Work Session

WS

Milwaukie City Council

MINUTES
MILWAUKIE CITY COUNCIL
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WORK SESSION
JUNE 16, 2015
City Hall Conference Room

Mayor Parks called the Work Session to order at 4:48 p.m.

Council Present: Council President Batey and Councilors Scott Churchill, Mark Gamba, and Karin Power

Staff Present: City Manager Bill Monahan, City Recorder Pat DuVal, Assistant to the City Manager Mitch Nieman, Community Development Director Alma Flores, Interim Engineering Director Brad Albert, Planning Director Denny Egner, and Associate Planner Brett Kelver

City Manager's Report

Mr. Monahan reviewed the Work and Regular Session agendas. He discussed the proposed intergovernmental agreement (IGA) with TriMet regarding the Triangle Site, the elected official swearing-in process, the upcoming Clackamas Cities Association (CCA) dinner in Happy Valley, and the League of Oregon Cities (LOC) conference.

The group discussed the June 15, 2015, Special Session regarding the Riverfront Park wildlife mitigation plan and the Milwaukie High School (MHS) mural.

Community Development Update

Ms. Flores reviewed ongoing community and economic development projects, and she announced that Mr. Albert would serve as the Interim Engineering Director.

Mr. Albert explained that the proposed extension of the Adams Street Connector IGA with Metro was to accommodate delays in securing light fixtures. **Councilor Churchill** asked if the requested amount of extra time would allow the contractor to finish the project, and **Mr. Albert** confirmed that it would be enough time.

Mr. Albert asked for Council input regarding the slurry seal contract award included on the Regular Session Consent Agenda. **Council President Batey** and **Mr. Albert** discussed when slurry seal projects are scheduled.

Mr. Albert reported that the contract award for the Stanley Avenue Stormwater project would be presented for Council approval in July. **Councilor Churchill** and **Mr. Albert** noted that no issues regarding the project had been noted to-date.

The group discussed concerns about the type of street paint used at the intersection of 30th Avenue and Sherrett Street in the City of Portland. Staff noted that the City had been asked to provide feedback on the proposed painting, and the group discussed the City's processes for community use of streets and public right-of-ways (ROWs).

Mr. Egner reported ongoing Planning Commission activities, and he noted that a Transportation and Growth Management (TGM) grant had been submitted for the 5 crossings included in the Hwy 224 enhancement plan.

Ms. Flores and **Mr. Monahan** discussed the IGA update with the City of Happy Valley for Building Inspection Services that Council will consider in July.

Monroe Street Neighborhood Greenway Concept Plan

Mr. Kelver introduced Catherine Ciarlo, Senior Project Manager at CH2M Hill, and Chris Ortolano, a member of the Project Advisory Committee (PAC), and he provided a

brief history of the Monroe Street Neighborhood Greenway project. He noted the participation of consultants, other agencies, and community members at the ongoing PAC meetings and in shaping the concept plan. He described the proposed adoption process and noted that the staff goal is to adopt the concept plan by fall of 2015.

Ms. Ciarlo discussed the project goals of reduced traffic speed and volume to promote a shared street, and she reported community responses to the draft concept plan.

Councilor Churchill and **Ms. Ciarlo** discussed the recommendations of the CH2M Hill traffic analysis and the Historic Milwaukie Neighborhood's concerns about vehicles being diverted away from Monroe Street increasing traffic on other streets.

The group commented on current traffic conditions at 42nd Avenue and Harrison Street and noted neighborhood support of the Monroe Street diverter.

Ms. Ciarlo reported that staff and the PAC had been considering a test period with temporary diverters to monitor the traffic impacts on the community.

The group discussed the experiences and input from residents of Portland who live near diverters that have been installed in the last few years.

Councilor Gamba and **Ms. Ciarlo** discussed the traffic modeling analysis predictions about traffic on Washington Street when a Monroe Street diverter is installed.

Councilor Churchill noted that the Historic Milwaukie Neighborhood District Association (NDA) did not vote to support a Monroe Street diverter.

Mr. Kelver and **Councilor Churchill** discussed the Historic Milwaukie NDA's concerns about increased traffic on other streets. **Ms. Ciarlo** reported that the traffic analysis did show a low increase in traffic on other streets with a diverter on Monroe Street.

Mr. Ortolano discussed his role as the Public Safety Advisory Committee (PSAC) representative on the PAC, and he noted concerns about the Central Milwaukie section of the project and the impacts of the project on Washington Street.

The group discussed the benefits and drawbacks of a Washington Street greenway, and it was suggested that Washington Street be tested to determine the possible traffic impacts. It was noted that a Washington Street greenway would remove the need to install a diverter at 37th Avenue and Monroe Street, and **Councilor Gamba** noted the negative public reaction to a diverter at 37th Avenue and Monroe Street.

Mr. Kelver and **Mayor Parks** asked if Council had any other questions or concerns.

Councilor Gamba asked for an update on the Clackamas County project to continue the Monroe Street Greenway east of Linwood Avenue. **Mr. Kelver** reported that the County would be starting its project planning process soon.

Mayor Parks and **Mr. Kelver** noted that the next public meeting would likely focus on Washington Street and diversions, and would be a more interactive meeting format.

Mr. Kelver noted the lack of cross-town roads in Milwaukie and asked for Council feedback on the proposal to include diversions in the project.

Councilor Power discussed her uncertainty about diverters.

Council President Batey expressed her support for a judicious use of diverters and for returning Monroe Street to a neighborhood friendly street.

Councilor Gamba noted Portland's greenway experience and suggested that Milwaukie would experience the same positive results.

Councilor Churchill expressed NDA concerns about traffic impacts on Harrison and Washington Streets, and he noted the unknown impact of light rail. He pointed out his personal benefit as a resident of Monroe Street, and he discussed the traffic back-ups created by the lack of left turn signals at Harrison and Washington Streets on Hwy 224.

Councilor Power noted her preference for roundabouts.

Mayor Parks discussed her personal preference to not drive on Monroe Street and noted her support of roundabouts. She stated her interest in hearing more about Washington Street, she noted that the project goal was to calm traffic, and she pointed out that the project would not turn Monroe into a one-way street.

Mayor Parks and **Council President Batey** noted Clackamas County's discussion about possibly running Monroe Street through to 82nd Avenue.

The group discussed the project meeting schedule and agreed that more public meetings would be held, followed by a Council Study Session discussion, and a Public Hearing at a Council Regular Session.

Mayor Parks adjourned the Work Session at 5:57 p.m.

Respectfully submitted,

Scott S. Stauffer, Administrative Specialist II

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Kelver, Brett

From: Bernie Stout <usabs1@nethere.com>
Sent: Wednesday, June 10, 2015 5:58 PM
To: Kelver, Brett
Subject: Corrected email June 9 2015

Hello Brett,

Hoping you will use this corrected version of Tuesday's email.

To: 'kelverb@milwaukieoregon.gov'
Subject: opposed to addition of Monroe Street Greenway

Tuesday, June 9, 2015

Dear Brett Kelver,
Please include with public testimony and city council:

After attending the June 1, 2015 open house for the Monroe Street Greenway, I am not willing to support any portion of the additional Washington Street, Ada Lane, and Home Street multi-use path.

1. Lack of public disclosure.
a) Complete map of dual routes that are highlighted explaining that it will impact dual routes.
b) No parity of construction and safety features.
c) Very minimal outreach (only referred to as Monroe Street) to the residents on Washington Street, Ada Lane, and Home Street.
d) No parity for discussion of Washington Street, Ada Lane, and Home Street. Equal multiple public workshops.
e) Minimizing concerns yet honoring seemingly minor grade issue on Monroe Street for two blocks.
f) Discussion of opportunistic crime rising.
g) Critical discussion of Homeless using and setting up camps along the route. (Foreclosed homes, two parks, and shrubbery)
h) Are the positive comments being made by non-residents or residents along Monroe Street or the Additional Route?

As this project moves forward please step back and shelf the additional Washington Street, Ada Lane, and Home Street proposal. The few individuals that cannot ride up Monroe can walk a couple blocks with those routed off the bike route up Washington Street, Ada Lane, and Home Street. . After some use and strength building the grade will not be an obstacle. The plan as originally conceived meets the needs of a multi-use path (not multi-path). Give the original design a five year period of use, and then perhaps with prudent, open, and respectful discussion of all affected an additional route may be considered. Let the area grow and then re-evaluate.

I am opposed to an additional route up Washington Street, Ada Lane, and Home Street.

Sincerely,
Bernie Stout

MILWAUKIE CITY COUNCIL
WORK SESSION

AGENDA
JUNE 16, 2015

City Hall Conference Room
10722 SE Main Street
www.milwaukieoregon.gov

A light dinner will be served.

4:00 p.m. Executive Session
The City Council will meet in Executive Session pursuant to ORS 192.660(2)(h) to consult with legal counsel concerning legal rights and duties regarding current litigation or litigation likely to be filed.

Work Session

			Page #
1.	**4:30 p.m.**	**City Manager's Report** Staff: City Manager Bill Monahan	
2.	**5:00 p.m.**	**Monroe Street Neighborhood Greenway Concept Plan** Staff: Associate Planner Brett Kelver	**1**
3.	**5:45 p.m.**	**Adjourn Work Session**	

Meeting Information

The time listed for each item is approximate; the actual time each item is considered may change due to the length of time devoted to the previous item. The Council may vote in Work Session on non-legislative issues.

Public Notice

Executive Sessions: The Milwaukie City Council may meet in Executive Session immediately following adjournment pursuant to ORS 192.660(2). All Executive Session discussions are confidential and those present may disclose nothing; representatives of the news media may attend as provided by ORS 192.660(3) but must not disclose any information discussed. Executive Sessions may not be held for the purpose of taking final actions or making final decisions and they are closed to the public.

The Council requests that mobile devices be set on silent or turned off during the meeting.

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MILWAUKIE CITY COUNCIL
AGENDA ITEM SUMMARY

Agenda Item: **WS 2.**
Meeting Date: **6/16/15**

Title: Monroe Street Neighborhood Greenway Concept Plan

Prepared By: Brett Kelver, Associate Planner
Department Approval: Alma Flores, Community Development Director
Denny Egner, Planning Director
City Manager Approval: Bill Monahan
Approval Date: 6/08/15

ISSUES BEFORE COUNCIL
Presentation of the draft Concept Plan for Council discussion

STAFF RECOMMENDATION
Provide feedback to staff if adjustments to the draft Concept Plan are desired

KEY FACTS & INFORMATION SUMMARY
The consultant team has taken input from the Project Advisory Committee (PAC) and larger public (a total of over 200 people at three public meetings) and used it to develop a Concept Plan showing neighborhood greenway improvements for Monroe Street. The PAC's feedback on the draft Plan has been incorporated into the revised version. The Plan recommends traffic diversion at key locations along the route and an outline of priorities for implementation.

OTHER ALTERNATIVES CONSIDERED
A range of alternatives was considered by the PAC. The Needs, Opportunities, and Constraints Memo (Appendix A) lists the various improvements that were considered.

CITY COUNCIL GOALS
Focus community resources on an all-inclusive bike, pedestrian, and street safety program *(goals adopted May 5, 2015)*

FISCAL NOTES
ODOT's Transportation and Growth Management (TGM) program is providing a total of $102,285 for consultant services for this project, including a traffic analysis component. The City is providing an in-kind match (staff time) of approximately $21,500 (21% of total project costs). The grant period for this project ends on June 30. The estimated total cost of the improvements included in the Plan is approximately $8.5 million. Various funding options are listed in the Plan.

ATTACHMENTS
1. Draft Concept Plan (June 2015 version)
   (Note: The Plan's Appendices A & B were provided to Council for review on May 27 and are not included here.)
2. Frequently Asked Questions (June 2015)
3. Summary of Comments from Public Workshop #1 (Dec 2014)
4. Summary of Survey Form from Public Workshop #2 (March 2015)
5. Summary of Comments from Public Workshop #3 (June 2015)

MILWAUKIE CITY COUNCIL
STAFF REPORT

To: Mayor and City Council

Through: Bill Monahan, City Manager
Alma Flores, Community Development Director
Dennis Egner, Planning Director

Subject: **Monroe Street Neighborhood Greenway Concept Plan**

From: Brett Kelver, Associate Planner

Date: May 12, 2015, for May 19, 2015, Work Session

ACTION REQUESTED

The project team has worked with a community-centered Project Advisory Committee (PAC) to develop the draft Concept Plan, responding to and incorporating comments and suggestions from the PAC and the larger public. The recommended Concept Plan will be brought back to Council later this summer for formal adoption, after the end of the project grant period (June 30). Staff is asking for Council feedback on the recommended Concept Plan so that major questions and/or concerns can be addressed with the consultant's help prior to the end of the grant period.

HISTORY OF PRIOR ACTIONS AND DISCUSSIONS

May 19, 2015: Brief Council update in preparation for June 16 worksession.

May 5, 2015: Formal adoption of new Council goals for 2015-16, including a goal to "Focus community resources on all-inclusive bike, pedestrian, and safety program."

February 3, 2015: Update to the new Council on project status in advance of the second public workshop (March 18).

August 19, 2014: Update on project status, with Council approving the roster of PAC members.

February 2013 to June 2014: Formal adoption of Council goals for 2013 and 2014, including goals related to making Monroe Street a neighborhood greenway. Two staff updates on project status (January and April 2014). Council adoption of Resolutions 47-2013 and 55-2014, endorsing the City's grant application for the project and authorizing an Intergovernmental Agreement (IGA) with the Oregon Department of Transportation (ODOT) to do the project.

BACKGROUND

This project has been focused on developing a conceptual plan for improvements that will make Monroe Street a neighborhood greenway. As outlined in the City's Transportation System Plan (TSP), neighborhood greenways are streets where low traffic volumes and speeds make for safe routes across the city for bicyclists and pedestrians. In particular, Monroe St provides an important east-west connection across the community and ties in with a similar planned facility that will continue east into unincorporated Clackamas County.

Through a Transportation and Growth Management (TGM) grant provided by ODOT, the firm CH2M Hill has been working with the City since mid-2014 to develop the Monroe Street Neighborhood Greenway Concept Plan. Prior to any construction, more detailed engineering

design will be needed, but the plan will serve as a guide for future street improvements that will make Monroe St a functional neighborhood greenway route.

In the process of producing the draft Concept Plan (attached for Council review, see Attachment 1), the consultant team has produced several documents that serve as building blocks. A Needs, Opportunities, and Constraints Memo presented the existing conditions along the Monroe St corridor, including traffic volumes and speeds as well as physical characteristics of the street along its length. The Memo also provided information about basic traffic-calming tools and initial suggestions for neighborhood greenway improvements. The project scope was expanded to include a Traffic Analysis that evaluated the potential impacts of several proposed traffic diverters. These two documents are included as appendices to the Concept Plan and were provided to Council for review in advance of the packet for the June 16 worksession.

All materials have been vetted and discussed by the Project Advisory Committee (PAC), which has provided feedback to ensure that the plan reflects the community's interests and concerns. The PAC includes representatives from the four neighborhoods along the route, as well as the Public Safety Advisory Committee (PSAC), Bike Milwaukie (Milwaukie's local bicycle advocacy group), Clackamas County Pedestrian/Bikeway Advisory Committee, Clackamas County Planning, Clackamas Fire District #1, City Engineering and Operations Departments, and a City Council liaison (Councilor Gamba). Mayor Parks has served as the non-voting chair of the PAC, a position she assumed prior to becoming mayor and stemming from her previous involvement on the Planning Commission.

Public workshops (in Dec 2014 and March 2015) have drawn approximately 60-70 people each to learn about the project and provide input in response to draft materials. Comments were collected at both workshops, including responses to specific survey questions. The comments range from those who are very supportive of the project to others who have questions and/or prefer not to see any change on the street. Summaries of the comments from both workshops are attached (see Attachments 3 and 4 for responses to the Dec 2014 and March 2015 workshops, respectively). A final open house on June 1 presented the final recommended design and the draft Concept Plan; over 70 people attended the event and took the opportunity to discuss their questions and concerns with PAC members and the consultant team. Comments from the open house are attached (see Attachment 5).

Following the June 16 worksession, staff will work with the consultant team to make final adjustments before bringing the plan back for formal adoption by Council later this summer. Following adoption, the City will look for funding opportunities to begin final design and construction of the prescribed improvements.

Key Issues

Over the course of public outreach for the project, including public workshops and survey/comment forms, there are several common themes that have developed. In addition, councilors noted two key issues at the May 19 worksession update that warrant discussion: (1) diversion and (2) funding and implementation.

<u>Common Themes</u>

Community members who have attended the public workshops held for the project have expressed a variety of opinions and perspectives about the proposed improvements to Monroe St. Many people have expressed strong support for the neighborhood greenway concept, noting the anticipated benefits for safety and livability. It is safe to say that pedestrian improvements, particularly in the eastern section of the corridor between 42nd Avenue and Linwood Avenue, are

desired by a sound majority of those who have commented. In fact, few people have argued with the prospect of making Monroe St safer for all users and residents, with traffic calming measures to reduce vehicle speeds and cut-through trips. Improved and safer crossings at key intersections like Highway 224 and Linwood Ave are desired by many.

To be fair, a significant number of residents have expressed opposition to the project, especially with respect to the proposed diversion elements. There are questions about whether diverted trips would impact other streets and intersections to an insupportable degree (see additional discussion below). Others have noted concerns about impacts to existing on-street parking. The project team responded to that concern by adjusting the proposal to minimize the loss of on-street parking between 21st Avenue and Hwy 224 and to retain the informal parking situation along the eastern section between 42nd Ave and Linwood Ave. In order to achieve the goal of providing a pedestrian path in the eastern section within the existing public right-of-way, on-street parking on the north side of the street would be greatly reduced between 42nd Ave and 52nd Avenue and effectively eliminated between 52nd Ave and Linwood Ave. There simply is not enough room to retain all on-street parking without dramatically widening the public right-of-way.

Some have commented that a more effective way to reduce speeds on Monroe St is to deploy police more regularly, or to install speed bumps throughout. Obviously, there are substantial costs involved with increasing the police presence along the corridor, and periodic enforcement may not be as effective as more permanent, physical traffic calming elements. A limited number of speed bumps are proposed in the "S-curve" at 52nd Ave, but speed bumps in general present challenges for street sweeping and can have the unintended consequence of speeding in between. They are not a preferred tool of the City's Engineering and Operations Departments for broad application.

Regarding the need to improve safety at the intersection with Linwood Ave, some have suggested making the intersection a four-way stop or installing a traffic signal. Traffic volumes on Linwood Ave are high enough that a four-way stop would result in significant congestion on Linwood without significant improvement in bicycle and pedestrian crossing safety. A traffic signal would improve safety without impacting congestion, but signals are considerably more expensive than other tools and would not reduce volumes on Monroe St, which is necessary to establish a viable neighborhood greenway route. The roundabout option was considered early in the process but was ruled out due to expense and the need to acquire more public right-of-way for construction.

In preparation for the June 1 Open House event, staff developed a Frequently Asked Questions sheet to address other basic questions that were asked at the two previous public workshops (see Attachment 2).

<u>Diversion</u>

In order to reduce traffic volumes along key segments of the Monroe St corridor, the Concept Plan recommends installing diverters at key intersections—Hwy 224, 42nd Ave, and Linwood Ave. The intent of diversion is not to close the street to vehicular traffic, but rather to increase the likelihood that vehicles using Monroe St are making local trips to or within the neighborhood. Diversion on Monroe St would reroute cut-through vehicle trips onto nearby streets like Harrison Street, King Road, and Railroad Avenue that are intended for higher capacity.

As a tool, diversion involves trade-offs, such as reducing the convenience of vehicle travel for short stretches of the route in exchange for lowering volumes and speeds to increase bicycle

and pedestrian safety. Neighborhood residents are required to adjust their normal routes to get around the diversion, resulting in a slight increase in traffic on adjacent local streets. But the overall corridor becomes calmer and quieter, and those properties on the "downstream" side of the diversion experience significantly less traffic.

At Highway 224, the proposed diverter would eliminate all vehicular movements from Highway 224 onto Monroe St westbound. This would effectively address the Historic Milwaukie neighborhood's long-standing concerns about truck traffic on Monroe St, though it would also result in some increased trips on 28th and 29th Avenues, as residents or users of the YMCA daycare try to make their way in and out of the neighborhood from the highway. With curb extensions and median refuge islands, the diverter would greatly reduce the unprotected distance that pedestrians and bicyclists must cover to cross an otherwise wide and daunting intersection. The timing of signals at Harrison St and Washington/Oak Streets will have to be adjusted to work with the Monroe St signal, and it will be important to study those other intersections and identify additional safety and capacity improvements, as their level of service is forecast to decline even without the proposed changes at Monroe St. ODOT staff has been very involved in this particular conversation and has expressed general support for the proposed diverter at this location.

In an earlier version of the design, diversion was proposed at 37th Avenue and was vigorously debated by the PAC, due to an awareness of some opposition from within the Hector Campbell neighborhood. An alternative suggestion emerged to route bicycles across the McFarland site (the triangle-shaped property between Oak St and 37th Ave) and along Washington St, where they could rejoin Monroe St via Ada Lane and Home Avenue. The rationale is that, since Washington St is already a quiet residential street, few improvements would be needed to make it safe for bicycles. The PAC recognized that Washington St is the preferred neighborhood greenway route for bicycles between 37th Ave and Home Ave and accepts that this alignment still depends on diversion on Monroe St to ensure that vehicle volumes remain low in the easternmost section of the corridor. As proposed, a diverter would be placed at 42nd Ave instead of 37th Ave, which, along with a diverter at Linwood Ave, would greatly reduce the incentive for cut-through traffic to make its way back onto the corridor.

The proposed diverter at the Linwood Ave intersection would address the issues of cut-through traffic and intersection safety. Currently, the intersection can create challenging and unsafe situations for vehicles, and there are no improvements to assist pedestrians and bicyclists. Median refuges and a user-activated signal would enable pedestrians and bicyclists to more safely cross the intersection, and limiting vehicle access to right-in and right-out movements on Monroe St would reduce the number of dangerous situations faced by vehicles on both streets. One important challenge presented by a diverter at Linwood Ave is the city's overall lack of good street connectivity in this part of town, where there are limited opportunities for residents in the Linwood neighborhood to get from Linwood Ave into the areas around Monroe St. The proposed diverter may put more vehicle trips on Stanley Ave, but cross-town cut-through trips will be redirected to Railroad Ave or King Rd.

Without some mechanism to reduce traffic volumes along the Monroe St corridor, it will be difficult to achieve the goal of making the street an effective neighborhood greenway that is safe for a wide range of cyclists.

Funding and Implementation

On page 29, the draft Concept Plan presents an initial estimate of costs for all recommended improvements and identifies a few potential funding sources. There are a number of ODOT-related funding opportunities that can be pursued, as well as regional funds through Metro. According to our ODOT liaison, multimodal projects like this one—which would tie in with a similar facility in unincorporated Clackamas County to make a regional connection between light rail lines (the Green and Orange lines) and the Trolley Trail—are being highly prioritized by funders.

Most likely, the project will be built in pieces, cobbling together various funding sources to build specific, coordinated components over time. It will be useful to be creative in identifying and using existing funding streams; for example, the City's stormwater funds could help build curb extensions that include bioswales for stormwater management along the neighborhood greenway. To date, the project's primary message to the community has been that funding for the proposed improvements will probably come from external grant sources; however, the Council could decide to establish a local fund for bicycle and pedestrian improvements and/or expand the existing Street Surface Maintenance Program (SSMP) to include construction of new pedestrian and bicycle facilities.

Regardless, it is important to set priorities for the proposed improvements, so that the most important or essential elements are installed first to make the neighborhood greenway functional and safe. Pages 30-32 provide tables showing recommended improvements grouped both by route-section as well as by general priority (in three phases). Obviously, certain improvements must be done together in order to function safely (e.g., the median diverter at Linwood Ave, along with the associated hybrid beacon, crosswalks, curb extensions, and signage). Establishing pedestrian facilities between 42nd Ave and Linwood Ave is a top overall priority, as is securing a multiuse path across the McFarland site to establish the Washington St bicycle route. Improving the crossing at Highway 224 is also essential. The suggested priorities should not preclude improvements from being grouped together across phases, depending on the opportunities that might arise from specific funding sources. The proposed improvements are intended to function as a whole, and that the neighborhood greenway will not function as intended without them, even if it takes a number of years to build them all.

CONCURRENCE

The City's Planning, Engineering, and Public Works Departments continue to coordinate for this project.

FISCAL IMPACTS

The TGM program is providing $102,285 for consultant services for the project, including $22,775 for the traffic analysis added to the project scope in late December 2014. The City is providing an in-kind match (staff time) valued at approximately $21,500, which is well over the required minimum match of 12% of project costs (approximately $14,000). No matching funds from the City are required beyond the commitment of staff time. This project is currently on the Planning Department's work plan. The estimated total cost of the improvements included in the Concept Plan is approximately $8.5 million. The City would explore various funding options, including grants.

WORK LOAD IMPACTS

Associate Planner Brett Kelver continues to serve as project manager. The project represents a significant portion (20-25%) of Mr. Kelver's workload for the first half of 2015. Staff from the Engineering and Streets/Stormwater departments has participated on the PAC throughout the process to provide technical perspective and insight. The Directors of the Community Development, Engineering, Planning, and Public Works Departments also continue to be involved.

ALTERNATIVES

The grant period for this project ends on June 30, leaving a very limited time for staff to work with the consultant team on revisions to the draft. Staff's recommendation is that Council should provide suggestions for any needed revision of the general design concept and to the recommended implementation priorities. If Council desires substantial revisions to the draft, it will be necessary to identify additional resources to extend the planning process, to allow for additional public involvement and adjustment of the design. Additional consultant funds will likely be necessary, as staff does not have the technical expertise to make substantial changes to the graphics of the design itself. The Community Development and Planning budgets have set aside funds for consulting services that may be able to be reallocated to cover costs for changes to the Plan's graphics.

ATTACHMENTS

1. Draft Concept Plan (June 2015 version)
   (Note: The Plan's Appendices A and B were provided to Council for review on May 28 and are not included in this attachment.)
2. Frequently Asked Questions (June 2015)
3. Summary of Comments from Public Workshop #1 (Dec 2014)
4. Summary of Survey Form from Public Workshop #2 (March 2015)
5. Summary of Comments from Public Workshop #3 (June 2015)

For more information, see the project website (http://www.milwaukieoregon.gov/planning/monroe-street-neighborhood-greenway-concept-plan).

Monroe Street Neighborhood Greenway Concept Plan



June 2015

Draft for Milwaukie City Council Review

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Familly greenway photo on cover/Greg Raisman

Acknowledgments

City of Milwaukie staff

Brett Kelver, Project Manager, Associate Planner

Dennis Egner, Planning Director

ODOT (Transportation Growth Management) staff

Gail Curtis, Senior Planner, ODOT

Project Advisory Committee members

Community Representatives

Historic Milwaukie NDA – Jean Baker, Greg Baartz-Bowman

Ardenwald NDA – Russ Stoll, Jon Stoll

Hector Campbell NDA – Lars Campbell, Kirk Iverson (Rebekah Phillips, alternate)

Linwood NDA – Jason Start, Lonny Rushton (Janet Cartmill and Lynn Sharp, alternates)

Bike Milwaukie – Matt Menely, Andy Schmidt

Public Safety Advisory Committee (PSAC) – Chris Ortolano

Clackamas County Pedestrian/Bikeway Advisory Committee – Gwenn Laubach-Alvarez

Chair – Wilda Parks, Acting Mayor (non-voting member)

Technical Advisors (non-voting)

Clackamas County Planning Department – Scott Hoelscher

Clackamas Fire District – Mike Boumann

COM Engineering – Brad Albert

COM Public Works (Streets & Stormwater) – Kenny Hill

ODOT – Gail Curtis

Milwaukie City Council liaison – Mark Gamba

ch2m.

Consultant team

Catherine Ciarlo

Sharon Daleo

Reza Farhoodi

Celena Stone

This project is partially funded by a grant from the Transportation and Growth Management (TGM) Program, a joint program of the Oregon Department of Transportation and the Oregon Department of Land Conservation and Development. This TGM grant is financed, in part, by federal Moving Ahead for Progress in the 21st Century (MAP-21), local government, and the State of Oregon funds.

The contents of this document do not necessarily reflect views or policies of the State of Oregon.

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PROJECT PURPOSE AND BACKGROUND

Project Description

Monroe Street runs through the City of Milwaukie, connecting downtown at the west end to the eastern city boundary at Linwood Avenue. One of only a few continuous east/west connections through the area, Monroe is a two-lane street with a neighborhood character for most of its length through Milwaukie. Because of its connectivity and central location, the route attracts a substantial number of cut-through auto trips in addition to serving residents and businesses located on the street itself.

The Monroe Street Neighborhood Greenway Project is a planning effort to strengthen the "neighborhood street" character of Monroe Street by reducing the speed and volume of cut-through traffic and creating a low-stress environment that is safe and comfortable for all users. The project area extends along Monroe Street from 21st Avenue in downtown Milwaukie to Linwood Avenue at the city's eastern boundary.

As a matter of historical accident, the original Monroe Street Greenway proposed in the 2007 TSP begins at 21st Avenue, two blocks to the east of OR 99E and the Trolley Trail. Construction of the trail in the intervening years, however, created a need to better connect the trail to Monroe Street. While this connection is not scoped as a part of the Monroe Street Neighborhood Greenway concept design, it presents an opportunity to link the neighborhood greenway with a variety of regional connections via the Trolley Trail and future path along SE 17th Avenue.

A separate planning effort will consider extending bicycle and pedestrian improvements east of Linwood Avenue into unincorporated Clackamas County to connect with the I-205 multi-use path.

Project Objectives

The city of Milwaukie's *Transportation System Plan* (TSP; City of Milwaukie, 2013) identifies Monroe Street as the city's first Neighborhood Greenway, with the primary objective of creating shared travel space that is safe for pedestrians and bicyclists by reducing motor vehicle speeds and volumes. In addition, the plan incorporates stormwater management features to address surface drainage issues in the project area.

Monroe Street is ideally situated to provide safe, direct bicycle and pedestrian connections in Milwaukie, connecting downtown to several local neighborhoods, schools, and parks. The corridor provides access to the MAX Orange Line light rail station at Main Street in downtown Milwaukie and a connection to the newly-constructed Trolley Trail located just west of OR 99E. In addition, the street parallels several arterial and collector routes (including Harrison Street/King Road and Railroad Avenue) onto which cut-through vehicle traffic can be redirected.

Today, Monroe Street is characterized by motor vehicle speeds and volumes that are generally not compatible with the character of a successful neighborhood greenway. To achieve the vision of better pedestrian and bicycle conditions, the Monroe Street Neighborhood Greenway Concept Design includes a range of traffic calming, placemaking, and stormwater management features. The Concept Design Plan will guide funding efforts and implementation of the project.

Policy Context

To improve pedestrian and bicycle safety throughout Milwaukie over the next 20 years, the Milwaukie Transportation System Plan (TSP) envisions a network of greenways across the city, connecting local neighborhoods with downtown and the Portland-Milwaukie Light Rail extension slated to open in 2015. The Monroe Street Neighborhood Greenway is a linchpin of that network.

In addition to Monroe Street, the TSP proposes neighborhood greenways on 29th Avenue, Harvey Street, 40th Avenue, Stanley Avenue and others. These investments in the transit and neighborhood greenway networks are integral to Milwaukie's effort to attain regionally-mandated targets of 45%-55% non-single occupant vehicle (SOV) mode share by 2035. Developing neighborhood greenway corridors such as Monroe Street can help the city reach desired mode split goals.

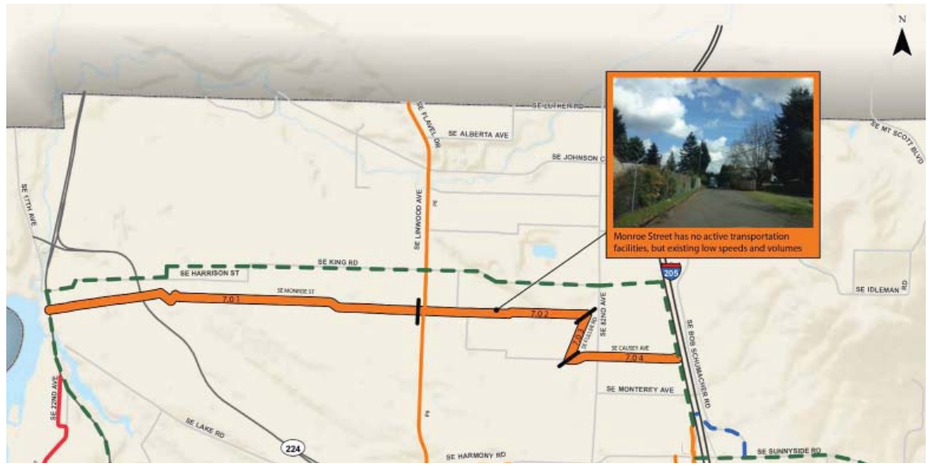
In addition to the neighborhood greenway network, the TSP identifies a set of proposed safety improvements, including sidewalks on Monroe Street east of 42nd Avenue and enhanced crossings to improve pedestrian and bicycle safety where Monroe Street intersects with OR 224 and Linwood Avenue. In the near future, the City will develop a Corridor Refinement Plan in coordination with the Oregon Department of Transportation (ODOT) along OR 224 to identify mobility targets that will likely incorporate strategies to better manage congestion and reduce SOV trips.

Monroe Street was identified as a Bicycle Parkway in the *Metro Regional Active Transportation Plan* and as a Principal Active Transportation Route in the *Clackamas County Active Transportation Plan*. These routes are considered the "highest order" bicycle routes, key to connecting communities and destinations such as transit, shopping, employment centers, and recreation areas.

The Monroe Street Neighborhood Greenway has the potential to help meet these goals.

Vicinity Map

Monroe Street Active Transportation Link



Active Transportation is a Key Strategy to Improve Public Health

Numerous studies have documented better health and lower obesity rates in places where people can easily walk and bicycle. Active transportation (walking, bicycling, and transit) offers transportation choices for the young, old, poor, disabled and those who cannot drive. Furthermore, numerous studies have documented lower obesity rates in places with higher active transportation levels.

The *Metro 2014 Regional Active Transportation Plan* (adopted July 17, 2014) describes a strategy to increase walking and bicycling throughout the Portland Metro region. The plan identifies improved public health as a desired outcome for the region that is supported by active transportation, in addition to vibrant communities and economic prosperity.

The City of Milwaukie is one of 24 cities partnering with Metro to develop the regional active transportation network to help achieve these outcomes, and the Monroe Street Neighborhood Greenway project is a key component of that network.

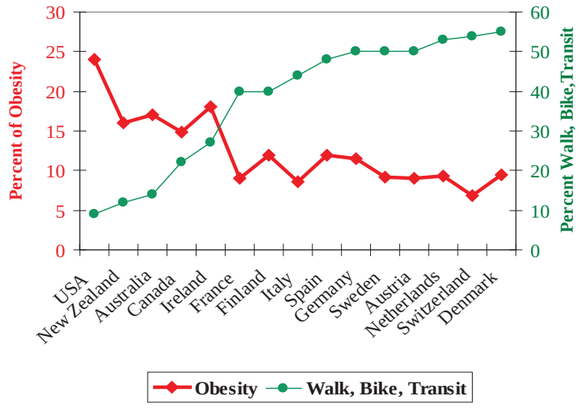


Chart showing relationship between obesity and active transportation (Credit: John Pucher)

Monroe Street provides a direct link to downtown Milwaukie

The nearby Logus Road project incorporates stormwater treatment and traffic calming features

Recent and Related Projects

The *Moving Forward Milwaukie* project is an ongoing planning process looking at policy and regulatory revisions, financial approaches and tools, and economic development strategies to remove barriers and encourage appropriate development in Milwaukie's commercial areas. The plan's focus includes downtown and Central Milwaukie, which are within the Monroe Street Neighborhood Greenway study area. The *Central Milwaukie Land Use and Transportation Plan* is a component of this larger effort that will develop multimodal access and connectivity improvements and refine land use, design and development standards in the area between OR 224 and 37th Avenue.

In addition to these current planning efforts, several key active transportation projects are underway in Milwaukie. The 6-mile Trolley Trail was completed along the former Portland Traction Company streetcar line in 2014, connecting Milwaukie and the City of Gladstone. Work has begun on a new off-street path adjacent to 17th Avenue to connect the Trolley Trail with the Springwater Corridor. Construction of the path is scheduled for 2016, which will extend a safe and direct off-street connection north to the City of Portland and linking it with the regional Springwater Corridor trail system.

CHARACTERISTICS OF NEIGHBORHOOD GREENWAYS

Photo: Greg Raisman

The concept of neighborhood greenways evolved from "bicycle boulevards" designed to provide low-stress, low-volume routes for cyclists. These "boulevards" are distinct from separated facilities such as bicycle lanes, and often serve as alternatives to busier parallel routes. The primary objective of a neighborhood greenway is to create a space shared with motor vehicles that is safe for pedestrians and bicyclists. In addition, neighborhood greenways often incorporate stormwater management features that enhance traffic-calming measures.

Low-Speed, Low-Traffic Streets

The *Urban Bikeway Design Guide* produced by the National Association of City Transportation Officials (NACTO) recommends a maximum daily travel volume of 3,000 vehicles per day for neighborhood greenways, with an ideal volume of 1,500 vehicles per day (NACTO, 2013). The City of Portland has an even higher threshold of 1,000 vehicles per day. In addition, streets developed as bicycle boulevards should have 85th percentile speeds at 25 miles per hour or less, with 20 miles per hour (mph) preferred (NACTO, 2013). The *Bicycle Facility Improvement Toolbox* in Milwaukie's TSP describes potential design features for neighborhood greenways, including those in Table 1.

Neighborhood greenways improve safety and comfort for pedestrians and residents, as well as for bicyclists, and may include new sidewalks and safety crossing treatments at busy intersections. Landscaped elements provide "green" stormwater treatment, including bioswales, infiltration basins, and rain gardens. These help to calm traffic and improve streetscape aesthetics. Finally, neighborhood greenways can feature decorative elements, such as sign toppers, painted intersections, and other features to create a distinctive place.

Traffic calming tools to reduce speed include speed humps, curb extensions, chicanes, and traffic circles. These tools can minimize the speed differential between bicycles and automobiles, allowing vulnerable road users to feel comfortable on roadways where space is shared with motorists.

In addition to reduced speeds, neighborhood greenway success depends on lower volumes to make active transportation safe, comfortable and accessible for pedestrians and bicyclists of all ages and abilities. To achieve this, neighborhood greenways may utilize semi-diverters to reduce "through" traffic and lower volumes. Traffic control devices such as pedestrian- and bicycle-activated signals and flashing beacons can be incorporated with median refuge islands and/or bicycle signals to protect pedestrians and bicyclists at difficult intersections.

Once speeds and volumes are reduced, pavement markings ("sharrows") and wayfinding signage can help establish the street as a place for slower-moving traffic and direct users to shopping, schools, parks, and other community amenities. Wayfinding signage often includes time and distance indicators, helping users get to their destination efficiently and reassuring them that they are following the designated route. Additional enhancements include painted intersections and thematic "sign toppers."

Table 1. Neighborhood Greenway Design Features

Type of Treatment	Sample Features
Signage	Wayfinding and warning signs along and approaching the neighborhood greenway
Pavement Markings	Directional pavement markings, shared lane markings
Intersection Treatment	Signalization, curb extensions, refuge islands
Traffic Calming	Speed humps, mini traffic circles
Traffic Diversion	Choker entrances, traffic diverters

[1] City of Portland, Portland Neighborhood Greenways – Goals, 2013. Available at http://nacto.org/wp-content/uploads/2012/06/City-of-Portland-2010-Neighborhood-Greenway-Goals.pdf

[2] 85th percentile speed is the speed at which 85 percent of traffic is observed traveling at or below. With findings and review a pproval from ODOT, posted speeds may be within 10 mph of the 85th percentile observed speed.

Stormwater Management

Stormwater management features on neighborhood greenways include bioswales and pervious pavement. Bioswales are typically oblong, gently sloping, landscaped depressions that capture and hold stormwater runoff, allowing special plantings to absorb the water, keeping it off of adjacent properties or out of inadequate e underground systems. Pervious pavement allows water to seep down through a smooth, permeable surface used for walkways, driveways and parking areas.

These stormwater features provide a triple benefit. They create safe space for pedestrians and help slow traffic. At the same time, they absorb excess runoff, keeping it away from adjacent properties. Finally, they serve as neighborhood amenities, adding "green" appeal and helping to create a distinctive identity for the street.

Photo: Dylan Passmore

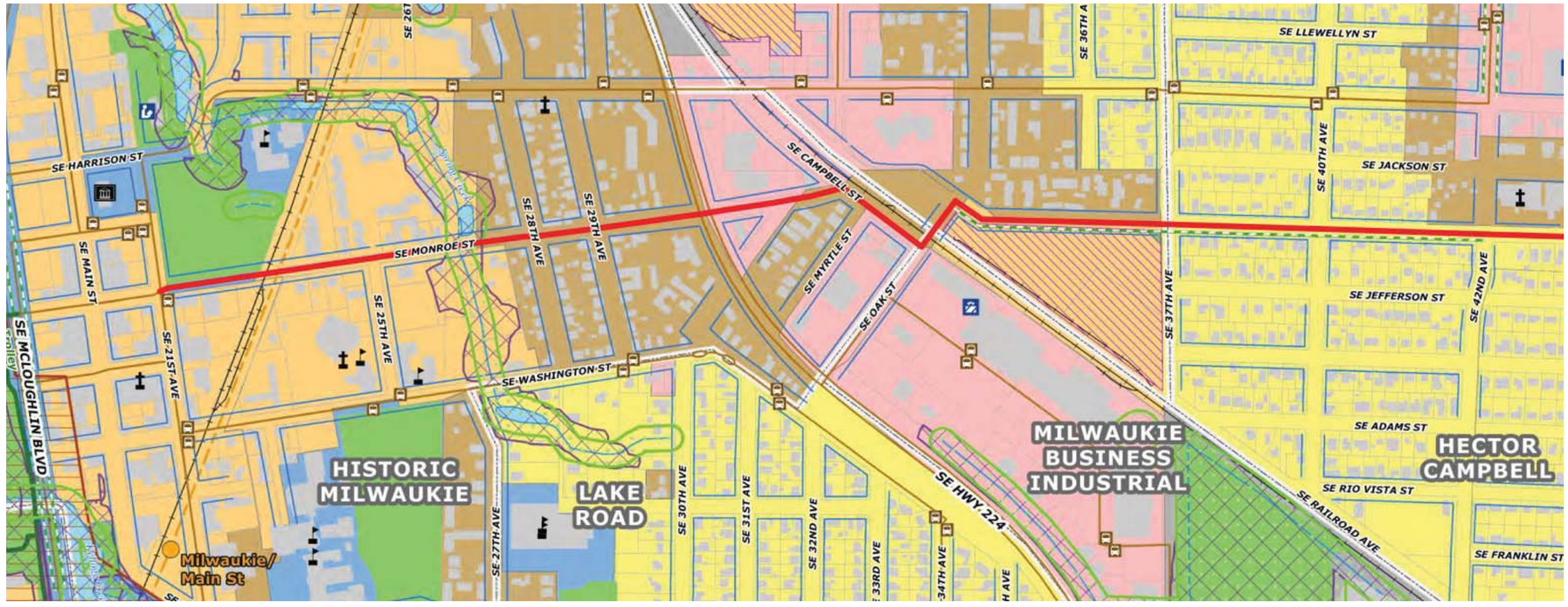
EXISTING CONDITIONS

Early in the Concept Plan development process, the project team developed a Needs, Opportunities Constraints and Tools Memorandum. This document contains a detailed description of existing conditions on Monroe Street as well as a discussion of potential design tools to address opportunities and needs. The entire memorandum is included as Attachment A to this report. Elements of the Monroe Street Greenway Concept Plan were selected and refined based on a review of these conditions, in addition to stakeholder feedback.

While the cross section and overall character of Monroe Street vary considerably along its two-mile length, there are several common themes and conditions along the entire corridor.

General Travel Patterns

Traffic in the study area generally moves in the east-west direction, with OR 224 as the primary regional route between Milwaukie and Clackamas and points east. Harrison Street/King Road also carries significant east-west traffic between OR 99E and OR 213. Oak Street/Monroe Street between OR 224 and Linwood Avenue experience moderately heavy peak traffic within the area, while Railroad Avenue is serves as another through route that is generally less congested. Few continuous north-south routes exist in this area; those that do (including OR 99E and Linwood Avenue) carry heavy traffic during peak periods. There are a few bicycle connections in the area — including partial bike lanes on Harrison Street/King Road — but no safe, continuous east-west route.



Excerpt from base map showing zoning, land uses, property lines and environmentally sensitive areas

Collector Roadway Classification; Higher Volumes, Higher Speeds

Monroe Street is currently classified as a collector for its entire length. According to the Milwaukie TSP, collector streets are moderate volume, moderate speed streets that serve a citywide function of connectivity. While Monroe is classified as a collector, it does not function as one. Traffic volumes are more consistent with a local street classification due to sections with narrow pavement and no curbs.

Nevertheless, with approximately 1,000 to 8,000 vehicles per day (depending on location), Monroe Street volumes are generally higher than recommended for neighborhood greenways. Typical collector roadways carry 5,000 to 10,000 vehicles per day, a level of traffic volume high enough to warrant bicycle lanes to segregate motorists and bicyclists. Greater volumes tend to create a higher-stress environment, discouraging less confident cyclists from using the facility.

Monroe Street has a posted 25 mph speed limit along its entire length, with observed speeds ranging between 23 mph and 31 mph along the corridor. This is well above the preferred 20 mph speed for greenways.

In 2011, the Oregon Legislature passed a law allowing municipalities to lower the speed limits on local residential streets from 25 mph to 20 mph, provided average daily traffic is fewer than 2,000 vehicles per day and the 85th percentile vehicle speed is below 30 mph. While Monroe Street could qualify for reduced speed limits based on its average observed speed, it currently experiences traffic volumes well above the maximum limit of 2,000 vehicles per day in most sections.

Lowering speeds and volumes on Monroe Street would enable re-classification from a collector to a local street, a designation more consistent with a neighborhood greenway. Potential traffic system impacts of lowering Monroe Street's carrying capacity – and actions to mitigate those impacts – are discussed in detail in the Summary of Traffic Impacts section of this report (page 28) and in the Traffic Impact Analysis Memorandum in Appendix B.

Double Yellow Centerline

Monroe Street is characterized by a double yellow centerline for most of its length through Milwaukie, with the exception of the section between 21st Avenue and Oak Street where a recent repaving project removed the centerline and has not replaced it pending the outcome of this plan. Best practices for developing neighborhood greenways suggest removing the centerline to increase safety for cyclists, encouraging motorists to give more space when overtaking bicycles and signaling to users that the street is a lower-speed, shared environment. Removing the centerline is feasible on Monroe Street, particularly if volumes are reduced by greenway treatments.

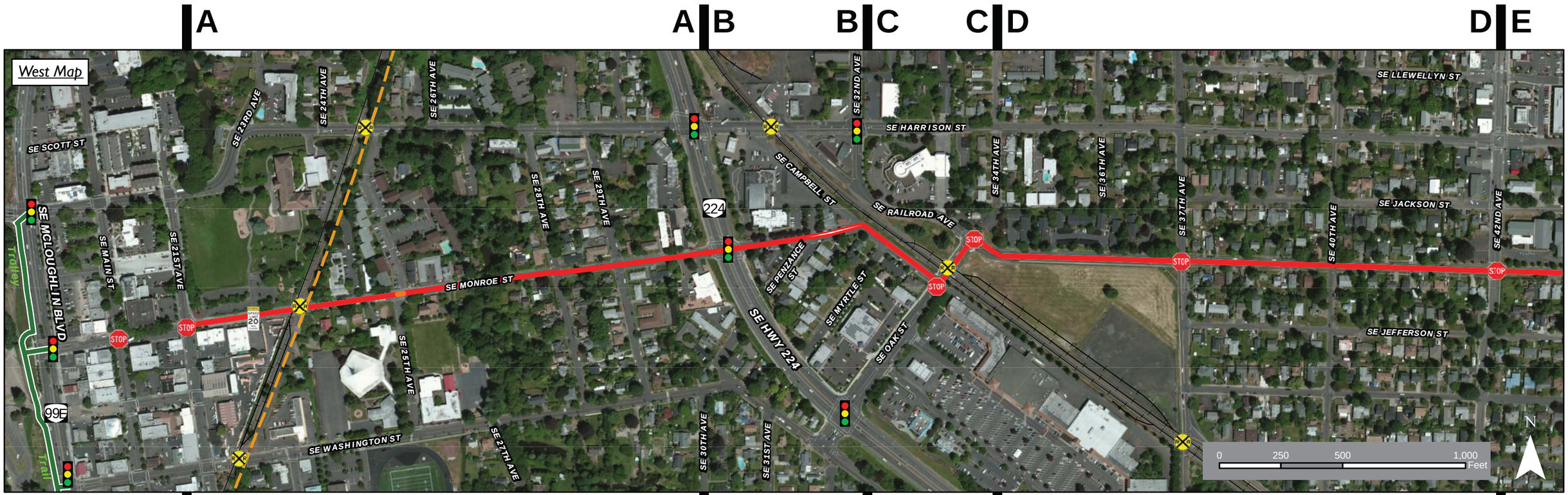
Sharrows and Wayfinding Signs

Sharrows and wayfinding signs are present intermittently along the length of Monroe Street. Both are important neighborhood greenway elements, and the opportunity exists to apply them with greater frequency and consistency throughout the corridor. There are also bicycle-specific wayfinding signs placed at certain intersections with key destinations, distances and estimated journey times.

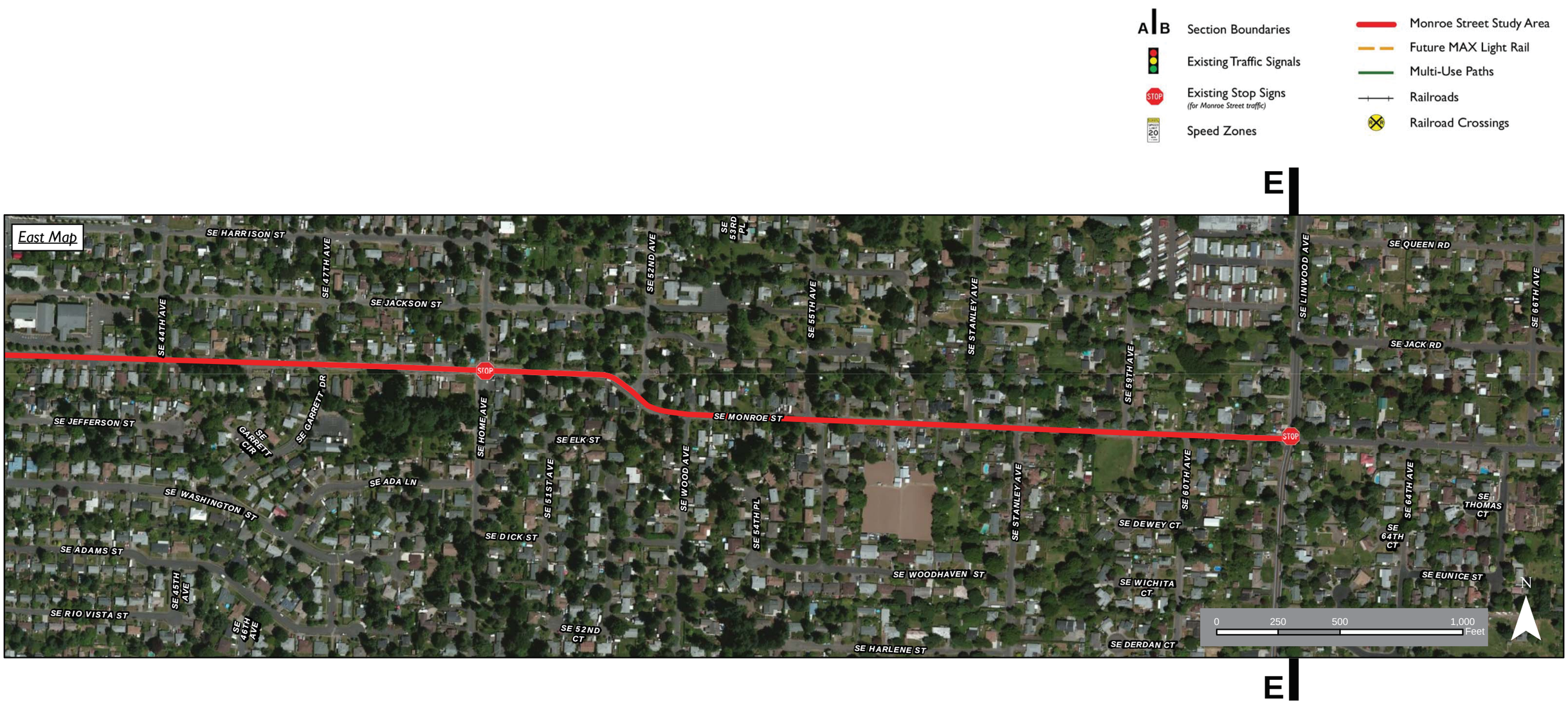
Section-by-Section Summary of Existing Conditions

For purposes of the Neighborhood Greenway Concept Plan, Monroe Street was divided into five sections:

- Section A: 21st Avenue to just west of OR 224
- Section B: OR 224 to Campbell Street
- Section C: Campbell Street to Oak Street/Railroad Avenue through UPRR Main Line Crossing
- Section D: Oak Street/Railroad Avenue to 42nd Avenue
- Section E: 42nd Avenue to Linwood Avenue



Conditions in each section are described in detail in Appendix A, the Monroe Street Greenway Concept Plan Needs, Opportunities Constraints and Tools Memorandum


A | B
Section Boundaries
Existing Traffic Signals
STOP
Existing Stop Signs
(for Monroe Street traffic)
Speed Zones
Monroe Street Study Area
Future MAX Light Rail
Multi-Use Paths
Railroads
Railroad Crossings
E
East Map
SE HARRISON ST
SE 47TH AVE
SE 52ND AVE
SE 53RD PL
SE JACKSON ST
SE 44TH AVE
SE 55TH AVE
SE STANLEY AVE
SE LINWOOD AVE
SE QUEEN RD
SE 66TH AVE
SE JACK RD
SE 59TH AVE
SE GARRETT DR
SE JEFFERSON ST
SE GARRETT CIR
SE HOME AVE
SE MONROE ST
SE ELK ST
SE 51ST AVE
SE WOOD AVE
SE 60TH AVE
SE 64TH AVE
SE THOMAS CT
SE ADA LN
SE WASHINGTON ST
SE 54TH PL
SE DEWEY CT
SE 64TH CT
SE DICK ST
SE ADAMS ST
SE WOODHAVEN ST
SE EUNICE ST
SE WICHITA CT
SE 45TH AVE
SE RIO VISTA ST
SE 46TH AVE
SE 52ND CT
SE HARLENE ST
SE DERDAN CT
0 250 500 1,000 Feet
N
E

WS18

TriMet MAX crossing

Sidewalks in this section are deteriorating in the vicinity of Spring Creek

Intersections frequently lack curb ramps and other enhancements necessary for ADA compliance

Truck traffic is currently prohibited on Monroe Street between OR 99E and Downtown Milwaukie

The intersection at OR 224 is wide and imposing, acting as a barrier to bicycle and pedestrian travel.

Existing Conditions: Section A (21st Avenue to OR 224)

Heading east out of downtown Milwaukie, Monroe Street narrows to 27 feet curb-to-curb as it climbs a moderate hill. While sidewalks are present on both sides of the street, they are narrow, overgrown, and in poor condition. American with Disabilities Act (ADA)-compliant ramps are missing in many locations. Vehicle volumes in this section are within the preferred neighborhood greenway range, although the steepness of the hill slows eastbound cyclists considerably, creating an uncomfortable speed differential between motorists and bicycle riders.

Several improvements, including chicanes and curb extensions, would help keep speeds low and increase comfort for bicyclists. Recent removal of the centerline during a repaving project has led to fewer perceived conflicts between motorists and bicyclists.

While existing buildings and the bridge across Spring Creek (just west of 28th Avenue) make widening the roadway expensive and unlikely, expanding sidewalks toward the street could be done with minimal impact on on-street parking. Sidewalk widening, rehabilitation and replacement could occur in phases as funding becomes available.

A connection to the Trolley Trail on the west side of 99E would link the Monroe Street Neighborhood Greenway to the newly-constructed path, ultimately connecting to the regional Springwater Corridor trail system.

Existing Conditions: Section B (OR 224 to Campbell Street)

This section includes the Monroe Street intersection with the Milwaukie Expressway (OR 224) and continues east to the T-intersection with Campbell Street. OR 224 at Monroe Street is a wide, high-speed, high-traffic roadway that can be daunting for pedestrians and cyclists. Enhanced crossing safety features are needed to link eastside neighborhoods with downtown and provide safer access to businesses (including the YMCA Day Care Center on the SW corner) for families with strollers or children on bikes crossing OR 224.

East of the intersection, lower travel volumes make this section fairly comfortable for bicyclists, although the wide roadway and underutilized on-street parking lanes can encourage speeding motor vehicles. Some sidewalks – especially those near the Campbell intersection – are narrow and intermittent, lacking ADA-compliant curb ramps.

Some bicycle-specific signage exists, but no pavement markings. Sharrows and additional signage are needed to help users navigate the jog from Monroe Street onto Campbell Street.

UPRR Crossing on Oak Street

Looking east on Oak Street at the UPRR crossing, traffic has the right-of-way at the intersection with Monroe Street and Railroad Avenue

Difficult crossing at the Monroe Street at Oak Street/Railroad Avenue intersection

At 37th Avenue, looking east; the narrow uphill bike lane is substandard, with no downhill bicycle facility

At 42nd Avenue, looking east, where the bicycle lane ends

Existing Conditions: Section C (Campbell Street through the Union Pacific Railroad Main Line Crossing)

This section begins at the intersection of Monroe and Campbell Streets, continuing through a series of three jogs and the Union Pacific Railroad (UPRR) Main Line crossing. A large vacant parcel slated for redevelopment (the "McFarland site") is bounded by the UPRR rail line, Monroe Street, and 37th Avenue.

Although the terrain is flat, this section presents some of the most significant challenges in the corridor for safe pedestrian and bicycle travel, with relatively high volumes and an active railroad crossing adjacent to a busy commercial intersection. Any proposed changes to traffic control on Oak Street will require coordination with railroad and the ODOT Rail Division.

Sidewalks are lacking or in poor condition throughout this section, with missing ADA ramps. There is no bicycle-specific infrastructure or pavement markings. A clearly identified, safe and continuous route for pedestrians and bicycle riders through the UPRR crossing is needed to protect vulnerable users, calm traffic and support redevelopment efforts for the vacant McFarland site.

Existing Conditions: Section D (Oak Street to 42nd Avenue)

East of the railroad crossing and after the turn from Oak, Monroe Street widens and heads up the steepest hill along the corridor. An existing 5-foot bicycle lane on the eastbound side separates cyclists from motor vehicles as they climb the hill. Between 37th and 40th Avenues the grade steepens, and the bicycle lane narrows to 4 feet. There is no westbound bicycle lane; instead, intermittent sharrows mark the pavement going downhill. The north side of the street has parking throughout the length of this section.

The steep grade and narrow bike lane results in a higher-stress environment for slow moving cyclists climbing next to relatively fast moving traffic. Heading west (downhill), sharrow placement can encourage cyclists to ride in a dangerous position close to the parking lane "door zone". While the space is technically shared between bikes and motorists, the character of this stretch is not a low-speed, low-volume environment where bicycle riders of all ages and abilities can feel comfortable. Reducing vehicle speeds would create safer, more attractive conditions for families and less experienced cyclists.

Sidewalks on both sides of the street range from 4 to 5 feet in this section, all of which are buffered from the street by a landscaped strip. While the sidewalks on the south side of Monroe Street between Oak Street and 37th Avenue are 7 feet wide, they are narrow elsewhere, making it difficult for pedestrians to walk side-by-side or pass one another on the steep grade. The intersections at 37th, 40th, and 42nd Avenues lack ADA-compliant curb ramps.

Moderately fast and heavy auto traffic without a shoulder can make Monroe Street stressful for all but the strongest riders

Eastern section of Monroe Street with no curbs or sidewalks

The intersection at Linwood Avenue has inadequate sidewalks, no crosswalks, and difficult sightlines

Pedestrians crossing Linwood Avenue

Existing Conditions: Section E (42nd Avenue to Linwood Avenue)

The eastern section of the corridor is characterized by a rural cross-section through rolling topography with no sidewalk, curbs, or gutters (except for a short section just east of 42nd Avenue). While the public right-of-way is technically 40 feet wide, the existing pavement is only 22 feet from edge to edge. Front yards and vegetation encroach on Monroe Street along the length of the section, and gravel shoulders are frequently used as on-street parking. Vehicle speeds are relatively high, and residents report that fast-moving vehicles regularly run the four-way stop at Home Avenue without seeing the sign or stopping.

Pedestrian safety is a major concern throughout this section. The lack of sidewalks means neighbors must walk in the street to access their homes. There are no established pedestrian crossings at any of the intersections; visibility is limited in many places, including the intersections at 52nd, Stanley, and Linwood Avenues. There is no protected walking or bicycling access to Wichita Park, a key destination in the area.

Section E currently contains no bicycle-specific infrastructure except for one sharrow in each direction near 60th Avenue.

Stormwater drainage is also a significant issue. Regular flooding occurred frequently after heavy rainfalls, particularly around Home and 55th Avenues, until the City installed five drywells in recent years. These have eased but not eliminated the problem; flooded basements are still relatively common in conjunction with major storm events. Green street treatments (including permeable pavement and curb extensions and chicanes that feature bioswales to hold runoff) have the potential to reduce flooding even further.

At the eastern city limit, Monroe Street intersects with Linwood Avenue at a two-way stop controlled intersection. Linwood is a relatively high-speed, high-volume roadway, and the intersection lacks sidewalks, corners or crossing treatments. With poor sightlines from every angle, the intersection is considered difficult and dangerous by drivers, pedestrians and cyclists alike.

CREATING THE PLAN

Organizations and neighborhoods represented on the Monroe Street Greenway PAC

Chair: City of Milwaukie Planning Commission/Interim Mayor

Historic Milwaukie NDA

Ardenwald — Johnson Creek NDA

Hector Campbell NDA

Linwood NDA

Bike Milwaukie

Public Safety Advisory Committee (PSAC)

Clackamas County Pedestrian/Bikeway Advisory Committee

Project Manager (COM Planning)

Clackamas County Planning Department

Clackamas Fire District

City of Milwaukie Engineering

COM Public Works (Streets & Stormwater)

ODOT

City of Milwaukie City Council liaison

After adoption of the TSP in 2013, backed by strong community support for advancing a neighborhood greenway project on Monroe Street, the City of Milwaukie applied for and received a Transportation and Growth Management (TGM) grant from ODOT to create a concept design and plan for the neighborhood greenway. This concept design is the result of that grant.

Project Advisory Committee

Creation of the Monroe Street Greenway Concept Design kicked off in late summer 2014 with the chartering of a Project Advisory Committee (PAC) to guide development of the plan. The PAC comprises neighborhood representatives, local bicycle advocates, community volunteers, and agency-based technical advisors.

The PAC met six times over the course of 12 months, including an initial site visit and tour to observe challenges and brainstorm potential solutions along Monroe Street. At subsequent meetings, the project team reported on existing conditions and brought design ideas for discussion and approval by the PAC.

PAC members used specially-designed "best practices" flash cards to create their ideal neighborhood greenway

Public Workshops and Outreach

Three public workshops were held during the course of the project to allow members of the general public to see and comment on drafts of the Concept Design and discuss potential trade-offs. Workshops were well publicized and well attended, with a broad cross-section of neighbors and interested people at each meeting. Attendees reviewed aerial maps and concept plan rollouts and offered feedback for consideration by the project team and the PAC as the design was developed.

In addition to the public workshops, City staff reached out to the community by distributing door hangers and surveys to encourage meeting attendance and solicit feedback. A Monroe Street Neighborhood Greenway website hosted by the City (http://www.milwaukieoregon.gov/planning/monroe-street-neighborhood-greenway-concept-plan) kept the public apprised on project developments.

Community members and residents attended an open house in June to comment on the design

Iterative Process to Create the Concept Design

In winter 2015, the project team presented a draft concept design to the PAC and to the public, proposing a set of on-street greenway treatments for Monroe Street as envisioned in the TSP. The initial concept was based on PAC input, existing conditions analysis and evaluation of potential project elements to determine which best supported the project's neighborhood greenway objectives. (The Evaluation Matrix included as Appendix C of this report documents this analysis).

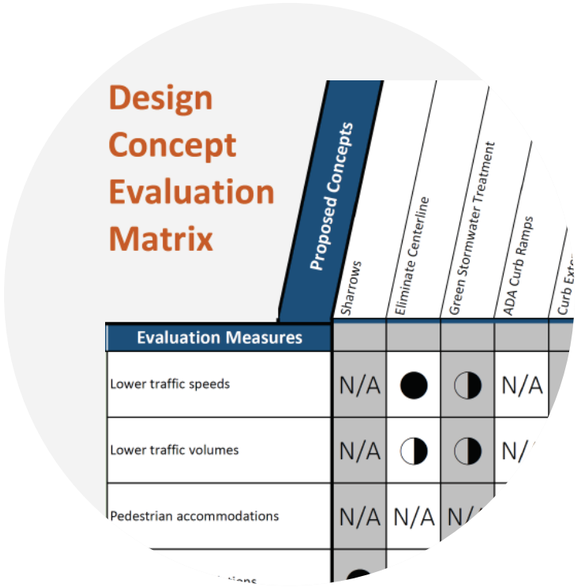
The initial design presented a combination of crossing improvements, traffic calming elements to reduce speeds, sidewalk improvements, and a pedestrian path in the eastern section. In addition, partial diverters were proposed at OR 224, 37th Avenue, and Linwood Avenue to discourage cut-through traffic along Monroe Street and create a quieter, low-traffic neighborhood route.

An off-street path along the south side of Monroe between Oak and 37th had been considered earlier, but was ultimately rejected due to concerns about the transition back onto Monroe Street, as well as how the path would fit into future McFarland site development plans.

At the first Public Workshop and the PAC meeting following it, concerns were raised about the impacts of diverting auto traffic off of Monroe Street in general – and especially about the proposed diversion at 37th Avenue and its impacts on Monroe Street (and on Harrison Street to the north). Other issues included loss of parking, fire lane clearances, and overall cost of the "green" elements of the design. At the same time, strong support continued for a safer, quieter, more comfortable street.

The project team made substantial revisions to the concept design in response to these concerns. The revised design has several key changes:

- It contains fewer landscaped features
- Parking is preserved throughout the corridor
- Diversion and chicanes are located more strategically to provide the maximum traffic calming effect for the least cost



Project elements were evaluated for their potential to provide safer conditions on Monroe Street

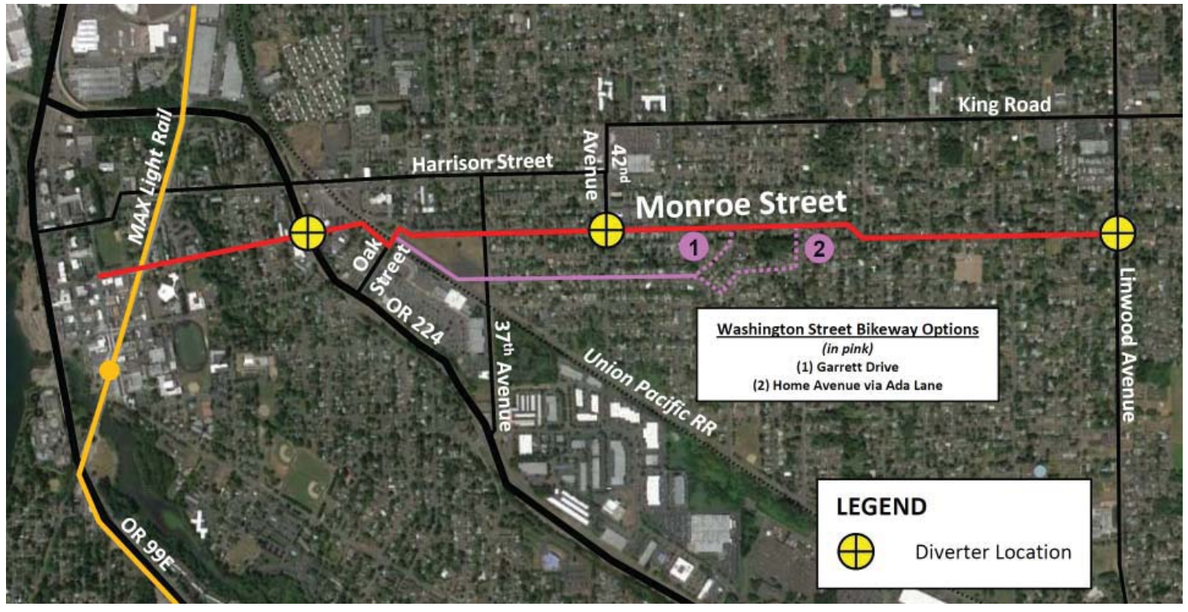
PAC-Recommended Washington Street Bicycle Route

To address concerns about diversion at 37th Avenue, several PAC members and community advocates proposed a new route for bicycle travel between the railroad crossing at Campbell Street and the intersection of Monroe and Home Avenue. Instead of staying on Monroe Street, this route assumes a new path through the undeveloped McFarland site along the UPRR tracks to connect with Washington Street at 37th Avenue. Bicycle travel would shift over to Washington Street, a low-volume neighborhood street, between the end of the new path and either Garrett Drive or Home Avenue (via Ada Lane) where the alignment would return to Monroe Street. Pedestrians will likely remain on Monroe Street.

Regardless of which street is ultimately selected for the route back to Monroe, the Washington Street alignment will need additional design — and public input — to make sure the route does not encourage additional motor vehicle traffic on Washington, Garrett, Ada, and Home Streets.

PAC support coalesced around the Washington Street route, which offers bicycle riders a route with lighter traffic and a smaller hill to climb eastbound. At the same time, the alternative preserves some of the existing auto access on Monroe and eliminates the diverter at 37th Avenue. Instead, a new diverter would be installed at 42nd Avenue to reduce cut-through traffic on Monroe between 42nd and Linwood. As described in the Traffic Analysis section of this plan, traffic modeling reveals that a diverter at 42nd has less impact on the nearby streets than one at 37th.

The safety and success of this route depends on constructing a new shared-use path along the UPRR tracks through the currently vacant McFarland site, as envisioned in the *Moving Forward Milwaukie* vision. This would provide an off-street connection between Monroe/Campbell Street and Washington Street. This would be the preferred alternative for bicyclists. While it would be signed as the main bicycle route, it is likely that confident riders will continue to take the more direct route on Monroe Street. As a result, it is important for safety reasons to leave the existing uphill bike lane in place on Monroe between Campbell and 42nd.



Red line is Monroe only alignment; pink line shows possible options for the Monroe-Washington route

THE PLAN: A DETAILED LOOK

Examples of traffic calming, pedestrian accommodations and stormwater management on a street with similar character as Monroe east of 42nd Avenue

Moving toward the Final Concept Design

Changing the nature of Monroe Street from a street serving cut-through auto traffic to a locally oriented neighborhood street that is quiet enough to share with bicyclists and pedestrians does not happen without trade-offs. Achieving the goals of a neighborhood greenway will mean less direct, convenient auto access on and near Monroe. Not surprisingly, discussion around these trade-offs has centered around diversion. (Limited street connectivity means that diversion on Monroe will result in some out-of-the-way travel for residents, though all homes remain accessible.) These issues were central to the discussion at every PAC meeting and public workshop. Ultimately, PAC members and many members of the public acknowledged that shifting auto trips off of Monroe is critical to project success. Multiple neighbors commented during the process that they recognize the potential inconvenience, but look forward to a safer street where families can walk to nearby parks, schools and other destinations.

Other project elements have received nearly unanimous support. Stakeholders agree that the Monroe Street is inhospitable today for pedestrians, bicyclists, the elderly and families with children. Residents and community members strongly support the pedestrian path and traffic calming measures between 42nd and Linwood.

Finally, a traffic impact analysis conducted early in 2015 shows that while the project will likely increase traffic on nearby streets, the majority of that re-routed traffic will move to Harrison Street and King Road, two thoroughfares designed to carry much larger vehicle volumes. The analysis (discussed in further detail later in this report and in Appendix B) points out that these roadways will need improvement in the future – with or without the Monroe Street neighborhood greenway project. Moreover, impacts can be mitigated by optimizing existing traffic signals or installing new signals where impacts are anticipated to be highest.

The preferred alternative for the Monroe Street Greenway includes the Washington Street bicycle route between Oak Street and Garrett Drive or Home Avenue.

This alignment assumes a new path through the undeveloped McFarland site along the UPRR tracks to connect with Washington Street at 37th, shifting bicycle traffic over to Washington (instead of Monroe) between the end of the new path and either Garrett Drive or Home Avenue (via Ada Lane). The route would be contingent on constructing a multi-use path paralleling the Union Pacific tracks through the vacant McFarland site to connect Campbell Street with Washington Street, as proposed in the *Moving Forward Milwaukie* plan.

Partial diverters are proposed as part of the concept design to achieve preferred neighborhood greenway speeds and volumes on Monroe Street. Two of these are located at OR 224 and Linwood Avenue. The preferred Washington Street bicycle route includes a partial diverter at 42nd to create safer, slower conditions between 42nd and Linwood.

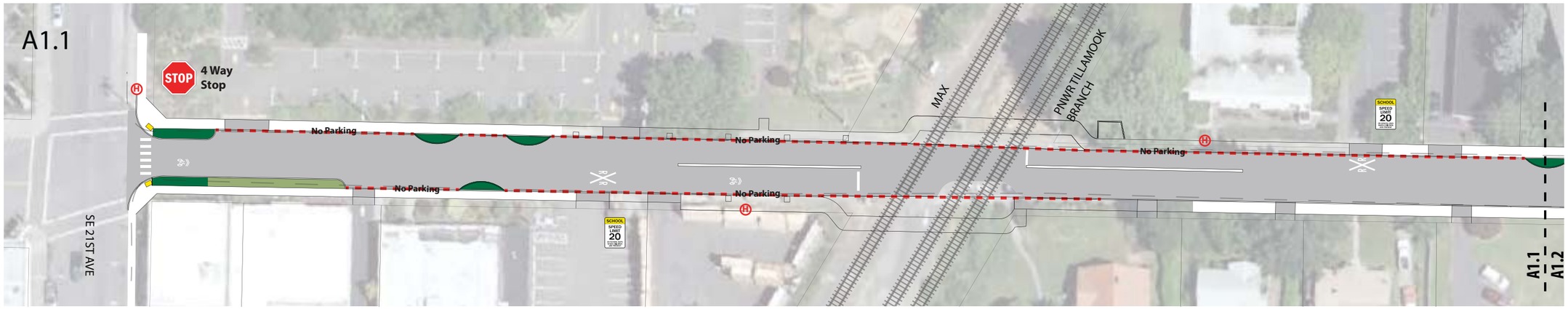
Throughout the design, the double yellow centerline has been removed and sharrow pavement markings (placed at the beginning of each block) have been added, in conjunction with wayfinding signage. Bicycle riders are encouraged to follow the sharrow markings near the middle of the street, away from the "door zone" of parked cars.

The entire concept design complies with a minimum fire clearance of 20 feet.

The following pages show the recommended concept design. Cross-section drawings are included to show general dimensions for both existing conditions and the proposed design.

All features are subject to modification in final design. Chicane locations are representative only. Final placement will consider factors such as parking and driveway location.

Note: dashed red lines represent existing "no parking" zones. Solid red lines denote new "no parking" locations.



Monroe Street Greenway Concept Design

Section A – 21st Avenue to OR 224

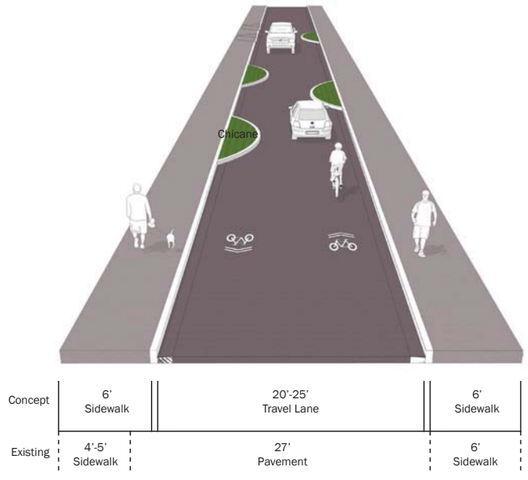
This the oldest section of Monroe Street, with constrained right-of-way and sidewalks that are functionally obsolete. At its narrowest, this section is 27 feet wide, with curb-tight 5 foot sidewalks and private properties abutting the sidewalk. There is no parking between 21st Avenue and the TriMet MAX crossing. To avoid private property impacts, the concept plan expands these sidewalks into the street for a total of 6 feet to comply with the City's sidewalk design standards. East of 29th Avenue, existing sidewalks are expanded into the landscape strip. New ADA-compliant curb ramps with tactile warning strips are shown at all required intersections.

Several traffic calming features are placed to reduce speeds in this section. These include chicanes, which are grouped to minimize the temptation to speed. Curb extensions at 21st Avenue, 25th Avenue, 28th Avenue and 29th Avenue narrow the street opening, focus driver attention on the intersection and provide a shorter pedestrian crossing. Curb extensions and chicanes incorporate stormwater treatment features.

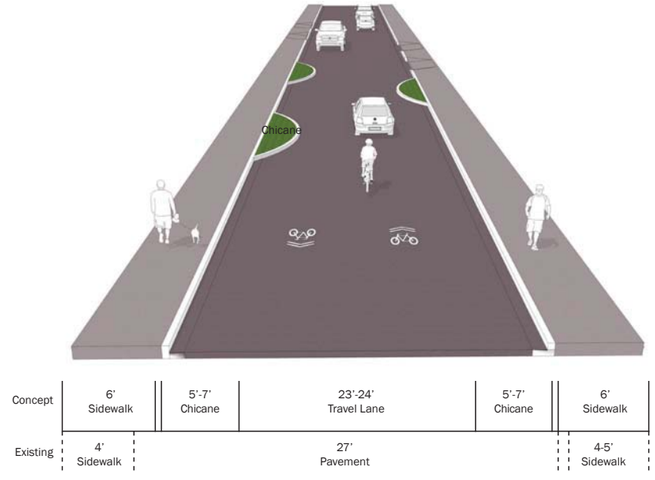
The 21st Avenue intersection is also suitable for a gateway feature (such as decorative signage or planters) to make it readily apparent that this a neighborhood street rather than a thoroughfare. New planter strips near the 21st Avenue intersection help retain stormwater and reduce runoff while reducing the street width and providing an entry into the neighborhood greenway.

On-street parking utilization is high in this section, and the design concept avoids parking impacts except at intersections and proposed chicane locations. While the curb extensions are relatively fixed, chicanes can be moved as needed to preserve key parking spots. Existing traffic islands are retained, including the MAX project splitter islands.

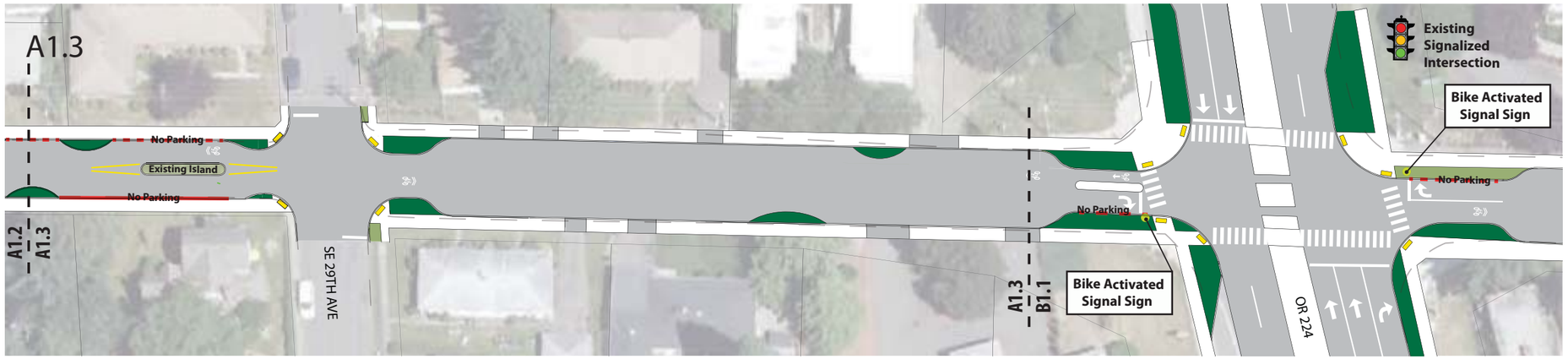
A connection to the Trolley Trail on the west side of 99E is not included in the concept design, as it was beyond the scope of this project. However, suggestions for improving that connection are included on page 27 of this report.



Section A: SE 21st Avenue to MAX Crossing



Section A: MAX Crossing to OR 224



Legend

- Proposed Sidewalk
- Proposed Pervious Asphalt Walk
- Proposed Pervious Pavement
- Existing Landscape
- New Landscape Strip
- Potential BioRetention Area
- Curbed Chicane
- Shared Path
- Bike Sharrow
- Existing Fire Hydrant
- ADA Ramp
- Activated Signal
- Sign
- New No Parking
- Existing No Parking
- New Parking
- Concrete Curb
- Existing Edge of Pavement

N

0 60 120

WS26

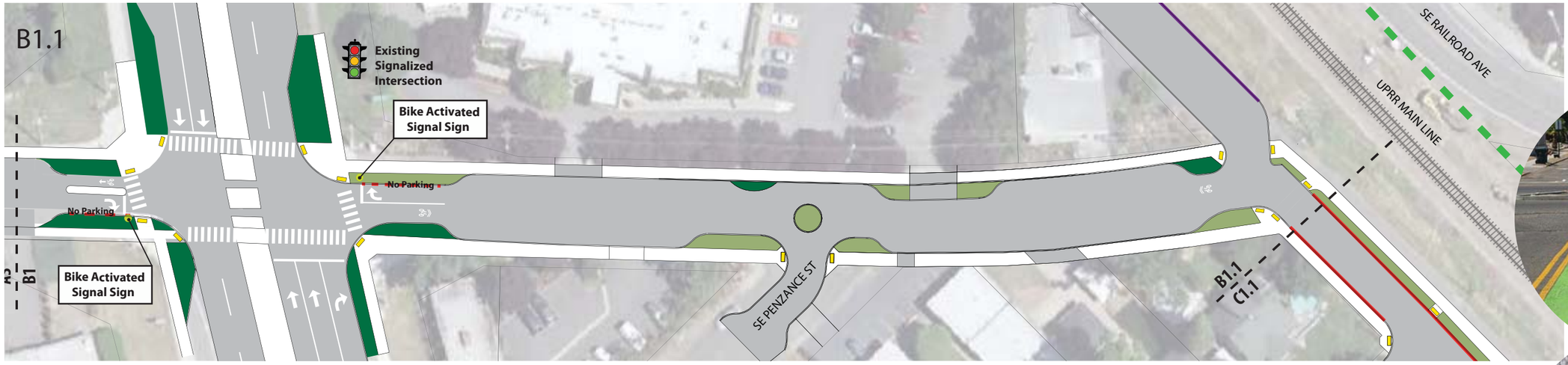


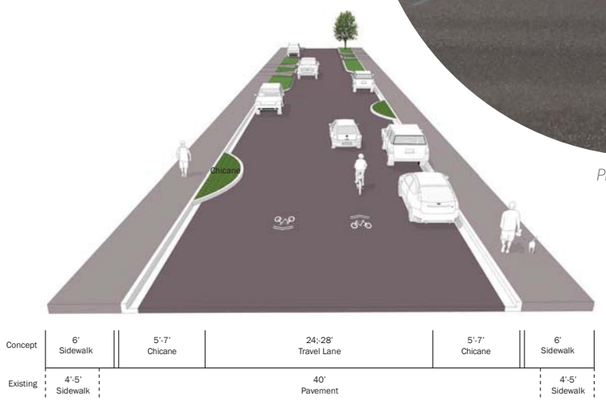
Photo: Michael McKisson

Potential intersection approaches at OR 224
Top: Left hand bicycle lane
Bottom: Bicycle box

Photo: Greg Raisman

Median diverter where a neighborhood greenway intersects a major arterial

Photo: Steven Vance



Section B: OR 224 to Campbell Street

Section B – OR 224 to Campbell Street

This section includes a median diverter at the OR 224 intersection that prevents any through vehicle movement across OR 224, except for bicycles. The diverter prohibits all left turns from Monroe Street onto OR 224 and from OR 224 onto Monroe Street. Right-in/right-out movements are allowed at the east leg of the intersection. Traffic on eastbound OR 224 intending to access local medical offices in this area will use either use Harrison Street or Oak Street eastbound to access Campbell Street. The median diverter serves as a refuge island for pedestrians in the middle of the intersection, occupying space formerly used for left turn lanes. Refuge areas include user-activated push button signals for pedestrians who need more time to cross the highway.

A partial closure diverter is shown at the west leg of the intersection, preventing any motor vehicles from making right turns from southbound OR 224 onto Monroe Street westbound toward downtown, while also allowing for a new curb extension to replace the existing southbound right turn lane.

The plan shows a bicycle activated signal for the OR 224 crossing. This signal could be activated by a push button and/or by new detector loops in the pavement. Options for intersection treatment include the two shown at right. Installing a painted "bicycle box" would allow bicyclists to move into the protected space ahead of waiting automobiles, requiring a "no right turn on red" restriction. Another option would provide a narrow through lane for bicycle riders to the left of the auto right turn lane. With this configuration, right turns on red would be permissible.

East of OR 224, sidewalks are widened into the street for a total of 6 feet to meet city design standards. Where required, new ADA-compliant curb ramps with tactile warning strips are shown.

Future coordination with ODOT will be needed at the time of design to determine acceptable design details for the OR 224 crossing, including signalization. Appendix D lists these and other ODOT coordination requirements.

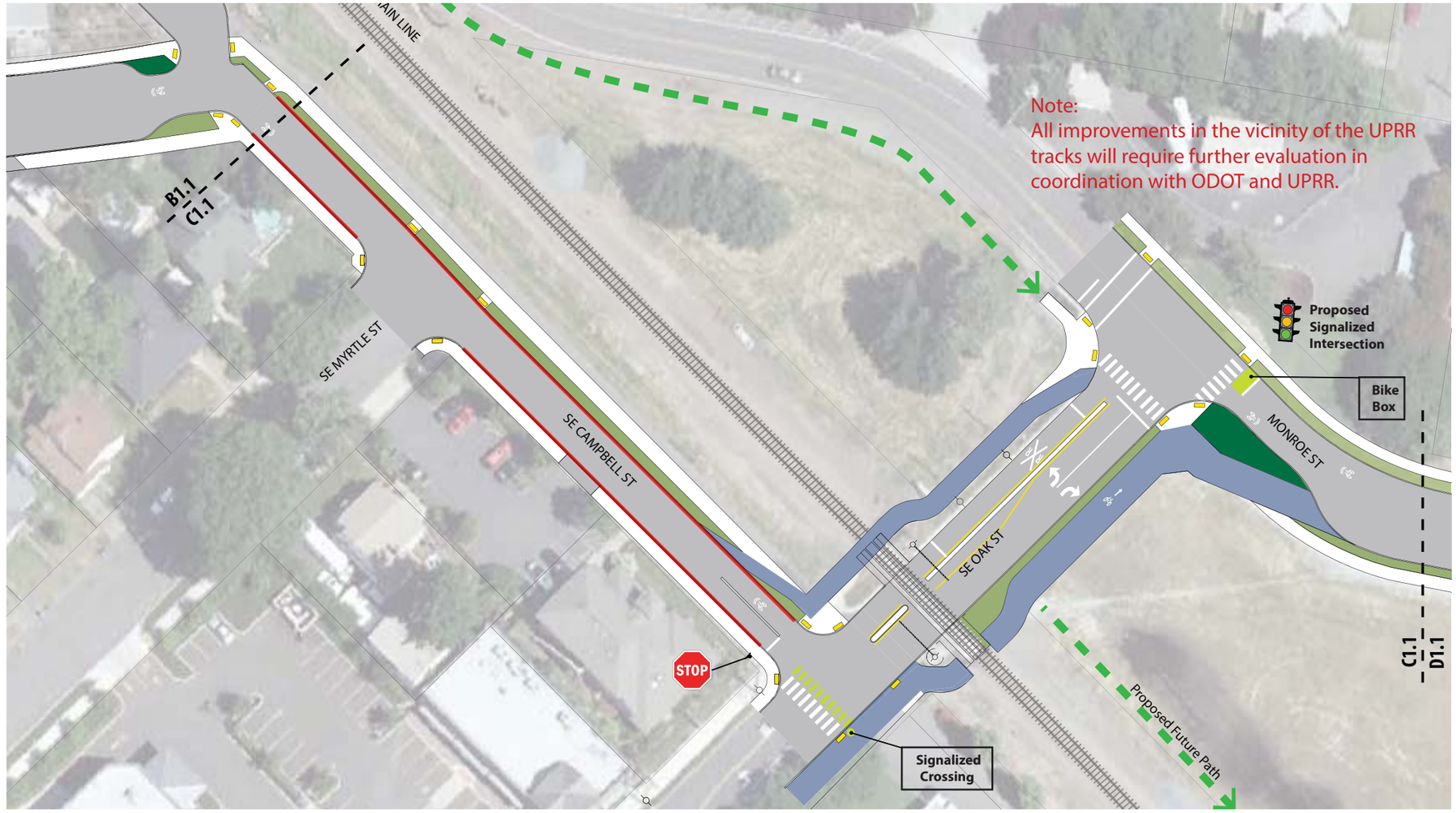
The concept design shows curb extensions throughout this section. The curb extension at Penzance Street decrease the severity of the angle at the intersection, improving sightlines for all modes. Chicanes can be placed as needed to narrow the width of the street, and a traffic circle is shown to reduce speeds. The intersection of Monroe and Campbell Street is also realigned by placement of curb extensions to create a better defined intersection with clearly defined pedestrian crossings and access. At Campbell Street, the greenway shifts southeast and continues along Campbell Street after Monroe "T's" into Campbell.

Legend

- Proposed Sidewalk
- Proposed Pervious Asphalt Walk
- Proposed Pervious Pavement
- Existing Landscape
- New Landscape Strip
- Potential BioRetention Area
- Curbed Chicane
- Shared Path
- Bike Sharrow
- Existing Fire Hydrant
- ADA Ramp
- Activated Signal
- Sign
- New No Parking
- Existing No Parking
- New Parking
- Concrete Curb
- Existing Edge of Pavement

N 0 60 120

Section C: SE Monroe Street to SE Oak Street



Section C – Campbell Street to Railroad Avenue/Oak Street

Here the neighborhood greenway continues along Campbell Street to the southeast. A new sidewalk and planting strip is shown along the east side of Campbell Street directly adjacent to the UPRR tracks, and on-street parking would be prohibited between Monroe Street and Oak Street. Crossing improvements at the intersection of Campbell and Oak Streets include new signage and some form of signalization to help bicycles and pedestrians cross Oak Street. While a pedestrian-activated rapid flash beacon or hybrid beacon may be suitable here, the intersection's proximity to the UPRR crossing could require a full signal if mandated by ODOT's Rail Division. Coordination with UPRR and ODOT Rail will be necessary.

In addition to a marked high-visibility crosswalk for pedestrians, green "crossbike" pavement markings help guide bicycle riders across Oak Street.

Oak Street in this section is a heavily trafficked roadway, with volumes approaching 8,000 vehicles per day at the UPRR crossing. The roadway width is constrained in this section and the concept design shows expanding the current sidewalks on Oak Street to multi-use path standards to allow bicycle riders and pedestrians to safely cross the rail tracks separately from heavy traffic.

At the railroad crossing, the 12-15 foot wide sidepaths are designed for one-way bicycle traffic: riders heading west cross on the north side of the tracks while those heading east cross on the south side. Pedestrians can use either sidepath in both directions and continue on existing sidewalks after crossing the tracks.

The concept design shows a new signal at the T-intersection of Oak Street/Railroad Avenue and Monroe Street to create safer conditions for pedestrians and bicycle riders. Currently, traffic heading east on Oak Street is not stop controlled and is able to turn left or right without stopping, which makes for difficult and dangerous pedestrian and bicycle crossings. A stop treatment is needed (either a four-way stop or a signal that can be timed in conjunction with the train crossing signal); this will require coordination with UPRR and ODOT Rail. New high-visibility crosswalks are installed at this intersection, and a large curb extension at the southeast corner of the intersection reduces turning speeds and shortens the crossing distance for pedestrians. This feature also incorporates bioretention basins to improve stormwater management. For westbound cyclists on Monroe Street, a new bicycle box would allow riders to filter to the front of the intersection and give them a head start once the light turns green.

The *Moving Forward Milwaukie* plan includes a proposed multi-use path on the east side of the tracks (shown in the concept plan as a dashed green line). Further discussions are needed between the City of Milwaukie and ODOT Rail to finalize the location of this path crossing.

Washington Street Bicycle Route

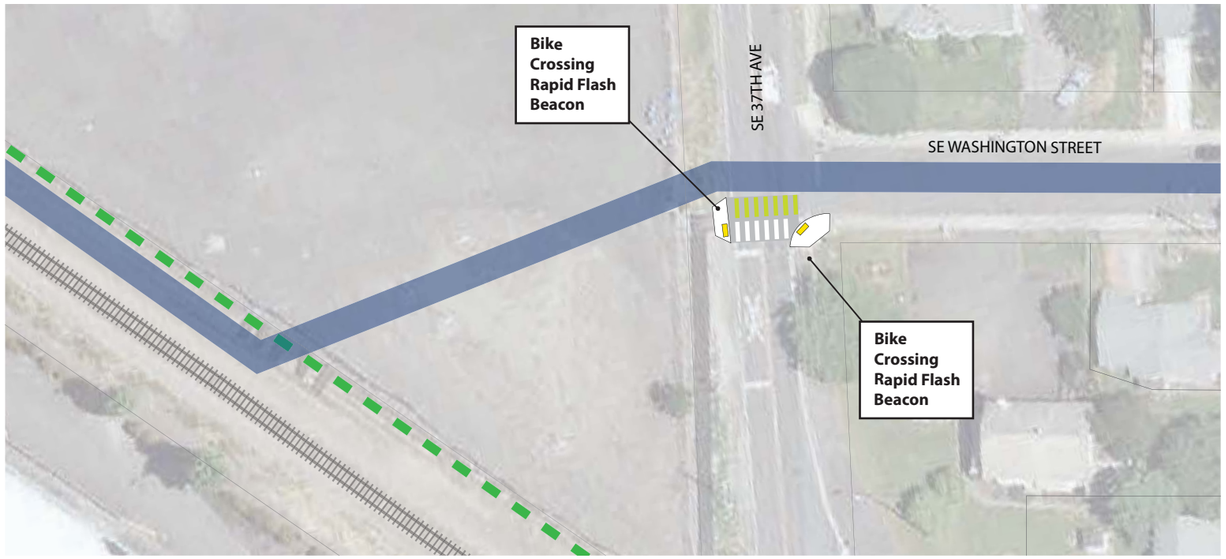
The Washington Street bicycle route came about as a result of community input late in the planning process, so was not included as part of the original concept design.

In this route (represented here on the map below), an off-street path paralleling the railroad tracks through the undeveloped McFarland site connects Oak Street to Washington Street at 37th. Bicyclists would follow this route onto Washington Street, a low-speed and low-volume street that parallels Monroe. They would then return to Monroe Street on Garrett Drive or Home Avenue. A diverter is placed on Monroe Street at 42nd Avenue to deter cut-through auto traffic on Monroe between 42nd and Linwood. Through traffic would shift to Harrison Street/King Road via 37th or 42nd Avenue.

A flashing beacon at 37th and Washington would allow for safe pedestrian and bicycle crossing. Sharrows and signage would mark the route on Washington and Garrett or Home, but major changes or improvements are not anticipated on these streets. Further design – and public input – will be needed to ensure that the route does not encourage additional motor vehicle traffic to use the route to bypass Monroe Street.

This plan provides an overview of the Washington Street bicycle route, but does not provide detailed conceptual design of the section between Oak Street and Garrett Drive or Home Avenue.

Crossing at 37th Avenue



Diverter at 42nd Avenue and Monroe

Washington Street Bicycle Route Map

This figure is for route illustration purposes only. Additional design will be needed to identify traffic control and greenway design elements

Washington Street Bicycle Route, Section C – Campbell Street to Railroad Avenue/Oak Street

Section C includes a new shared-use path that would be constructed along the UPRR line through the 7-acre McFarland property slated for new residential or mixed use development. The Monroe-Washington Street alignment would improve the crossing where Campbell Street intersects Oak Street, either on the north or south side of the existing train crossing. Details of the exact configuration will require coordination between the City, ODOT Rail, and UPRR in future engineering phases.

Washington Street Bicycle Route, Section D – Railroad Avenue/Oak Street to 42nd Avenue

Continuing from Section C, the proposed new path travels through the McFarland site and then connects with Washington Street at 37th Avenue. This new crossing includes high-visibility crosswalks, new signage and a pedestrian-activated rapid flash beacon. While vehicle counts have not been conducted on Washington Street, it is generally a low-volume local neighborhood street requiring minimal improvements to serve as a shared-space bikeway. Wayfinding signage and sharrows are needed, and stop signs at 40th Avenue should be turned to give Washington Street traffic the right-of-way, as is often done to facilitate bicycle travel on neighborhood greenways. In addition, the current two-way stop at 42nd Avenue should be converted to an all-way stop to enhance bicycle and pedestrian safety at the intersection.

In this alignment, Monroe Street between Oak Street and 42nd Avenue includes widened sidewalks, rebuilt curb ramps and some traffic calming and stormwater improvements. The existing eastbound uphill bicycle lane is preserved to protect cyclists who choose to stay on Monroe instead of taking the less stressful but longer route on Washington Street. Heading westbound, more sharrows are added to aid downhill cyclists.

Washington Street Bicycle Route, Section E – 42nd Avenue to Linwood Avenue

The Washington Street bicycle route alignment continues east past 42nd Avenue and rejoins the Monroe Street corridor using either Garrett Drive or Home Avenue via Ada Lane. Both of these routes are suitably low-volume, but there are two slight advantages to using Home Avenue: first, the street already intersects Monroe Street at four-way stop which is safer for bicycle riders using the Monroe-Washington alignment. Second, Home Avenue more directly serves the playground at Homewood Park. If Garrett Drive is ultimately chosen as part of the Monroe-Washington alignment, an all-way stop is recommended to increase the safety of users transitioning from Garrett Drive to Monroe Street.

Photo: Thatcher Imboden

Example of a right-in/right out diverter

Washington Street is a local residential street with relatively low traffic and speeds

What if an Off-Street Path Through the McFarland Site Cannot be Secured?

The McFarland site is a 7.2-acre set of two privately-owned parcels in central Milwaukie, bounded by the UPRR tracks, Oak Street, Monroe Street and 37th Avenue. The larger parcel to the west was formerly contaminated, but recent mitigation has brought the site to state Department of Environmental Quality standards for a vacant taxlot; it is unknown if additional mitigation will be required to permit development at the site. The second, smaller parcel to the east is a brownfield site and still in environmental remediation. A new shared-use path has been proposed as part of the draft *Central Milwaukie Land Use and Transportation Plan* to connect the planned 29th Avenue greenway with a new on- or off-street bicycle facility along Railroad Avenue.

An off-street path along the UPRR tracks through the site is a critical component of the Washington Street bicycle route. Without it, there is no low-stress bicycle route between Oak Street and Home Avenue. Success of this route depends on the City of Milwaukie's ability to secure path right-of-way for the path through the McFarland site early in greenway project implementation.

A path would run parallel to the railroad tracks through the redeveloped McFarland site

The path will be included in the *Moving Milwaukie Forward* plan; the City of Milwaukie is encouraged to ensure its construction through development agreements. If this right-of-way cannot be established quickly, several options could be pursued to create safe, attractive bicycling conditions on Monroe Street between Oak Street and 42nd Avenue, where a median diverter will be located. These options include (in order of priority):

1) Connect to Washington Street using bicycle lanes

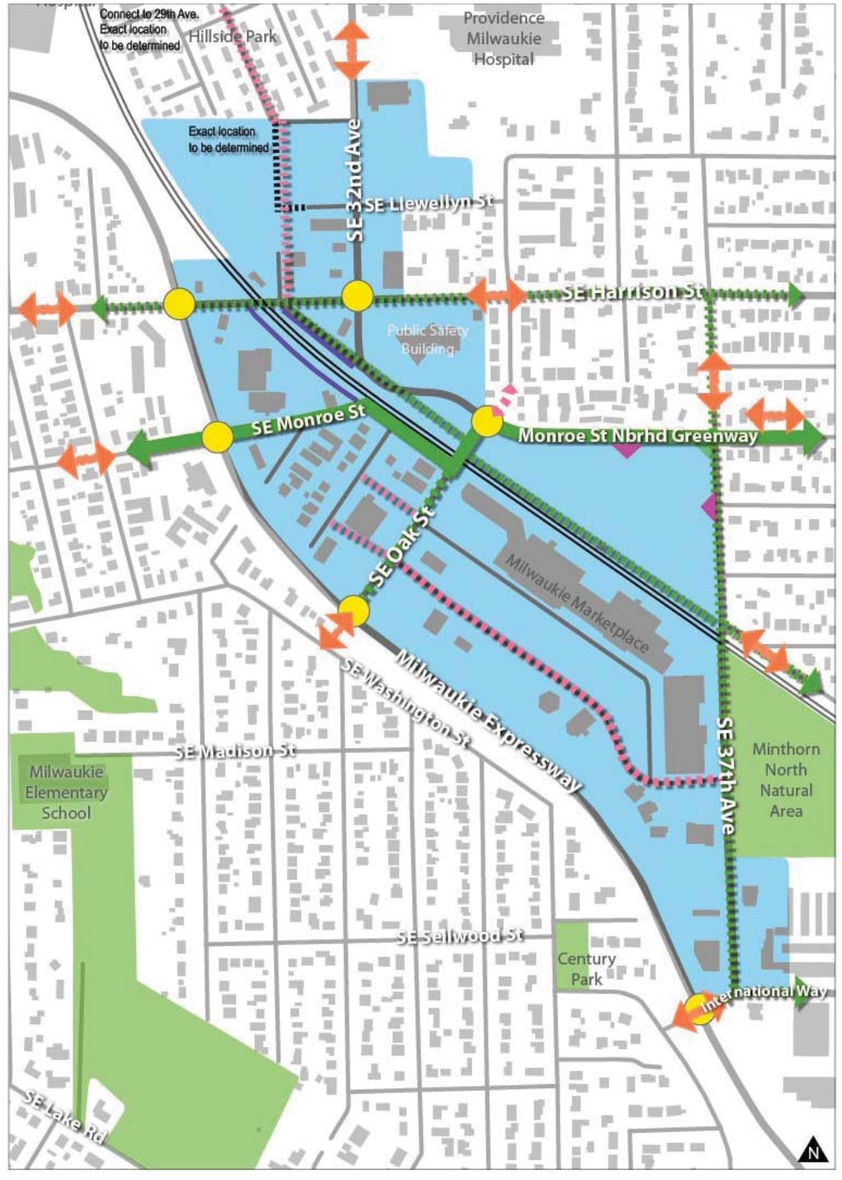
This option would install bicycle lanes on Monroe, Oak, and 37th Avenue to connect bicycle riders with the proposed Washington Street greenway. This would create more of a "bikeway" route that includes short stretches of bicycle lanes connecting low-stress neighborhood greenway sections on either side. This design is not well-suited for families and less experienced cyclists, but would represent an improvement over conditions today.

2) Implement the neighborhood greenway concept design on Monroe Street from Oak Street to Garrett Drive or Home Avenue

If the Washington Street bicycle route is not built, it will be important to provide protection for less confident bicyclists on Monroe Street. One way to do this is the original greenway design, which includes treatments like chicanes and curb extensions as well as a diverter at 37th Avenue instead of 42nd Avenue (though not favored by project stakeholders).

3) Create a Monroe Street "bikeway"; remove on-street parking between Oak and 42nd

In an effort to create the most direct route while improving safety and comfort for vulnerable road users, this option would remove parking on the north side of Monroe Street between Oak Street and 42nd Street and install a 6-foot, buffered bicycle lane in both directions on Monroe Street. Because current speeds and volumes are not suitable for an on-street greenway, these enhancements would provide extra space or a physical barrier between automobiles and bicycle riders.



Proposed bicycle network as shown in the Central Milwaukie Land Use and Transportation Plan

Section E – 42nd Avenue to Linwood Avenue

In order to provide a safe place to walk and better define the street, the concept design includes a 7-foot permeable pavement walking path on the north side of Monroe Street. This path is buffered from the roadway by a landscape strip, chicanes and dedicated on-street parking designation where appropriate. The layout formalizes on-street parking somewhat, compared to the existing ad-hoc condition along the gravel shoulder. The south side of Monroe Street contains periodic chicanes as well as curb extensions at intersections. These features include stormwater drainage to help reduce the likelihood of flooding.

Where the roadway curves at 52nd Avenue, new speed cushions[1] are shown to slow vehicle speeds while still accommodating emergency vehicle access. (It may be necessary to adjust the curvature of the roadway to accommodate these safety improvements right-of-way impacts.) The northwest corner of this intersection is currently within public right-of-way and is a suitable location for a new park or other similar public gathering space.

Early in the concept design development process, the project team considered a full urban build-out of Monroe Street with sidewalks, curbs, and drainage on both sides of the street. This would be an extremely high cost approach, and was not well-supported by the PAC or the public. It would change the rural, forested character of Monroe Street and have significant impacts on existing landscaping and vegetation.

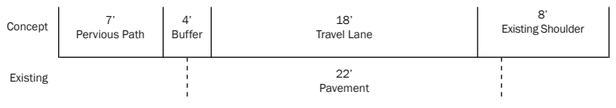
As a more cost-effective measure, the concept design proposes new curbs in limited locations only. These include 47th Avenue/Garrett Drive, Home Avenue, and 55th Avenue. Traffic circles are shown at these locations, along with rebuilt intersection corners that include ADA-compliant curb ramps that incorporate stormwater management features. New curbs are especially important at the intersection with Home Avenue to better define access points into the convenience store parking lot at the southeast corner and clearly delineate between public and private right-of-way. A raised crosswalk at Wichita Park enhances safe access to the park from the pedestrian path on the north side of the street.

The Monroe Street right-of-way is 40 feet wide through most of this section. The concept design does not require any property acquisition for the new pedestrian path; however, several private properties have fences, gardens or other fixtures that may be impacted by path construction. All proposed concept design elements are within the public right of way.

Several improvements are shown for the Linwood Avenue intersection. A large curb extension with bioretention features is located on the southwest corner to decrease the curb radius and encourage slower turning. This also reduces the length of the crosswalk across Linwood Avenue. A median diverter and refuge island allows for right-in/right-out motor vehicle access onto Monroe Street while preventing through travel across Linwood, except for bicycles and pedestrians. Motorists are prevented from turning left onto Linwood Avenue, to discourage cut-through traffic from using Monroe to access the Linwood/King intersection. Left turns would be prohibited from Linwood Avenue to Monroe Street in either direction. The refuge islands, along with improved crosswalks, curb extensions, and a pedestrian-activated hybrid beacon, will greatly improve crossing safety at this intersection.

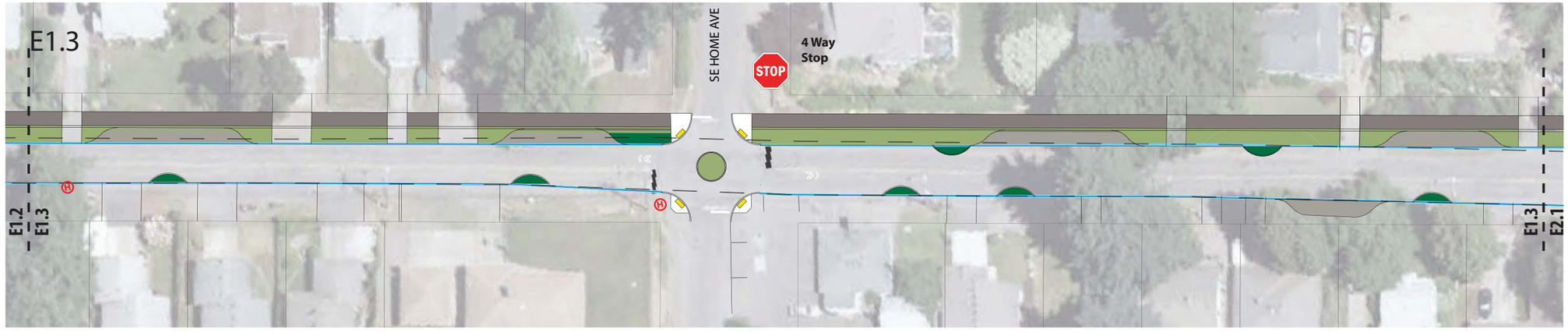
[1] Speed cushions are speed bumps with wheel cutouts for emergency and other large vehicles to pass unaffected.

Section E: SE 42nd Avenue SE 52nd Avenue



Section E: SE 52nd Avenue to SE Linwood Avenue


E1.2
SE 47TH AVE
E1.1
E1.2
E1.2
E1.3
GARRETT DR


E1.3
SE HOME AVE
4 Way
Stop
STOP
E1.2
E1.3
E1.3
E2.1

WS33

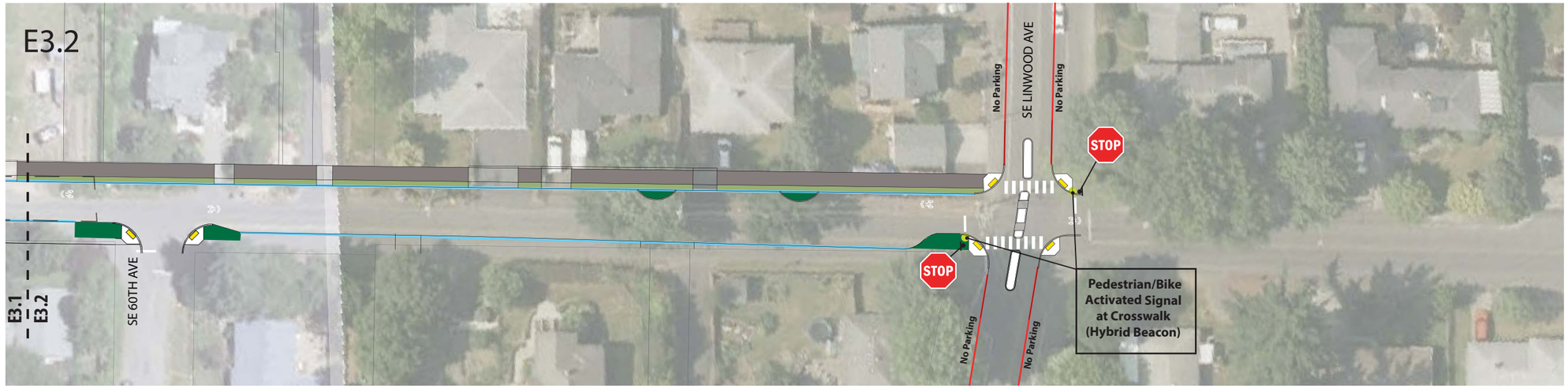
Legend

- Proposed Sidewalk
- Proposed Pervious Asphalt Walk
- Proposed Pervious Pavement
- Existing Landscape
- New Landscape Strip
- Potential BioRetention Area
- Curbed Chicane
- Shared Path
- Bike Sharrow
- Existing Fire Hydrant
- ADA Ramp
- Activated Signal
- Sign
- New No Parking
- Existing No Parking
- New Parking
- Concrete Curb
- Flush Curb
- Existing Edge of Pavement

N

0 60 120

WS34



Legend

- Proposed Sidewalk
- Proposed Pervious Asphalt Walk
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- Existing Landscape
- New Landscape Strip
- Potential BioRetention Area
- Curbed Chicane
- Shared Path
- Bike Sharrow
- Existing Fire Hydrant
- ADA Ramp
- Activated Signal
- Sign
- New No Parking
- Existing No Parking
- New Parking
- Concrete Curb
- Existing Edge of Pavement

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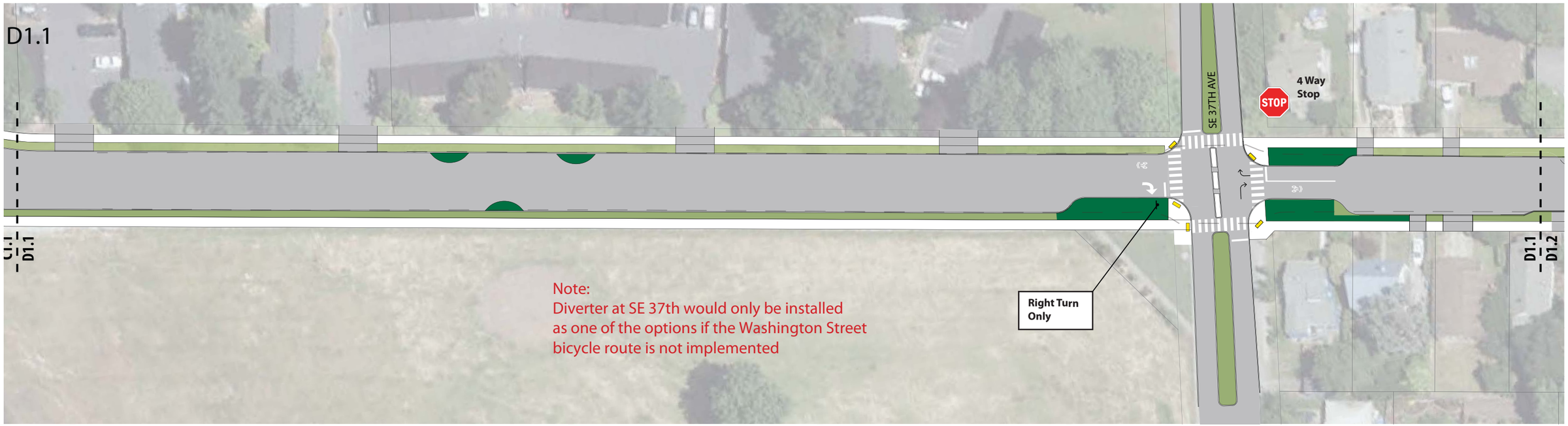
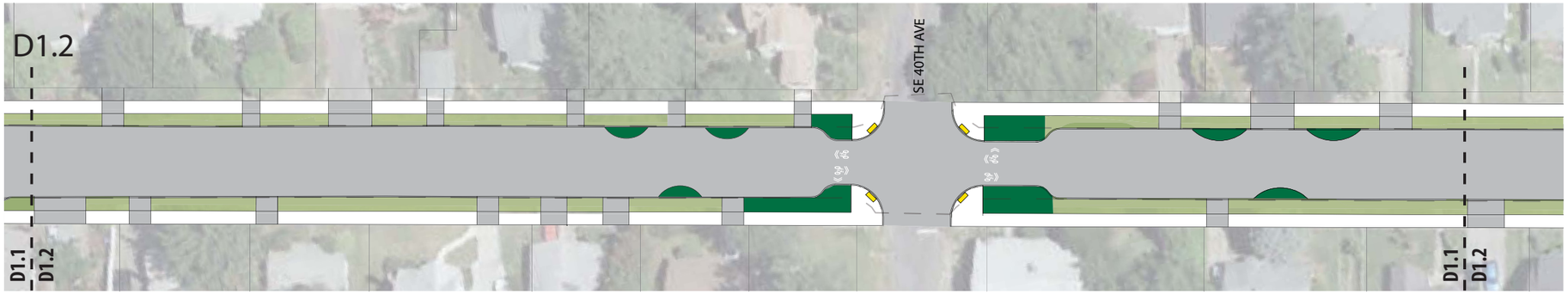
WS35

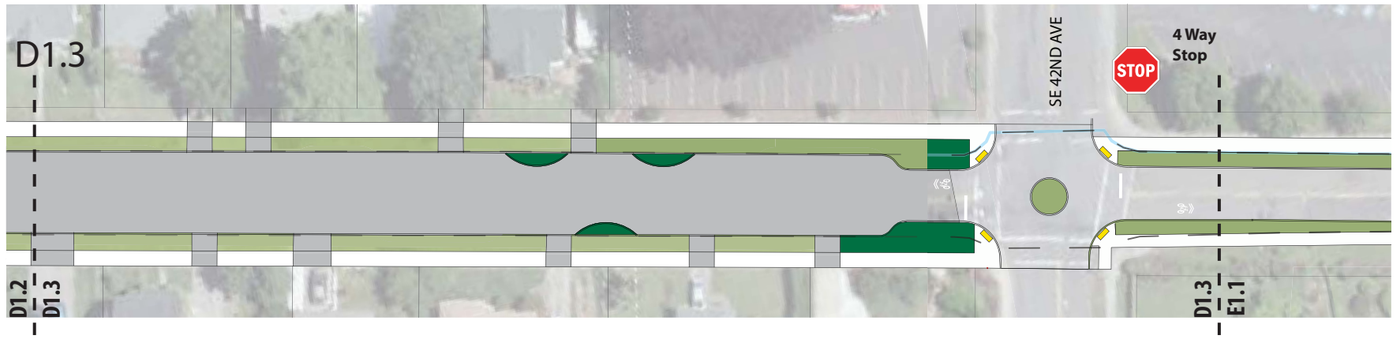
Neighborhood Greenway Improvements on Monroe Street Only (Option #2 if McFarland site path cannot be secured)



This section of the concept design shows neighborhood greenway treatments on Monroe Street between Oak Street and 42nd Avenue, with a diverter at 37th Avenue. This is one of the three options described on Page 20 for consideration if the Washington Street bicycle route is not implemented.

Even if the Washington Street bicycle route is put in place, the sidewalk widening and replacement (including ADA ramps) shown in the concept design for this section will be implemented as important pedestrian improvements for the neighborhood greenway project.





Legend

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- Existing Landscape
- New Landscape Strip
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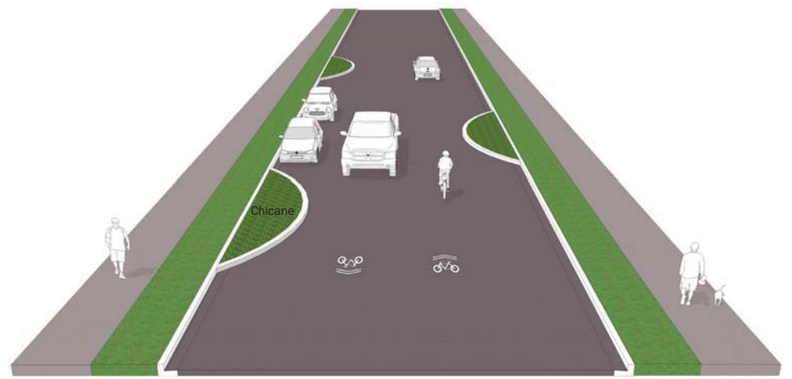
N

0 60 120



Concept	6' Sidewalk	4'-5' LS Buffer	38' Pavement		3' LS Buffer	6' Sidewalk
Existing	4'-5' Sidewalk	6' LS Buffer	38' Pavement		3' LS Buffer	4'-6' Sidewalk

Section D: SE Oak Street to SE 37th Avenue

Connection To The Trolley Trail

As noted earlier in this report, the original Monroe Street Greenway proposed in the 2007 TSP begins at 21st Avenue, two blocks to the east of OR 99E and the Trolley Trail. Construction of the trail in the intervening years, however, has created a need to better connect the trail to Monroe Street. While this connection was not scoped as part of the Monroe Street Neighborhood Greenway concept design, it will be important to link the neighborhood greenway with a variety of regional connections via the Trolley Trail and future path along SE 17th Avenue.

Today, pedestrian access from the Trolley Trail to Monroe Street is relatively comfortable and straightforward – but in light of expectations for increased pedestrian and bicycle traffic on this facility, it is recommended that the existing sidewalk on the westside of 99E be upgraded in the future to multi-use path standards.

In addition, current bicycle access between the trail and Monroe Street today does not meet best practices for bicycle intersection design, and is not intuitive for less experienced riders. To improve the intersection for bicycle and pedestrian comfort and safety, the curb radius at the intersection of Monroe and OR 99E should be narrowed to reduce crossing distances and lower turning speeds. The stop bar at the east leg of the intersection could be pulled back 10 feet and a bicycle box installed, with restrictions placed on right turns on red. The western approach would benefit from new curb ramps designed specifically for bicycle traffic. This would help reduce conflicts with pedestrians at the existing entry ramps.

For signal upgrades, a leading pedestrian interval of 5 seconds would give pedestrians and bicyclists a head start through the intersection. Alternatively, bicycle signal heads could be installed in both directions, and an exclusive 10-second green phase could be given to east-west bicycle movement, while all other signals are red. Either improvement would help reduce conflicts with motorists turning at the intersection.

Finally, wayfinding signage and sharrows on the two-block stretch of Monroe through downtown would create a stronger connection between the trolley trail and the neighborhood greenway.

Trolley Trail

Riverfront Park and Trolley Trail

SUMMARY OF TRAFFIC IMPACTS

Early in 2015, the project team completed a traffic impact analysis to evaluate the effects of the concept design on the surrounding roadway network. The study was designed to better understand the impacts of four proposed partial closure diverters. The analysis looked at several scenarios for a diverter at 37th Avenue and for a diverter at 42nd Avenue. Impacts were analyzed for 2015 (where appropriate) and for the 2035 forecast year. Complete results of the traffic impact analysis are attached as Appendix B.

Summary of Impacts to OR 224

In general, the traffic impact analysis showed that the Monroe Street Neighborhood Greenway concept design would not result in significant adverse impact on the state highway system. In particular, traffic diversion installed at the OR 224/Monroe Street intersection is not expected to cause additional congestion over what is already expected at the nearby Oak Street and Harrison Street intersections for the year 2035. This is due to the overall lack of demand at the Monroe Street intersection. In fact, the project would improve operational efficiency on OR 224 by reducing the number of access points and increasing green signal time for mainline traffic. The additional components of the concept plan, including the other proposed diversion locations, would not impact traffic on OR 224.

Summary of Impacts to the Local Roadway Network

With respect to the local street network, analysis showed that most traffic impacts on the local roadway network will likely be observed on Harrison Street/ King Road, which is the parallel arterial route 2-4 blocks north of Monroe Street. This roadway already experiences daily peak hour congestion, and is slated for improvements in the TSP. Traffic conditions at the all-way stop intersection at Harrison Street and 42nd Avenue are expected to worsen by 2035 whether or not the Monroe Street Neighborhood Greenway project is implemented, leading to greater congestion and longer queuing times. Both alignments would impact that intersection, with a diverter at 37th Avenue showing a greater impact than one at 42nd Avenue.

The concept design is not anticipated to cause a major increase in traffic on north-south streets such as Home Avenue, Stanley Avenue and Linwood Avenue, although both the Monroe-only alignment and the Washington Street bicycle route are likely to result in a slight increase in volume on neighborhoods streets such as Jackson Street as local traffic bypasses diversion at 37th Avenue or 42nd Avenue to reach destinations on Monroe Street. However, the analysis shows most through traffic using Harrison Street or Railroad Avenue based on the higher capacity and direct nature of those routes.

As a result of the traffic analysis (in addition to community and PAC feedback), the project team recommends implementation of the Washington Street bicycle route, with diversion at 42nd Avenue instead of 37th Avenue, to minimize impacts to the local system. Among other traffic system modernization improvements, a new signal should be installed at the Harrison Street/42nd Avenue intersection, as proposed in the Milwaukie TSP, to solve long-standing delay, queuing and safety issues. Improvements will also need to be made to the intersection and signal at King Road and Linwood Avenue. Whether diversion is implemented at 37th or 42nd, the analysis shows that the diverter at Linwood Avenue is important to keep cut-through traffic from returning back to Monroe Street to access Linwood and points further east. Without the Linwood diverter, Stanley and Home could see traffic increases as drivers seeking to cross Linwood weave through the neighborhood to return to Monroe east of 42nd.

In addition to traffic impact analysis recommendations, further study and coordination with ODOT Rail is recommended for potential signalization at the Oak Street/Monroe Street/Railroad Avenue intersection and the nearby Oak Street/Campbell Street intersection. Due to the location of the nearby rail crossing, installing coordinated signals would improve crossing safety for bicycles and pedestrians and likely minimize the risk of vehicles at either intersection queuing over the tracks, compared to all-way stop control at the T-intersection.

COST ESTIMATES AND POTENTIAL FUNDING SOURCES

Concept-level Cost Estimates

Planning level costs for implementing the Monroe Street Neighborhood Greenway Concept Design are described in the table on this page. Total estimated costs include a 30% contingency to account for project unknowns at this early stage of design.

Possible Funding Sources

A range of potential funding sources are available for implementation of the Monroe Street Neighborhood Greenway Concept Plan project. Greenway components range from relatively inexpensive treatments (paint and signage) to much larger investments such as sidewalk improvements, new or upgraded traffic signals, and a permeable-pavement, landscaped walking path. The approach to project implementation and funding should be strategic and opportunistic, matching specific project elements to appropriate funding sources, including (but not necessarily limited to) the following:

2015-2018 STIP Enhance

ODOT's Statewide Transportation Enhancement Improvement Program (STIP) Enhance program funds projects that enhance, expand or improve the transportation system. State and local agencies can apply to this competitive funding process for projects that are both on and off the ODOT highway system. The Oregon Transportation Commission selects projects based on local Area Commission on Transportation (ACT) recommendations.

Connect Oregon V

This statewide source of funding for bicycle and pedestrian projects is a lottery-funded initiative that ODOT uses to provide grants and loans for air, rail, marine, transit, bicycle and pedestrian infrastructure. Funding is allocated based on a competitive application process.

ODOT Quick Fix Program

This ODOT-administered program could be an appropriate funding source for crossing safety improvements and signal upgrades at the OR 224/Monroe Street intersection.

ODOT ADA Funds

Beginning in 2015, the ODOT Highway Division has funding available to improve missing or substandard ADA facilities on or adjacent to ODOT-owned roadways. This could potentially fund an upgrade of ADA ramps and crossing improvements at the OR 224/Monroe Street intersection.

Metro MTIP/Regional Flexible Funds

Metro allocates federal Regional Flexible Funds through the Metropolitan Transportation Improvement Program (MTIP) on a four-year cycle. Funding is allocated to projects throughout the Portland Metro Region via a competitive application process.

Local funding sources

A variety of Milwaukie-specific funding sources could support components of the Monroe Street Neighborhood Greenway, including the following:

- **City allocation of the Oregon statewide gas tax** (1% is dedicated by state law to bicycle and pedestrian improvements)
- **Developer-dedicated right-of-way** (specific to the multi-use path through the McFarland site required for the Washington Street Alternative)
- **City stormwater treatment funds** (for "green" features including chicanes, curb extensions and the landscaped, permeable-pavement walking path)
- **The City of Milwaukie's Street Surface Maintenance Program** (SSMP) was formed in 2006 with a focus on resurfacing City streets. The program is currently restricted to street maintenance and cannot be used to build new infrastructure. The City could expand the SSMP to include construction of pedestrian and bicycle infrastructure.

Order of Magnitude Estimate
City of Milwaukie Monroe Street Neighborhood Greenway

NO.	ITEM	UNIT	LENGTH	COST PER MILE	COST
1	Section A - SE 21st Ave to OR 224	Mi.	0.40	$1,571,000.00	$628,400
2	Section B - OR 224 to SE Campbell St	Mi.	0.1	$3,965,285.71	$555,140
3	Section C - SE Campbell St to SE Oak St	Mi.	0.1	$4,826,923.08	$627,500
4	Washington St Bike Route (SE Oak to Home)	Mi.	1.7	$373,274.85	$638,300
5	Section E - SE 42nd Ave to SE Linwood Ave	Mi.	1	$1,666,520.00	$1,666,520
				SUBTOTAL	$4,115,860

ADDITIONAL COST	SUGGESTED	PERCENTAGE	COST
Construction Surveying	1.0-2.5%	2.5%	$102,897
Temporary Traffic Control	3.0-8.0%	3.0%	$123,476
Mobilization	8.0-10.0%	10.0%	$411,586
Erosion Control	0.5-2.0%	2.0%	$82,317
Contingency	30-40%	30.0%	$1,234,758
Escalation (per year)	0.5-2.0%	0.0%	$0
Construction Year	Unknown		
		TOTAL CONSTRUCTION COST (2015 Dollars)	$6,476,740

RIGHT OF WAY COST	UNIT	QUANTITY	UNIT COST	COST
New Right of Way Acquisition	SQ FT	0		$0
Structure(s)	Lump Sum	All		$0
ENGINEERING COSTS	**SUGGESTED**	**PERCENTAGE**	**UNIT COST**	**COST**
Design Engineering	15.0%	15.0%		$910,634
Construction Engineering	10.0%	10.0%		$607,089
City Costs (Permitting, Public Involvement, Management)	7.0%	7.0%		$424,963
			TOTAL ESTIMATED PROJECT COST	$8,013, 579

Section D of Monroe-only route (in lieu of Washington Street bicycle route)

ITEM	UNIT	LENGTH	COST PER MILE	COST
Section D - SE Oak St to SE 42nd Ave	Mi.	0.4	$2,924,000.00	$1,169,600
			SUBTOTAL	$1,169,600

Note: costs do not include a connection to the Trolley Trail, which is an important element of the overall system

IMPLEMENTATION AND PHASING

The Monroe Street Greenway Concept Plan is the first step toward creating a quiet, safe neighborhood street environment for neighbors, kids, pedestrians and bicyclists. But more than a plan is needed to make change happen. The purpose of an implementation strategy is to define the specific actions required to create Milwaukie's first neighborhood greenway. Successful implementation will involve several key components:

Committed Ongoing City Leadership

To become a reality, the Monroe Street Neighborhood Greenway will need ongoing, committed leaders who see the plan through. These leaders include City Council, city staff, PAC members and community volunteers.

Future Design Refinement

Prior to implementation and construction, the City of Milwaukie will conduct survey and final engineering to develop specific features in greater detail, including exact location and dimensions of individual project elements. Elements requiring additional engineering include chicanes, traffic circles, curb extensions and stormwater treatment. This work could be done for the project as a whole, or on a case-by-case basis for individual or multiple project elements.

Phasing and Test Pilots

Table A shows an approach to phasing project components. Improvements are grouped into 1-3 year, 4-6 year and 7-10 year categories, and roughly prioritized within those categories. This is not intended to be a hard-and-fast approach to phasing – rather, it represents the project team's and PAC's best judgment about the approximate order in which project elements should be pursued and built.

As is evident in the table, the walking path in the eastern section of the project rose to the top of the priority list, followed by the shared use path across the McFarland site to provide bicycle access to the Washington Street bicycle route. Diverters and intersection improvements at Linwood, 42nd and OR 224 are also high-priority features that will have an immediate impact on traffic speeds and volumes along Monroe.

Throughout the project, there has been a difference of opinion about diversion on Monroe Street. Some residents eagerly anticipate the change to a quieter street, while others worry that inconveniences will outweigh benefits. For this reason, it may be desirable to install temporary rather than permanent diverters at 42nd and at Linwood. These could be implemented with paint, signage, planters and "candlestick wands." Temporary installation would enable city staff to monitor traffic impacts and survey community response over a 12-month test period.

Table B on page 32 shows the same project components, organized by project section instead of by priority.

As noted in the preceding Costs section, the approach to project implementation will be opportunistic, as there is no one single source of funding likely to support the entire project. The prioritization reflected in these tables is intended to be a guide, but not to limit or preclude funding opportunities even if they arise out of sequence.

TABLE A: Monroe Street Neighborhood Greenway Recommended Implementation Program – Prioritized by Improvement

	Action	Section	Timing	Estimated Cost	Notes
Phase 1 (0-3 Years)	North side walking path with porous pavement, parking and landscaping	Section E 42nd to Linwood	0-3 years	$485k	There is no safe place for pedestrians to walk in the eastern section of Monroe – and both the PAC and the public have repeatedly identified this as a high priority
	Shared-use path through McFarland site – Monroe/Oak/ Railroad to 37th (Washington Street Bicycle Route)	Section D Railroad/Oak to 42nd	0-3 years	$85K	Success of the Washington Street Bicycle Route hinges on this path, so it is a critical early element of the project
	Median diverter and refuge islands (Monroe @ Linwood)	Section E 42nd to Linwood	0-3 years	$25k	This is a pivotal element of the entire Monroe Street Neighborhood Greenway project, as it discourages cut-through traffic and sets the conditions in place to create a lower speed – and especially a lower volume – street
	Hybrid beacon, new crosswalks, curb extensions, signage (Monroe @ Linwood)	Section E 42nd to Linwood	0-3 years	$260k	The Linwood intersection is difficult and dangerous for all modes, and has been identified by the PAC and the public as one of the project's highest priorities for improvement
	Median diverter (Monroe @ 42nd)	Section D Railroad/Oak to 42nd	0-3 years	$25k	This is a pivotal element of Monroe Street Neighborhood Greenway project, as it protects the section east of 42nd from cut-through traffic and sets the conditions in place to create a lower speed, especially a lower volume street
	Diverter, semi-diverter and median refuge islands @ OR 224)	Section B OR 224 to Campbell	0-3 years	$40k	This is a pivotal element of the entire Monroe Street Neighborhood Greenway project, as it discourages cut-through traffic and sets the conditions in place to create a lower speed – and especially a lower volume – street
	Curb Extensions	Section B OR 224 to Campbell	0-3 years	$235k	These will improve safety and visibility for all modes, as well as treating stormwater, at OR 224, Penzance and Campbell
	Eliminate centerline (except between Oak and 42nd if Washington Street Bicycle Route is implemented)	Corridor-Wide	Opportunistic as sections are implemented	$10k	This can happen immediately in sections A and B. Other sections should receive at least some treatment to reduce speed and volume before the centerline is removed
	Sharrows	Corridor-Wide	0-3 years	$15k	Can be installed immediately once diverters are in place; low-cost element to establish greenway
	Speed cushions – curve at 52nd Avenue	Section E 42nd to Linwood	0-3 years	$15k	These are a key element of speed control at 52nd Avenue, where visibility is poor. They are low-cost and easy to implement
	Flashing beacon @ Washington/37th	Section D Railroad/Oak to 42nd	0-3 years	$150k	This is important for bicyclists to cross 37th Avenue safely from the McFarland site path onto Washington Street

	Action	Section	Timing	Estimated Cost	Notes
Phase 1 (0-3 Years)	ADA curb ramps	Corridor-Wide	0-3 years	$235k	Will need to decide whether to pursue funding for multiple or all curb ramps at one time, or install opportunistically as project elements are built
	Signal improvements, crosswalks, signage (Oak @ Campbell)	Section C Campbell to Railroad/Oak	0-3 years	$150k	This is a key element of improving the safety of the UPRR crossing for both bicyclists and pedestrians – and establishing Monroe Street as a continuous multimodal east/west connection
	On-street greenway treatment on Monroe from Oak/Railroad to 42nd (Monroe Greenway route if no Washington Street Bicycle Route)	Section D Railroad/Oak to 42nd	0-3 years	$440k	If a path through the McFarland site is not feasible, greenway treatments would still be needed on Monroe. If the path is built, the diverter at 37th is not needed, since safe and attractive bicycle access would be provided on Washington
	Consider changing Monroe Street classification and lowering posted speed limit	Corridor-Wide	Immediate	N/A	Change in classification will likely depend on level to which volumes can be reduced
Phase 2 (4-6 Years)	Curb extensions with stormwater treatment in Section E	Section E 42nd to Linwood	4-6 years	$400k	These help treat stormwater and improve pedestrian visibility at intersections throughout Section E
	Widen/improve sidewalks on south side of Campbell	Section C Campbell to Railroad/Oak	4-6 years	$30k	Pedestrian conditions in this area are fairly safe, but inadequate (3 feet wide with no ADA treatment). This is an important element of improving the UPRR crossing, but not as time-critical as some other features
	Sidewalk on north side of Campbell (Monroe/Campbell to Oak/Campbell)	Section C Campbell to Railroad/Oak	4-6 years	$55k	Pedestrian conditions in this area are fairly safe, though not attractive. This is an important element of improving the UPRR crossing, but not as time-critical as some other features
	Shared-use path on Oak (1-way or 2-way) (@ UPRR Crossing)	Section C Campbell to Railroad/Oak	4-6 years	$15k	Pedestrian conditions in this area are fairly safe, though not attractive. This is an important element of improving the UPRR crossing, but not as time-critical as some other features
	Bicycle detection/actuation (Monroe @ OR 224)	Section B OR 224 to Campbell	4-6 years	$110k	This is an important bicycle improvement, but can be installed once the crossing improvements are in place and more bicyclists are using the crossing
	Chicanes with stormwater treatment	Section E 42nd to Linwood	4-6 years	$300k	These will help lower speeds between 42nd and Linwood on Monroe. While the diverter at 42nd is even more important, stormwater management is an important issue in this section
	Widen/improve sidewalks	Section B OR 224 to Campbell	4-6 years	$125k	Pedestrian conditions in this section are safe, but not attractive. This could be deferred if other items are prioritized
	Widen/improve sidewalks in Section A	Section A 21st to OR 224	4-6 years	$300k	While sidewalks do exist in this section, they are narrow and in poor condition. But this item could be deferred if other improvements are prioritized
	Widen/improve sidewalks	Section D Oak to 42nd	4-6 years	$390k	Pedestrian conditions in this section are safe, but not attractive. This could be deferred if other items are prioritized
	Wayfinding signage	Corridor-Wide	4-6 years	$10k	Should be coordinated with key early greenway improvements (i.e. diverters and McFarland site path) to ensure safe and accurate guidance
	Curb extensions with stormwater treatment in Section A	Section A 21st to OR 224	4-6 years	$185k	These are important greenway elements that improve pedestrian conditions, and could prioritized higher if there is a desire for pedestrian-specific/stormwater treatments in this section
	Washington Street bicycle improvements – signage, markings, stop signs	Washington Street	4-6 years	$5k	Improvements to make Washington Street function more effectively as a bicycle route
	Pedestrian Improvements on Monroe (in addition to Washington Bicycle Route)	Section D Oak to 42nd	4-6 years	$390k	Pedestrian conditions in this area are fairly safe, but inadequate
	Traffic signal @Oak/Monroe/Railroad (critical if McFarland path does not happen)	Section C Campbell to Railroad/Oak	4-6 years	$250k	This is an important bicycle safety element of the Monroe-only route (if the Washington Street Bicycle Route is not implemented)
Phase 3 (7-10 Years)	Traffic islands in Section E	Section E 42nd to Linwood	7-10 years	$80k	These will help lower speeds between 42nd and Linwood on Monroe, and offer needed stormwater treatment
	Widen/improve sidewalks in Section E	Section E 42nd to Linwood	7-10 years	$80k	While sidewalks do exist in this section, they are narrow.
	Chicanes with stormwater treatment in Section A	Section A 21st to OR 224	7-10 years	$130k	This is one of the lower-speed, lower-volume sections so chicanes, while desirable, are not as critical to create a shared travel environment
	Traffic islands in Section B	Section B OR 224 to Campbell	7-10 years	$20k	This is one of the lower-speed, lower-volume sections so traffic islands, while important, are not as critical to create a shared travel environment
	Chicanes with stormwater treatment in Section B	Section B OR 224 to Campbell	7-10 years	$10k	This is one of the lower-speed, lower-volume sections so chicanes, while desirable, are not as critical to create a shared travel environment

TABLE B: Monroe Street Neighborhood Greenway Recommended Implementation Program – by Section

Action		Timing	Estimated Cost
Corridor-Wide	Sharrows	0-3 years	$15k
	Wayfinding signage	4-6 years	$10k
	Eliminate centerline (except between Oak and 42nd if Washington Street Bicycle Route is implemented)	Opportunistic as sections are implemented	$10k
	ADA curb ramps	0-3 years	$235k
	Consider changing Monroe Street classification and lowering posted speed limit	Immediate	N/A
Section A 21st Avenue to OR 224	Chicanes with stormwater treatment	7-10 years	$130k
	Widen/improve sidewalks	4-6 years	$300k
	Curb extensions with stormwater treatment	4-6 years	$185k
Section B OR 224 to Monroe/ Campbell Street	Diverter, semi-diverter and median refuge islands @ OR 224)	0-3 years	$40k
	Curb Extensions	0-3 years	$235k
	Bicycle detection/actuation (Monroe @ OR 224)	4-6 years	$110k
	Widen/improve sidewalks	4-6 years	$125k
	Traffic islands	7-10 years	$20k
	Chicanes with stormwater treatment	7-10 years	$10k
Section C Monroe/Campbell Street to Railroad Avenue/Oak Street	Sidewalk on north side of Campbell (Monroe/Campbell to Oak/Campbell)	4-6 years	$55k
	Shared-use path on Oak (1-way or 2-way) (@ UPRR Crossing)	4-6 years	$15k
	Signal improvements, crosswalks, signage (Oak @ Campbell)	0-3 years	$150k
	Widen/improve sidewalks on south side of Campbell	4-6 years	$30k
	Traffic signal @Oak/Monroe/Railroad (critical if McFarland path does not happen)	4-6 years	$250k
Section D Railroad Avenue/Oak Street to 42nd Avenue	Shared-use path through McFarland site - Monroe/Oak/Railroad to 37th (Washington Street Bicycle Route)	0-3 years	$85
	On-street greenway treatment on Monroe from Oak/Railroad to 42nd (Monroe Greenway route – if no Washington Street Bicycle Route)	0-3 years	$440k
	Median diverter (Monroe @ 42nd)	0-3 years	$25k
	Flashing beacon @ Washington/37th	0-3 years	$150k
	Washington Street bicycle improvements – signage, markings, stop signs	4-6 years	$5K
	Pedestrian Improvements on Monroe (in addition to Washington Street Bicycle Route)	4-6 years	$390k
Section E 42nd Avenue to Linwood Avenue	North side walking path with porous pavement, parking and landscaping	0-3 years	$485k
	Traffic islands	7-10 years	$80k
	Curb Extensions	4-6 years	$400k
	Widen/improve sidewalks	4-6 years	$80k
	Chicanes with stormwater treatment	7-10 years	$300k
	Speed cushions – curve at 52nd Avenue	0-3 years	$15k
	Hybrid beacon, new crosswalks, curb extensions, signage (Monroe @ Linwood)	0-3 years	$260k
	Median diverter and refuge islands (Monroe @ Linwood)	0-3 years	$25

APPENDICES

Appendix A – Needs, Opportunities and Constraints memo

Appendix B – Traffic Analysis Memo

Appendix C – Evaluation Matrix

Appendix D – Future ODOT Coordination Needs

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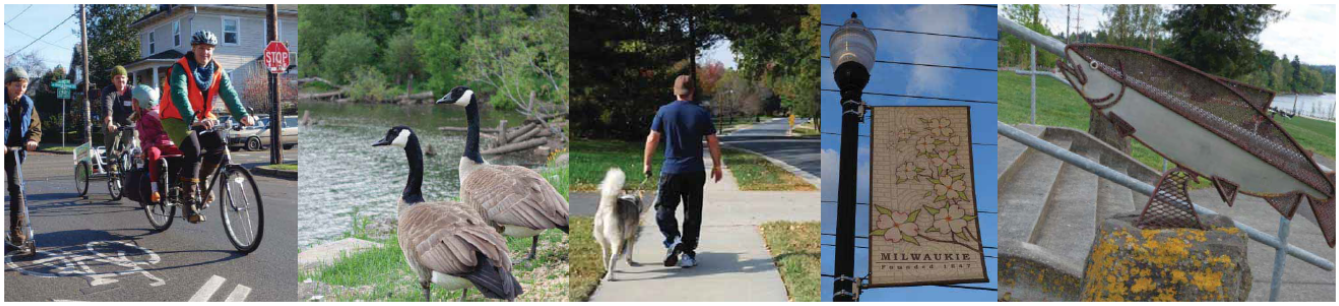
Monroe Street Neighborhood Greenway Concept Plan



Frequently Asked Questions (FAQ)

Below is a list of common questions that have come up regarding the Monroe Street Neighborhood Greenway Concept Plan, with basic answers for general information.

Question (Q): Will I have to pay anything for this project?

Answer (A): At this point, no new costs to property owners are anticipated as a result of the Monroe Street Neighborhood Greenway project. The City will look for outside funding sources to build the recommended improvements.

Q: What changes would occur on Washington Street as a result of the bicycle route?

A: A new crosswalk and flashing signal at 37th Ave and Washington St, sharrows on Washington St, and potential changes to stop signs.

Q: I am concerned about the location of chicanes near my property.

A: Exact locations of chicanes will be determined during the next phase of project development. Driveways and pavement widths will be considered.

Q: Why is diversion needed as part of the project?

A: A greenway is a street with low traffic that moves slowly, where people feel safe sharing the street. Ideal conditions are less than 1500 cars per day, with speeds below 20 mph. Today, we see more traffic on Monroe St than would be expected given the number of people who live on the street. That suggests that Monroe St carries some cut-through traffic that would be redirected by diverters to Harrison St/King Rd.

Q: How will the Neighborhood Greenway impact my parking?

A: Very little parking would be eliminated. A few spaces at intersections would be removed to make crossings safer, and parking east of 42nd Ave on Monroe St will be more clearly defined.

Q: When will this project get built?

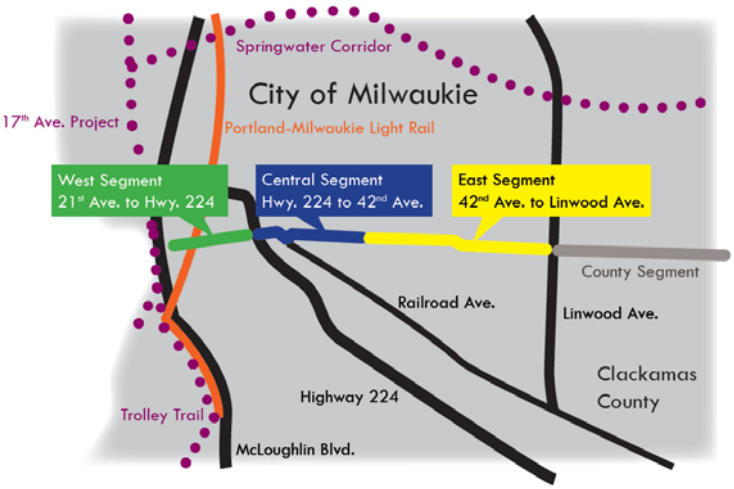
A: The City of Milwaukie will begin looking for funding for the first phase right away; final design and construction will take place as funding becomes available.

Q: Will any of the improvements affect response times for emergency vehicles?

A: The current design has been developed with input from the Fire Department and does not impact emergency response.

Q: What will happen to my mailbox if it is where a path/sidewalk is proposed to go?

A: In a few cases, a mailbox may need to be relocated if it is currently placed where the path/sidewalk would go (east of 42nd Ave on the north side of Monroe St). If the mail service is currently curbside, the mailbox would be relocated so that the letter carrier still has direct access to the mailbox.



Attachment 3

Total # of forms received = 46

Monroe Street Neighborhood Greenway Concept Design Project

Public Workshop #1 (December 3, 2014)

Which segment of Monroe Street do you live along?

__ West Segment (21st Ave to Hwy 224) = 3
__ Central Segment (Hwy 224 to 42nd Ave) = 1
__ East Segment (42nd Ave to Linwood Ave) = 21
__ I don't live in the Monroe Street corridor. = 6

Do you have a Monroe Street address? 14 Yes 12 No

Comment Form

***Question*: In your opinion, how important is each of the following issues for the Monroe Street Neighborhood Greenway?**

Issue	Importance Circle a number from 5 to 1 Very Important … Not Important	Total Responses
A. I want to be able (or have my children be able) to walk on Monroe Street safely to get to significant destinations such as downtown, local commercial areas, schools, and parks.	5 **57%** (24) 4 **17%** (7) 3 **9%** (4) 2 **5%** (2) 1 **12%** (5)	42
B. I want to be able (or have my children be able) to bike on Monroe Street safely to get to significant destinations such as downtown, local commercial areas, schools, and parks.	5 **48%** (20) 4 **26%** (11) 3 **7%** (3) 2 **2%** (1) 1 **17%** (7)	42
C. I want to see the number of cars or trucks on Monroe Street reduced.	5 **42%** (18) 4 **26%** (11) 3 **9%** (4) 2 **9%** (4) 1 **14%** (6)	43
D. I want to see the speed of cars or trucks on Monroe Street reduced.	5 **64%** (26) 4 **24%** (10) 3 **10%** (4) 2 **2%** (1) 1 **0%** (0)	41
E. I want to be able to drive to residential or business destinations along Monroe Street with minimal impediments.	5 **38%** (17) 4 **18%** (8) 3 **11%** (5) 2 **18%** (8) 1 **15%** (7)	45
F. I want to see the neighborhood identity of Monroe Street strengthened.	5 **32%** (14) 4 **20%** (9) 3 **20%** (9) 2 **14%** (6) 1 **14%** (6)	44
G. I want to be able to cross major streets such as OR 224 or Linwood Avenue more easily.	5 **48%** (21) 4 **18%** (8) 3 **9%** (4) 2 **9%** (4) 1 **16%** (7)	44
H. I want to reduce instances of flooding along Monroe Street.	5 **34%** (15) 4 **22%** (10) 3 **16%** (7) 2 **14%** (6) 1 **14%** (6)	44
I. I want improvements on Monroe Street to limit the number of vehicles that are diverted onto other Milwaukie streets.	5 **17%** (7) 4 **10%** (4) 3 **40%** (16) 2 **13%** (5) 1 **20%** (8)	40
J. I want to maintain the existing rural-street character of Monroe Street east of 42nd Avenue.	5 **39%** (16) 4 **17%** (7) 3 **22%** (9) 2 **10%** (4) 1 **12%** (5)	41
K. I want to see a concept design that limits impacts to adjacent properties.	5 **39%** (17) 4 **27%** (12) 3 **20%** (9) 2 **9%** (4) 1 **5%** (2)	44

Additional comments written in on front-page table:

Issue	Additional Comments
A. I want to be able (or have my children be able) to walk on Monroe Street safely to get to significant destinations such as downtown, local commercial areas, schools, and parks.	• Can do this now. *[didn't circle a number]* • Can do this now. *[didn't circle a number]*
B. I want to be able (or have my children be able) to bike on Monroe Street safely to get to significant destinations such as downtown, local commercial areas, schools, and parks.	• Can do this now. *[didn't circle a number]* • Can do this now. *[didn't circle a number]*
C. I want to see the number of cars or trucks on Monroe Street reduced.	• Which means adding them to another street. *[didn't circle a number]*
D. I want to see the speed of cars or trucks on Monroe Street reduced.	• Give speeding tkt. *[didn't circle a number]* • Patrol and give tickets. *[didn't circle a number]* • Give speed tickets! *[didn't circle a number]*
E. I want to be able to drive to residential or business destinations along Monroe Street with minimal impediments.	
F. I want to see the neighborhood identity of Monroe Street strengthened.	
G. I want to be able to cross major streets such as OR 224 or Linwood Avenue more easily.	• Don't have a problem now. *[didn't circle a number]* • Other crossings are busier and need help. *[didn't circle a number]*
H. I want to reduce instances of flooding along Monroe Street.	• There is none. *[circled "1"]* • ? *[circled "5"]*
I. I want improvements on Monroe Street to limit the number of vehicles that are diverted onto other Milwaukie streets.	• I live on Home Ave. *[circled "1"]* • ? *[didn't circle a number]* • Don't quite understand this question. *[didn't circle a number]* • Depends on which segment—would be more concerned about diverted traffic in west section. *[Respondent circled both "3" and "2" and indicated at top of form that they do not live in Monroe Street corridor but use west and central segments often and would use east segment more "if bike friendly."]* • This question does not make sense—improvement on Monroe will be diverted to other streets. *[didn't circle a number]*
J. I want to maintain the existing rural-street character of Monroe Street east of 42nd Avenue.	• ? *[didn't circle a number]* • No opinion. *[didn't circle a number]*
K. I want to see a concept design that limits impacts to adjacent properties.	• ?? *[circled "3"]*
L. Other	• If it's not broken, don't fix it. *[didn't circle a number]* • Noise reduction from cars. Preventing cars from speeding and speeding off of the intersection [of] Home and Monroe St. *[circled "5"]* • Reduce speed on Monroe to 20 mph. *[circled "5"]* • I like rural atmosphere. *[didn't circle a number]* • If it's not broken, don't fix it. *[didn't circle a number]* • I want transportation (ped/bike) encouraged to Downtown so Milwaukie $ stays in MILWAUKIE (and doesn't go to Sellwood/Woodstock, etc.). *[Respondent didn't circle a number—at top of form, indicated both that they live along the*

	central segment and that, "I live North of Monroe and would love a better way to travel by foot."] • This needs to be fair to traffic. *[circled "5"]* • Safety. *[circled "5"]* • Green space and painted murals for diversion. *[circled "5"]* • If this is truly shared space then I don't want anything that limits vehicle access. *[circled "5"]* • Safe walkability and bikeability. *[circled "5"]* • Cost to owners (i.e., taxes), [for] curbs [&] sidewalks. *[circled "5"]* • Stormwater improvements that reduce runoff and provide native plants/urban habitat. *[circled "5"]* • Improve visibility at 60th/Monroe and Linwood/Monroe intersections. *[circled "5"]* • Make Oak/Monroe intersection 3-way stop. *[circled "4"]*

How did you hear about this meeting?

- Mailer/flyer = 13
- Bike Milwaukie (Facebook page or e-mail) = 4
- "Milwaukie Rules" Facebook page = 3
- Milwaukie Pilot = 3
- City website = 1
- Neighbors = 1
- NDA (Neighborhood District Association) meeting = 1
- BTA (Bicycle Transportation Alliance) = 1
- PAC (Project Advisory Committee) information = 1

Other Comments or Questions: (from back of form—each bullet represents a comment or set of comments from one respondent)

- I really like the idea of a sidepath with stormwater treatment but we need at least 2 or 3 parking spots nearby. Parking is a concern but overall I love the idea that my street could become a safe place to walk and bike. I was not planning on raising my future children here on approximately 55th and Monroe, but if the street becomes safer I would consider staying and raising my children here. Also, we do have a "mini river" that flows down the street/parking area fairly often.
- Public education about what "right-of-way" is, leading to enforcement (letters, not tickets, for now), would help ped use w/o much $.
- I work at 42nd and Monroe (GracePointe Church). I drive Monroe every day, often multiple times. I also observe that intersection from the building. My observation is that the majority of cars traveling east on Monroe, coming from 37th up the hill, turn left at 42nd and Monroe toward King Road. Those who do not are split between turning right to Railroad or continuing on Monroe. Since that section of Monroe (37th to 42nd) is paved with sidewalks, it seems prudent to continue having traffic go up the hill and make the turn rather than divert through the neighborhood.

  Some sort of pathway/sidewalk is necessary for pedestrian safety between 42nd and Linwood.

  I would not favor diverters that restrict/prevent access up Monroe between 37th and Linwood. Circles that slow traffic could accomplish the goal and still allow access in all directions.

Defining the intersection at Home and Monroe with curbs and sidewalks at least, at each corner, would be very helpful in making it a clear stop intersection.

- When are you looking to have this plan put into the works? How long before the plan to be implemented in years (ahead) will this take place?
- A bikeable community is high priority for me. But each segment each has different needs or focus. I would love to be able to safely bike all segments with also priority in the west segment for walkability, meaning safe sidewalks and intersection crossing for pedestrians. There are schools, pre-schools, and daycares in the west segment with families, kids, and teachers walking to parks, library, and small green space on Monroe. But I do drive, too. I appreciate that greenways can also make my drives more efficient and safer, too! Thank you!
- I don't want the left turn onto Monroe St from Highway 224 blocked. It will shift traffic to Washington St and 29th, 28th, and 25th Aves. Bad for neighborhood side streets.
- I would like to know the statistics on walkers or bikers that have been hit on Monroe. Our property taxes are already high. I am sure they will go up to help fund this improvement.
- Monroe Street is paved nice, you can drive with no drama. Why destroy that? If you want to slow cars down, patrol street and give tickets.
- Thank you for providing such a respectful, inclusive meeting. I know that often the loudest voices are not necessarily the most positive (or even a representation of any kind of majority). It would be great if there was a push to hear more from the "quiet" folks—usually the moderate, more flexible, and open group. Thank you for all your hard work—this is going to be great.
- Thanks for all the hard work.
- Fixing/addressing the 224 crossing to make it safer—Remove left turn from 224 onto Monroe westbound, but keep the left turn lane from 224 onto Monroe eastbound.
- It is not safe to bike with my kids on any E-W routes through Milwaukie. Monroe is one good option and I'd like the greatest protection for bikes through this area. Alternately, I'd like to see bike improvements on Railroad Ave.
- We bought our house in Milwaukie because of the large lot and the great community. I appreciate the communication that the City has had with the citizens of Milwaukie. I would hate for our property to be cut into, because we really use our property as a greenspace to grow food.
- I like all the calming and slowing down traffic ideas.

  I don't like putting traffic on another street without looking at the impacts.

  I think we should address the busier intersections of 224 like Harrison and Washington.

  I think we should fund the Walk Safely program.
- Who is going to pay for this???? Who is going to do the work????
- I have no problem with slower speeds, better pedestrian crossings, etc. HOWEVER, I do not want the changes to impede the ability of me to drive Monroe in any direction, or turn onto Monroe from any direction (including 224).
- My driveway floods when it rains. I am concerned that if sidewalks are constructed, more stormwater will flow down the driveway and into my garage. We need permeable areas beside the street to absorb stormwater.
- Washington St, downtown to 224, should be part of the greenway—not Monroe. Let's connect the greenway to the schools.

  No diverters or blockage of streets to homes. Use roundabouts instead. Thanks!

- I love this project idea. I believe it can make our neighborhood stronger, safer, more livable for young and older families.
- Roundabout at Oak & Monroe? Have you ever been stuck at that intersection after the train?

  224 at Harrison and at Oak are crazy.

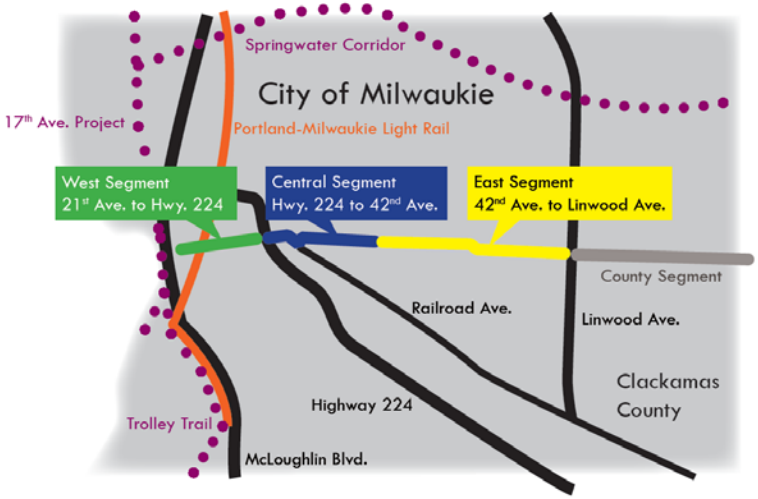
  The amount of concrete separators/barriers are ugly.

  Don't Portlandize Milwaukie.
- Please get a mike—most people in back could not hear.
- A great opportunity to increase safety for all users, strengthen the neighborhoods along Monroe St, and improve quality of life in Milwaukie!

  Linwood intersection is so dangerous. I grew up there and have seen more accidents than I can count. Very important to this project.
- Visibility very limited 1 block W of Linwood Ave, as there is a rise and dip in the road. A park is in the planning stage adjacent to this area. I'd like to see speed bumps or some other slowing device on both sides of the park (i.e., W of the park and E of the rise in the road).
- Neighborhood livability should not be a consideration that is exclusive to Monroe. Residential neighborhoods that have arterials need attention to slow down cars, make it safer for pedestrians and bikes and the quality of life for the residents.
- I hear people speeding (and see it) down Monroe and 29th/224 block every day. I've witnessed two car crashes, a motorcycle crash, and a high speed police/motorcyclist chase (which also ended in a crash!), all in the space of one month on my block. My wife was also nearly hit by a car on Monroe and 29th.

  I am strongly in favor of diverters, bike/ped crossing measures, and green street improvements! I would also love to see green street improvements that improved (reduced) urban runoff, and would love to give my input. I work for a SWCD [Soil & Water Conservation District] so I suppose stormwater improvements are my bias!

  Thank you for giving us a chance to comment.
- We do not support straightening Monroe or installing sidewalks on the 42nd – Linwood segment, as those improvements would tend to make cars go faster. We do not support restrictions on turning left onto Linwood from Monroe. We support keeping the yellow lane line on Monroe.



Monroe Street Neighborhood Greenway Concept Design Project

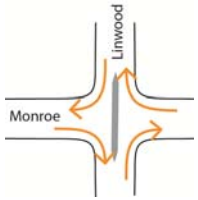
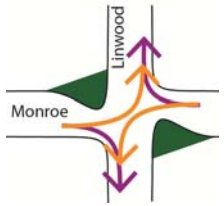
In association with Public Workshop #2 (March 18, 2015)

Survey Form

The Monroe Street corridor has several key areas where opportunities exist to improve safety for all users. There are choices involving trade-offs, and the City invites community members to share your opinions about these choices. For each of the key areas listed below, indicate your preference for one of the options as described.

Key Area	Option A	Option B
OR 224 Crossing Narrowing the crossing of OR 224 will improve safety for pedestrians and bicyclists by providing larger ped/bike refuges and reducing the crossing distance. **Question:** Should the southbound right-turn pocket on OR 224 be removed and replaced with a curb extension, to eliminate right turns onto Monroe St westbound?	**Remove** the southbound right-turn pocket on OR 224 and extend the curb to prohibit right turns onto Monroe St westbound. ❑ Check here if you prefer this option.	**Preserve** the southbound right-turn pocket to allow right turns from OR 224 onto Monroe St westbound. ❑ Check here if you prefer this option.
Campbell St Connection The route detours onto Campbell St for a short distance near Oak St. This is a low-volume section involving a complicated crossing of the railroad tracks at Oak St. **Question:** On Campbell St, where should bicycles be?	Bicycles share the travel lanes with vehicles in each direction; pedestrians are on sidewalks on either side of Campbell St.  ❑ Check here if you prefer this option.	Bicycles and pedestrians share a multiuse path along the north side of Campbell St.  ❑ Check here if you prefer this option.

(See reverse for more Key Areas)

Key Area	Option A	Option B
37TH AVE INTERSECTION In order to reduce cut-through traffic on Monroe St to create a quieter, safer street, and to establish a safer route for bicycles in the eastern segment of the corridor, vehicle volumes must be reduced at 37th Ave or 42nd Ave. **Question:** Should vehicle through-traffic be diverted at 37th Ave, or should Washington St be used as the primary bike route between 37th Ave and Home Ave?	Divert through-traffic at 37th Ave, allowing only right-turn vehicle movements on and off of Monroe St, and no left-turn movements from 37th Ave onto Monroe St. Pedestrians and bicycles can go straight across 37th Ave. ❑ Check here if you prefer this option.	Establish a multiuse path across the triangular McFarland site (parallel to the UPRR tracks) between Oak St and 37th Ave, then route bikes on Washington St back to Monroe St by way of either Garrett Dr or Ada Ln/Home Ave. *Note: This option depends on a path across the McFarland site and would most likely require a diverter at 42nd Ave instead of 37th Ave.* ❑ Check here if you prefer this option.
LINWOOD AVE INTERSECTION In order to reduce cut-through traffic on Monroe St to create a quieter, safer street, and to establish a safer route for bicycles in the eastern segment of the corridor on both sides of Linwood Ave, vehicle volumes must be reduced at Linwood Ave. **Question:** At Linwood Ave, should vehicle turns be right-in and right-out only on Monroe St; or should there be no entry into Monroe St from any direction, with vehicles allowed to make left and right turns onto Linwood Ave from Monroe St?	Divert through-traffic at Linwood Ave so that vehicle turning movements on Monroe St are right-in and right-out only. No left turns by vehicles on Linwood Ave or Monroe St. Bikes and peds can go straight across Linwood Ave.  ❑ Check here if you prefer this option.	Divert through-traffic at Linwood Ave so that vehicles on Monroe St can turn either left or right onto Linwood Ave, but no vehicles can enter Monroe St from any direction. Bikes and peds can go straight across Linwood Ave.  ❑ Check here if you prefer this option.

Contact Information (optional)

Name: _____

Mailing Address: _____

E-mail Address: _____

Phone Number: _____

Which segment of Monroe Street do you live along?

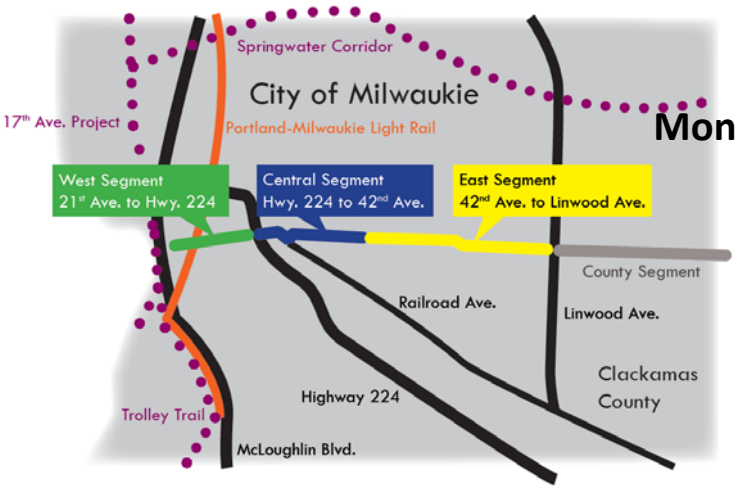
- ❑ West Segment (21st Ave to Hwy 224)
- ❑ Central Segment (Hwy 224 to 42nd Ave)
- ❑ East Segment (42nd Ave to Linwood Ave)
- ❑ I don't live in the Monroe Street corridor.

Does your property have frontage on Monroe Street?

❑ Yes ❑ No

How did you hear about this meeting? _____

Please send responses to Brett Kelver, Project Manager. E-mail to kelverb@milwaukieoregon.gov or regular mail to 6101 SE Johnson Creek Blvd, Milwaukie, OR 97206. Telephone (503) 786-7657 for questions or more information.



Total # of forms received = 33 at workshop
3 after workshop (as of 6/05/15)

Monroe Street Neighborhood Greenway Concept Design Project

Public Workshop #2 (March 18, 2015)

Which segment of Monroe Street do you live along?

__ West Segment (21st Ave to Hwy 224) = 1
__ Central Segment (Hwy 224 to 42nd Ave) = 5
__ East Segment (42nd Ave to Linwood Ave) = 19
__ I don't live in the Monroe Street corridor. = 3
__ *I live on the Washington St added section.* = 1

Do you have a Monroe Street address? 10 Yes 16 No

Survey Form

***Question*: Indicate your preference for one of the options as described.**

Key Area	Preference					Total Responses to Question
OR 224 Crossing Option A = Remove southbound right-turn pocket Option B = Preserve southbound right-turn pocket	Option A 63% (17)	Option B 29% (8)	" Neither" 4% (1)	Don't Know 4% (1)	No Response 9	27
Campbell St Connection Option A = Sidewalk on N side, w/ bikes sharing lane Option B = Multiuse path on N side for bikes & peds	Option A 26% (7)	Option B 70% (19)	"Neither" 4% (1)	Don't Know 0% (0)	No Response 9	27
37th Ave Intersection Option A = Diversion at 37th Ave Option B = Washington St alternative route	Option A 31% (9)	Option B 62% (18)	"Neither" 7% (2)	Don't Know 0% (0)	No Response 7	29
Linwood Ave Intersection Option A = Right-in, right-out on Monroe St Option B = L&R turns from Monroe St but no entry	Option A 56% (18)	Option B 22% (7)	"Neither" 19% (6)	Don't Know 3% (1)	No Response 4	32

Additional comments written in on survey:

- No Diversion at 224. We don't have enough bicycle traffic for this [improvements on Campbell]. [The alternative route across McFarland site and onto Washington St is better for the 37th Ave intersection question], but only if no diverter [at 42nd Ave].
- No diverter at 37th no matter what option is adopted!! Both of these [Linwood options] would create a huge inconvenience for residents.
- [Prefer Option B at Linwood, but without a curb extension on the SE corner—so, allow eastbound traffic on Monroe to turn left, turn right, or go straight across Linwood.]
- [Option B diverter at Linwood Ave] = Very bad plan! *[Respondent did not choose either option.]*
- [On Campbell St, bicycles should be in a] Dedicated bike lane on north side of Campbell (separate from pedestrians).
- I don't like either one. *[Written at top of second page, above item for 37th Ave intersection.]*
- Don't like either option [at Linwood Ave]—put a signal at Linwood.
- We like the plan so far!
- Bike lanes, safer pedestrian areas are great. Thanks for attempting to provide better access and safety. However, turning Monroe into a one-way street and restricting access to Monroe is NOT the solution. If the plan were to widen Monroe in order to add a bike lane and sidewalks for pedestrians, great,

you'd have my support. As long as general City funds aren't used on the project. Fund improvements with grants but not tax dollars. I do not support the one-way greenway option on Monroe. I am also concerned about increased traffic on Washington Street, Garrett Drive, and Ada Lane. Vehicles will naturally want to AVOID the greenway and will cut through other neighborhoods and streets. I am also concerned about unintended future consequences of using Washington St/Ada Lane as part of the bike path. In [the] future, some other city planner or council may then decide to make Washington St and Ada Lane a greenway, which I completely oppose! Thank you.

- [My] Vote against 37th Ave and Washington Street option is because the option includes the modification at 42nd and Monroe, in which through traffic east bound on Monroe is restricted to bikes only. It is unclear why it is necessary to add the "partial diverter" that prevents all vehicle traffic east bound through the intersection of Monroe and 42nd. This will impact the local residents that are returning from the west via Harrison, they will have to [go] farther north [east] on King Rd to then go south to get to the Hector Campbell neighborhood or farther east.

How did you hear about this meeting?

- Mailer/flyer = 11
- Bike Milwaukie (Facebook page or e-mail) = 6
- Milwaukie Pilot = 2
- City website = 5
- NDA (Neighborhood District Association) meeting = 1
- PAC (Project Advisory Committee) information = 1

Attachment 5

Total # of attendees signed in = 73 (including 8 PAC members)

Monroe Street Neighborhood Greenway Concept Design Project

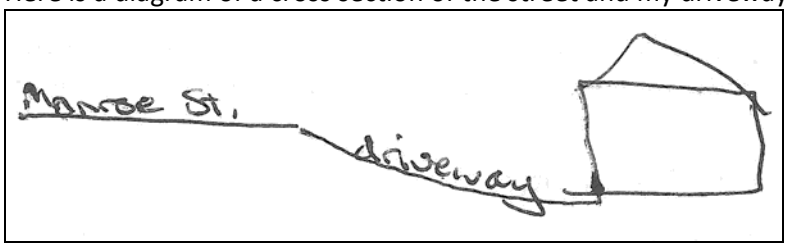
Public Workshop #3 (Open House – June 1, 2015)

Summary of Comments

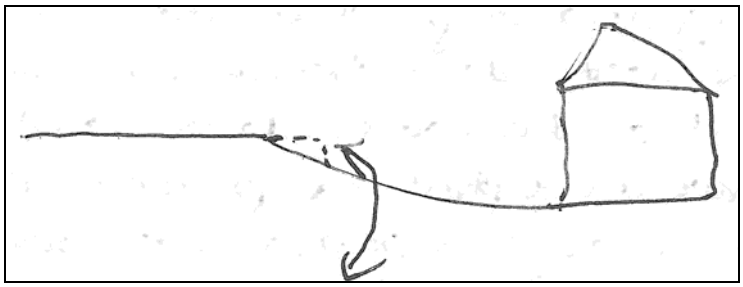
Comments:

- I like what I see and am looking forward to any improvement across 224. Love the idea of being able to bike east/west across the whole town!
- I think this is a waste of taxpayers' money. There are other things way more important. Sidewalks down Home Ave and Railroad Ave. Road repair. Slow down traffic with speed bumps. People imposing these changes probably don't even live in Milwaukie. Do people have a say in what's being done?
- Section B-1 – Though low traffic count, cars do speed through there. Having shared bike/car traffic here will pose significant risk to bikers. Rather see "no parking" along entire length of Monroe (224 to Campbell) and install bike lanes instead. Section B-1/C-1 – Must have stop signs at intersection of Campbell/Monroe. Best to have 3-way stop at that intersection! Section B-1 – Intersection of Penzance/Monroe has no street sewer; water runs north on Penzance, floods across the intersection from SE corner of Penzance/Monroe to SW corner of Penzance/Monroe. Landscaping will escalate this! Section B-1 – Regarding the "bulbouts" on Monroe at Penzance, put them in! Keep 'em in the plan, BUT make them bioretention instead of landscaping. Also prefer the "bulbouts" at Campbell/Monroe intersection, but ADD 3-way stop (signs). Section B-1 – Roundabout – at Penzance →ELIMINATE IT!← Change the "landscape" buffer at Penzance to bioretention due to overflow/flooding at that intersection. If roundabout is retained, must make "no parking" on north side of Monroe opposite roundabout.
- Section C-1 – Yes to sidewalks on north side of Campbell. Yes to "no parking" on Campbell. Stop signs at all directions at "new" Campbell/Monroe intersection.
- No to all changes to Monroe. Where are all those with multiple cars going to park? No crossing to Railroad Ave from 40th Ave—too dangerous *[context = if a diverter goes in at 37th Ave, the commenter would be forced to choose a new route to Milwaukie Marketplace, perhaps going south on 40th Ave to Railroad Ave]*.
- The final two westernmost blocks of Monroe should be part of the project scope. This must connect comfortably to the Trolley Trail. Washington St. connection is great. Prioritizing the path and diverters is great! Nice work, all.
- I don't think chicanes are going to slow down traffic. I think that people on bikes going around the chicanes are going to be injured or killed.
- I am opposed to a diverter on 42nd & Monroe. I would rather have a roundabout or a traffic signal or speed bumps to slow traffic. I am also against having chicanes on Monroe. Dedicated bike lanes, sidewalks, and curbs are safer and less obtrusive.
- The rest of Milwaukie should be told about this street. Then we need to vote, this is supposed to be majority rule! 4-way stop at Linwood.
- Delete chicanes. Delete traffic diverters. These "tools" may increase safety but at what price? One of my biggest concerns now is the economy; especially jobs for high school grads. Living wage, permanent (long-term), full-time jobs. Spending money on chicanes, ADA ramps, and such doesn't deliver real jobs but it consumes, permanently, lots and lots of capital.
- I think diverters are an important safety component of the greenway, and I have heard from neighbors who are very supportive of them. I'm afraid there's a misplaced concern about impacts to emergency vehicles (which can pass over them) and a small vocal group of people who don't want to be inconvenienced, but bikes and peds NEED safer routes!

- Please, reconsider parking on south side of Monroe St from 25th to 28th Aves—instead of parking spaces and green spaces put in a bike lane west-east to 224.
- Overall project looks very promising. Similar changes to streets in SE Portland work well for cyclists and reduce traffic. The McFarland path is a very good plan. Getting easements should be a high priority. I think a lot of residents support the concept, but are quieter than opponents.
- This project loads too much and traffic onto Washington St and Harrison. There are too many chicanes! Why spend money widening existing sidewalks when so many properties in the city have no sidewalks. (resident on Monroe at 28th)
- I live at 5305 SE Monroe St. I am concerned about stormwater drainage. My house is lower than street level and I don't want water to drain down my driveway. Other houses on the north side of Monroe near Linwood and on the west side of Wood Ave have an asphalt bump across their driveways to prevent stormwater from flooding their driveways. Can I arrange to have that done when Monroe is widened? How can I arrange it? Here is a diagram of a cross section of the street and my driveway:



Here is what it will look like after the street is widened:



Do you see a problem at the widened street area? Will I need a new driveway? I will be upset about paying for it, and it will not be an "improvement."

- (1) Restrictions at 224. Where is the current traffic going to go? The traffic study basically said that the Harrison and Oak intersections will be so congested that the Monroe traffic will not make a significant difference. I believe that neighbor streets will have more car trips but not receive any safety improvements. And [car trips will] be diverted to even busier, heavier used Oak and Harrison intersections. (2) Access to light rail – bike will cross twice to get to station.
- Eliminate diverters on corner of Monroe/Linwood and put in 4-way stop signs on Linwood/Monroe with pedestrian crosswalk . . . flashing beacon on corner also. Post more 25 mph signs on Monroe.
- The plan is brilliant as proposed. I will fight for it.
- Great idea and concept. I support the idea to improve infrastructure for pedestrians and cyclists because it gets people moving and creates community. Keep up the great work. I support this idea 100%. Suggestion: reach out to the local[s] on the street more to tame their fears.
- (1) No left turn for Monroe to Hwy 224 would create a lot of problems for residents leaving the area. (2) Correct signal at Harrison and 224 so cars can make left turns while train is crossing Harrison.
- I am very pleased with the proposed design. Thank you for responding to my last comment card by adding a parking spot in front of my house. If this gets constructed I may choose to stay and raise children here.
- On bike route via Washington/Ada: Add 4-way stops on 40th & Washington and 42nd & Washington, stop signs on Garrett & Ada at Washington St. Why not using Garrett Ln instead Ada? Less cost. On Monroe: Not

comfortable w/chicanes, especially [in the] dark. Need good reflections. Costly. 4-way stop at Linwood now, please.

- This is needed badly and [I] hope that it gets support and funding. I'm wanting safer roads for myself and my family to bike to work and school.
- Monroe is overloaded with traffic. Why are we adding bicycles? We need sidewalks! Needed for pedestrians and powered wheelchairs. We need traffic lights on Linwood and Monroe. Put the bikes on King Road, which is able to handle the traffic.
- Too much on as narrow of a street such as Monroe. All we need is: (1) 4-way stop light on Linwood and Monroe. (2) Sidewalks to provide safety for walkers (pedestrians) and powered wheel chairs. (3) No planted dividers – they eventually create visibility hazards. 4-way stops at 42nd, 37th, and Monroe & Oak. Please do not direct bike traffic through our residential area. You are just trading less cars for more bikes.
- Please keep the actual changes simple and appropriate for the neighborhood. Slowing traffic and diverting could be accomplished, while improving safety, by adding sidewalks (between 42nd & Linwood), a bike path, some sewer drainage improvements, landscaping, and 5-10 speed cushions. This would achieve the stated purpose, do so at the least cost and inconvenience, and frustrate the residents the least. Diverters, chicanes, and circles are not necessary to accomplish the stated purpose.
- You might try using temporary stand-ins in the time leading up to implementing the chicanes—large potted plants or the like. It'd be a low-cost test run of placement. It would help people conceptualize the experience of living on and travelling on a slower street. (People might really like it or realize it isn't that bad.) Stand-ins, like the bright orange cylinders that spring back up when you drive over them.
- Power poles on the north side—will they interfere with sidewalk/path?
- Speed bump on Monroe at the bottom of the hill at about 60th. Slow people approaching the park.
- Turning from 60th onto Monroe is dangerous! Please address this issue.
- If you're hoping to lower traffic on Monroe, why signalize Oak/Monroe/Railroad intersection? Make it a 3-way (all-way) stop. (1) It will be cheaper. (2) It is safer and easier for cyclists/peds. (3) A signal won't be necessary for lower ADT [average daily trips].
- 4-way stop signs on corner of Monroe/Linwood…
- More 25 mph signs on Monroe…
- 60th hill = speed and sightlines issue.
- For north side walk path, please distinguish (w/photos): (1) pervious asphalt walk, (2) pervious pavement. Not clear how this is similar/different.
- Prefer Garrett connection to Monroe, not Ada to Home.
- No to all changes to Monroe.
- Where are all the cars that park on north side of Monroe going to park? Some are multiple cars, for multiple families.
- No crossing to Railroad Ave from 40th Ave.
- I think most proposed changes will considerably improve Monroe.
- If you are opposed for any reason, please come to City Council meeting → don't know date → but come and voice your opinion. This does not have to be a done deal.
- If you want to lower average daily car traffic on Monroe by encouraging use of Harrison to cross 224, please consider including left turn lights in traffic signalization for Harrison. (Harrison already backs up quite a bit.)
- Money for project should be spent resurfacing upper Monroe and other streets.

Comments on Monroe Greenway Project

To Whom It May Concern:

My question is based on the regular statement I have heard in various meetings that there is a "through traffic" problem on Monroe. It has been stated a number of times that there is a large volume of traffic comprised of vehicles traveling from Oak Street area onto Monroe to get to 82nd Ave. In fact, the project manager for the consultants stated near the end of the April public meeting that very few cars traveling on Monroe are residents, indicating a position that most vehicles are drive through. Since that is contrary to my observation as a resident of Hector Campbell, and since I sat and counted traffic for hours during times that would be the busiest during a typical day, I am seeking clarification on the data that appears to be the basis for the project. So, my question is, **"How has it been determined that the vehicles that enter Monroe at 42nd heading east are the same vehicles that then cross Linwood toward 82nd?"** In the opposite direction, **"How has it been determined that the vehicles heading west on Monroe at Linwood are the same vehicles passing through 42nd and Monroe?"** (A count of vehicles on Fuller Road would also be important as drivers have to cross Fuller to get to 82nd.) As a resident living off of Monroe when I travel to 82nd Avenue I go to either Railroad Ave. or King Road to get to 82nd. Rarely do I use Monroe as a "through" option. It is inconvenient and takes longer. If I as a resident don't choose Monroe why would a non-resident when the other options are faster? Since the "how" of determining the basic premise has yet to be presented I am led to believe that level of survey, or data collection, **has not been done**. In that case the basic premise, from my perspective, would be a false premise, and in my experience actions taken based on false premises result in unintended consequences and those are more often than not negative, rather than positive. So, that is why I ask the question as I believe data indicating who the drivers actually are is very important to have in hand. Here are some related thoughts:

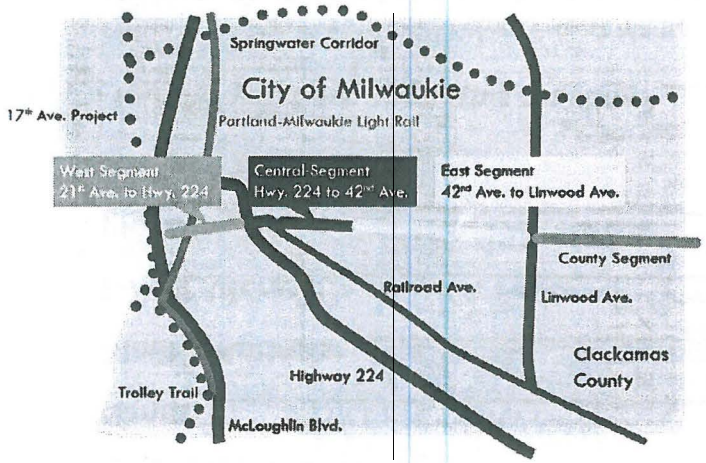
- If the through traffic data was collected and confirmed the majority of vehicles were in fact drive through then a more assertive plan would be needed to slow down the traffic and "move" the traffic to another road
- If the traffic is actually mostly residents there would be little change in volume and the conceptual plan, if implemented, would mainly result in inconvenience to residents
- With the paving of Railroad, and as I understand 42nd between Railroad and Monroe, I believe a significant portion of whatever the actual through traffic volume on Monroe is now, would shift to Railroad
- The residents of the Monroe area NDA's are not too interested in having a "showcase" roadway. We would like sidewalks, bike paths with some storm drainage and some landscaping upgrades for safety and ascetics along with a series of speed cushions that would discourage through traffic, slow down all traffic and be an acceptable adjustment for residents. This would also require far less costs to complete.
- Diverters, chicanes and circles, have almost zero appeal, or value, for residents.

Please collect the necessary data to clarify who is truly driving on Monroe so that actions are based on an accurate premise and then keep the changes simple but nice.

Respectfully Submitted,

Glenn Hoerr – 11534 SE Home Ave - 503-888-7720 ghoerr@gpointe.com

Glenn Hoerr

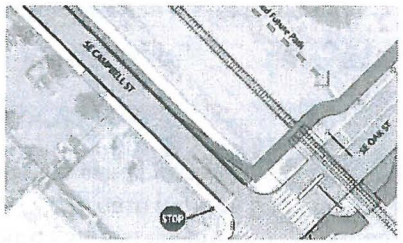
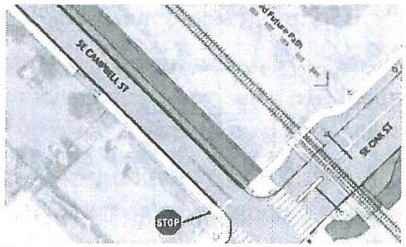


Monroe Street Neighborhood Greenway
Concept Design Project

In association with Public Workshop #2 (March 18, 2015)

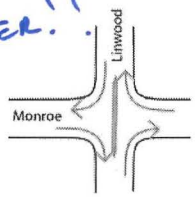
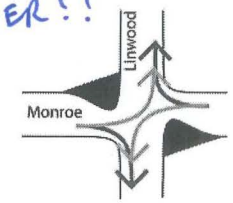
Survey Form

The Monroe Street corridor has several key areas where opportunities exist to improve safety for all users. There are choices involving trade-offs, and the City invites community members to share your opinions about these choices. For each of the key areas listed below, indicate your preference for one of the options as described.

Key Area	Option A	Option B
OR 224 CROSSING Narrowing the crossing of OR 224 will improve safety for pedestrians and bicyclists by providing larger ped/bike refuges and reducing the crossing distance. **Question:** Should the southbound right-turn pocket on OR 224 be removed and replaced with a curb extension, to eliminate right turns onto Monroe St westbound?	**Remove** the southbound right-turn pocket on OR 224 and extend the curb to prohibit right turns onto Monroe St westbound. ☑ Check here if you prefer this option.	**Preserve** the southbound right-turn pocket to allow right turns from OR 224 onto Monroe St westbound. ☐ Check here if you prefer this option.
CAMPBELL ST CONNECTION The route detours onto Campbell St for a short distance near Oak St. This is a low-volume section involving a complicated crossing of the railroad tracks at Oak St. **Question:** On Campbell St, where should bicycles be?	Bicycles share the travel lanes with vehicles in each direction; pedestrians are on sidewalks on either side of Campbell St.  ☐ Check here if you prefer this option.	Bicycles and pedestrians share a multiuse path along the north side of Campbell St.  ☑ Check here if you prefer this option.

(See reverse for more Key Areas)

WS60

Key Area	Option A	Option B
37TH AVE INTERSECTION In order to reduce cut-through traffic on Monroe St to create a quieter, safer street, and to establish a safer route for bicycles in the eastern segment of the corridor, vehicle volumes must be reduced at 37th Ave or 42nd Ave. **Question:** Should vehicle through-traffic be diverted at 37th Ave, or should Washington St be used as the primary bike route between 37th Ave and Home Ave?	Divert through-traffic at 37th Ave, allowing only right-turn vehicle movements on and off of Monroe St, and no left-turn movements from 37th Ave onto Monroe St. Pedestrians and bicycles can go straight across 37th Ave. NEITHER!! ❑ Check here if you prefer this option.	Establish a multiuse path across the triangular McFarland site (parallel to the UPRR tracks) between Oak St and 37th Ave, then route bikes on Washington St back to Monroe St by way of either Garrett Dr or Ada Ln/Home Ave. *Note: This option depends on a path across the McFarland site and would most likely require a diverter at 42nd Ave instead of 37th Ave.* ❑ Check here if you prefer this option.
LINWOOD AVE INTERSECTION In order to reduce cut-through traffic on Monroe St to create a quieter, safer street, and to establish a safer route for bicycles in the eastern segment of the corridor on both sides of Linwood Ave, vehicle volumes must? be reduced at Linwood Ave. **Question:** At Linwood Ave, should vehicle turns be right-in and right-out only on Monroe St; or should there be no entry into Monroe St from any direction, with vehicles allowed to make left and right turns onto Linwood Ave from Monroe St?	Divert through-traffic at Linwood Ave so that vehicle turning movements on Monroe St are right-in and right-out only. No left turns by vehicles on Linwood Ave or Monroe St. Bikes and peds can go straight across Linwood Ave. NEITHER!!  ❑ Check here if you prefer this option.	Divert through-traffic at Linwood Ave so that vehicles on Monroe St can turn either left or right onto Linwood Ave, but no vehicles can enter Monroe St from any direction. Bikes and peds can go straight across Linwood Ave. NEITHER!!  ❑ Check here if you prefer this option.

Contact Information (optional)

Name: KAREN HAVRAN

Mailing Address: 4606 SE Washington St. Milwaukie 97222

E-mail Address: kakaRaven@gmail.com

Phone Number: 503-933-7563

Which segment of Monroe Street do you live along?

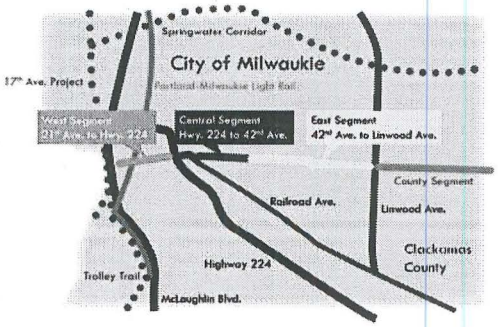
- ❑ West Segment (21st Ave to Hwy 224)
- ❑ Central Segment (Hwy 224 to 42nd Ave)
- ❑ East Segment (42nd Ave to Linwood Ave)
- ❑ I don't live in the Monroe Street corridor.
- ☒ I live on the Washington Street added section.

Does your property have frontage on Monroe Street?

❑ Yes ☒ No

How did you hear about this meeting? _____

Please send responses to Brett Kelver, Project Manager. E-mail to kelverb@milwaukieoregon.gov or regular mail to 6101 SE Johnson Creek Blvd, Milwaukie, OR 97206. Telephone (503) 786-7657 for questions or more information.



Additional Comments & Questions

Please use this space to note any comments or questions you might have about this project or the Draft Design.
(Use additional pages if necessary.)

Bike lanes, safer pedestrian areas are great. Thanks for attempting to provide better access & safety.

However, Turning Monroe into a one-way street and restricting access to Monroe is NOT the solution.

If the plan were to widen Monroe in order to add a bike lane and sidewalks for pedestrians, great, you'd have my support. As long as general city funds aren't used on the project. Fund improvements with grants but not tax dollars.

⇒ I do not support the one way greenway option on Monroe.

⇒ I am also concerned about increased traffic on Washington Street, Garret Drive, and Ada Lane. Vehicles will naturally want to AVOID the greenway and will cut through other neighborhoods and streets.

⇒ I am also concerned about ~~unintended~~ unintended future consequences of using Washington St / Ada lane as part of the bike path. In future some other city planner or Council may then decide to make Washington St & Ada lane a green way, which I Completely Oppose!

Please send responses to Brett Kelver, Project Manager. E-mail to kelverb@milwaukieoregon.gov or regular mail to 6101 SE Johnson Creek Blvd, Milwaukie, OR 97206. Telephone (503) 786-7657 for questions or more information.

Thank You, Karen Havran