preemption or transit signal priority at major intersections, prioritize transit stations or transit lanes over on-street parking, and provide enough lane width to accommodate standard transit vehicles.
- **Milwaukie Example:** The MAX Light Rail Orange Line is currently the only example of a transit facility that would be classified as a Regional Transitway in Milwaukie. However, Metro's [High Capacity Transit Strategy](#) identifies two routes through the city that would possibly warrant reclassifying those facilities as Regional Transitways.

**Major Transit Priority Street:** Major Transit Priority Streets facilitate the frequent and reliable movement of transit vehicles that connect the Milwaukie Town Center to adjacent communities and other key destinations. Major Transit Priority Streets have frequent service or are expected to receive that level of service in the future to support envisioned growth.

- **Land Use:** Transit-oriented land uses are encouraged along Major Transit Priority Streets, particularly in the Milwaukie Town Center. Auto-oriented development is typically discouraged from locating on a Major Transit Priority Street.
- **Improvements:** Use transit-preferential treatments such as signal preemption or transit signal priority at major intersections, prioritize transit stops or transit lanes over on-street parking, and provide enough lane width to accommodate standard transit vehicles.
- **Milwaukie Example:** King Road and Harrison Streets are examples of a Major Transit Priority Street. Both accommodate Frequent Bus Routes (service offered every 15 minutes) that connect the Milwaukie Town Center to regional destinations.

**Transit Access Street:** Transit Access Streets facilitate the movement of transit vehicles connecting Downtown Milwaukie with neighborhoods, industrial and employment areas with other destinations and other transit service.

- **Land Use:** Pedestrian-oriented development and accommodations are encouraged in commercial, institutional, mixed-use, and industrial areas along Transit Access Street.
- **Improvements:** Provide transit signal priority as needed at major intersections and prioritize transit stops over on-street parking. Provide sufficient lane width to accommodate standard transit vehicles where appropriate, taking into account other street classifications.
- **Milwaukie Example:** Lake Road and International Way are examples of Transit Access Streets. These routes have infrequent transit service that provides a connection between Downtown Milwaukie, employment, and residential areas.

**Local Service Transit Street:** Local Service Transit Streets primarily facilitate movement of smaller transit vehicles, including paratransit and community/jobs connector shuttles. Local Service Transit Streets seldom have regular transit service except for short street segments and do not typically include transit specific street design elements such as bus stops.








- **Land Use:** Transit operations on Local Service Transit Streets should give preference to access for individual properties and to the specific needs of property owners and residents along the street.
- **Improvements:** There typically are no special design treatments for transit vehicles.
- **Milwaukie Example:** Local Service Transit Streets is any street not classified as a Regional Transitways, Major Transit Priority Streets, or Transit Access Streets.

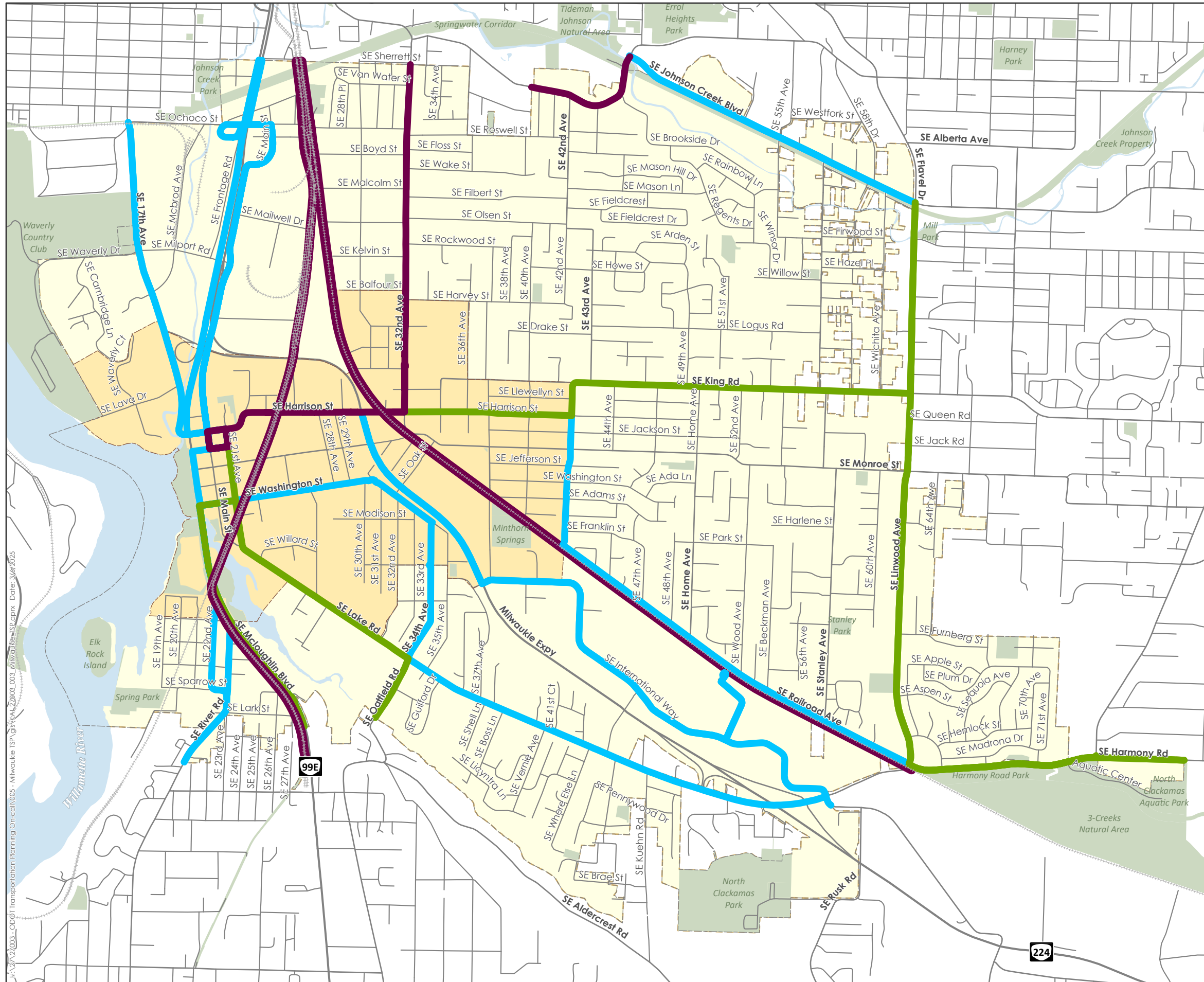


FIGURE 3

Proposed  
Transit Classifications

Legend

-  Regional Transitway
-  Major Transit Priority Street
-  Transit Access Street
-  Local Service Transit Street
-  Milwaukie City Limits
-  Milwaukie Town Center
-  Parks



Generated On: 3/6/2025

Data Sources: City of Milwaukie, ODOT



## Freight Classification Hierarchy and Descriptions

**Regional Truckway:** Regional Truckways accommodate the continuous and regional flow of truck freight through the city.

- **Land Use:** Serve regional freight needs along major highway corridors.
- **Improvements:** Regional Truckways are limited access facilities designed to accommodate the movement of all types and sizes of trucks.
- **Milwaukie Example:** Highway 224 is an example of a proposed Regional Truckway. It is a major vehicular oriented highway corridor with limited access that provides a continuous high-capacity freight route through Milwaukie.

**Priority Truck Street:** Priority Truck Streets serve as the primary travel routes for local truck freight, connecting freight-generating land uses to Regional Truckways.

- **Land Use:** Support industrial and employment uses that generate high truck activity on corridors served by Priority Truck Streets.
- **Improvements:** Priority Truck Streets are designed to accommodate most truck classes. Buffer adjacent residential uses from noise impacts, where warranted.
- **Milwaukie Example:** SE 17<sup>th</sup> Avenue is an example of a Priority Truck Street. It is a key roadway that connects freight-generating land uses to Regional Truckways.

**Truck Access Street:** Truck Access Streets serve as the primary local access corridors for industrial and other freight-generating land uses.

- **Land Use:** Support industrial and commercial land uses that generate moderate to high volumes of truck trips.
- **Improvements:** Priority Truck Streets are designed to accommodate most truck classes in balance with other modal needs.
- **Milwaukie Example:** SE International Way is an example of a Truck Access Street. It is a key roadway that directly serves a variety of industrial and commercial uses.

**Local Service Truck Street:** Local Service Truck Streets serve local truck circulation and access.

- **Land Use:** Local Service Truck Streets provide for goods and service delivery to individual commercial, employment, and residential land uses outside of industrial area.
- **Improvements:** Local Service Truck Streets should give preference to accessing individual properties and the specific needs of property owners and residents along the street.









**Milwaukie Example:** Local Service Truck Streets are any street/route not designated as a Regional Truckway, Priority Truck Street, or Truck Access Street

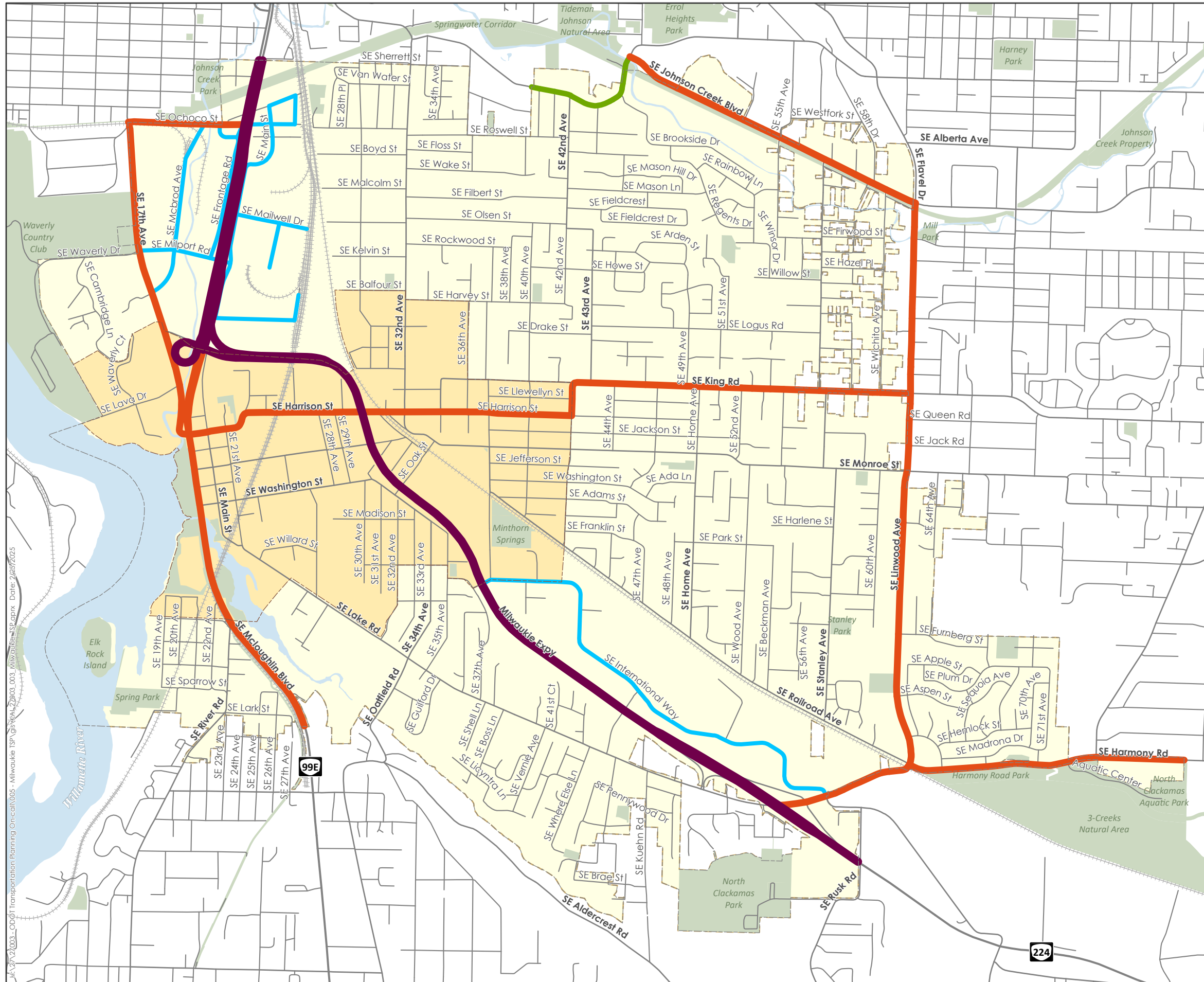


**FIGURE 4**

**Proposed  
Freight Classifications**

**Legend**

-  Regional Truckway
-  Priority Truck Street
-  Weight Restricted Truck Priority Street
-  Truck Access Street
-  Local Service Truck Street
-  Milwaukie City Limits
-  Milwaukie Town Center
-  Parks



Generated On: 2/25/2025

Data Sources: City of Milwaukie, ODOT





## Bicycle and Pedestrian Facility Design Guidance

The active transportation sections of Milwaukie's current TSP include a list of potential facility types and roadway treatments designed to make streets safer and more comfortable for people walking and rolling. This is a standard feature in TSPs and active transportation plans. Over the past two decades, however, cities across the U.S. and internationally have gained valuable insights into best practices for managing active transportation systems, including facility designs, roadway markings, operations, and signage. As a result, the range of possible interventions has grown significantly, making it impractical to list all of them in the document.

Instead, we propose that the TSP refer to a selection of authoritative sources that represent the professional consensus on best practices. These include:

- NACTO's [\*Urban Bikeway Design Guide\*](#)
- NACTO's [\*Urban Street Design Guide\*](#)
- NACTO's [\*Transit Street Design Guide\*](#)
- Metro's [\*Designing Livable Streets and Trails Guide\*](#)
- Oregon Department of Transportation's [\*Blueprint for Urban Design\*](#)

This approach will help streamline the document while ensuring alignment with the latest standards and practices as they evolve over the lifespan of the TSP.