

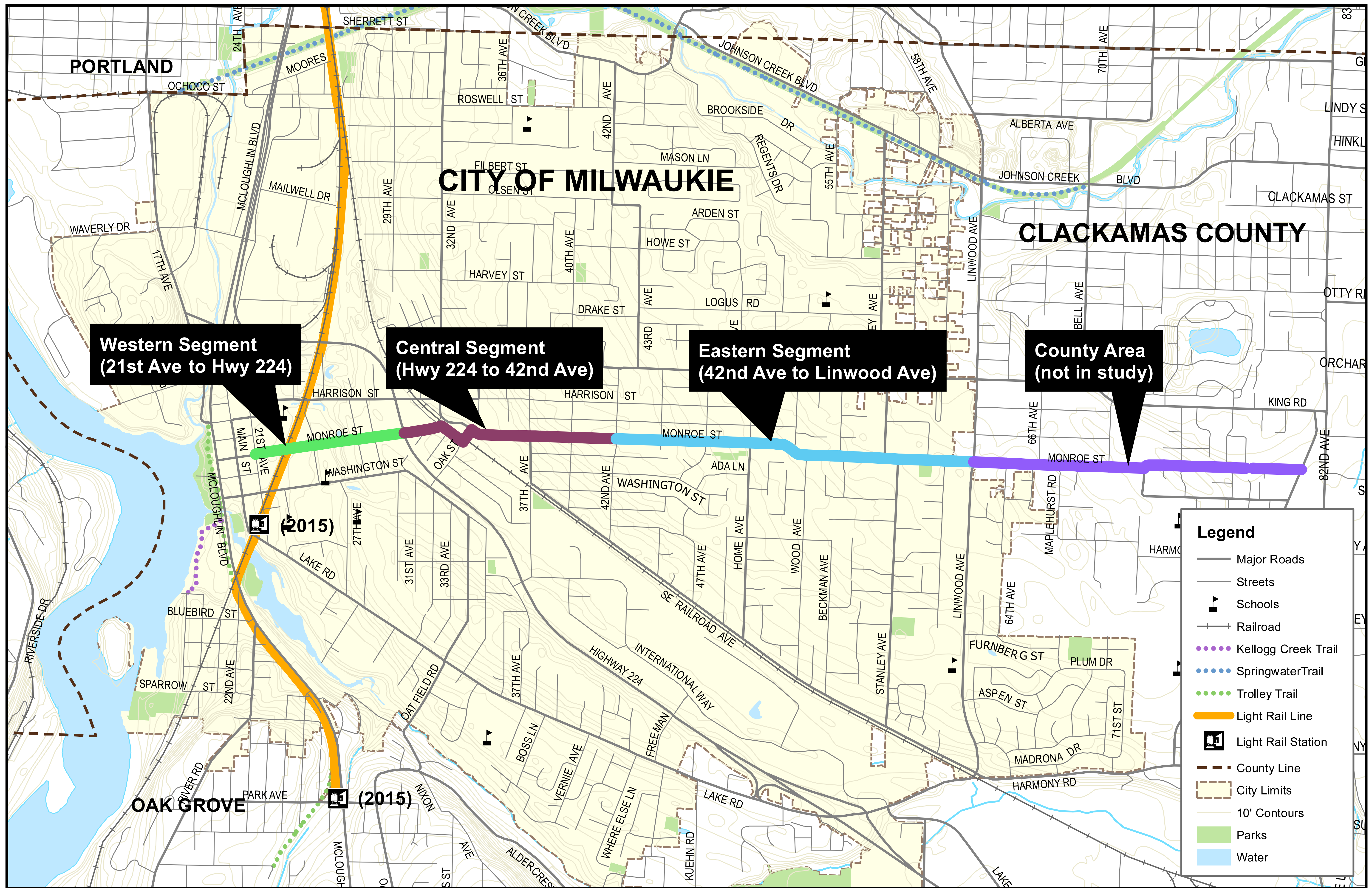
# Linwood Avenue Improvement Project

## Vicinity Map

### LEGEND

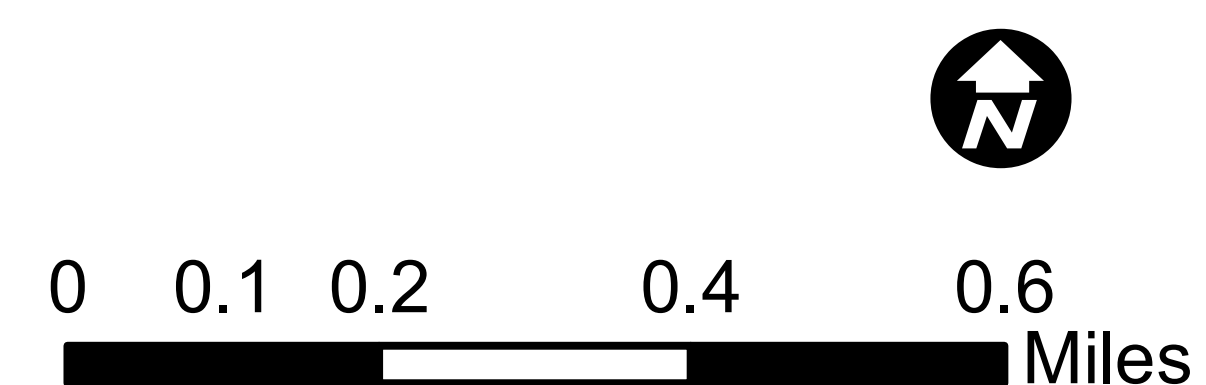
- SE Linwood Avenue – City of Milwaukie
- SE Linwood Avenue – Clackamas County





# Monroe Street Neighborhood Greenway

Milwaukie Planning Dept.  
 Data: City of Milwaukie GIS;  
 Metro RLIS  
 Date: 1/10/2014  
 Author: KimmellJ



The information depicted on this map is for general reference only. The City of Milwaukie does not accept any responsibility for errors, omissions or positional accuracy. There are no warranties, expressed or implied, including the warranty of merchantability or fitness for a particular purpose, accompanying this product.



# WE ARE HERE



Sept 2019 - May 2020

May 2020 - June 2020

July 2020 - April 2021



**DESIGN**

**Phase 1**



**BID**

**Phase 2**



**CONSTRUCTION**

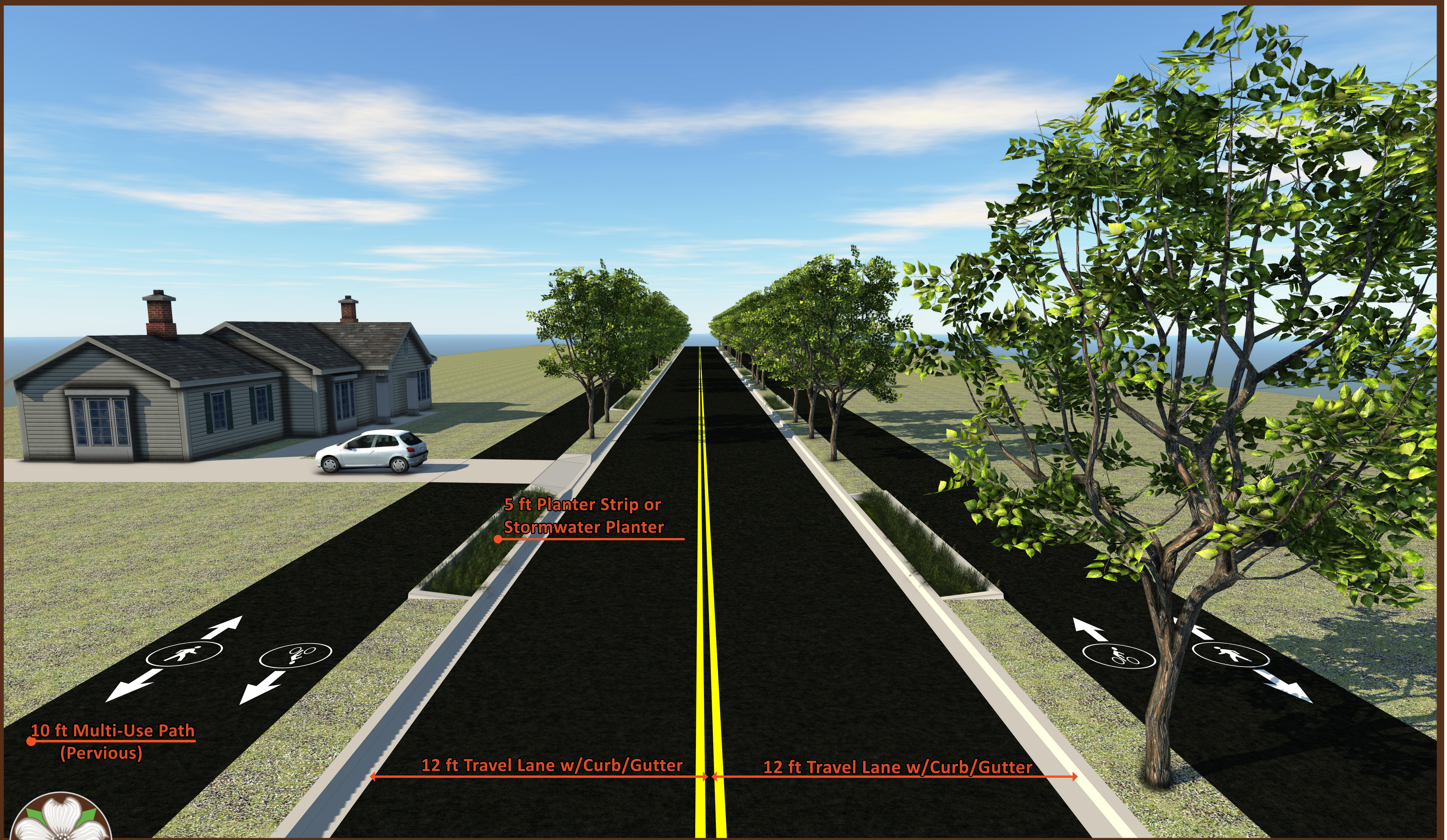
**Phase 3**



**Linwood Avenue Improvement Project**  
Schedule

**HHPR** Harper  
Houf Peterson  
Righellis Inc.  
ENGINEERS ♦ PLANNERS  
LANDSCAPE ARCHITECTS ♦ SURVEYORS





10 ft Multi-Use Path  
(Pervious)

5 ft Planter Strip or  
Stormwater Planter

12 ft Travel Lane w/Curb/Gutter

12 ft Travel Lane w/Curb/Gutter



# Linwood Avenue Improvement Project

## Typical Section



# BENEFITS OF PROJECT

The purpose of the Linwood Avenue Improvements Project is to improve the safety for all modes of transportation in the corridor. In doing this, the project results in many public benefits such as:

- Enhanced crossings for the school.
- Safer corridor for bicyclists and pedestrians by providing a separated and continuous bicycle/pedestrian facility.
- ADA-accessible ramps at all intersections.
- Improved street trees and landscaping.
- Improved air quality for bicyclists and pedestrians by separating them from the vehicle travel lanes.
- Improved water quality and stormwater management.
- Additional opportunities for community members to walk and bike, ultimately improving the overall health of the neighborhood.
- Reduce frequency of U-turn by installing new curbs and narrowing roadway.
- Traffic calming on the side streets with the construction of curb extensions.



**Linwood Avenue Improvement Project**

**HHPR** Harper  
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ENGINEERS ♦ PLANNERS  
LANDSCAPE ARCHITECTS ♦ SURVEYORS



# BICYCLIST DESIGN USER PROFILES

## Interested but Concerned

**51%-56%** of the total population

Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided; prefer off-street or separated bicycle facilities or quiet or traffic-calmed residential roads. May not bike at all if bicycle facilities do not meet needs for perceived comfort.

## Somewhat Confident

**5-9%** of the total population

Generally prefer more separated facilities, but are comfortable riding in bicycle lanes or on paved shoulders if need be.

## Highly Confident

**4-7%** of the total population

Comfortable riding with traffic; will use roads without bike lanes.



**LOW STRESS TOLERANCE**

**HIGH STRESS TOLERANCE**

Note: the percentages above reflect only adults who have stated an interest in bicycling.



**Trolley Trail Connection**

Monroe Street connects to the Trolley Trail along the Willamette River waterfront.

**PMLR MAX/OPR Rail Crossing**

New splitter islands have been installed as part of the PMLR MAX project which create a pinch point at the rail crossing.

**Narrow Cross-Section**

Monroe Street in this section is 27 feet curb-to-curb with 4-5 foot curb-tight sidewalks that limit opportunities for improvement.

**YMCA Center**

The Monroe Street YMCA Child Development Center is located just west of OR 224 and is a popular family destination.

**Sequential Route Deviations**

From Campbell Street to 37th Avenue, the greenway corridor deviates three times. Currently, wayfinding in this area is inadequate.

**Union Pacific Railroad Crossing**

The UPRR tracks are a major connectivity barrier. Improvements would require working with UPRR.

**Public Safety Building**

The Public Safety Building is a civic destination located in short proximity to Monroe Street.

**High Traffic Volumes and Speeds**

The section between Oak Street and 37th Avenue (including UPRR crossing) experiences high speeds and volumes relative to the corridor.

**Potential for Separated Bikeway**

With high volumes and available space, the section of Monroe Street between Oak Street and 37th Avenue is well-suited for a separate path or cycle track.

**Connection to Future Neighborhood Greenway**

The City has proposed a new north-south greenway along 40th Avenue in its Bicycle Master Plan.

A

A | B

B | C

C | D

D | E



**Downtown Access**

Monroe Street connects to shops, restaurants, transit, and other key civic destinations in downtown Milwaukie.

**Elevation Gain Eastbound**

Eastbound direction has short, steep sections up to 5.5% grade which can create a disparity in speeds between motorists and bicycle.

**Lower Traffic Volumes and Speeds**

Monroe Street between downtown and Campbell Street has fairly light traffic volumes, and currently has no double-yellow centerline.

**Difficult Signalized Crossing at OR 224**

OR 224 is a major state highway and is a major barrier to east-west travel. OR 224 is 100 feet wide with no median crossing refuge.

**Access to Shopping**

Monroe Street provides access to goods and services at the Milwaukie Marketplace and King Road shopping centers.

**Potential for Roundabout**

A roundabout at the Oak Street/Railroad Avenue intersection could help calm traffic and improve flow, but likely requires property acquisition.

**Connection to Future Multi-Use Trail**

A multi-use trail is envisioned along the UPRR tracks to connect Oak Street with Railroad Avenue at 37th Avenue.

**Future Development Opportunity**

A vacant parcel just north of the railroad tracks is envisioned as a future mixed-use development site.

**Uphill Section and Substandard Bike Lane**

The section between 37th and 42nd Avenues has a 6.6% grade going eastbound. Currently there is a substandard 4-foot bike lane eastbound.

**Potential for Diverters at 37th and 42nd Aves**

The intersections at 37th and 42nd Avenues may be good candidates for partial traffic diversion in order to reduce volumes on Monroe Street.

A

A | B

B | C

C | D

D | E

**Figure 2-1  
Monroe Street  
Neighborhood  
Greenway**

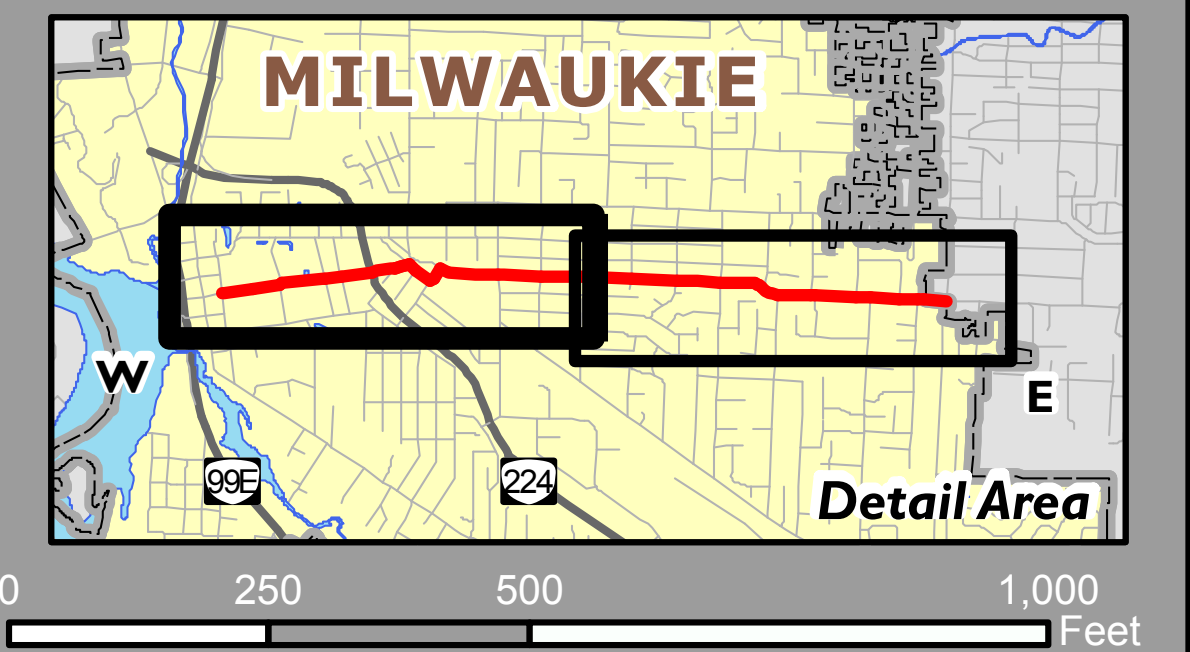
**Existing Conditions:  
Opportunities and Constraints (West Section)**

**Legend**

- Corridor Opportunities
- Corridor Constraints
- A | B** Section Boundaries

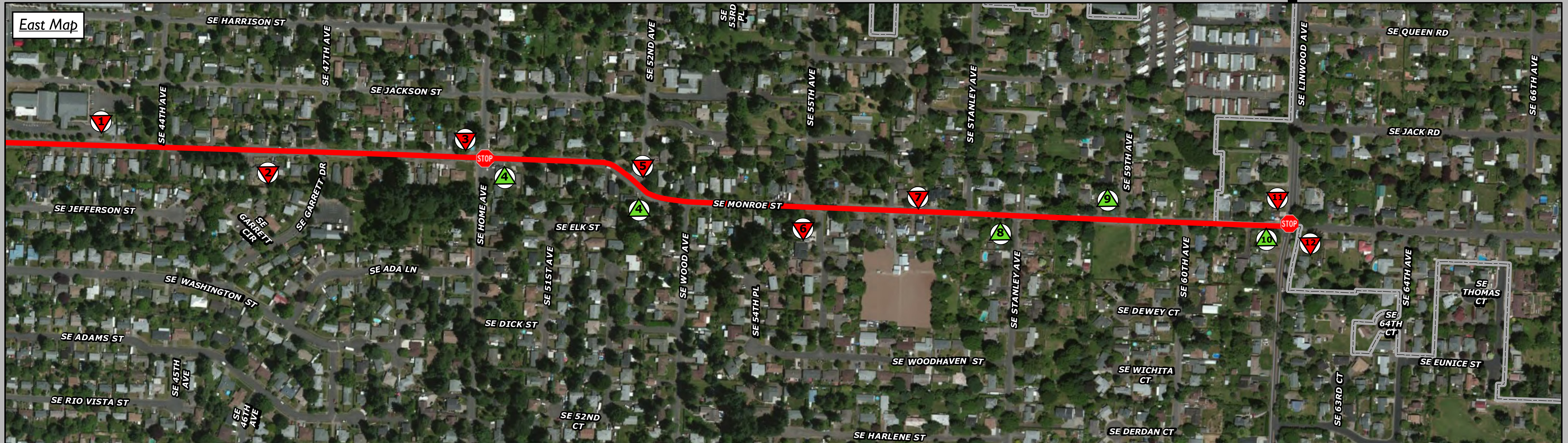
- Monroe Street Study Area
- Future MAX Light Rail
- Multi-Use Paths
- Railroads
- Railroad Crossings

- Existing Traffic Signals
- Existing Stop Signs (for Monroe Street traffic)
- Speed Zones





- No Sidewalks**  
There are no sidewalks or curbs between 42nd and Linwood Avenues, forcing pedestrians to walk along the gravel shoulder.
- Lack of Stop Sign Compliance**  
Residents observe frequent violations of the four-way stop sign at Home Avenue.
- Visibility Issues**  
The road bends near 52nd Avenue, which can make it difficult for drivers to see pedestrians, especially if exceeding the speed limit.
- Higher Speeds and Volumes**  
This section of Monroe Street is rural in nature and lacks visual cues to slow motorists down. It also experiences higher speeds and volumes than desired.
- Access to Wichita Park**  
Wichita Park is located along the corridor at 59th Avenue.
- Difficult Connection Across Linwood Ave**  
The two-way stop at Linwood Avenue is difficult to navigate for all modes, including for pedestrians crossing busy Linwood Avenue.



- Encroachments onto Public Right of Way**  
While the ROW is 40 feet wide in this section, only about 22 feet is paved. The rest is used as makeshift on-street parking or as extensions of front yards.
- Placemaking Opportunity**  
The Home and 52nd Avenue intersections provide opportunities for an "Intersection Repair" treatment, similar to examples in Portland.
- Drainage Issues**  
The rural section of Monroe Street has been susceptible to flooding after heavy rains. One particular problem spot is at 55th Avenue.
- Connection to Future Neighborhood Greenway**  
The City has proposed a new north-south greenway along Stanley Avenue in its Bicycle Master Plan.
- Partial Diverter at Linwood Avenue**  
The intersection at Linwood Avenue may be a good candidate for partial traffic diversion in order to reduce volumes on Monroe Street.
- Coordination with County Needed**  
Monroe Street is outside City limits east of Linwood Avenue, requiring Milwaukie to coordinate with Clackamas County on potential improvements.

## Figure 2-2 Monroe Street Neighborhood Greenway

Existing Conditions:  
Opportunities and Constraints (East Section)

