



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

From: Laura Weigel, Planning Manager

Date: August 14, 2024, for Wednesday, August 21, 2024, TSPTC Meeting #5

Subject: Meeting Materials

Dear Committee Members,

I hope everyone is having a wonderful summer thus far!

The focus of our upcoming meeting will be to:

- Review the Existing Conditions Inventory and Maps

The good news is that we could have a fairly short meeting next Wednesday. We finally get to look at some maps! Granted they aren't potential solutions maps, but they are the foundational to understanding what currently exists in the City today, so we can identify what we want to see in the future. We'll be talking about in depth about the needs and gaps maps at our September meeting.

As a follow up to earlier work – on Tuesday, August 6 staff and Matt from Kittleson had a work session with the City Council to review the draft goals and policies, performance measures and the livable streets analysis. You can review the meeting [here](#), if you are interested. The big takeaway from the meeting is that Council is supportive of the work that has been done thus far and in particular were impressed with the draft goals and policies as presented. They only added one policy about paratransit. I've included the final version in this packet, so you can see the results of the AC, TC, community, PC, and City Council review.

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. I look forward to seeing you next Wednesday.

Sincerely,

Laura Weigel, AICP
Planning Manager

Attachments:

Exhibit A. Existing Conditions Inventory and Maps

Exhibit B. Goals and Policies as of August 7, 2024

DRAFT TRANSPORTATION SYSTEM CONDITIONS

Date: August 6, 2024

To: Project Management Team

From: Kittelson & Associates, Inc.

Project: Milwaukie Transportation System Plan

Subject: Transportation System Conditions

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Introduction

The existing conditions inventory and analysis is an assessment of Milwaukie's current transportation system within its city limits, as shown in Figure 1. This memorandum is a precursor to the Needs and Gaps analysis, providing a baseline understanding of existing transportation infrastructure.

Information summarized in this memorandum was obtained and assembled using available Geographic Information System (GIS) data, aerial photography, field observations, and historical the Oregon Department of Transportation (ODOT) crash data.

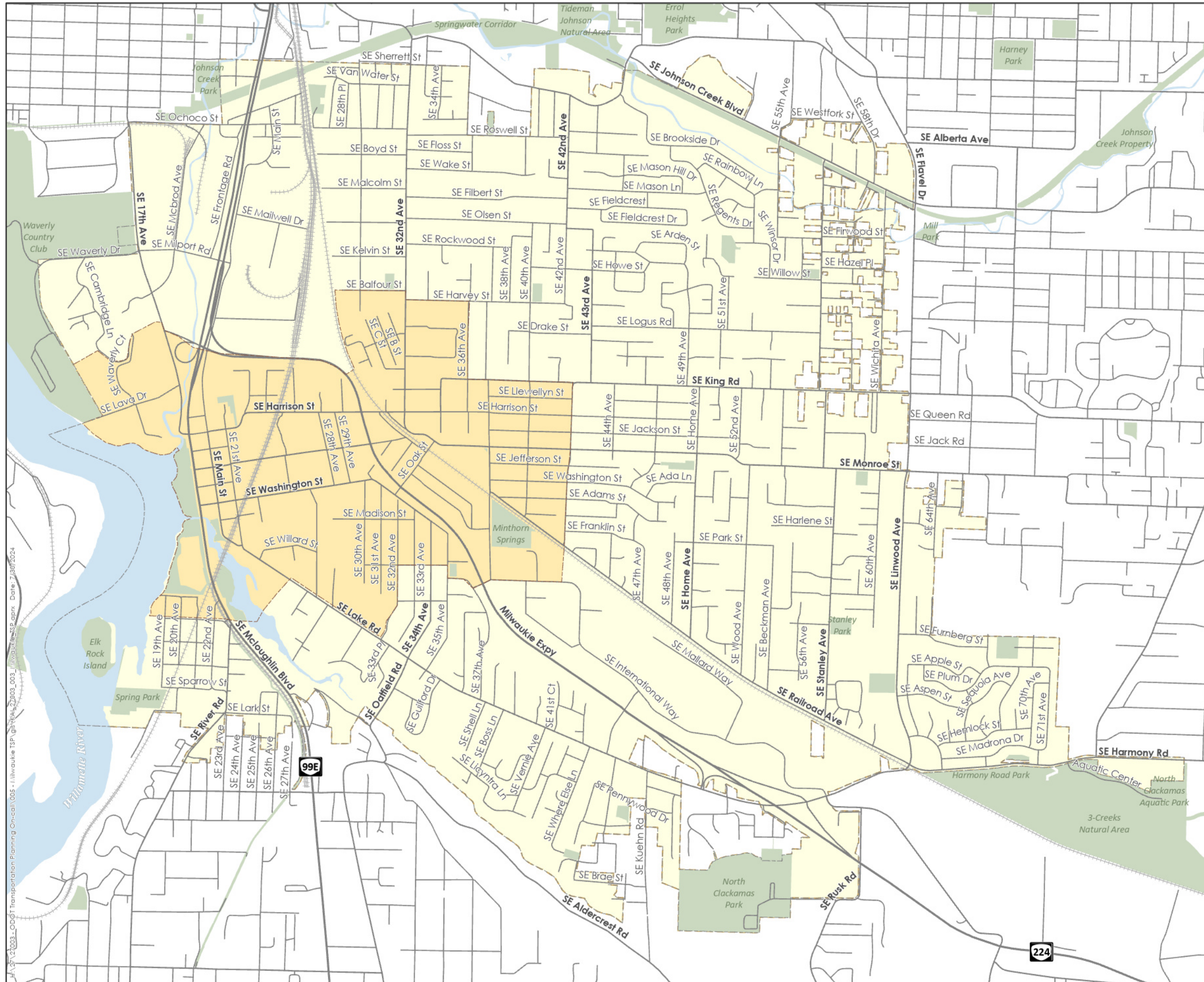


FIGURE 1

Study Area

Legend

- Milwaukie City Limits
- Milwaukie Town Center
- Parks



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Existing Transportation System Inventory

The existing transportation system inventory evaluates current land uses within the city to understand the types of lands, natural resources, and environmental barriers that the transportation system interacts with as well as the demographic cross section of community members relying on it. The inventory also assesses the current characteristics of the multimodal travel ways to understand how it is serving its users today.

Land Use and Population

Land use is a key factor in developing a functional transportation system. The amount of land planned for development, the types of land uses, and how they relate to each other have a direct relationship to the anticipated demands for the transportation system. This section identifies the zoning designations that help define land use within the study area; it also provides information on undevelopable lands within the study area.

Land Use

Figure 2 illustrates the current Comprehensive Plan land use designations. The majority of the land area in the City is designated for moderate density residential uses. The Town Center includes concentrations of high density residential, commercial, public, and mixed-use designations. Industrial uses are primarily concentrated in the North Milwaukie Innovation area along OR 99, the Johnson Creek Industrial Area along Johnson Creek Boulevard, and the International Way Business District along OR 224.

Key Destinations and Activity Centers










Key destinations and activity centers in the City of Milwaukie include schools, grocery stores, medical facilities, libraries, and parks. These locations are considered essential destinations for the public to access and are likely to generate multimodal trips. Figure 3 illustrates the location of these facilities. These destinations will be integrated into considerations to improve multimodal access to these destinations for people living, working, and visiting the City. Additional activity centers, such as the Milwaukie Town Center and its concentrations of commercial and employment uses, industrial and employment centers along OR 224 and OR 99E, and designated Neighborhood Hugs will also be considered when making recommendations for enhancing access for multiple transportation modes. Creating and maintaining access to these and other similar land uses is important for ensuring a high quality of life for all segments of the city's population.

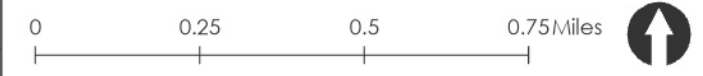
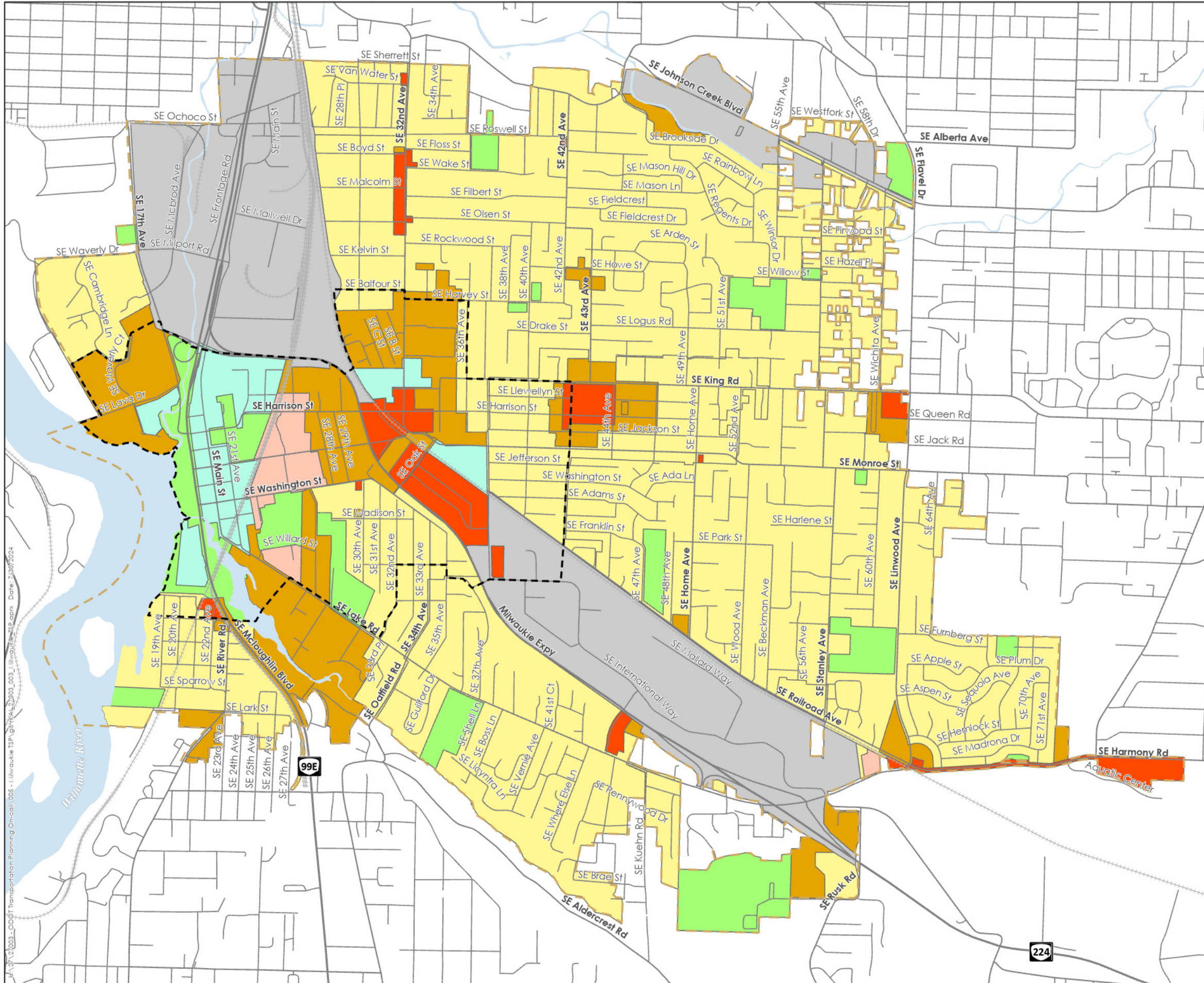


FIGURE 2

Land Use

Legend

-  MD - Moderate Density
-  HD - High Density
-  C - Commercial
-  C/HD - Mixed Use
-  I - Industrial
-  P - Public
-  TC - Town Center
-  Milwaukie City Limits
-  Milwaukie Town Center

















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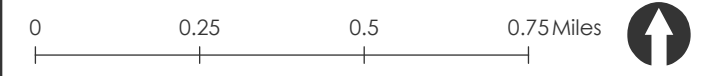
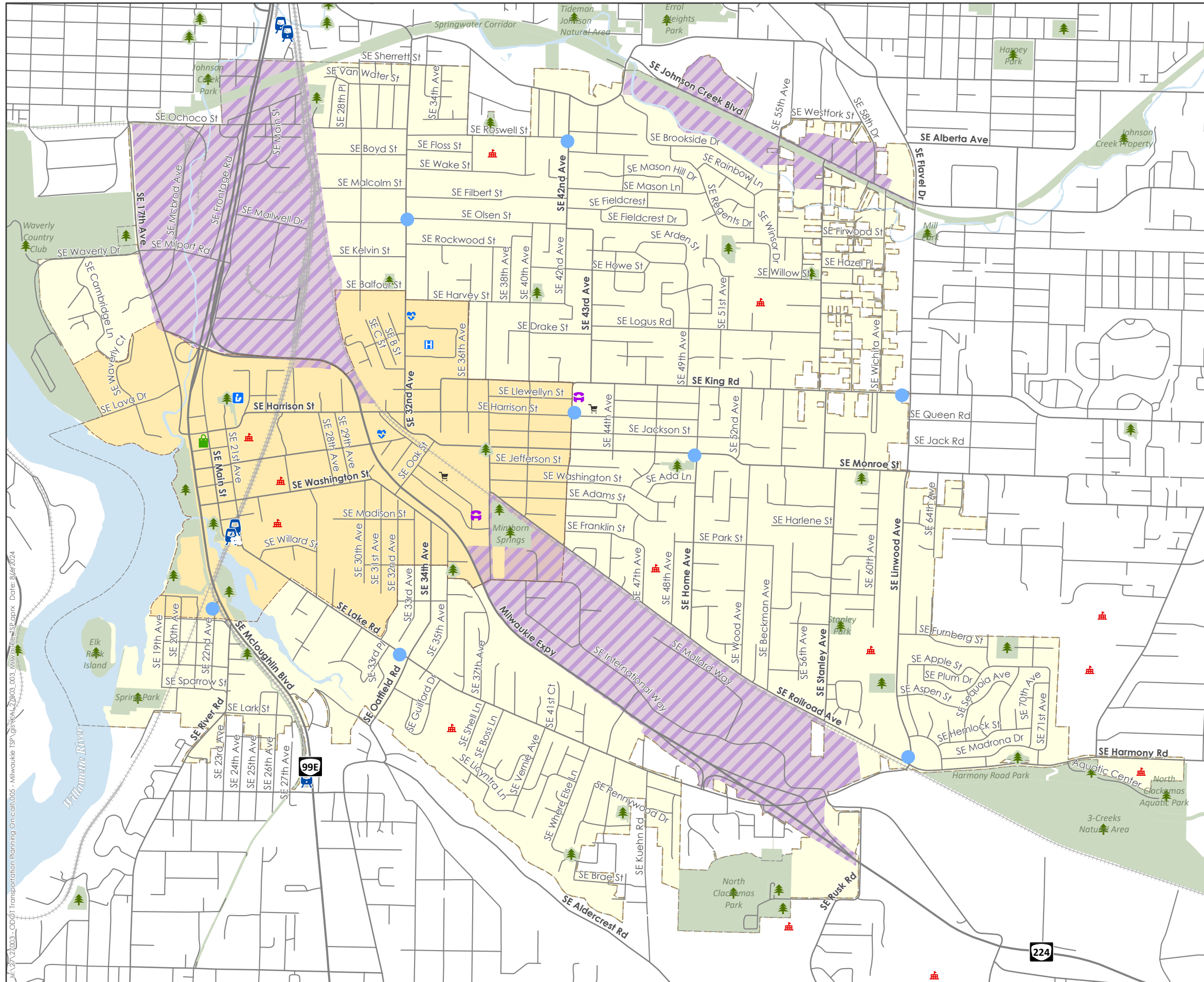


FIGURE 3

Key Destinations

Legend

-  MAX Station
-  Schools
-  Grocery Store
-  Farmers markets
-  Hospital
-  Medical clinics
-  Gyms and health clubs
-  Library
-  Food Cart Pod
-  Neighborhood Hub
-  Park
-  Industrial Employment Zone
-  Milwaukie City Limits
-  Milwaukie Town Center



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Population Demographics

The *Milwaukie Community Profile Memorandum* documents and analyzes demographic data for the city of Milwaukie, focusing primarily on underserved populations, as identified in Oregon Administrative Rule (OAR) 660-012-0125. OAR 660-012-0125 specifically identifies the following populations as being underserved regarding transportation and land use planning due to historic and current marginalization.

- Black and African American people
- Indigenous people (including Tribes, American Indian/Alaska Native and Hawaii Native);
- People of Color (including but not limited to Hispanic, Latina/o/x, Asian, Arabic or North African, Middle Eastern, Pacific Islander, and mixed-race or mixed-ethnicity populations);
- Immigrants, including undocumented immigrants and refugees
- People with limited English proficiency
- People with disabilities
- People experiencing homelessness
- Low-income and low-wealth community members
- Low- and moderate-income renters and homeowners
- Single parents
- Lesbian, gay, bisexual, transgender, queer, intersex, asexual, or two-spirit community members; and
- Youth and seniors

As identified in the *Milwaukie Community Profile Memorandum*, disadvantaged populations are dispersed throughout the City, so when the TSP considers improving access for disadvantaged groups the TSP will focus on higher-density locations and providing low-stress, ADA-accessible access to key destinations and activity centers.

Roadway System

Roadways provide infrastructure for motor vehicles, freight, bicycle, pedestrian, and transit facilities. The roadway network establishes links both within the city and outside of its boundaries, connecting surrounding areas and neighboring jurisdictions. The following sections describe and inventory the existing roadway system within the City of Milwaukie, including roadway jurisdictions and functional classifications, freight routes, and key roadway and intersection characteristics.

Roadway Jurisdiction

Public roadways within the City of Milwaukie are operated and maintained by three primary jurisdictions: the City of Milwaukie, ODOT, and Clackamas County. These three jurisdictions coordinate planning, operations, maintenance, and improvements of roadway facilities within the urban area and ensure the continued performance and functionality of the transportation system to meet public needs. These jurisdictions are responsible for the following:

- Maintenance and operations;
- Determining the road's functional classification;
- Defining the roadway's design and multimodal features; and
- Approving construction and access permits.

Figure 4 maps roadway facilities by jurisdiction in the City of Milwaukie while Table 1 provides a more detailed breakdown of these roadways. As would be expected, the majority of the roadway corridors in the City are city-owned/maintained.

Table 1 - Roadway Ownership

	City Owned/Maintained Roadways	Clackamas County Owned/Maintained Roadways	ODOT Owned/Maintained Roadways
City-Wide	78.3 miles	1.5 miles	6.7 miles

As shown in Figure 4, there are two main regional thoroughfares within the City. Both facilities are classified as state highways, are owned and maintained by ODOT, and are key routes for both local and regional metro-area trips.

- OR 99E (Pacific Highway) is a major north-south route connecting Milwaukie to Gladstone and Oregon City to the south and the urban east side of Portland to the north. ODOT classifies the segment of OR 99E north of OR 224 as a Statewide Highway with a Freight Route designation and the segment south of OR 224 as a District Highway.
- OR 224 is a predominantly east-west limited access highway that runs diagonally through the City. OR 224 connects Milwaukie to the I-205 corridor to the east. ODOT classifies the entirety of OR 224 through the city as a Statewide Highway with a Freight Route designation.

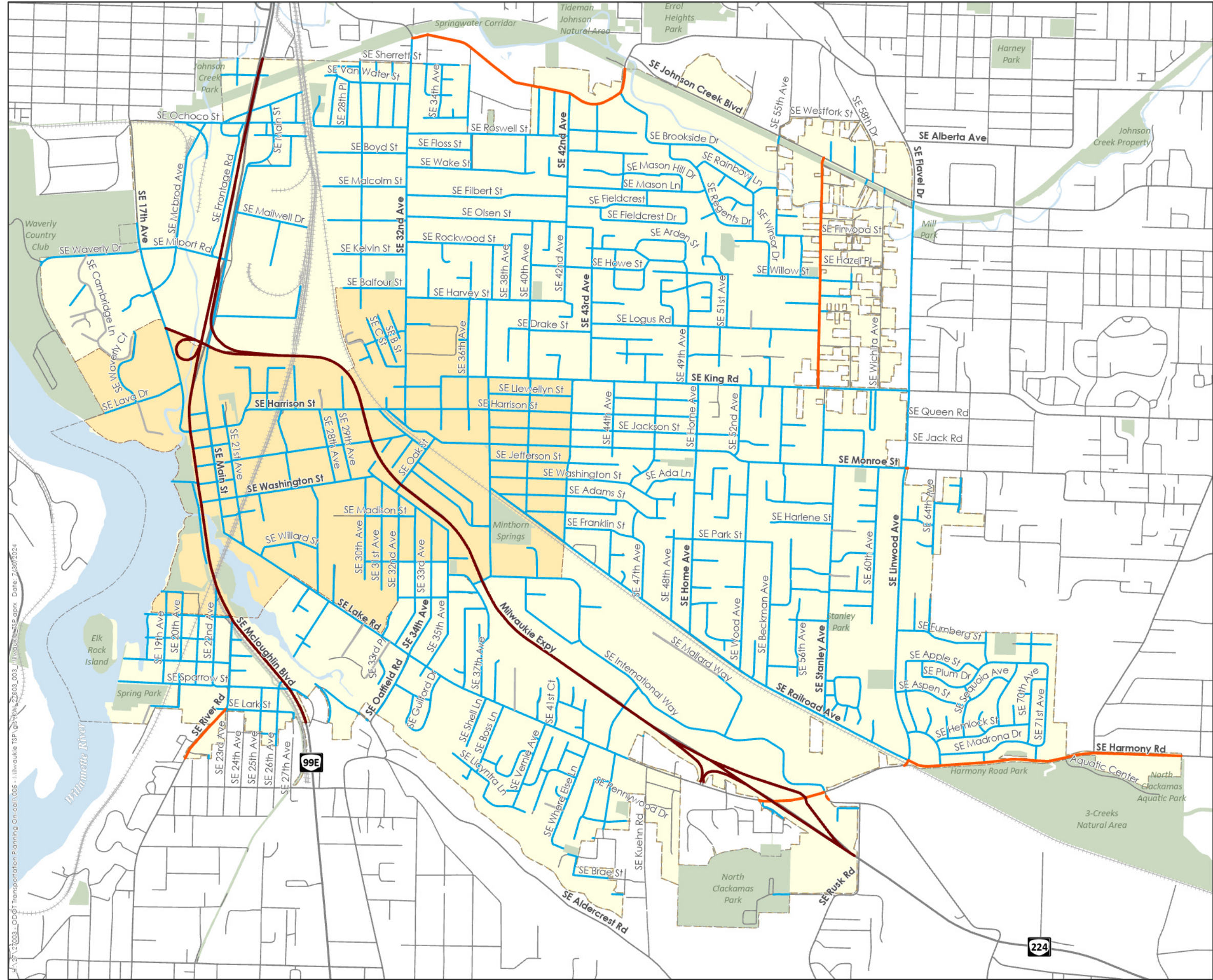


FIGURE 4

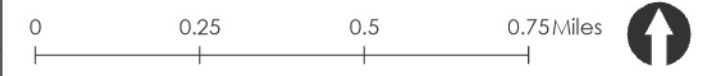
Roadway Jurisdiction

Legend

- Milwaukie Roads
- County Roads
- ODOT Roads
- Private Roads
- Milwaukie City Limits
- Milwaukie Town Center
- Parks



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Functional Classification

Roadway functional classifications organize streets based on their role in the transportation system. The City's functional classifications form a hierarchy of streets ranging from those that are primarily for travel mobility (regional routes and arterials) to those that are primarily for access to property (neighborhood routes and local streets). The functional classification system is developed with the recognition that individual streets do not act independently of each other but form a network of streets that work together to serve travel needs on a local, citywide, and regional level.

The City's functional classification system includes regional routes, arterials, collectors, neighborhood routes, and local streets. Figure 5 maps the current functional classifications while Table 2 summarizes the breakdown of the classifications in total miles of facilities. The majority of streets in the City are classified as local streets, focusing on providing direct access, with key arterial, collector roadways, and regional routes providing overall mobility.

Table 2 - Roadway Functional Classification

	Regional Routes	Arterials	Collectors	Neighborhood Routes	Local Streets	Total
City-Wide	3.8 miles	8.6 miles	14.1 miles	9.2 miles	55.8 miles	91.5 miles

Freight Routes

Freight route classifications are provided at the State, Federal, and local levels. In Oregon, the Oregon Highway Plan (OHP) documents State freight designations on the state highway system. As previously noted, the OR 99E corridor (segment north of OR 224) and the OR 224 corridor are classified by ODOT as Freight Routes. At the Federal level, there are no roadways within Milwaukie that are classified as part of the National Highway System (NHS), and therefore there are no roadways classified as National Highway Freight Routes.

Locally, the City of Milwaukie has established a local freight route network that supports freight movements on regional and local corridors of significance. These freight route designations are mapped in Figure 6 and summarized in Table 3. As shown, the OR 99E and OR 224 corridors are locally identified as Major Regional Freight Routes. On city and county-owned roadways, Harrison Street, King Road, Linwood Avenue, Johnson Creek Boulevard, Harmony Road (from OR 224 to Linwood Avenue), and 17th Avenue corridors are classified as Minor Preferred Local Freight Routes. Of these Minor Preferred Local Freight Routes, portions of Johnson Creek Boulevard are identified as weight restricted.

Table 3 – Freight Routes









	Major Regional Freight Routes	Minor Preferred (Local) Freight Routes	Weight Restricted Minor Preferred (Local) Freight Routes
City-Wide	4.9 miles	5.1 miles	0.3 miles

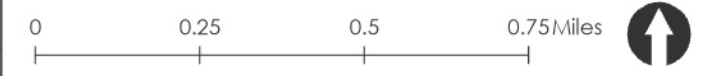
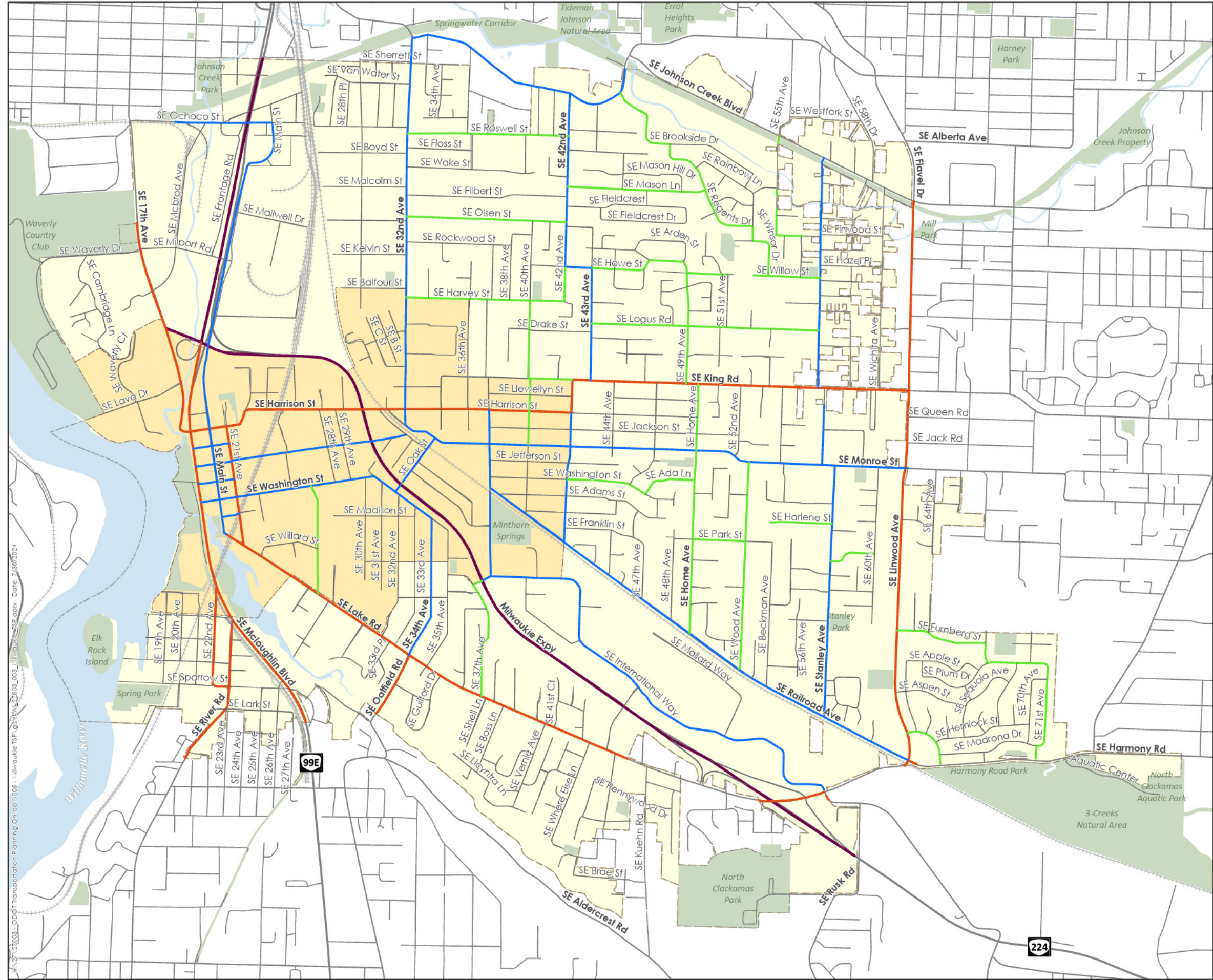


FIGURE 5

Functional Classification

Legend

-  Regional Routes
-  Arterials
-  Collectors
-  Neighborhood Routes
-  Local Streets
-  Milwaukie City Limits
-  Milwaukie Town Center
-  Parks



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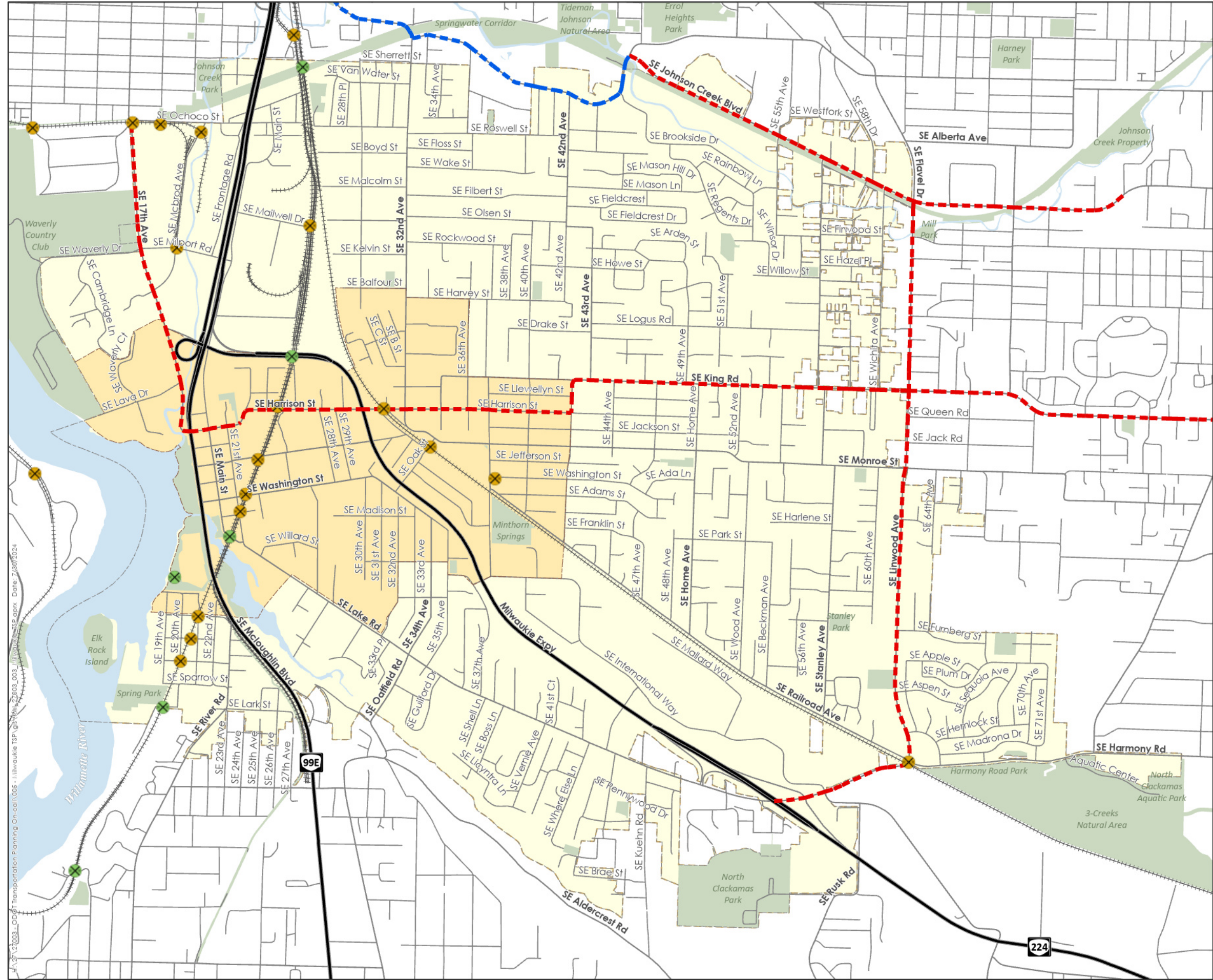


FIGURE 6

Freight Routes and
Rail Crossings

Legend

- At-Grade Rail Crossing
- Above or Below Grade Crossing
- Major Regional Freight Routes
- Minor Preferred Local Freight Routes
- Weight Restricted Minor Preferred Local Freight Route
- Railroads
- Milwaukie City Limits
- Milwaukie Town Center
- Parks



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Roadway Characteristics

The following sections provide an overview of roadway characteristics within the City, including travel lanes, posted speed limits, intersection traffic control, and other key characteristics.

Travel Lanes

Roadway facilities by travel lanes are mapped in Figure 7.

Posted Speeds

Roadway facilities by posted speeds are mapped in Figure 8. Roadways without posted speed limits are subject to statutory speed limits established by the state (ORS 811.11 and ORS 811.105), except for school zones that are posted at 20 MPH.

Posted speeds on City facilities are generally 25 to 35 MPH. Posted speeds on ODOT facilities range from 40 to 50 MPH, except for the segment of OR 99E near and through downtown Milwaukie, which is posted at 30 MPH.

Intersection Traffic Control








The location of all-way stop control and signalized intersections in the City of Milwaukie are shown in Figure 9.

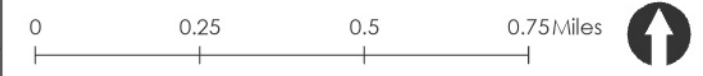
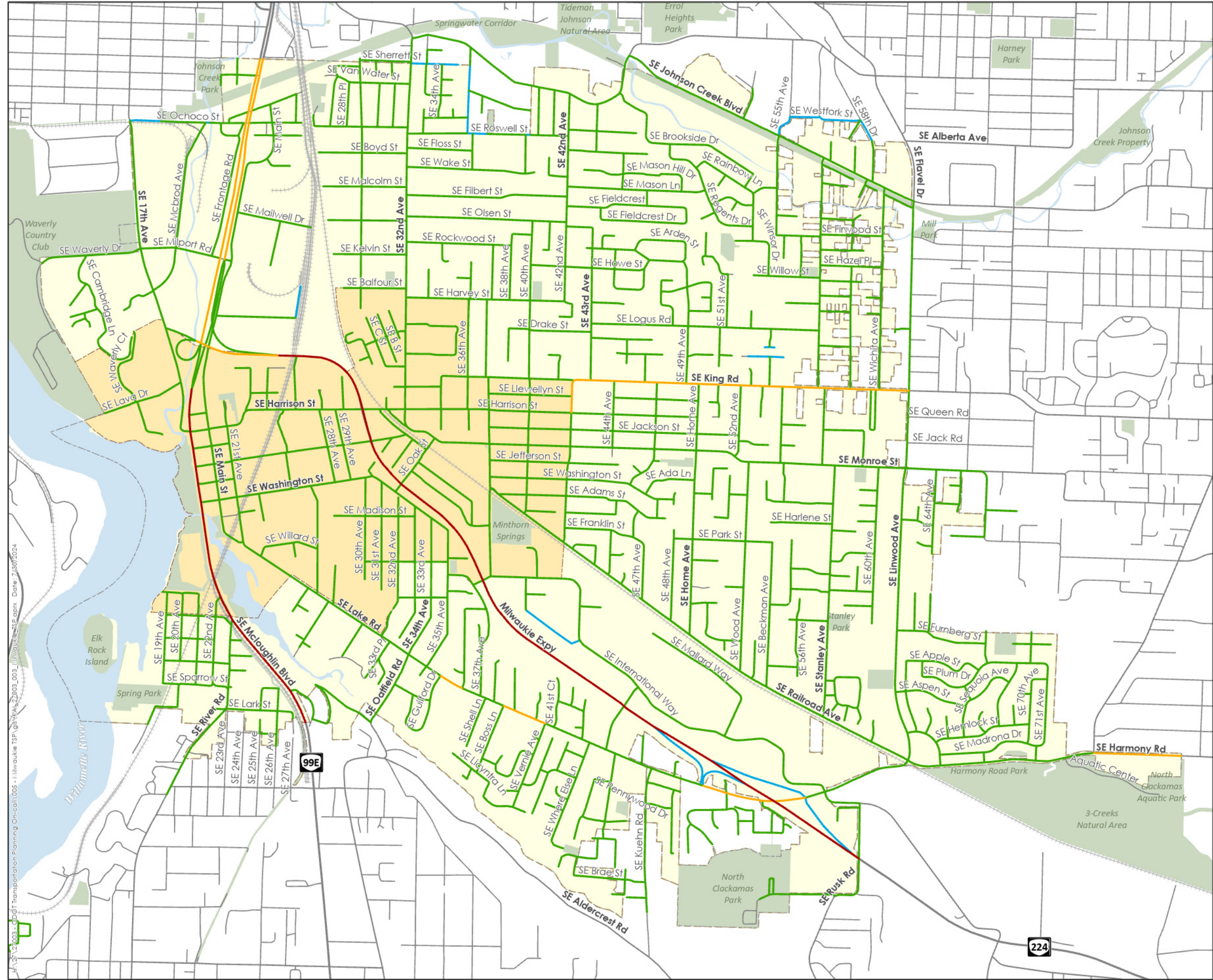


FIGURE 7

Roadway Lanes

Legend

-  1 Lane
-  2 Lanes
-  3 Lanes
-  4 / 5 Lanes
-  Milwaukie City Limits
-  Milwaukie Town Center
-  Parks



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FIGURE 8

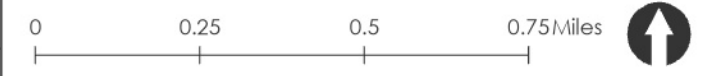
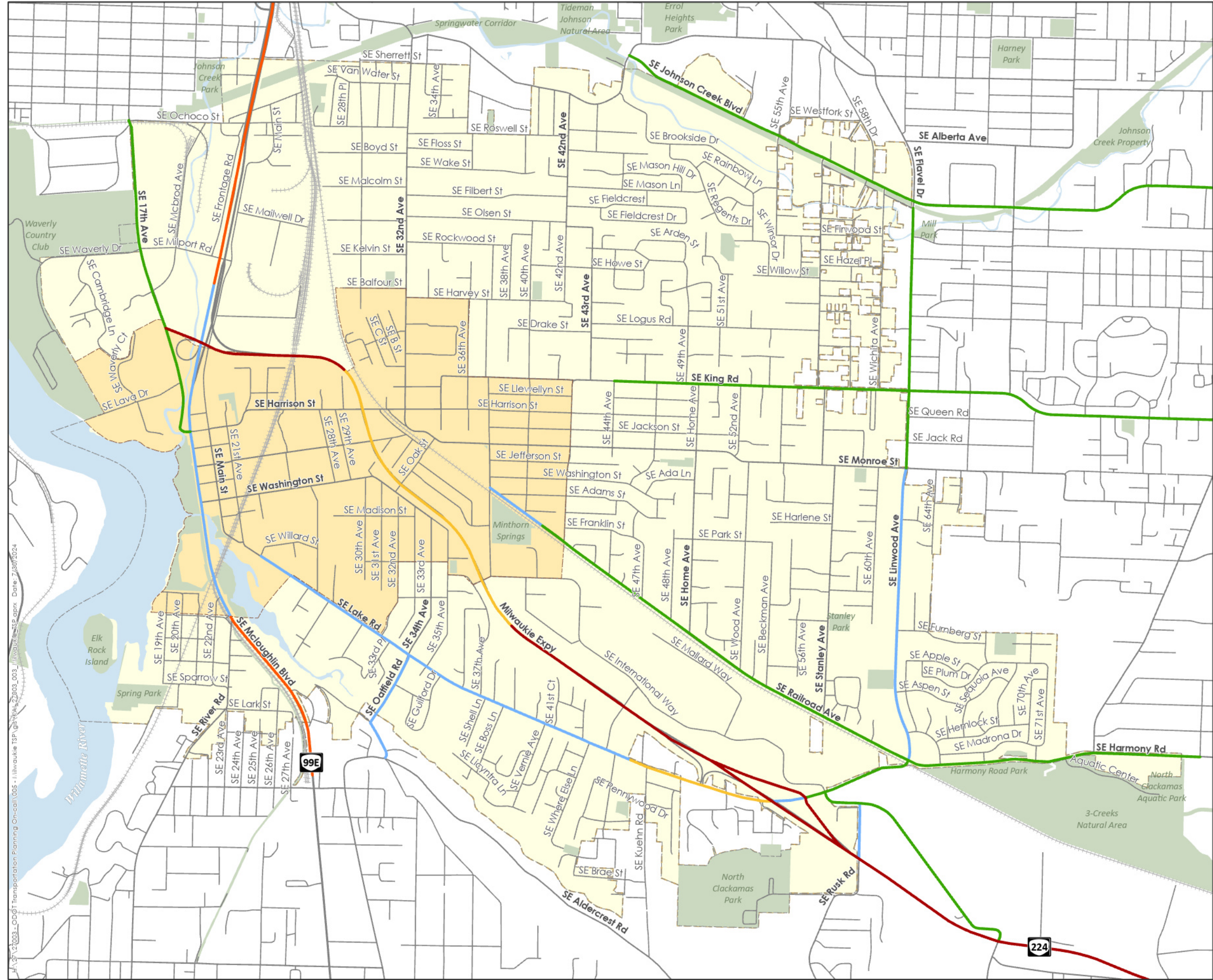
Posted Speed

Legend

- 30 MPH
- 35 MPH
- 40 MPH
- 45 MPH
- 50 MPH

All other roads assumed to be 25 MPH

- Milwaukie City Limits
- Milwaukie Town Center
- Parks



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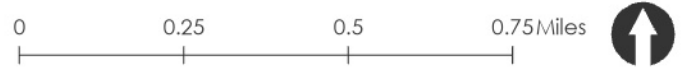
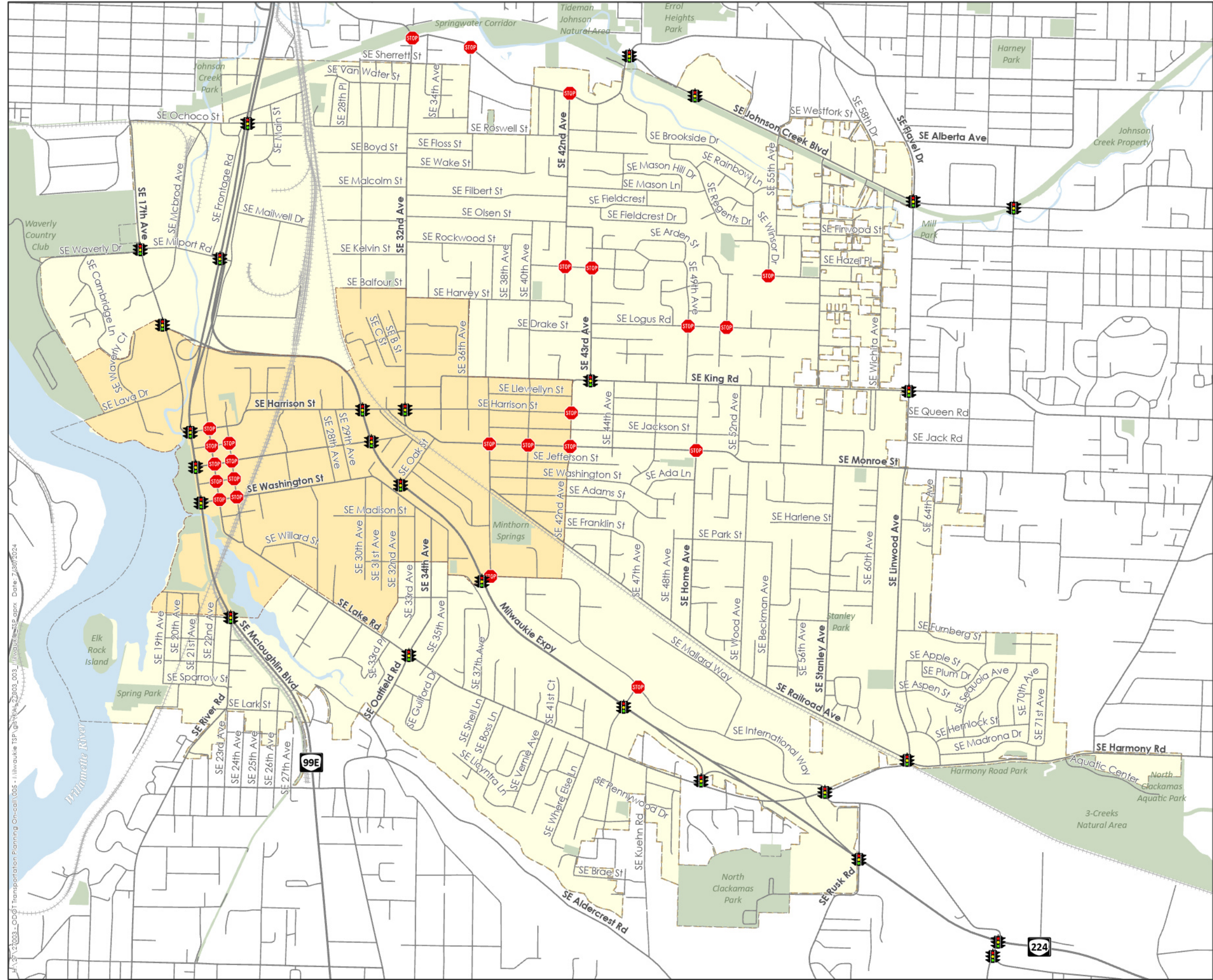


FIGURE 9

Intersection Control

Legend

-  All-Way Stop Control
-  Signalized Intersection
-  Milwaukie City Limits
-  Milwaukie Town Center
-  Parks



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Pedestrian and Bicycle Facilities

Pedestrian and bicycle facilities provide infrastructure for people to walk, bike, roll, or use mobility devices. In the City of Milwaukie, the pedestrian and bicycle accommodations consist of on-street facilities and multi-use trails.

Pedestrian Facilities

Pedestrian facilities refer to infrastructure designed for people walking or using mobility devices and typically include sidewalks, trails, crossings, and curb ramps. A well-connected pedestrian network provides safe and efficient links between pedestrian trip generators like schools, employment areas, parks and community centers, residential neighborhoods, and other pedestrian attractors.

Figure 10 maps pedestrian facilities within the City of Milwaukie. As shown, this consists of sidewalks on one or both sides of select roadways and a small collection of trails and multi-use paths.

Bicycle Facilities

Bicycle facilities refer to infrastructure designed for people biking, including bike lanes, shared use paths, paved shoulders, and the crossing infrastructure that supports a well-connected bicycle network, such as ramps and RRFBs.

Figure 11 maps existing bicycle facilities in the City of Milwaukie. Like pedestrian 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 paths/trails, and paved shoulders.

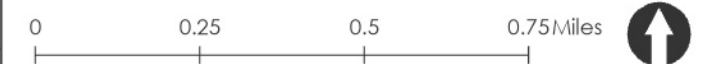
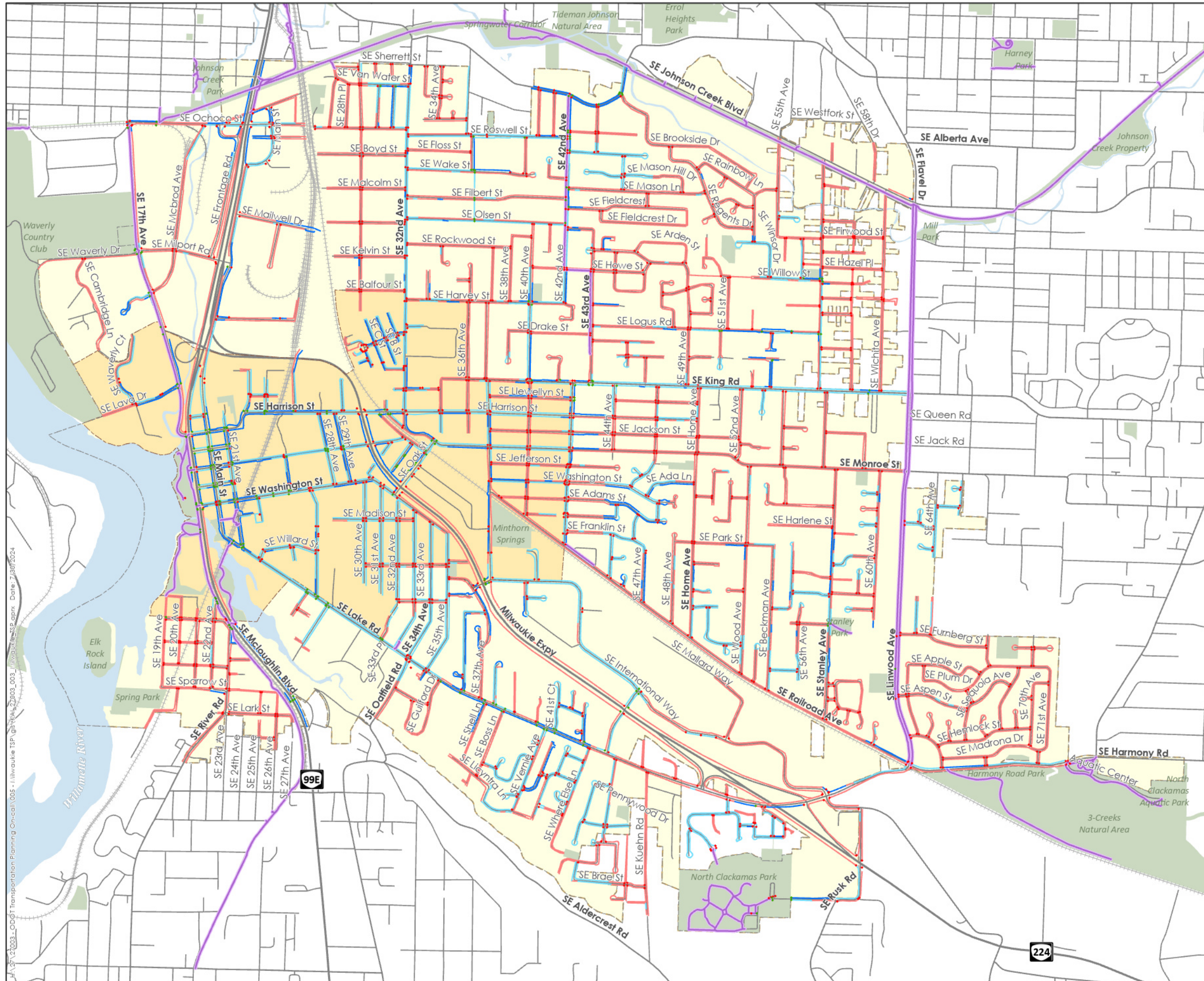


FIGURE 10

Pedestrian Facilities

Legend

- Milwaukie Town Center
- Milwaukie City Limits
- ADA Ramp
- No Ramp or Ramp Does Not Meet Standards
- Multi-Use Paths
- Sidewalk >5 feet
- <5 feet or has barriers
- No Sidewalk



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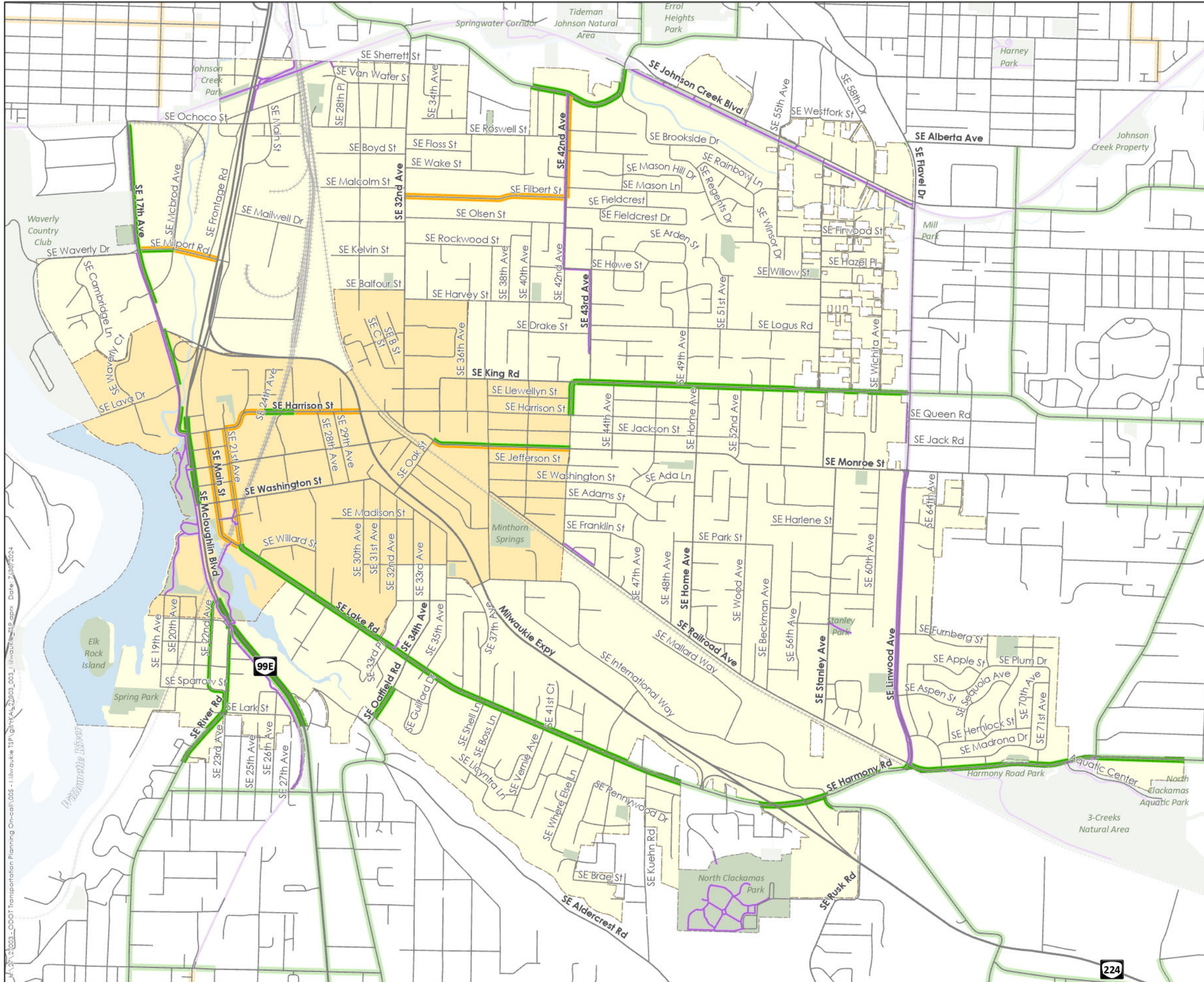


FIGURE 11

Bicycle Facilities

Legend

-  Bicycle Lanes
-  Shared Roads
-  Multi-Use Paths
-  Milwaukie City Limits
-  Milwaukie Town Center
-  Parks



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Transit System

Public transit enhances climate-friendly and equitable outcomes by supporting accessibility for people who cannot drive and reducing reliance on single-occupancy vehicles. Public transit in Milwaukie includes the MAX Orange Line, TriMet Frequent Service Routes, TriMet Standard Service Routes, and paratransit service.

- The MAX Orange Line travels between Milwaukie, PSU, Pioneer Square, and Union Station. The stop at Pioneer Square provides connection to the MAX Blue, Red, Yellow, and Green Lines, connecting Milwaukie to the broader Metro region.
- Frequent Service Route 33-McLoughlin/King Road runs between Clackamas Community College and Clackamas Town Center and connects to Downtown Milwaukie and the Oregon City Transit Center.
- Frequent Service Route 74-Cesar Chavez/Lombard runs between Milwaukie City Center and St. Johns, connecting Milwaukie to jobs and services in east Portland.
- There are several additional Standard Service Routes, including 32-Oatfield, 34-Linwood/River Rd, and 152-Milwaukie providing additional connections within Milwaukie and to the broader Metro region.
- TriMet provides LIFT Paratransit service to people who are not able to use fixed-route transit services due to a disabling health condition throughout Milwaukie.

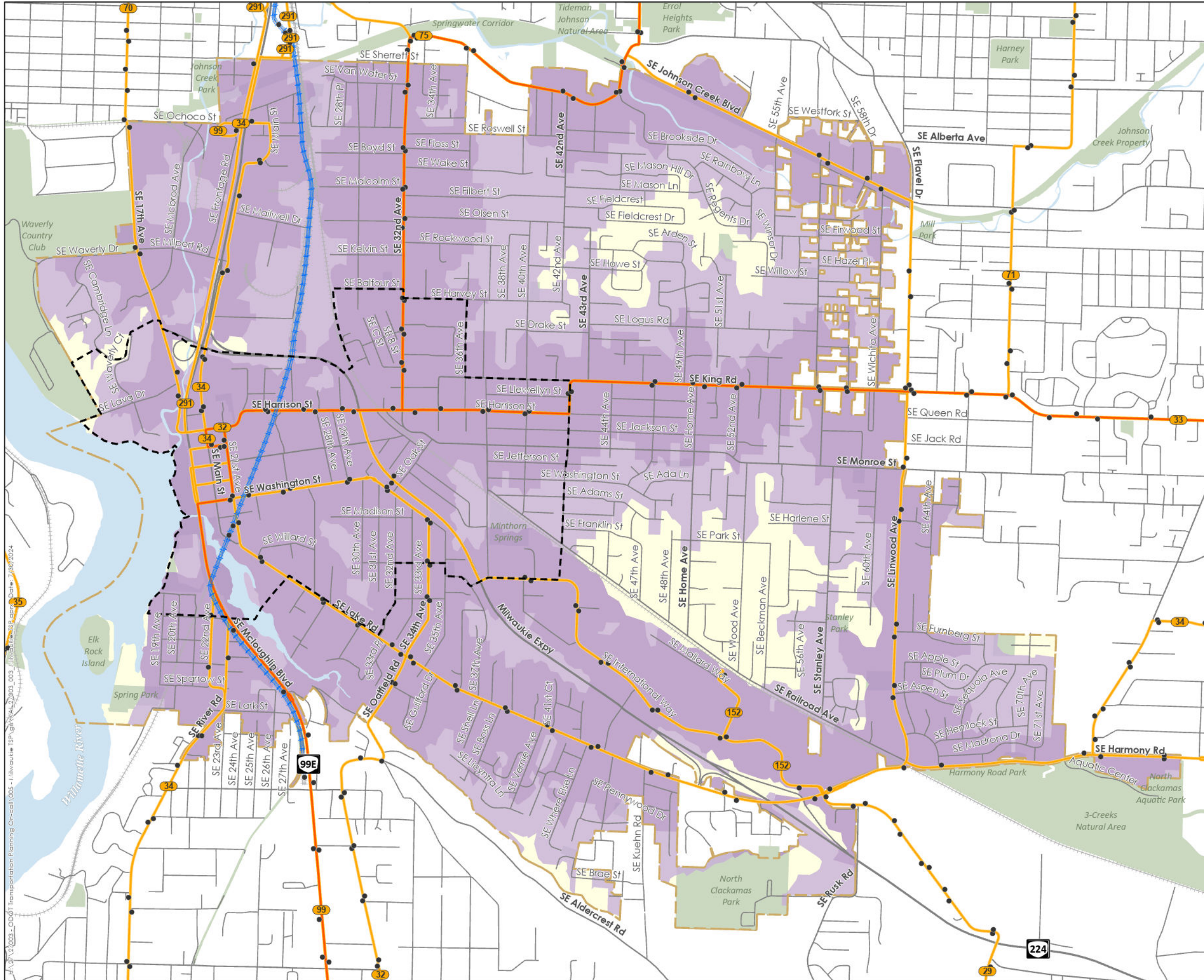
As illustrated in Figure 12, the majority of Milwaukie is located within a half-mile walkshed from an existing transit stop.

FIGURE 12

Transit System

Legend

-  Bus Stops
-  Frequent Bus Routes
-  Bus Routes
-  Light Rail
-  Quarter-Mile Walkshed from Bus Stops
-  Half-Mile Walkshed from Bus Stops
-  Milwaukie City Limits
-  Milwaukie Town Center



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Safety

Crash Analysis

The most recent available crash data (January 1, 2018 to December 31, 2022) was downloaded from ODOT's crash data portal. This data was used to map the following:

- Total number of crashes by severity
- Fatal and serious injury crashes, included as a focus area, consistent with the Vision Zero aspect of the Safe System Approach
- Pedestrian involved crashes, included as a mapped component due to the vulnerability of this user group
- Bicycle involved crashes, included as a mapped component due to the vulnerability of this user group

Chart 1 summarizes crash history by severity and type. Pedestrian and bicyclist-involved crashes are more likely to result in fatal and serious injuries than other crash types. Rear-end crashes are the most common crash type in the City.

Chart 1. Crash Severity by Type (January 1, 2018 to December 31, 2022)

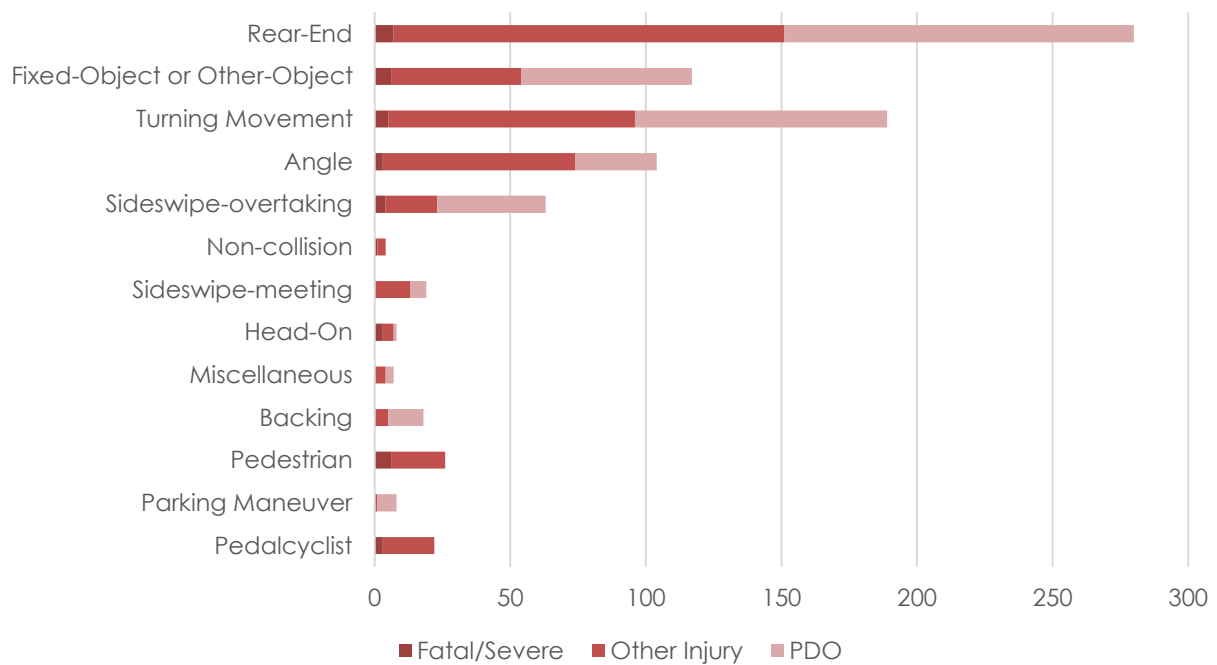




FIGURE 13

Crashes by Severity

January 1, 2018 to December 31, 2022

Legend

- Fatal
- Severe Injury
- Moderate Injury
- Minor Injury
- PDO
- Milwaukie City Limits
- Milwaukie Town Center
- Parks

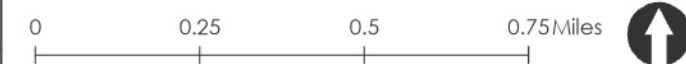
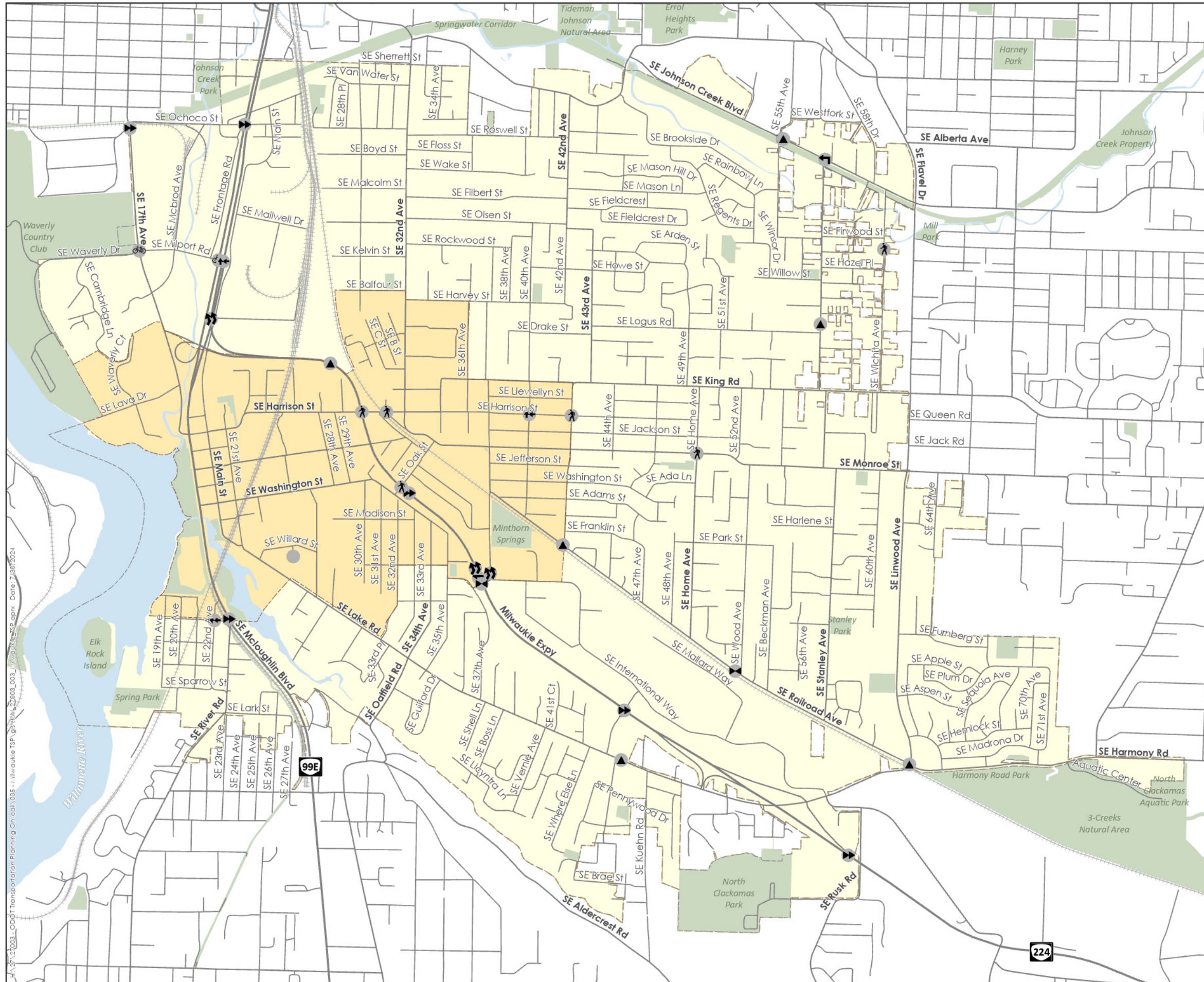


FIGURE 14
Fatal and Serious injury Crashes
 January 1, 2018 to December 31, 2022

Legend

- Angle
- Fixed-Object or Other-Object
- Head-On
- Non-collision
- Pedalcyclist
- Pedestrian
- Rear-End
- Sideswipe-overtaking
- Turning Movement
- Milwaukie City Limits
- Milwaukie Town Center
- Parks



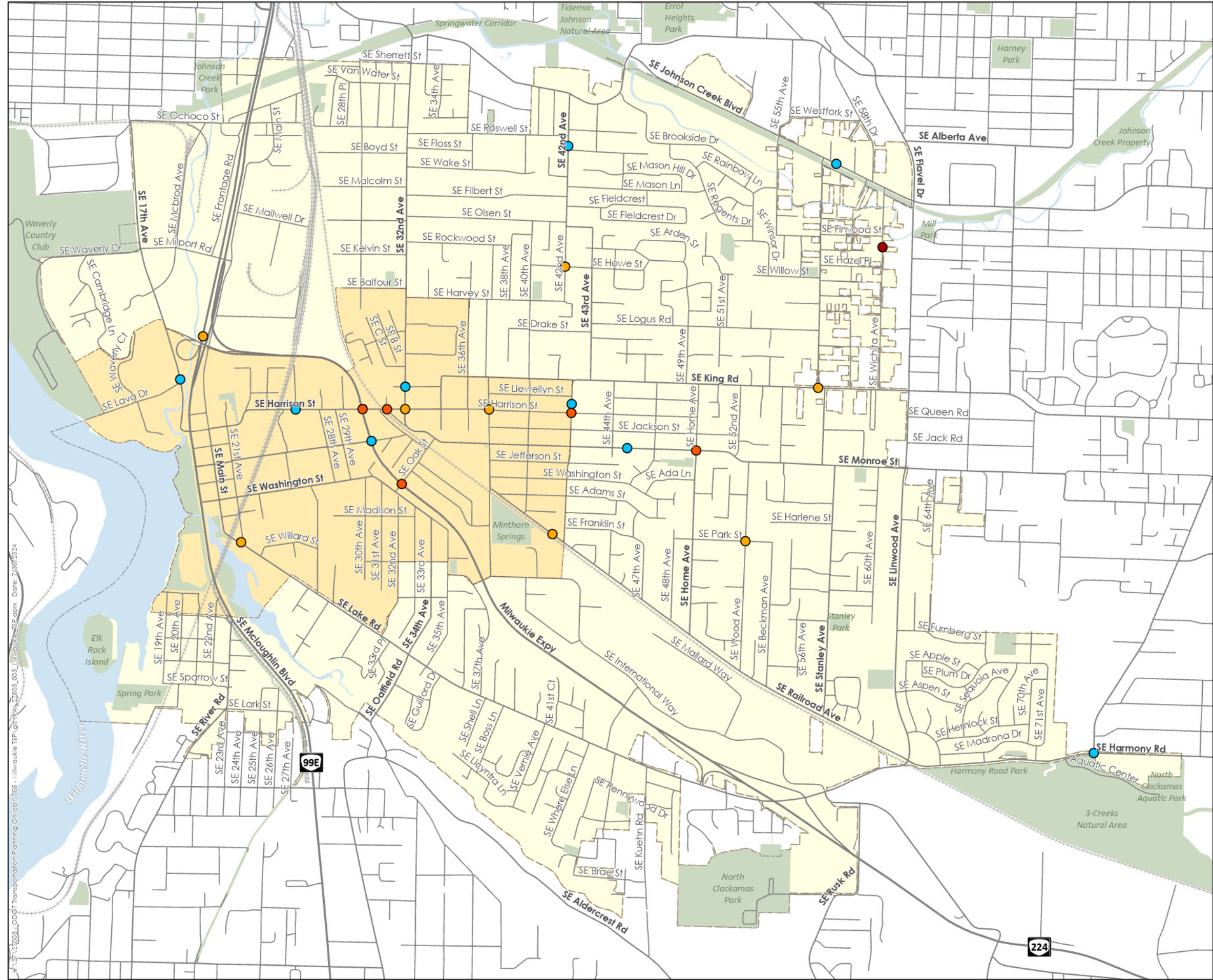
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FIGURE 15
Pedestrian Involved Crashes
 January 1, 2018 to December 31, 2022

Legend

- Fatal
- Severe Injury
- Moderate Injury
- Minor Injury
- Milwaukie City Limits
- Milwaukie Town Center
- Parks



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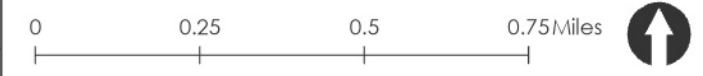
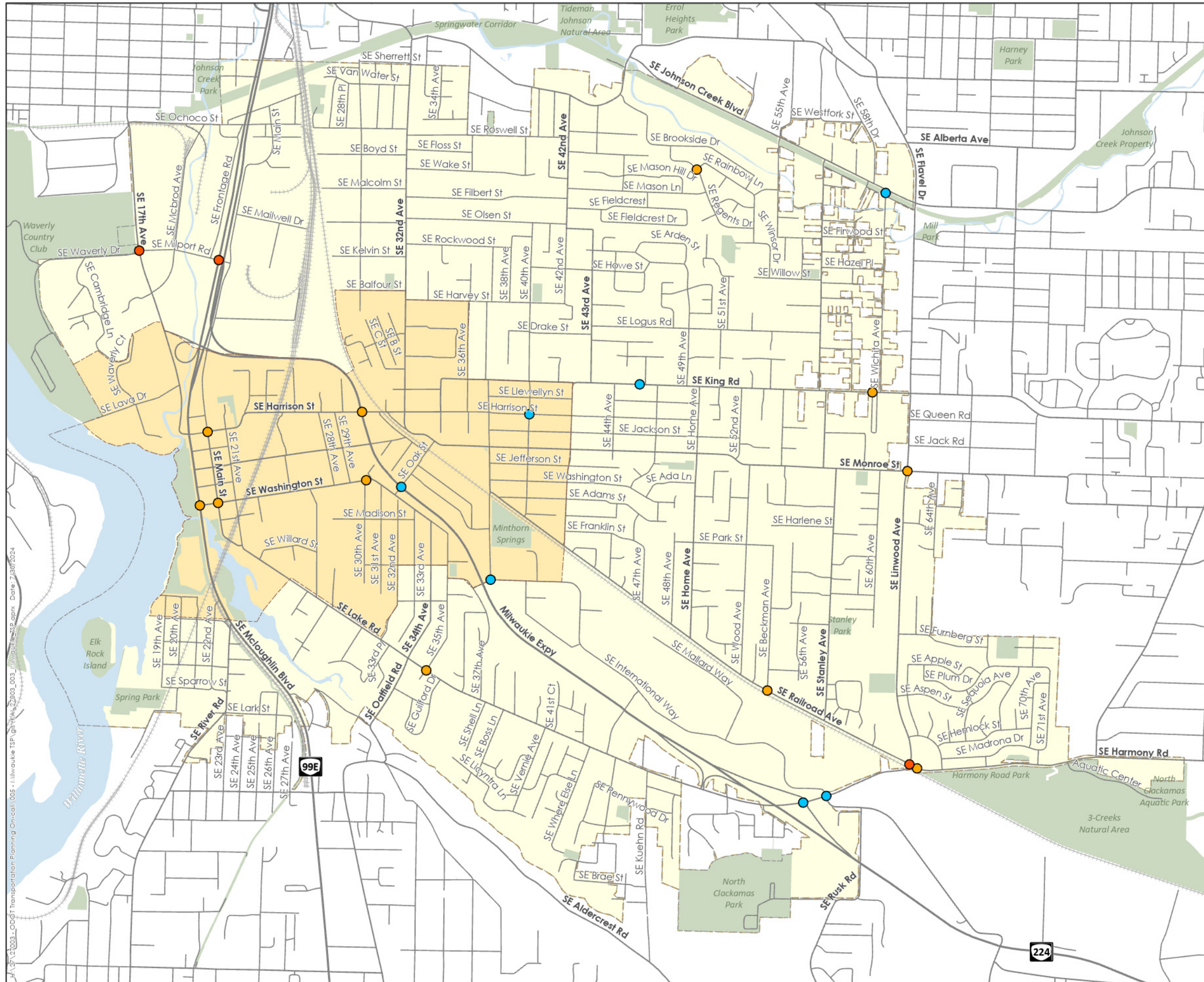
FIGURE 16

Bicycle Involved Crashes

January 1, 2018 to December 31, 2022

Legend

- Severe Injury
- Moderate Injury
- Minor Injury
- Milwaukie City Limits
- Milwaukie Town Center
- Parks



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Next Steps

This memorandum will be reviewed by the Project Management Team, the Transportation System Technical and Advisory Committees to confirm the existing conditions. Next, the project team will identify needs and gaps to help complete the transportation system in Milwaukie.