CITY OF **MILWAUKIE**

COUNCIL **ORDINANCE No.** 2163

AN ORDINANCE OF THE CITY OF MILWAUKIE, OREGON, ADOPTING THE NORTH MILWAUKIE INNOVATION AREA PLAN (NMIA PLAN) AS AN ANCILLARY DOCUMENT TO THE COMPREHENSIVE PLAN AND AMENDING TITLE 14 SIGN ORDINANCE, TITLE 19 ZONING ORDINANCE, ZONING MAP, AND RELATED ELEMENTS OF THE COMPREHENSIVE PLAN (FILE #ZA-2017-003, CPA-2017-002).

WHEREAS, the City of Milwaukie desires to encourage redevelopment and investment in the North Milwaukie Innovation Area (NMIA) and ensure that new development reflects the desires of the community; and

WHEREAS, the City Council approved Resolution 71-2017 directing city staff to prepare plan and code amendments to implement the NMIA Plan; and type text; and

WHEREAS, all NMIA property owners and tenants were notified of the amendments and opportunity for public input has been provided at multiple public meetings and through the City website; and

WHEREAS, the City has prepared a new North Milwaukie InnovationArea Plan that builds on the Tacoma Station Area Plan with a vision for a next generation employment area, and the City Council finds that the amendments will result in updated development and design standards that reflect the community's vision for future development in the NMIA; and

WHEREAS, the proposed amendments have been processed pursuant to a Type V Legislative Review per Milwaukie Municipal Code Section 19.1008, with notice provided per the requirements of the Milwaukie Municipal Code and Oregon Revised Statutes, and duly advertised public hearings on the proposed amendments before the Planning Commission and City Council; and

WHEREAS, the City Council finds that the amendments are extensive in scope and require 60 days from the date of adoption to put into effect.

Now, Therefore, the City of Milwaukie does ordain as follows:

Section 1. Findings. Findings of fact in support of the amendments are adopted by the City Council and are attached as Exhibit A.

Section 2. Amendments. The Comprehensive Plan and Milwaukie Municipal Code are amended as described in Exhibit B (Comprehensive Plan underline/strikeout version), Exhibit C (Comprehensive Plan clean version), Exhibit D (North Milwaukie Industrial Area Plan clean version only), Exhibit E (Transportation System Plan underline/strikeout version), Exhibit F (Transportation System Plan clean version), Exhibit G (Titles 14 Signs and 19 Zoning underline/strikeout version), Exhibit H (Titles 14 Signs and 19 Zoning clean version), and Exhibit I (Zoning Map Amendments).

Section 3. Effective Date. The amendments shall become effective 60 days from the date of adoption.

Read the first time on 8/21/18 and moved to second reading by 5:0 vote of the City Council.

Read the second time and adopted by the City Council on 8/21/18.

Signed by the Mayor on 8/21/18.

Mark Gamba, Mayor

ATTEST:

Scott S. Stauffer, City Recorder

APPROVED AS TO FORM:
Jordan Ramis PC

City Attorney

Exhibit A

Recommended Findings in Support of Approval
File #ZA-2017-003; CPA-2017-002
North Milwaukie Innovation Area Plan and Code Amendments

Sections of the Milwaukie Municipal Code not addressed in these findings are found to be inapplicable to the decision on this application.

1. The applicant, the City of Milwaukie, proposes to amend various North Milwaukie Innovation Area regulations that are contained in Title 14 Sign Ordinance and Title 19 Zoning Ordinance of the Milwaukie Municipal Code, the Milwaukie Zoning Map, various North Milwaukie Innovation Area regulations that are contained in Chapter 4 of the Milwaukie Comprehensive Plan (MCP), the Transportation System Plan (TSP), the Tacoma Station Area Plan (TSAP), and adopt a new North Milwaukie Innovation Area Plan (NMIA Plan) as an ancillary document of the MCP. The land use application file numbers are ZA-2017-003 and CPA-2017-002.

2. The purpose of the proposed amendments is to remove barriers, create incentives, and encourage the type of development projects that implement the community's vision for the NMIA. Amendments are proposed in several titles of the municipal code, as follows:

   - MMC 19.312 – Replace Tacoma Station Area Manufacturing Zone (M-TSA) with North Milwaukie Innovation Area (NMIA)
   - MMC 19.406 – Delete the Tacoma Station Area Overlay Zone (TSA)
   - MMC 14.16.050 – Sign Districts: Manufacturing Zone
   - Housekeeping amendments to various sections of the zoning code with reference updates

   Additionally, amendments are proposed to Chapter 4 of the MCP to coordinate with the proposed amendments to Title 19.

3. The proposal is subject to the following provisions of the Milwaukie Municipal Code (MMC):

   - MMC Section 19.902 Amendments to Maps and Ordinances
   - MMC Chapter 19.1000 Review Procedures

4. Sections of the MMC not addressed in these findings are found to be not applicable to the decision on this land use application.

5. The application has been processed and public notice provided in accordance with MMC Section 19.1008 Type V Review. Public hearings were held on November 28, 2017, December 12, 2017, January 9, 2018, February 6, 2018, February 20, 2018, March 6, 2018, April 17, 2018, and August 21, 2018 as required by law.

6. MMC Chapter 19.1000 establishes the initiation and review requirements for land use applications. The City Council finds that these requirements have been met as follows.

a. MMC Subsection 19.1001.6 requires that Type V applications be initiated by the Milwaukie City Council, Planning Commission, Planning Director, or any individual.

The amendments were initiated by the Planning Director on September 25, 2017.

b. MMC Section 19.1008 establishes requirements for Type V review. The procedures for Type V Review have been met as follows:

(1) Subsection 19.1008.3.A.1 requires opportunity for public comment.

Opportunity for public comment and review has been provided. In addition to the numerous public open houses as part of the North Milwaukie Industrial Area plan process, the Planning Commission had 2 worksessions about the proposed amendments. Notice of the draft amendments were sent to members of the project steering committee, the Planning Commission, and "interested persons" for review in advance of the first Planning Commission worksession on October 10, 2017. The current version of the draft amendments have been posted on the application webpage since October 27, 2017. On October 27, 2017 staff e-mailed NDA leaders with information about the hearing and a link to the draft proposed amendments.

(2) Subsection 19.1008.3.A.2 requires notice of public hearing on a Type V Review to be posted on the City website and at City facilities that are open to the public at least 30 days prior to the hearing.

A notice of the Planning Commission's November 28, 2017, hearing was posted as required on October 27, 2017. A notice of the City Council's February 6, 2018, hearing was posted as required on January 5, 2018.

(3) Subsection 19.1008.3.A.3 requires notice be sent to individual property owners if the proposal affects a discrete geographic area or specific properties in the City.

The proposed amendments will apply to properties in the M-TSA and M zones in the NMIA. All affected property owners and tenants were notified of the hearing date via the Measure 56 notice, which was sent on October 30, 2017.

(4) Subsection 19.1008.3.B requires notice of a Type V application be sent to the Department of Land Conservation and Development (DLCD) 35 days prior to the first evidentiary hearing.

Notice of the proposed amendments was sent to DLCD on October 24, 2017.

(5) Subsection 19.1008.3.C requires notice of a Type V application be sent to Metro 45 days prior to the first evidentiary hearing.

Notice of the proposed amendments was sent to Metro on October 13, 2017.

(6) Subsection 19.1008.3.D requires notice to property owners if, in the Planning Director's opinion, the proposed amendments would affect the permissible uses of land for those property owners.

The proposed amendments will apply to properties in the M-TSA and M zones in the NMIA. The City sent a Measure 56 Notice summarizing the proposal and announcing the date of the first public hearing to all property owners and tenants in the NMIA on October 30, 2017.

(7) Subsection 19.1008.4 and 5 establish the review authority and process for review of a Type V application.

The Planning Commission held duly advertised public hearings on November 28 and December 12, 2017 and January 9, 2018 and passed a motion recommending that the City Council approve the proposed amendments. The City Council held duly advertised public hearings on February 6, 2018, February 20, 2018, March 6, 2018, April 17, 2018, and August 21, 2018, and approved the amendments.

7. MMC 19.902.3 establishes requirements for amendments to the text of the Milwaukie Comprehensive Plan. The City Council finds that these requirements have been met as follows.

a. MMC Subsection 19.902.3.A requires that changes to the text of the Milwaukie Comprehensive Plan shall be evaluated through a Type V review per Section 19.1008.

The Planning Commission held duly advertised public hearings on November 28 and December 12, 2017 and January 9, 2018. The City Council held duly advertised public hearings on February 6, 2018, February 20, 2018, March 6, 2018, April 17, 2018, and August 21, 2018. Public notice was provided in accordance with MMC Subsection 19.1008.3.

b. MMC Subsection 19.902.3.B contains approval criteria for changes to the text of the Milwaukie Comprehensive Plan.

(1) MMC Subsection 19.902.3.B.1 requires that the proposed amendment be consistent with the goals and policies of the Comprehensive Plan, as proposed to be amended.

The goals and policies of the Comprehensive Plan and its ancillary documents support the development of the NMIA as a strong regional center for next-generation traded sector employment and manufacturing as well as supporting commercial and service businesses:

(a) The Goal Statement of the Economic Base and Industrial/Commercial Land Use Element reads as follows:

To continue to support and encourage the development of a broad industrial base in the City, and to encourage the expansion of service facilities in the community.

(b) Objective #6 – Industrial Land Use states:

To encourage new industries to locate within the three major industrial areas of the City, in order to take maximum advantage of existing access and public facilities serving industry.

The proposed amendments adopt the North Milwaukie Innovation Area Plan, an ancillary document of the Comprehensive Plan, that builds on the 2013 Tacoma Station Area Plan, establishes a vision for this critical employment area, and identifies projects that will implement the vision for the NMIA.

(2) MMC Subsection 19.902.3.B.2 requires that the proposed amendment is in the public interest with regard to neighborhood or community conditions.

The proposed amendments reflect the community's desire for policies and regulations that encourage high-quality, attractive development while respecting the surrounding residential neighborhoods in central Milwaukie.

(3) MMC Subsection 19.902.3.B.3 requires the public need be best satisfied by this particular proposed amendment.

The proposed amendments confirm the community's vision for the development of the NMIA as a strong regional center for next-generation traded sector employment and manufacturing as well as supporting commercial and service businesses. Only 18.4 percent of the city is zoned for industrial/employment use. A need exists for the proposed amendment given that several sites in the NMIA are under-developed. The proposed amendments include language to encourage redevelopment that will provide both employment and services to residents of the city.

(4) MMC Subsection 19.902.3.B.4 requires that the proposed amendment is consistent with the Metro Urban Growth Management Functional Plan and relevant regional policies.

The proposed amendment is consistent with the Metro Urban Growth Management Functional Plan and relevant regional policies related to residential and employment capacity.

Title 4 seeks to provide and protect sites for employment by limiting the type and scale of non-industrial uses in Employment Areas. A portion of the proposed MUTSA and NME are identified as Employment Areas. The proposed amendments limit the size of commercial and retail uses to meet the goal that those uses are intended to serve the needs of businesses, employees, and residents in the NMIA, which is consistent with Title 4.

The city has identified a Tacoma Station Area for the purpose of Title 6, which calls for actions and investments by communities to enhance the role of station communities as centers of urban life. Title 6 includes requirements that the development code reduce barriers to mixed-use and transit-supportive development. The proposed amendments specifically allow residential and mixed-use development and associated service uses, as well as require design standards geared toward the

pedestrian environment, in the proposed MUTSA zone which is within the proposed Tacoma Station area.

The proposed amendments were sent to Metro for comment. Metro did not identify any inconsistencies with the Metro Urban Grown Management Functional Plan or relevant regional policies. Metro provided comment that the code amendments are in compliance with Metro's Functional Growth Management Plan and are in accordance with the changes reviewed and recommended by the NMIA Stakeholder Advisory Group.

During the hearing process, a Milport Mixed Use Overlay Zone was proposed. The overlay zone applied to the southwest quadrant of the NME and was intended to provide additional flexibility in the NME by providing opportunities for mixed-use residential development, but prohibit standalone residential development. The overlay provisions were proposed to sunset after 10 years and apply to less than fifteen percent of the total area of the NMIA, to ensure that the majority of the NMIA remained an employment-focused area. The proposed overlay zone would have allowed the existing large format retail business to continue to operate but prohibited additional retail over 20,000 sq ft in size. However, after testimony from both business and property owners in the NME, testimony from the Downtown Milwaukie Business Association and other interested persons, and lengthy discussion by the City Council at 3 public hearings, the City Council voted against the proposed overlay. This decision was based on the Council finding that residential uses in the NME was inconsistent with the purpose of the NME – to encourage and support employment uses rather than commercial or residential development. Further, the proposed overlay was a reaction to a single property owner claiming that residential development was the only development that would provide the opportunity to rebuild if the existing retail building was destroyed. The proposed code language includes reference to the existing retail building and a provision to grandfather it at its current size.

(5) MMC Subsection 19.902.3.B.5 requires that the proposed amendment be consistent with relevant State statutes and administrative rules, including the Statewide Planning Goals and Transportation Planning Rule.

A trip generation analysis was prepared as part of the NMIA Plan process (see Attachment 1: Trip Generation Scenario Analysis Memorandum dated August 30, 2017). The purpose of the analysis, using a reasonable worst-case development scenario, was to determine whether further traffic impact evaluation would be required based on the Transportation Planning Rule (TPR) 660-012-0060. The analysis was based on buildable acreage and an assumption of land uses and FAR. The analysis took into account that a portion of the area is a Station Area. Based on the proposed development requirements, there are changes to the reasonable worst-case development assumptions, including a reduction in office use and an increase in industrial use. This resulted in a reduction of peak hour trips between existing and

proposed zoning requirements and no net increase in trip generation. Therefore, no further TPR analysis is required.

The proposed amendments were sent to the Department of Land Conservation and Development (DLCD) for comment. The DLCD did not identify any areas where the proposed amendments were inconsistent with State statutes and administrative rules.

8. MMC 19.902.5 establishes requirements for amendments to the text of the zoning ordinance. The City Council finds that these requirements have been met as follows.

   a. MMC Subsection 19.902.5.A requires that changes to the text of the land use regulations of the Milwaukie Municipal Code shall be evaluated through a Type V review per Section 19.1008.

      The Planning Commission held duly advertised public hearings on November 28 and December 12, 2017 and January 9, 2018. The City Council held duly advertised public hearings on February 6, 2018, February 20, 2018, March 6, 2018, April 17, 2018, and August 21, 2018. Public notice was provided in accordance with MMC Subsection 19.1008.3.

      (1) MMC Subsection 19.902.5.B establishes the approval criteria for changes to land use regulations of the Milwaukie Municipal Code.

         (a) MMC Subsection 19.905.B.1 requires that the proposed amendment be consistent with other provisions of the Milwaukie Municipal Code.

         The proposed amendments coordinate and are consistent with other provisions of the Milwaukie Municipal Code.

         (b) MMC Subsection 19.902.5.B.2 requires that the proposed amendment be consistent with the goals and policies of the Comprehensive Plan.

         Current Comprehensive Plan goals and policies strongly support the development of the NMIA as a strong regional center for next-generation traded sector employment and manufacturing as well as supporting commercial and service businesses.

         The Goal Statement of the Economic Base and Industrial/Commercial Land Use Element reads as follows:

         To continue to support and encourage the development of a broad industrial base in the City, and to encourage the expansion of service facilities in the community.

         Objective #6 – Industrial Land Use states:

         To encourage new industries to locate within the three major industrial areas of the City, in order to take maximum advantage of existing access and public facilities serving industry.

The proposed amendments:

- *Promote high-quality, urban design in the North Milwaukie Innovation Area*
- *Strengthens existing development standards to ensure that extensive redevelopment and new development is appropriate in scale and encourages investment.*
- *Strengthen existing design standards to ensure that redevelopment and new development is appropriate, attractive and activates the pedestrian realm in key areas.*
- *Expand permitted uses in the proposed North Milwaukie Employment Zone (NME) to allow some office and service-related uses that will support industrial and manufacturing uses.*
- *The proposed amendments adopt the North Milwaukie Innovation Area Plan, an ancillary document of the Comprehensive Plan, that builds on the 2013 Tacoma Station Area Plan, establishes a vision for this critical employment area, and identifies projects that will implement the vision for the NMIA.*

(c) MMC Subsection 19.902.5.B.3 requires that the proposed amendment be consistent with the Metro Urban Growth Management Functional Plan and relevant regional policies.

The proposed amendment is consistent with the Metro Urban Growth Management Functional Plan and relevant regional policies related to residential and employment capacity. The proposed amendments were sent to Metro for comment. Metro did not identify any inconsistencies with the Metro Urban Grown Management Functional Plan or relevant regional policies.

(d) MMC Subsection 19.902.5.B.4 requires that the proposed amendment be consistent with relevant State statutes and administrative rules, including the Statewide Planning Goals and Transportation Planning Rule.

The proposed amendments were sent to the Department of Land Conservation and Development (DLCD) for comment. The DLCD did not identify any areas where the proposed amendments were inconsistent with State statutes and administrative rules.

(e) MMC Subsection 19.902.5.B.5 requires that the proposed amendment be consistent with relevant federal regulations.

The City Council finds that the Federal Fair Housing Amendments Act of 1988 is relevant to the proposed amendments. The proposed amendments retain the current choice between clear and objective review and discretionary review of new multifamily development in the proposed Tacoma Station Area Mixed Use Zone (MUTSA).

b. MMC 19.902.6 establishes requirements for amendments to the Zoning Map. The City Council finds that these requirements have been met as follows.

(1) MMC Subsection 19.902.6.A states that changes to the Zoning Map shall be evaluated through either a Type III or a Type V review.

The Zoning Map amendments involve approximately 133 properties and 200 acres. The amendments are legislative in nature and subject to Type V review.

The Planning Commission held duly advertised public hearings on November 28 and December 12, 2017 and January 9, 2018. The City Council held duly advertised public hearings on February 6, 2018, February 20, 2018, March 6, 2018, April 17, 2018, and August 21, 2018. Public notice was provided in accordance with MMC Subsection 19.1008.3.

(2) MMC Subsection 19.902.6.B contains approval criteria for changes to the Zoning Map.

(a) The proposed amendment is compatible with the surrounding area based on the following factors:

i. Site location and character of the area.

The North Milwaukie Innovation Area zones (NME and MUTSA) are industrial in nature and include industrial and manufacturing development, vacant developable properties, publicly-owned properties, and multi-tenant flex space development. The proposed amendments would retain and enhance the industrial character of the area, define the station area as a mixed-use zone, and add some commercial and service uses to the NME.

ii. Predominant land use pattern and density of the area.

The predominant land use pattern of the NMIA is a combination of small and larger parcels developed with smaller commercial buildings and large manufacturing and distribution facilities. The NMIA is intended to be a next generation industrial activity hub for the City. The proposed amendments would continue the predominant land use pattern and density of the area.

iii. Expected changes in the development pattern for the area.

Given its proximity, the development pattern for the area is expected to intensify with the completion of the downtown and Tacoma light rail stations. The interest in and overall lack of industrial land in the city suggests that development in the area will intensify. The proposed amendments align with the expected development pattern for the area.

(b) The need is demonstrated for uses allowed by the proposed amendment.

The proposed amendments retain the existing NMIA uses and streamline and encourage additional uses that are desired by the community, such as employment

uses and mixed-use development near the Tacoma light rail station. There is a lack of industrial land in the city and a need exists for the proposed amendment to encourage redevelopment and new investment in the area. The proposed amendments include language to encourage redevelopment of opportunity sites that will provide both services and employment to residents of the city.

(c) The availability is shown of suitable alternative areas with the same or similar zoning designation.

Staff has interpreted this criterion to mean that the finding shall show that there is no suitable alternative area with the same or similar zoning designation.

The most suitable area in Milwaukie for the application of the proposed MUTSA and NME zones is the NMIA. The area is already zoned Manufacturing and Tacoma Station Area Manufacturing, allowing for a variety of industries to locate near each other as well as to highways and freight rail. The Tacoma light rail station area is already zoned for mixed use development, which the MUTSA zone will mimic.

(d) The subject property and adjacent properties presently have adequate public transportation facilities, public utilities, and services to support the use(s) allowed by the proposed amendment, or such facilities, utilities, and services are proposed or required as a condition of approval for the proposed amendment.

The public transportation facilities, public utilities, and services in the NMIA are adequate to support the proposed amendments. The subject properties are already being used for, or are zoned for, industrial and employment purposes, and some commercial and residential uses close to the Tacoma light rail station. The proposed land use mix, and a reasonable worst-case analysis, indicate an increase in industrial land use and a decrease in office use. When balanced against the possible construction of residential uses in the MUTSA close to the Tacoma light rail station, the net effect is a slight reduction in vehicle trips in the NMIA. The proposed amendments would not increase the demand on the facilities, utilities, or services in the area. The application was referred to the City Engineering and Building departments for review and no service-related issues were identified.

(e) The proposed amendment is consistent with the functional classification, capacity, and level of service of the transportation system. A transportation impact study may be required subject to the provisions of Chapter 19.700.

The proposed amendment does not intensify the development potential of the NMIA. The proposed land use mix, and a reasonable worst-case analysis, indicate an increase in industrial land use and a decrease in office use. When balanced against the possible construction of residential uses and a higher assumed FAR in the MUTSA close to the Tacoma light rail station, the net effect is a slight reduction in vehicle trips in the overall NMIA.

(f) The proposed amendment is consistent with the goals and policies of the Comprehensive Plan, including the Land Use Map.

The subject area is designated Industrial. The goals and policies of the Comprehensive Plan for Industrial areas are that these areas are reserved for manufacturing, industrial, distribution and supporting land uses so that there is adequate opportunity for uses with high employment density. One objective is to encourage new industries to locate within the industrial areas to take advantage of existing facilities. The proposed amendment is consistent with those goals and policies.

(g) The proposed amendment is consistent with the Metro Urban Growth Management Functional Plan and relevant regional policies.

See Finding 8.a.(1)(c) above.

(h) The proposed amendment is consistent with relevant State statutes and administrative rules, including the Statewide Planning Goals and Transportation Planning Rule.

See Finding 8.a.(1)(d) above.

Underline/Strikeout Amendments

Comprehensive Plan

CHAPTER 4 — LAND USE

ECONOMIC BASE AND INDUSTRIAL/COMMERCIAL LAND USE ELEMENT

OBJECTIVE #1 — ECONOMIC DEVELOPMENT

Policies

11. The City will implement the ~~Tacoma Station Area~~ North Milwaukie Innovation Area Plan to promote economic development and employment opportunities.

OBJECTIVE #4 – INDUSTRIAL LAND USE

Policies

3. Lands designated for industrial use as shown on Map 8, Land Use, should be reserved for industrial, manufacturing, distribution, and supporting land uses, except where otherwise indicated in the ~~Tacoma Station Area~~ North Milwaukie Innovation Area Plan and the Central Milwaukie Land Use and Transportation Plan.

OBJECTIVE #15 – TACOMA STATION AREA

To ~~adopt and~~ implement the Tacoma Station Area Mixed Use Zone (MUTSA) concept, which is the zone that implements the Tacoma station area boundary, as identified in the ~~Tacoma Station Area~~ North Milwaukie Innovation Area Plan~~ as an ancillary document to the Comprehensive Plan~~ and acknowledge the Tacoma station area boundary as shown on Map 8, as a station area community under Title 6 of the Metro Urban Growth Management Functional Plan.

Planning Concepts

The ~~Tacoma Station Area~~ North Milwaukie Innovation Area Plan establishes a future land use framework for the Tacoma station area that promotes the following:

- An active station area mixed-use ~~employment~~ district with residential and employment uses
- Multimodal access to the Tacoma light rail station and enhanced connections within the station area and North Milwaukie Innovation Area
- ~~Increased employment intensity and number of high-paying jobs in the area~~
- Support for existing businesses while providing opportunities for a more transit-supportive mix of employment and residential uses in the long term
- ~~Complementing development goals in the nearby downtown area~~
- ~~A more transit-supportive mix of employment uses in the long term~~
- A balanced approach to parking demand management

Policies

~~1. The Tacoma Station Area Plan is hereby adopted as an ancillary document to the Comprehensive Plan and will be implemented through these policies and associated Station Area Overlay Zone in the Zoning Ordinance.~~

1. Implementing the MUTSA Zone will provide opportunities for a wide range of uses. The primary uses include residential, limited commercial, and service-related office use, high intensity office employment, and industrial uses including uses involved in production, manufacturing and processing, of goods.

2. The Tacoma s~~S~~tation a~~A~~rea ~~Overlay Zone boundary~~ includes those lands shown on Map 8.

~~3. The City will strive to increase employment densities in the Tacoma station area by attracting high-employment businesses and supporting existing businesses.~~

~~4. The City will work to increase bicycling and walking trips between the Tacoma light rail station, the Springwater Corridor, and downtown Milwaukie.~~

~~5. The City will strive to improve Main St through the Tacoma station area to better serve all transportation modes by the year 2035.~~

3~~6~~. The City will encourage and support formation of a transportation management association (TMA) among businesses within the Tacoma station area to increase transit use and multiple occupant trips and to manage parking supply/demand. At the time the TMA is established, the City may wish to include the downtown area businesses as well. Additionally, the City will work to bring on-street parking into conformance with City standards to increase driver, pedestrian, and cyclist safety.

~~7. The City will actively foster and support redevelopment of Opportunity Site B and the TriMet park-and-ride located in Subarea 4 the consistent with the Tacoma Station Area Plan.~~

~~8. The City supports the recommended improvements to the intersection of Highway 99E~~ and ~~Ochoco St as proposed by ODOT, as described in Appendix G of the Tacoma Station Area North Milwaukie Industrial Area Plan Tacoma Station Area Plan.~~

OBJECTIVE #17 – NORTH MILWAUKIE INNOVATION AREA

To recognize and implement the North Milwaukie Innovation Area Plan as an ancillary document to the Comprehensive Plan and acknowledge the North Milwaukie Innovation Area boundary as shown on Map 10.

Planning Concepts

The North Milwaukie Innovation Area Plan establishes a future land use framework that is intended to enhance economic opportunities and capitalize on the district's strategic location to attract innovative and entrepreneurial businesses to create a strong regional center for next-generation traded sector employment and manufacturing as well as supporting commercial and service businesses. The vision for the area is to support and encourage existing and future businesses that provide family-wage jobs accessible by all modes of travel, and to respect the natural environment and incorporate sustainable design to reduce demand on citywide infrastructure. This includes improving access to the area for

pedestrians, cyclists and vehicles and fostering a mix of industrial, commercial, and office uses with supportive residential uses in focused locations.

Policies

1. The North Milwaukie Innovation Area Plan shall serve as an ancillary document to the Comprehensive Plan and will be implemented through these policies and associated Tacoma Station Area Mixed Use Zone and North Milwaukie Employment Zone in the Zoning Ordinance.
2. Incorporate existing development, infrastructure and transportation systems, identifying expansion or modification of those systems, as needed, to attract the next generation of employers.
3. The City will support creative re-use of existing buildings that permit flex-space uses and will actively recruit target industries while also assisting existing businesses that want to expand employment.
4. The City will coordinate infrastructure improvements, including parking management, across agencies to implement infrastructure goals.
5. Promote high-quality, urban design in the North Milwaukie Innovation Area.
6. The City will create an environment where a variety of small, medium and large businesses thrive and co-exist. The City will support emerging small businesses, including small-scale manufacturing and "maker" spaces.
7. The City will work to improve connectivity to and within the area, and will recognize the needs of freight vehicles in addition to personal vehicles, pedestrians and cyclists.
8. The City will strive to increase employment densities in the North Milwaukie Innovation Area by attracting high-employment businesses and supporting existing businesses.
9. The City will work to increase bicycling and walking trips between the Tacoma light rail station, the Springwater Corridor, and downtown Milwaukie.
10. The City will strive to improve Main St through the North Milwaukie Innovation Area to better serve all transportation modes by the year 2035.

Updates for Section References and Housekeeping Only

TABLE OF CONTENTS

ANCILLARY DOCUMENTS (not included in this document; available for additional charge):

- Ardenwald Park Master Plan
- Balfour Park Master Plan
- Bowman-Brae Park Master Plan
- Central Milwaukie Land Use and Transportation Plan
- Downtown and Riverfront Land Use Framework Plan
- Elk Rock Island Natural Area Management Plan
- Furnberg Park Master Plan
- Homewood Park Master Plan
- Johnson Creek Resources Management Plan
- Kronberg Park Master Plan
- Lake Road Multimodal Connection Plan
- Lewelling Community Park Master Plan
- Milwaukie Vision Statement
- North Clackamas Park North Side Master Plan
- North Clackamas Urban Area Public Facilities Plan (4 volumes)
- North Milwaukie Innovation Area Plan
- Scott Park Master Plan
- Spring Park Master Plan
- Springwater Corridor Master Plan
- Stormwater Master Plan
- ~~Tacoma Station Area Plan~~
- Town Center Master Plan
- Transportation System Plan
- Wastewater Master Plan
- Water Master Plan
- Water Tower Park Master Plan
- Wichita Park Master Plan

List of Tables and Maps

Clean Amendments

Comprehensive Plan

CHAPTER 4 — LAND USE

ECONOMIC BASE AND INDUSTRIAL/COMMERCIAL LAND USE ELEMENT

OBJECTIVE #1 — ECONOMIC DEVELOPMENT

Policies

11. The City will implement the North Milwaukie Innovation Area Plan to promote economic development and employment opportunities.

OBJECTIVE #4 – INDUSTRIAL LAND USE

Policies

3. Lands designated for industrial use as shown on Map 8, Land Use, should be reserved for industrial, manufacturing, distribution, and supporting land uses, except where otherwise indicated in the North Milwaukie Innovation Area Plan and the Central Milwaukie Land Use and Transportation Plan.

OBJECTIVE #15 – TACOMA STATION AREA

To implement the Tacoma Station Area Mixed Use Zone (MUTSA) concept, which is the zone that implements the Tacoma station area boundary, as identified in the North Milwaukie Innovation Area Plan and acknowledge the Tacoma station area boundary as shown on Map 8, as a station area community under Title 6 of the Metro Urban Growth Management Functional Plan.

Planning Concepts

The North Milwaukie Innovation Area Plan establishes a future land use framework for the Tacoma station area that promotes the following:

- An active station area mixed-use district with residential and employment uses
- Multimodal access to the Tacoma light rail station and enhanced connections within the station area and North Milwaukie Innovation Area
- Support for existing businesses while providing opportunities for a more transit-supportive mix of employment and residential uses in the long term
- A balanced approach to parking demand management

Policies

1. Implementing the MUTSA Zone will provide opportunities for a wide range of uses. The primary uses include residential, limited commercial, and service-related office use, high intensity office employment, and industrial uses including uses involved in production, manufacturing and processing, of goods.

2. The Tacoma station area includes those lands shown on Map 8.
3. The City will encourage and support formation of a transportation management association (TMA) among businesses within the Tacoma station area to increase transit use and multiple occupant trips and to manage parking supply/demand. At the time the TMA is established, the City may wish to include the downtown area businesses as well. Additionally, the City will work to bring on-street parking into conformance with City standards to increase driver, pedestrian, and cyclist safety.

OBJECTIVE #17 – NORTH MILWAUKIE INNOVATION AREA

To recognize and implement the North Milwaukie Innovation Area Plan as an ancillary document to the Comprehensive Plan and acknowledge the North Milwaukie Innovation Area boundary as shown on Map 10.

Planning Concepts

The North Milwaukie Innovation Area Plan establishes a future land use framework that is intended to enhance economic opportunities and capitalize on the district's strategic location to attract innovative and entrepreneurial businesses to create a strong regional center for next-generation traded sector employment and manufacturing as well as supporting commercial and service businesses. The vision for the area is to support and encourage existing and future businesses that provide family-wage jobs accessible by all modes of travel, and to respect the natural environment and incorporate sustainable design to reduce demand on citywide infrastructure. This includes improving access to the area for pedestrians, cyclists and vehicles and fostering a mix of industrial, commercial, and office uses with supportive residential uses in focused locations.

Policies

1. The North Milwaukie Innovation Area Plan shall serve as an ancillary document to the Comprehensive Plan and will be implemented through these policies and associated Tacoma Station Area Mixed Use Zone and North Milwaukie Employment Zone in the Zoning Ordinance.
2. Incorporate existing development, infrastructure and transportation systems, identifying expansion or modification of those systems, as needed, to attract the next generation of employers.
3. The City will support creative re-use of existing buildings that permit flex-space uses and will actively recruit target industries while also assisting existing businesses that want to expand employment.
4. The City will coordinate infrastructure improvements, including parking management, across agencies to implement infrastructure goals.
5. Promote high-quality, urban design in the North Milwaukie Innovation Area.
6. The City will create an environment where a variety of small, medium and large businesses thrive and co-exist. The City will support emerging small businesses, including small-scale manufacturing and "maker" spaces.
7. The City will work to improve connectivity to and within the area, and will recognize the needs of freight vehicles in addition to personal vehicles, pedestrians and cyclists.
8. The City will strive to increase employment densities in the North Milwaukie Innovation Area by attracting high-employment businesses and supporting existing businesses.

9. The City will work to increase bicycling and walking trips between the Tacoma light rail station, the Springwater Corridor, and downtown Milwaukie.
10. The City will strive to improve Main St through the North Milwaukie Innovation Area to better serve all transportation modes by the year 2035.

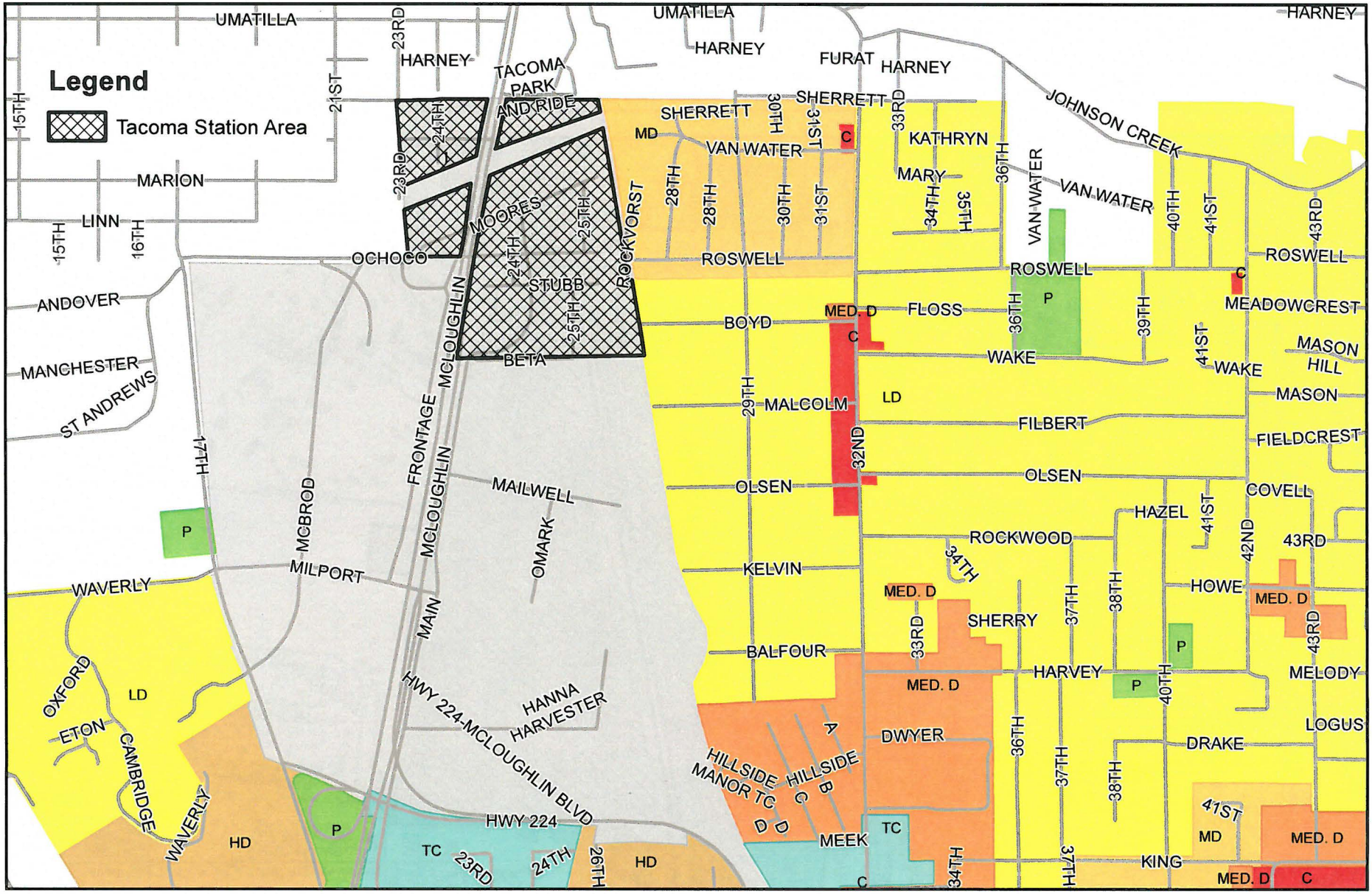
Updates for Section References and Housekeeping Only

TABLE OF CONTENTS

ANCILLARY DOCUMENTS (not included in this document; available for additional charge):

- Ardenwald Park Master Plan
- Balfour Park Master Plan
- Bowman-Brae Park Master Plan
- Central Milwaukie Land Use and Transportation Plan
- Downtown and Riverfront Land Use Framework Plan
- Elk Rock Island Natural Area Management Plan
- Furnberg Park Master Plan
- Homewood Park Master Plan
- Johnson Creek Resources Management Plan
- Kronberg Park Master Plan
- Lake Road Multimodal Connection Plan
- Lewelling Community Park Master Plan
- Milwaukie Vision Statement
- North Clackamas Park North Side Master Plan
- North Clackamas Urban Area Public Facilities Plan (4 volumes)
- North Milwaukie Innovation Area Plan
- Scott Park Master Plan
- Spring Park Master Plan
- Springwater Corridor Master Plan
- Stormwater Master Plan
- Town Center Master Plan
- Transportation System Plan
- Wastewater Master Plan
- Water Master Plan
- Water Tower Park Master Plan
- Wichita Park Master Plan

List of Tables and Maps



N

Tacoma Station Area
Milwaukie Comprehensive Plan
Map 8 - Land Use - Proposed (Enlarged)

Milwaukie Planning Dept.
Data: City of Milwaukie GIS; Metro RLIS
Date: 10/24/2017
Author: Planning Staff

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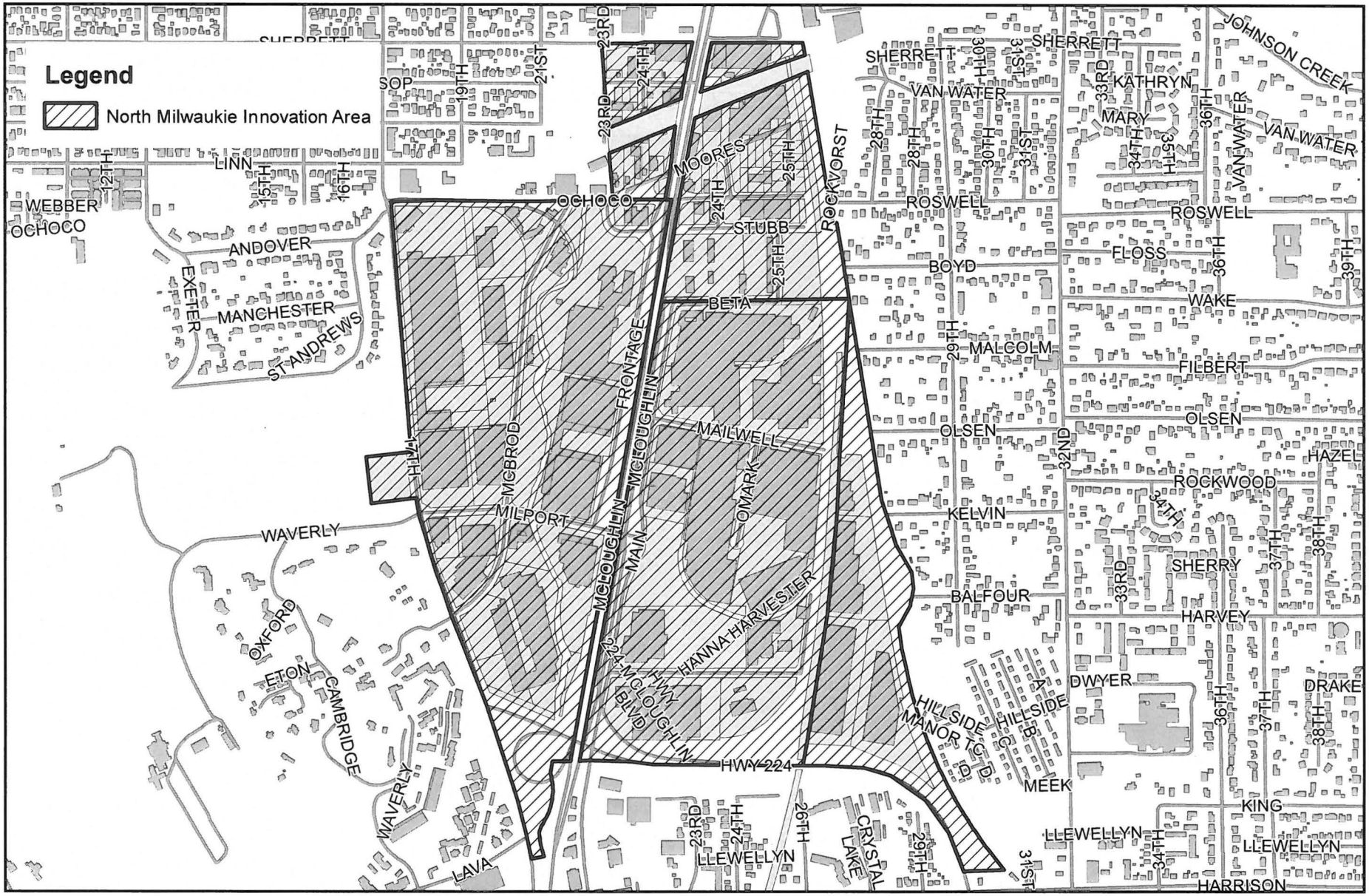

N

North Milwaukie Innovation Area
Milwaukie Comprehensive Plan
Map 10 - Proposed

Milwaukie Planning Dept.
Data: City of Milwaukie GIS; Metro RLIS
Date: 10/24/2017
Author: Planning Staff

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NMIA PLAN





NORTH Milwaukie Innovation Area Plan

CITY OF MILWAUKIE

Adopted by City Council on August 21, 2018
by Ordinance #2163

North Milwaukie Innovation Area Plan

Table of Contents

ACKNOWLEDGMENTS

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CITY OF MILWAUKIE

NMIA FRAMEWORK PLAN PREPARED BY

MIG

In association with

DKS Associates | ECONorthwest | Puttman Infrastructure

This project was funded by a Metro Community Development and Planning Grant and was conducted in partnership with Clackamas County Business and Economic Development.

EXECUTIVE SUMMARY

Pendleton Woolen Mills

The North Milwaukie Innovation Area presents opportunities for innovative redevelopment that takes advantage of a unique location that offers a variety of transportation options. This plan identifies policies and projects that are intended to encourage appropriate redevelopment in a thoughtful and focused way.

The North Milwaukie Innovation Area (NMIA) is one of three industrially zoned areas in Milwaukie that is experiencing high demand for space and is an important location for the region's food processing industry cluster, warehousing and distribution functions, and incubator for future entrepreneurs. Building on this energy and these opportunities can create new activity and increased employment for the region.

The City, in partnership with Clackamas County and Metro, created this plan to understand how the NMIA is currently functioning as an employment hub and how to support and help guide its growth and evolution as a 21st century innovation district that meets the needs of diverse employment options over the next 20 years.

Vision

The North Milwaukie Innovation Area capitalizes on the District's strategic location to attract **innovative and entrepreneurial businesses** to create a strong regional center for **next-generation traded sector employment, manufacturing, makers and doers.** The area supports existing and future businesses that provide family-wage jobs accessible by all modes of travel, respects the natural environment and incorporates sustainable design to reduce demand on citywide infrastructure.

The North Milwaukie Innovation Area Plan (the Plan) is focused on:

- Increasing job density for the area;
- Providing much needed commercial amenities to serve employees; and
- Accommodating office and industrial flex space for Milwaukie's broader community's growing and changing population.

The City is proud of the NMIA's history, providing jobs that match the city's demographic: blue collar work done by the hard-working men and women residing in and around the city. However, the city and region are changing with demographic shifts, a strengthening business market, and a diminishing number of commercial and industrial properties to provide the space and services that entrepreneurs seek.

The Plan builds upon the work of the 2013 Tacoma Station Area Plan (TSAP) that recommended improved multimodal connections and a greater mix of land uses that take advantage of the Tacoma light rail station at the north end of the NMIA. This Plan incorporates that planning area and adds areas west of McLoughlin Blvd to create an entire district made up of 200 acres. Additionally, the Plan has been informed by the City's recently completed economic opportunities analysis, guiding the economic feasibility analysis and recommendations for the Plan.

The Plan establishes a vision for how we get there, with specific implementation strategies that:

- Identify connections and development potential created on both sides of McLoughlin Blvd;
- Incorporate the TSAP into the NMIA Plan including concepts and projects to create a mixed use district in close proximity to the light rail station. With adoption, the NMIA Plan repeals and replaces the TSAP;
- Identify and analyze sites that can catalyze development within the NMIA;
- Capitalize on Johnson Creek as a character-defining amenity that attracts new investment covering a mix of uses;
- Integrate McLoughlin Blvd as both a transportation hub and gateway opportunity into Milwaukie that supports employment growth in the NMIA;
- Develop an identity and brand for the NMIA that supports the district;
- Incorporate existing development, infrastructure and transportation systems, identifying expansion or modification of those systems, as needed, to attract the next generation of employers; and
- Identify phasing, funding and prioritization of projects to implement the vision.

The City, with the help from its partners, will treat this plan as a living document and work to move the needle toward achieving the vision.

chapter 1: introduction

PURPOSE

The North Milwaukie Innovation Area Plan (the Plan) positions the North Milwaukie Innovation Area (NMIA) to leverage its strategic location and attractiveness as an employment center as well as an innovative, dynamic location for the next generation of entrepreneurs.

The Plan provides recommendations and strategies to increase employment opportunities and support existing businesses through in-depth technical analysis or land use, development feasibility, open space, transportation and infrastructure. The Plan is a long-term vision that identifies regulatory, programmatic and infrastructure investments and is anticipated to be implemented over the next 20 years.

The Plan builds upon the work completed through the 2013 Tacoma Station Area Plan recommendations to improve multimodal connections and create a mix of land uses that take advantage of the Tacoma light rail station at the north end of the NMIA and the City's 2017 community vision process. This project incorporates that planning area and adds areas west of McLoughlin Blvd to create an entire district. Additionally, the City's 2016 economic opportunities analysis, that has been incorporated into the Plan and guiding the economic feasibility analysis and recommendations for the Plan.

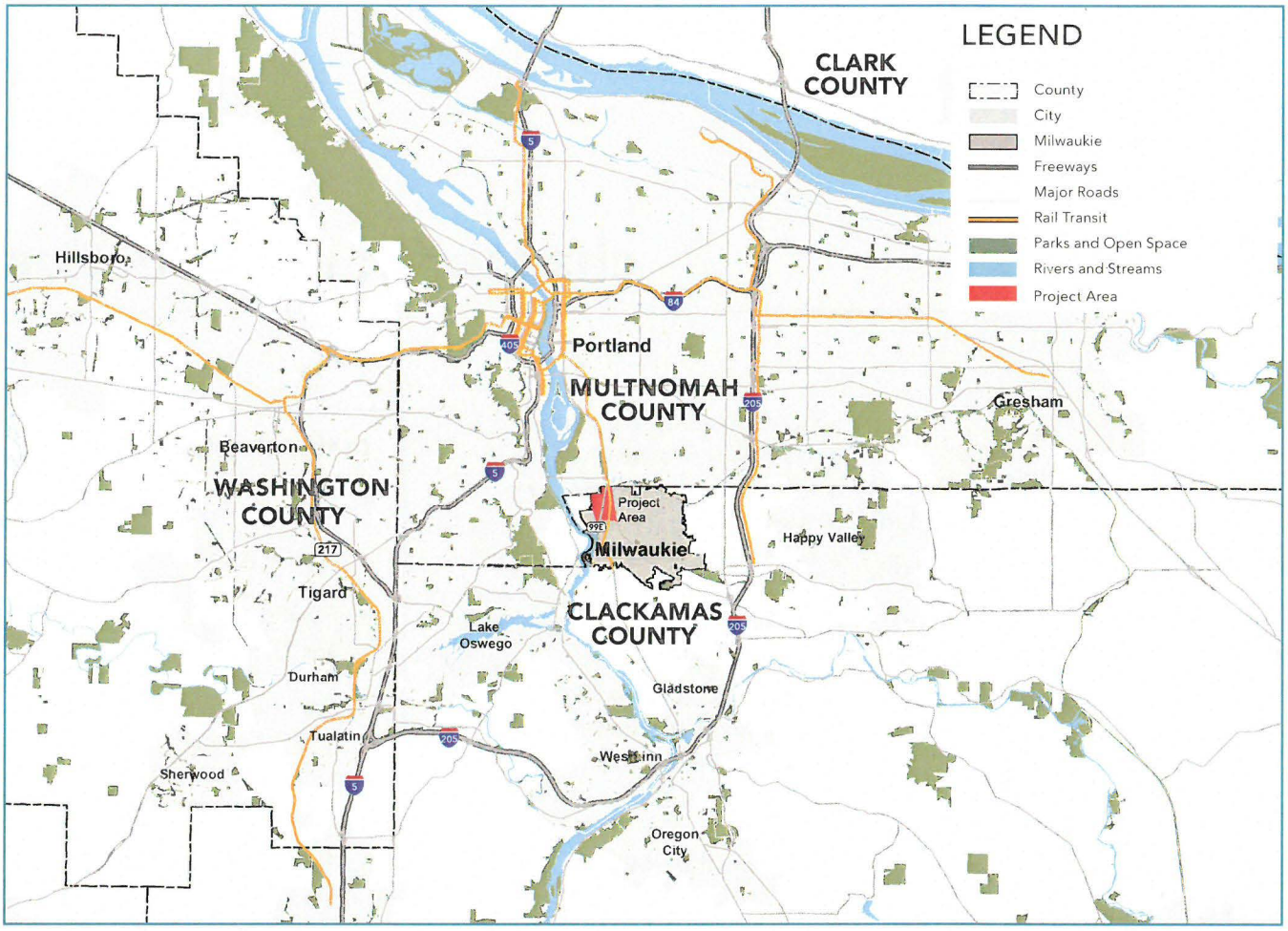
In addition, the NMIA Plan serves as the Station Area Plan for the purposes of Title 6 of Metro's Urban Growth Management Functional Plan. The actual Station Area is identified as the portion of the NMIA district within approximately ½ mile of the light rail station.

In this chapter:

- Purpose
- Project Area
- Existing Land Use and Conditions
- Area History, Parcels and Buildings

Tacoma Light Rail Station

FIGURE 1: REGIONAL CONTEXT



The Plan includes an implementation strategy designed to help catalyze the NMIA's vision, providing a general trajectory for the area for the next 20 years. This strategy will guide economic development programs and tools as well as branding of the district, in light of the area's history as a traditional warehouse and distribution hub. It will also encourage catalytic opportunities, expanding upon the strengths as a key industrial district for Milwaukie and the region.

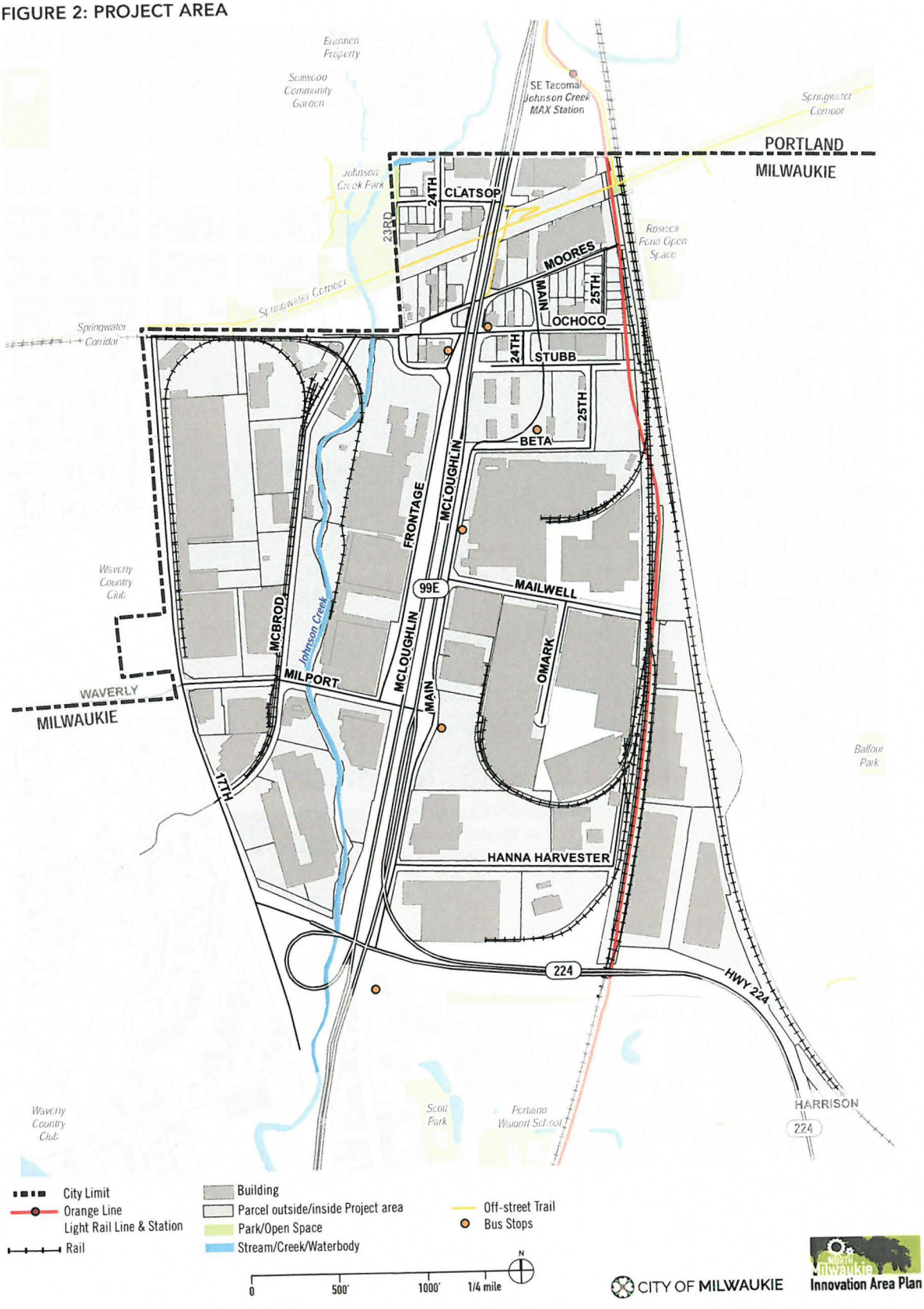
PROJECT AREA

The NMIA is centrally located in the region shown in **Figure 1**. It is one of the City of Milwaukie's three major industrial centers. It has a long history of industrial uses with good access to the regional transportation network. The NMIA is a distinctive district with clearly defined political and physical boundaries (**Figure 2**):

- Portland City Limits to the north;
- 17th Ave to the west;
- Hwy 224 to the south;
- Union Pacific railroad and MAX Orange Line to the east; and
- Springwater bicycle and pedestrian corridor as an east-west connection.

McLoughlin Blvd (OR 99E) and Johnson Creek are also major defining characteristics in the center of the area.

FIGURE 2: PROJECT AREA

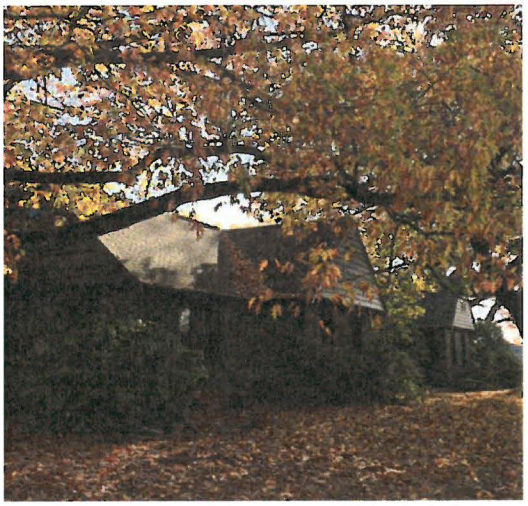


EXISTING LAND USE AND CONDITIONS

In 2017 as this plan was prepared, most of the approximately 195 acres in the NMIA is used for industrial purposes (57 percent) with various types of manufacturing, distribution, storage and similar uses. Approximately one-third of all parcels are vacant (**Table 1**), although many are used by adjacent businesses for surface storage. Nine vacant parcels totaling 4.4 acres are rights-of-way, with Metro's Springwater Trail accounting for 3.7 acres.

The project area also includes multiple publicly owned parcels, including the Oregon Liquor Control Commission offices, a TriMet park-and-ride and the Clackamas County Community Corrections Center and Women's Center. Fronting the east side of McLoughlin Blvd, the former ODOT offices sit adjacent to approximately eight acres of outdoor storage.

In 2017, the NMIA contained around 3.4 million square feet of rentable commercial space, supporting approximately 9.5 employees per acre. Most of this rentable area is classified as industrial space, with the industrial subcategories of distribution and warehousing comprising over 80 percent of the total square footage. The remaining rentable area in the NMIA is classified as flex office/industrial, general office and general retail.



Top: Historic photo of ODOT facility under construction
Right: Present-day photo of the ODOT site

AREA HISTORY, PARCELS AND BUILDINGS

Over the last 100 years, the NMIA has developed as a warehousing and manufacturing district built around its easy access to heavy rail and McLoughlin Blvd. Many of the buildings in the area retain rail spurs, some of which are used today, although most shipping is now done via truck and many of the rail spurs have been vacated.

The NMIA is generally composed of smaller parcels, shown in **Figure 3.** Most parcels (56 percent) are half an acre or smaller. Larger parcel sizes (sites over four acres) account for only 12 percent of the total parcels.

Some buildings in the NMIA are nearly 100 years old and have been continually repurposed. This includes the ODOT facility, a now vacant 1938 Works Progress Administration Project. The building initially housed State Highway Division engineers, support staff, and State Police for the Portland area. The building is eligible but not listed on the National Register of Historic Places. It is listed as a historic local resource in Milwaukie.

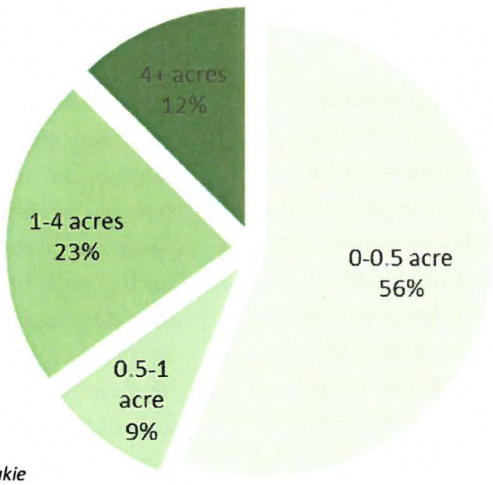
Other buildings reflect different eras and types of development. Of the 54 buildings in the project area, nine were built between 1918–1949, 29 were built from 1950–1969 and the remaining 16 were built from 1970–1982. No buildings have been constructed since the 1990s although some buildings are transitioning from single large tenants to flex space uses, where a single building holds multiple tenants and often through short-term leases.

As of 2014, there were 65 firms with 1,833 total employees within the project area. According to Hoovers and ReferenceUSA, top employers in the NMIA are Portland Mechanical Construction, Alpine Food Distributing, Goodwill, PCC Structurals, Stoner Electric, Advanced Entry Systems and the Oregon Liquor Control Commission.

TABLE 1: NMIA PARCELS BY 2017 LAND USE AND SIZE (ACREAGE)

Commercial	10	8%	6.1
Industrial	75	57%	174.6
Residential	4	3%	1.3
Vacant	42	32%	13.4
Total	131	100%	195.4

FIGURE 3: NMIA PARCEL SIZES AND PERCENT OF TOTAL NMIA ACREAGE



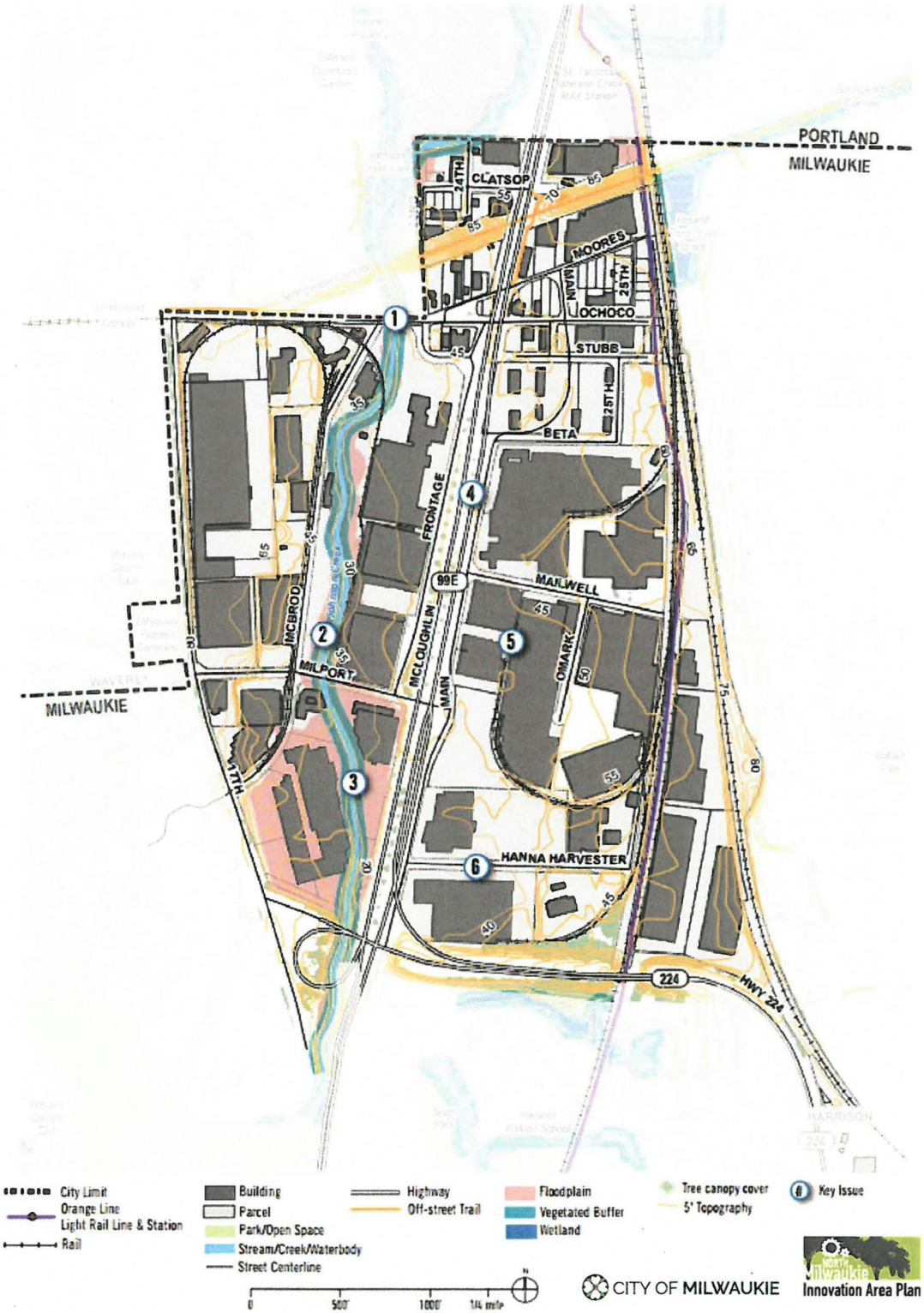
Source: City of Milwaukie

NATURAL RESOURCES AND INFRASTRUCTURE

As the North Milwaukie Innovation Area redevelops, there will be opportunities to upgrade and improve existing infrastructure and restore natural areas. Stormwater management, drinking (potable) water, wastewater and communications infrastructure are located within the study area. To the west, Johnson Creek serves as a unique natural feature coursing through the district. **Figure 4: Natural Features** identifies key opportunities and constraints based on each infrastructure type. Numbers on the map correspond to the list below. Each location identifies where general issues exist, but could also apply to larger areas where infrastructure improvements are likely needed throughout the NMIA. There are several opportunities and constraints related to existing infrastructure and stormwater, as indicated by the corresponding numbers on **Figure 4**.

- **Johnson Creek Stormwater Outfall at Ochoco St:** As the north end of the project area redevelops, stormwater control and water quality improvements will improve the quality of stormwater runoff that enters the creek at this outfall. The catchment area for this outfall extends beyond the study area boundary. Within the project area, individual parcels can reduce impervious surfaces by adding more vegetation and stormwater controls.
- **Johnson Creek Stormwater Outfall at Milport Rd:** As the project area redevelops, stormwater control and water quality improvements will improve the quality of stormwater runoff that enters the creek at this outfall. Green infrastructure, including green roofs and vegetated stormwater facilities, can reduce impervious surfaces and pollutants that enter the creek. Due to the size of the existing parcels, there is significant potential for stormwater mitigation, though the existing pipe network may need to be reconfigured to accommodate changes in land use.
- **Johnson Creek:** Johnson Creek has a large watershed that extends beyond the Milwaukie city limits. This portion of the creek is the last segment before it discharges into the Willamette River. There may be opportunities to improve the function and riparian habitat of the creek. However, there are also potential challenges regarding redevelopment of parcels adjacent to the creek channel, including building setbacks and buffer restoration. Johnson Creek is part of the Habitat Conservation Area designation that limits and/or requires mitigation for new development to occur. In addition, Johnson Creek includes land within the base flood area identified on FEMA floodplain maps. The base flood area is the area that has a 1% chance of flooding in any given year. The area to the south of Milport Rd is impacted by flood levels from the Willamette River.
- **Trees and vegetated stormwater facilities:** As both public and private improvements are made to parcels and the public rights-of-way, elements such as street trees, landscaping and vegetated stormwater facilities can be incorporated to reduce impervious surfaces or mitigate runoff. Installing these facilities will require coordination with existing utility locations to meet setback requirements for installation.
- **Wastewater:** Wastewater from the study area is conveyed to the Kellogg Treatment Plant just south of the planning area. Improvements to existing mainlines and service lines may be required to update alignment and materials to meet current standards. As parcels redevelop, further reduction in wastewater flows could occur with water saving fixtures and water reclamation.
- **Drinking (potable) water:** The water supply for Milwaukie is provided by the Troutdale Gravels Aquifer through seven wells located within the city. Upgrades to materials and service connections may be needed based on land use and fire system requirements.

FIGURE 4: NATURAL FEATURES



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chapter 2: plan vision, goals and objectives

VISION

The future success of the NMIA depends on a shared long-term vision as a diverse employment area that is inspiring and supported by the community. This vision sets forth specific goals and objectives that lead to short and long-term actions.

The vision was created by the community after an open house, online survey, stakeholder interviews, and input from a project advisory group made up of businesses, community members, technical staff and area residents.

GOALS AND OBJECTIVES

The goals and objectives of the Plan guide future development and infrastructure improvements in the NMIA. In turn, these strategic decisions will ultimately serve to support and increase employment and economic opportunities in the district.

The following five goals and related objectives provide a comprehensive approach to achieve the envisioned future, providing implementable actions that can be completed as single projects or phased over time.

Chapter 7 presents specific actions to implement the goals and objectives.

Goal 1:
Economic Development and Employment

Goal 2:
Infrastructure

Goal 3:
Land Use and Urban Design

Goal 4:
Transportation and Mobility

Goal 5:
Community Supported Vision

In this chapter:

- Station Area Plan

Vision

The North Milwaukie Innovation Area capitalizes on the District's strategic location to attract innovative and entrepreneurial businesses to create a strong regional center for next-generation traded sector employment, manufacturing, makers and doers. The area supports existing and future businesses that provides family-wage jobs accessible by all modes of travel, respects the natural environment and incorporates sustainable design to reduce demand on citywide infrastructure.

GOAL 1

Economic Development and Employment. Encourage a balance of employment-focused land uses, programs and resources that increase private capital investment and family-wage jobs.

Objective 1.1. Support existing businesses as the district evolves over time.

Objective 1.2. Build upon the locational advantages of the NMIA and its role within the region to increase employment density.

Objective 1.3. Support catalytic development of identified opportunity sites by incentivizing cluster-style development for multiple businesses to locate and grow.

Objective 1.4. Support creative re-use of existing buildings that permit flex-space uses.

Objective 1.5. Attract development and users that will take advantage of existing transit and non-motorized travel options.

Objective 1.6. Create an environment where a variety of small, medium and large businesses thrive and co-exist.

Objective 1.7. Support emerging small businesses, including small-scale manufacturing and "maker" spaces.

Objective 1.8. Actively recruit target industries while also assisting existing businesses that want to expand employment.

Objective 1.9. Identify strategies to fund public improvements through a combination of public and private sources.

Objective 1.10. Develop a parking management plan for the district.

GOAL 2

Infrastructure. Identify infrastructure improvements necessary to meet existing and future planned development needs.

Objective 2.1. Create a phased infrastructure improvement program that upgrades existing infrastructure to meet current and future demand, including facilities for electric vehicle charging, leverages private investment that embodies the vision for the area and provides a strong return on investment.

Objective 2.2. Explore strategies for infrastructure that reduce demand on citywide systems, such as on-site or district-wide stormwater and wastewater treatment.

Objective 2.3. Extend high speed fiber optic service to the NMIA.

Objective 2.4. Increase the use of solar energy and related infrastructure that reduces energy/resource use for existing building retrofits and new building construction.

Objective 2.5. Identify landscape and streetscape enhancements that help address flooding, and enhance key gateways to the NMIA District and near significant public use areas such as the Johnson Creek corridor.

Objective 2.6. Coordinate infrastructure improvements, including parking management, across agencies to implement infrastructure goals.

Objective 2.7. Increase and protect tree canopy along Johnson Creek, parking areas and streets where right-of-way is available.

GOAL 3

Land Use and Urban Design. Provide for a diverse array of land uses that create an active employment center and facilitate commercial and mixed-use development that supports the employment focus of the district.

Objective 3.1. Identify land use strategies that increase employment densities and encourage cluster uses.

Objective 3.2. Enhance Johnson Creek as an open space amenity and important natural resource that helps attract new and more intensive development, through measures such as riparian restoration and possible creation of a linear park in the open area on the west side of the creek, consistent with the City's designated Habitat Conservation Area requirements.

Objective 3.3. Ensure that land use and urban design requirements permit multi-story buildings to accommodate "vertical industrial" and manufacturing uses.

Objective 3.4. Focus on branding, public art and wayfinding to create distinct, identifiable features of the NMIA as a true district.

Objective 3.5. Through zoning, restrict residential development to areas where it is already permitted.

GOAL 4

Transportation and Mobility. Create a transportation system that provides safe and direct connections for bicycles and pedestrians while also providing for efficient truck access and circulation.

Objective 4.1. Create safer and more efficient transportation connections within the district, to Downtown and the neighborhoods and across busy corridors, especially McLoughlin Blvd.

Objective 4.2. Maintain access to heavy rail service where appropriate.

Objective 4.3. Develop a street grid that provides options for transit, vehicles, pedestrians and bicyclists to connect to and through the District, where appropriate.

Objective 4.4. Provide safe, direct connections to the Tacoma/ Johnson Creek light rail station and Springwater Corridor from both the east and west sides of McLoughlin Blvd.

GOAL 5

Community Supported Vision. Create opportunities for NMIA businesses, landowners, employees and the greater community to stay informed and involved in the ongoing development of the District.

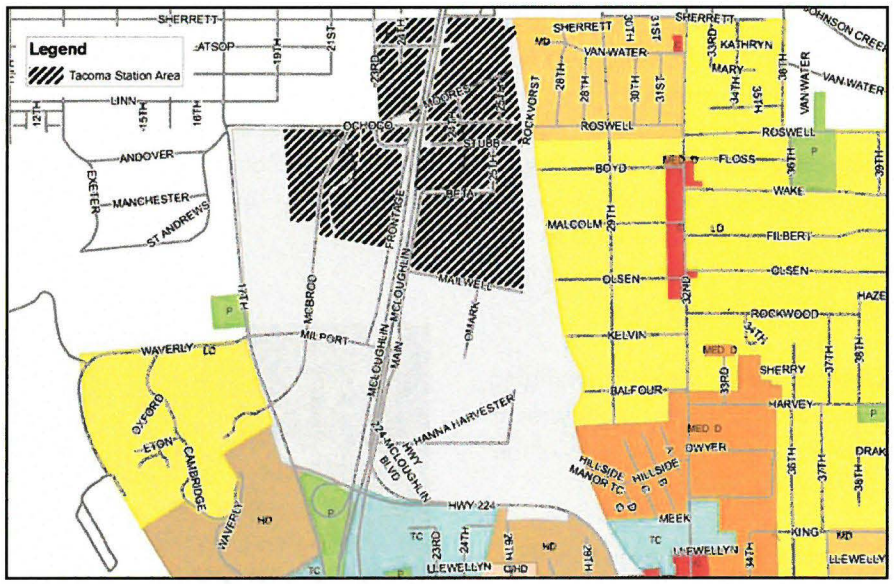
Objective 5.1. Continue to engage businesses and employees in the NMIA and the Milwaukie community in a conversation about the NMIA and its role as an employment and mixed-use district.

Objective 5.2. Maintain ongoing communications with existing businesses and landowners to identify potential opportunities and issues in implementing the Plan.

STATION AREA PLAN

The NMIA Plan serves as the City of Milwaukie's Station Area Plan for the purpose of meeting Title 6 requirements of Metro's Urban Growth Management Functional Plan. The Station Area boundary for planning purposes is the area within approximately ½ mile of the Tacoma Light Rail Station as depicted in **Figure 5**. The NMIA Plan provides policies, projects, and programs aimed at enhancing the area around the Tacoma light rail station as a mixed-use district providing opportunities for housing, commercial, and employment uses. Projects focus on creating a pedestrian friendly environment in this area with strong connections to surrounding neighborhoods.

FIGURE 5: PROPOSED TACOMA STATION AREA



chapter 3: ecodistrict framework

The NMIA is an active employment center that takes advantage of its proximity to Portland, light rail and surrounding neighborhoods in Milwaukie and Clackamas County.

More recently, long time uses have shifted to include increasingly in-demand flex space, where current buildings are being converted from a single large use to multiple smaller uses that share facilities and equipment like forklifts or other machinery. This flexibility allows new businesses to start in small spaces and then expand as they grow with smaller overhead commitments. The challenge for the NMIA is that many similar areas around the region are also competing for similar tenants, so attracting both the makers and doers as well as traditional manufacturing requires a plan that differentiates it from other areas.

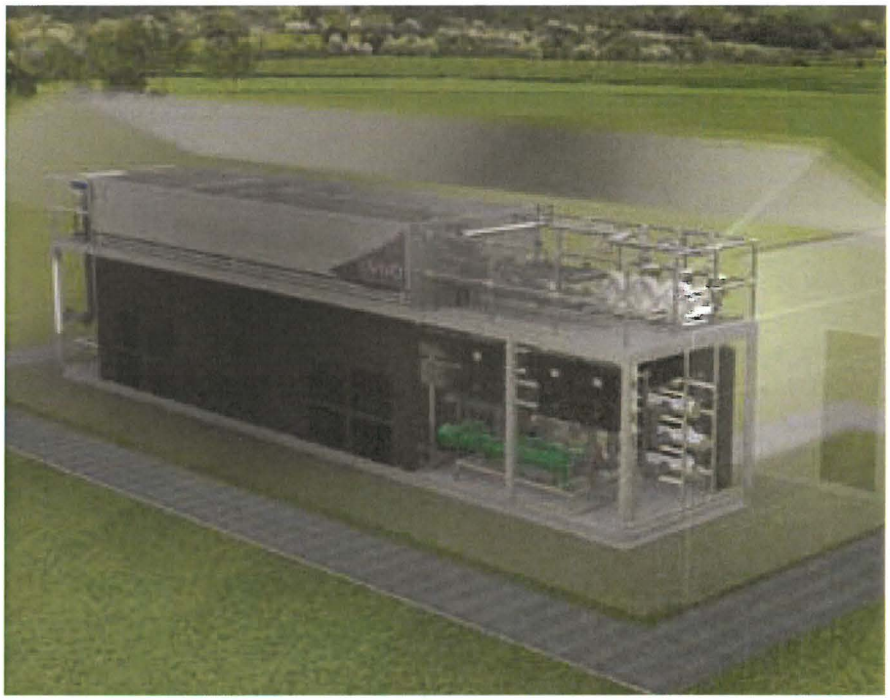
Given the NMIA's proximity to South Waterfront and Central Eastside in Portland, a focus on sustainable design, attractions and innovative infrastructure development can attract new tenants who are looking to be in a forward-thinking ecodistrict but may be priced out of other locations. Developing the Plan through ecodistrict lenses also aligns future tenants with the current City trajectory of increased sustainable measurable action.

The ecodistrict framework for the NMIA is an incremental approach and different than ecodistricts developed on a greenfield (see **Chapter 6: Infrastructure**). Ecodistrict implementation must work with existing infrastructure and strategies need to encourage a transition over time. Creating an ecodistrict, even incrementally, will require a commitment from the City, land and building owners to make it happen.

There are many actions needed to implement an ecodistrict, either directly through projects (identified in this chapter) or indirectly through land use action, funding and financing support or other types of incentives.

In this chapter:

*An **ecodistrict** is a holistic approach that creates a more sustainable, ecologically sensitive development pattern, focusing on sustainable infrastructure systems that also provide financial benefits to businesses that locate in the area. It is also an important marketing tool for attracting future businesses to the NMIA. It works in tandem with other parts of the Plan.*



Top: Conceptual diagram of sewer mine
Bottom: Sewage and effluent samples

INTEGRATING NATURAL RESOURCES

The NMIA is both natural and urban. The NMIA ecodistrict should demonstrate the benefits of this human/nature connection by reconnecting with Johnson Creek as a functioning natural resource as well as a recreation attraction. Success will require collaboration between City, local and state agencies and non-profits, such as the Johnson Creek Watershed Council. There are several actions needed to transform Johnson Creek from what it is today to become a district amenity:

- Complete a Johnson Creek Corridor Plan that identifies both water quality and physical improvements to the corridor. The focus should be on improving watershed health and stormwater management from adjacent right-of-way and development (**Action 2.2.2**).
- Identify partnership opportunities, including with the Johnson Creek Watershed Council, to identify and develop grant applications to fund riparian area and stormwater improvements (**Action 3.2.1**).
- Improve access and viewing opportunities along Johnson Creek by designing existing vacant land east of McBrod Ave for recreation. Add viewpoints at the existing bridge crossings (**Action 3.2.2**).

ADDRESSING INFRASTRUCTURE NEEDS

Industry is about efficiency and reducing the cost to run a business, to make products and deliver services. The NMIA ecodistrict can create a competitive advantage compared to competing districts by identifying and implementing efficient energy, water and stormwater systems to help reduce operating costs. While some of these recommendations may add complexity to building design, short-term costs for sustainable systems

can often pay off over time as reduced operating costs over the life of the project.

Energy

Creating a district energy system can be challenging to successfully implement, even incrementally, where there is already existing infrastructure and development. District energy systems are often created in new development or through a phased development plan where the district energy system is designed along with the buildings.

However, there may be opportunities to incorporate solar energy. The large roof areas of the industrial businesses may provide opportunity for solar panels. Portland General Electric provides power to the project area and the State of Oregon's net metering program is an option for customers to get credit for excess energy produced at their facility. Solar and other energy conservation measures can be implemented over time as buildings are redeveloped or building owners choose to install systems. The large number of existing buildings may be able to support some solar installations for building owners who may be interested, but the age of the roof, weight bearing capacity and the impact of drilling many holes into a roof to anchor a solar project need to be considered. Another factor to consider is shading. As the area develops, new taller buildings might create shading on existing single story buildings and that would decrease the amount of energy that solar panels produce. With those considerations, the ecodistrict can implement solar energy project through the following actions:

- Assist existing businesses in applying for renewable energy grants, using the NMIA District Coordinator position (**Action 1.1.3**) as the point person to aid in applying for grant funding for solar energy (**Action 2.4.3**).
- Integrate renewable energy consumption and production goals for energy into a future Climate Action Plan (**Action 2.4.1**).
- Retrofit existing streetlights with LED lighting to reduce energy consumption (**Action 2.4.2**).

Sewer and Water Infrastructure

Based on the existing conditions analysis and mapping completed for the NMIA and proposed zoning densities, no significant infrastructure upgrades are anticipated other than projects already identified in existing capital improvement programs. Additionally, installation of new sewer and water infrastructure requires reconstructing existing roadways, but this infrastructure may remain unused for many years before new development occurs.

A more cost-effective approach is to focus on incentivizing building retrofits to reduce water usage and install greywater recycling systems either when extensive remodeling is completed or new buildings are constructed. Greywater is safe for use in toilets, for irrigation and other facilities where it is not consumed. Water and wastewater implementing actions for the ecodistrict include:

- Update existing building standards to encourage all new buildings or significant remodels to double plumb buildings for greywater recirculation and install fixtures with low-flow and other water saving devices (**Action 2.2.5**).
- Provide incentives for existing businesses to replace existing plumbing with low flow and/or greywater recirculation systems (**Action 2.2.6**).

The existing wastewater trunk line is located at the southwestern end of the NMIA. There may be an opportunity to create a **"sewer mining district"** (**Action 2.2.8**) that connects to the sewer trunk line to reduce wastewater flow to the City's main treatment system. A sewer mining system extracts sewage directly from the sewer, treats it to produce recycled water and then discharges residual wastes back to the sewer. The recycled water

SE Tacoma/Johnson Creek light rail station

can then be piped back to existing buildings for use in a greywater system. The most likely location for installing this type of system is the western side of McLoughlin Blvd, where greywater circulation systems could be installed when McBrod Ave is reconstructed or located on the shoulder without affecting the existing right-of-way. As buildings are redeveloped or remodeled, they would be connected to the greywater system.

Stormwater

Perhaps one of the biggest opportunities to create a sustainable, visually distinctive district is to address stormwater management on site and within the public right-of-way. There are several actions that will be required, from short-term planning actions to long-term district wide solutions. These include:

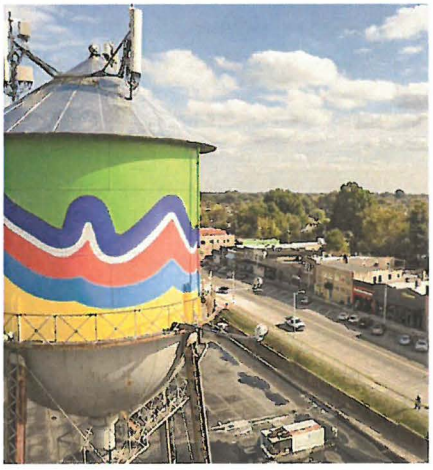
- Develop a stormwater master plan **(Action 2.2.4)** that identifies both short and long-term actions to manage stormwater for the NMIA. This should include short-term actions that are property-focused and can be implemented immediately, particularly adjacent to Johnson Creek. The Plan should also identify locations and sizing for one or more regional facilities on the west side of McLoughlin Blvd; explore an integrated street/shared facility approach and provide funding options such as public/private partnerships and fee-in-lieu approaches.
- Assist in identifying funding sources to retrofit existing buildings with green/eco roofs. Through updated design standards, encourage all new buildings to integrate green stormwater infrastructure into the building and/or site design **(Action 2.2.7).**
- Address regional and onsite and/or regional detention for stormwater to reduce untreated runoff from entering Johnson Creek. This should include green street and streetscape enhancements to address flooding and enhance key gateways, using the stormwater management system also as a branding element for the district **(Objective 2.5).**
- Partner with ODOT to develop a green street demonstration project for McLoughlin Blvd between Downtown Milwaukie and the Springwater Corridor Pedestrian Bridge **(Action 2.2.1).** This project can showcase the specific ecodistrict approaches, improve the attractiveness of the corridor and create a visual demarcation of the district through stormwater management and design.

- Redesign McBrod Ave as a demonstration project that integrates green street/shared stormwater facility approaches to treat both right-of-way and adjacent development (**Action 2.2.3**). Treating adjacent development in the street as opposed to on site may spur development because it reduces the cost to developers to develop or redevelop property to modern stormwater standards. If this action is undertaken, it should be combined with stormwater reduction techniques such as eco roofs (**Action 2.2.7**) to reduce stormwater flows entering the street.

MAKING TRANSPORTATION WORK FOR EVERYONE

Transportation connections must be safe, convenient and efficient for all modes of travel. Additionally, providing usable multimodal connections helps reduce the carbon footprint of vehicles and ties directly to a future citywide Climate Action Plan. As a branded district that focuses on sustainable development, providing multiple options for people to get to work and for businesses to receive materials and ship products is essential. Today, the NMIA is dominated by vehicles and is not a safe environment for people to ride their bikes to work or walk to transit. If they do drive, parking can be challenging. Creating a more connected environment will require several actions:

- Develop and implement a parking management plan that addresses several issues, including parking management and transportation demand strategies that permit centralized parking in specific locations and/or offering flexible parking options for new construction to locate parking on-site or through a district parking program (**Action 1.10.3**).
- Create a Transportation Management Association (TMA Based on the Transportation Demand Management & Parking Strategy Memo, October 4, 2017) that manages parking, transit and non-automobile circulation (**Action 1.10.1**). Potential roles for the TMA could include creating and managing an incentive program that provides free or reduced cost bus passes for NMIA employees and/or commuter incentives for those walking, carpooling or riding bicycles to work (**Action 1.10.5**). The TMA could also act as the lead for creating and managing a local circulator system that connects shared parking locations with employers and Downtown Milwaukie (**Action 1.10.4**).
- Implement improved vehicle, bicycle and pedestrian connectivity between the Tacoma light rail station and Downtown Milwaukie (**Action 4.1.3**).
- Partner with ODOT to extend/improve bicycle and pedestrian connections throughout the NMIA, including across McLoughlin Blvd, and connecting to the Tacoma light rail station, Downtown Milwaukie and Sellwood (**Actions 4.3.1–4.3.4**).
- Integrate the NMIA Business Association recommendation (**Action 1.1.1**) and the City economic development coordinator for the NMIA (**Action 1.1.3**) as part of the TMA management structure.



Top: Build on specific elements in the NMIA to brand the area.
Bottom: Example of a branded water tower

CREATING A NMIA BRAND

Many people drive through the NMIA and know it only as that space "in between Portland and Downtown Milwaukie." While it is an in-demand area, attracting new businesses and development will require a branding strategy to increase the visibility of and competitiveness of the area. Creating a district brand will require several actions, including:

- Build local energy within the NMIA and City through the creation of a NMIA Business Association that will advocate for the needs of existing and future businesses **(Action 1.1.1)**, and hire or assign a City economic development coordinator for the NMIA to be the single point of contact for all business activity in the district **(Action 1.1.3)**.
- Develop a wayfinding and branding strategy that builds upon the historic industrial, rail and natural resources of the NMIA (e.g. the ODOT building, Johnson Creek and water tower) and focuses on businesses that encourage transit use, pedestrian and bicycling as modes of travel **(Actions 1.2.1)**.
- Visually demarcate the NMIA through gateway elements and wayfinding signage that identifies the area as a unique district identifiable from McLoughlin Blvd and identifies paths from the NMIA to the Tacoma light rail station, Downtown Milwaukie and Sellwood **(Action 1.2.1)**.

Together, these strategies form the basis of an implementation strategy to make the ecodistrict more visible. The branding strategy should also be organized in a manner that facilitates its use for marketing to attract future businesses.

PUTTING IT ALL TOGETHER

Creating an ecodistrict will take time, but several of the initial actions can be implemented easily now, with more focused design and construction of major infrastructure occurring later as the district evolves and funding is identified. Creating a place, at least initially, is as much about branding, business engagement and recruitment as it is about the projects that create the infrastructure to achieve the vision of a sustainable, employment-focused district.

chapter 4: transportation

The NMIA's access to transportation routes like McLoughlin Blvd and the heavy rail system has made it a desirable business location for many years. The transportation infrastructure recommendations support the vision for the NMIA, calling for better connectivity within the district, to Downtown Milwaukie and to the adjacent neighborhoods.

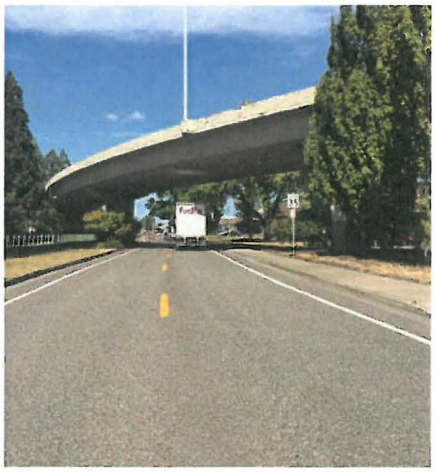
The future street network for NMIA builds on previous planning efforts. Street types for the Plan are consistent with the 2013 Tacoma Station Area Plan (TSAP). The projects in the Plan improve vehicle, bicycle and pedestrian connectivity in the NMIA.

The existing NMIA transportation network works for vehicles and freight, but lacks sufficient sidewalks and bike facilities. Additionally, there are a few connections for pedestrians either because there are no sidewalks or the long block lengths make it difficult to navigate by foot.

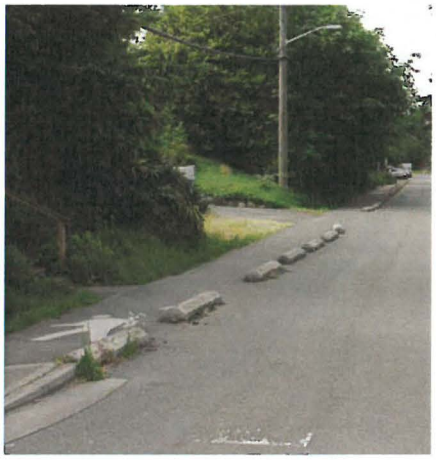
Key elements of the future system are shown in **Figure 4** and **Figure 7** and include:

- **McLoughlin Blvd Safety Improvements:** Safety improvements include creating safer and more efficient transportation connections for all modes across McLoughlin Blvd in the NMIA, including maintaining freight access to businesses. The Milport Rd and Ochoco St intersections at McLoughlin Blvd should be designed to permit better multimodal movements (including freight) and increase pedestrian safety and accessibility for businesses along Frontage Dr and Main St.
- **Maximum block lengths:** Establishing a maximum block length standard for future streets will identify potential areas where roads can be located when new development occurs. The industrial and employment area should have larger block length standards (600–1200 ft) and the mixed use area should have tighter blocks (300–530 ft).

In this chapter:



McLoughlin Blvd and Highway 224



Wheel stops provide physical separation for pedestrians and delineate the travel way.

In the interim, streets can be re-channelized between existing curbs to begin the behavior change process as the City anticipates future roadways built out to the specifications. For example, Dexter Street, Seattle WA (before-after pictures above) include paint to delineate and channelize narrowed travel lanes in addition to bus stop bulb-outs and buffered bike lanes.

- **Transitional Streets:** Developing a transitional street design allows for low-cost, interim improvements to address existing network deficiencies and complete connections for people traveling by foot or bike. Transitional streetscape improvements can enhance walkability by providing continuous pedestrian access while still providing vehicle mobility as the NMIA redevelops. Transitional street modifications can also begin to engender behavior change amongst roadway users consistent with the streetscape characteristics planned for full build out. **Figure 15 (Future Street Network)** shows the proposed transitional street designation applied on four streets including McBrod Ave and three other future local street connections. **Figures 18 and 19** show how McBrod Ave could change over time with a transitional street approach.

FUTURE STREET NETWORK

Figure 15 shows the future street network and builds on several opportunities that exist in the NMIA. **Table 2** summarizes the future street network.

Collector Streets

- **Ochoco Street:** The role of Ochoco St in the NMIA will evolve to serve a variety of land uses. Ochoco St is currently classified in the Transportation System Plan (TSP) as part local and part collector (at the McLoughlin Blvd/99 E. intersection). Its future design should provide multimodal access.

  The cross section for Ochoco St, shown in **Figures 6 and 7**, west and east of McLoughlin Blvd generally depicts the recommendation of this Plan, and requires 10' of additional right-of-way to be dedicated west of McLoughlin Blvd. Minimum 8 ft wide sidewalks are required along key streets, including Ochoco St. Street trees should have columnar form to prevent trucks from clipping their drip lines. **Figures 8 and 9** include conceptual designs developed by ODOT Region 1 in March 2013 as part of the TSAP and were a set of many different concepts considered. This could be considered a solution to Ochoco St if the configuration shown in **Figure 6 and Figure 7** is not constructed.

FIGURE 6: CONCEPTUAL CROSS-SECTION FOR OCHOCO ST - WEST OF MAIN ST WITHIN EXISTING RIGHT-OF-WAY (LOOKING EAST).

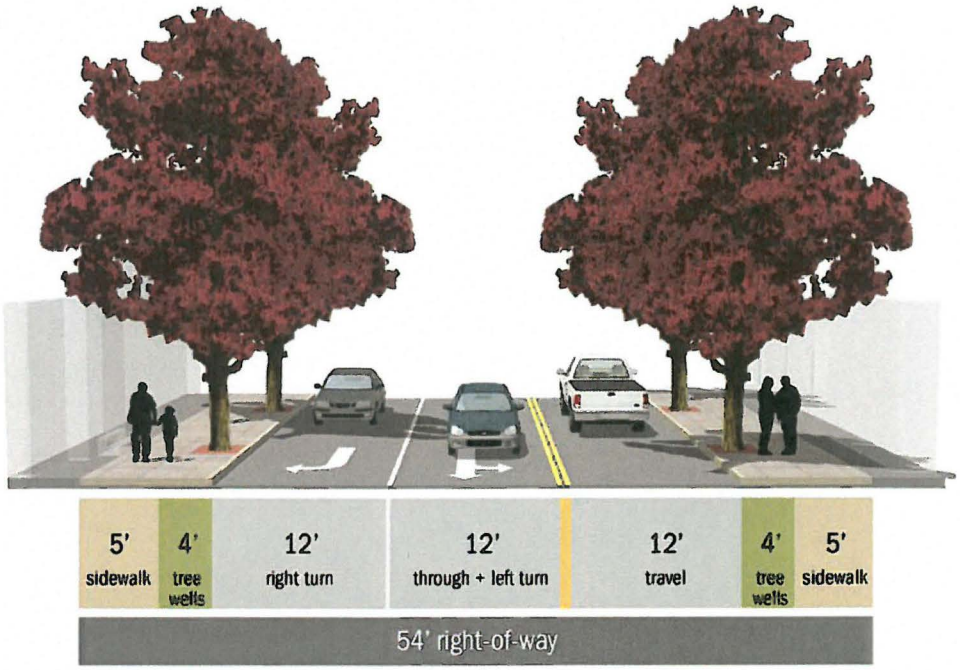


FIGURE 7: CONCEPTUAL CROSS-SECTION FOR OCHOCO ST - EAST OF MAIN ST WITHIN EXISTING RIGHT-OF-WAY (LOOKING EAST)

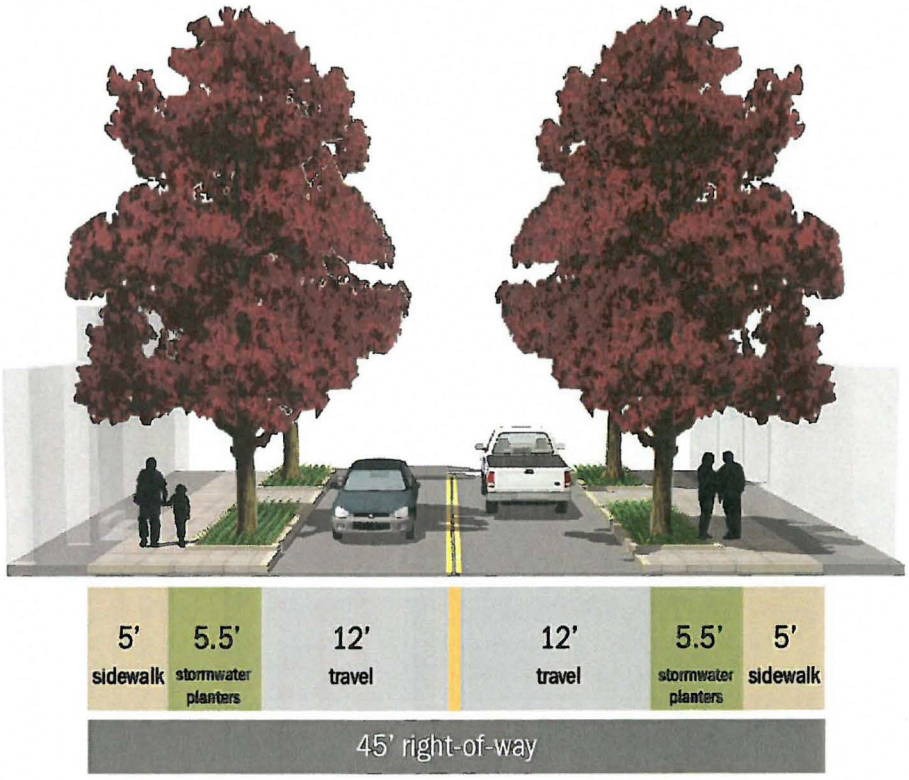


FIGURE 8: INDIRECT LEFT PEDESTRIAN ENHANCEMENTS CONCEPTUAL DESIGN

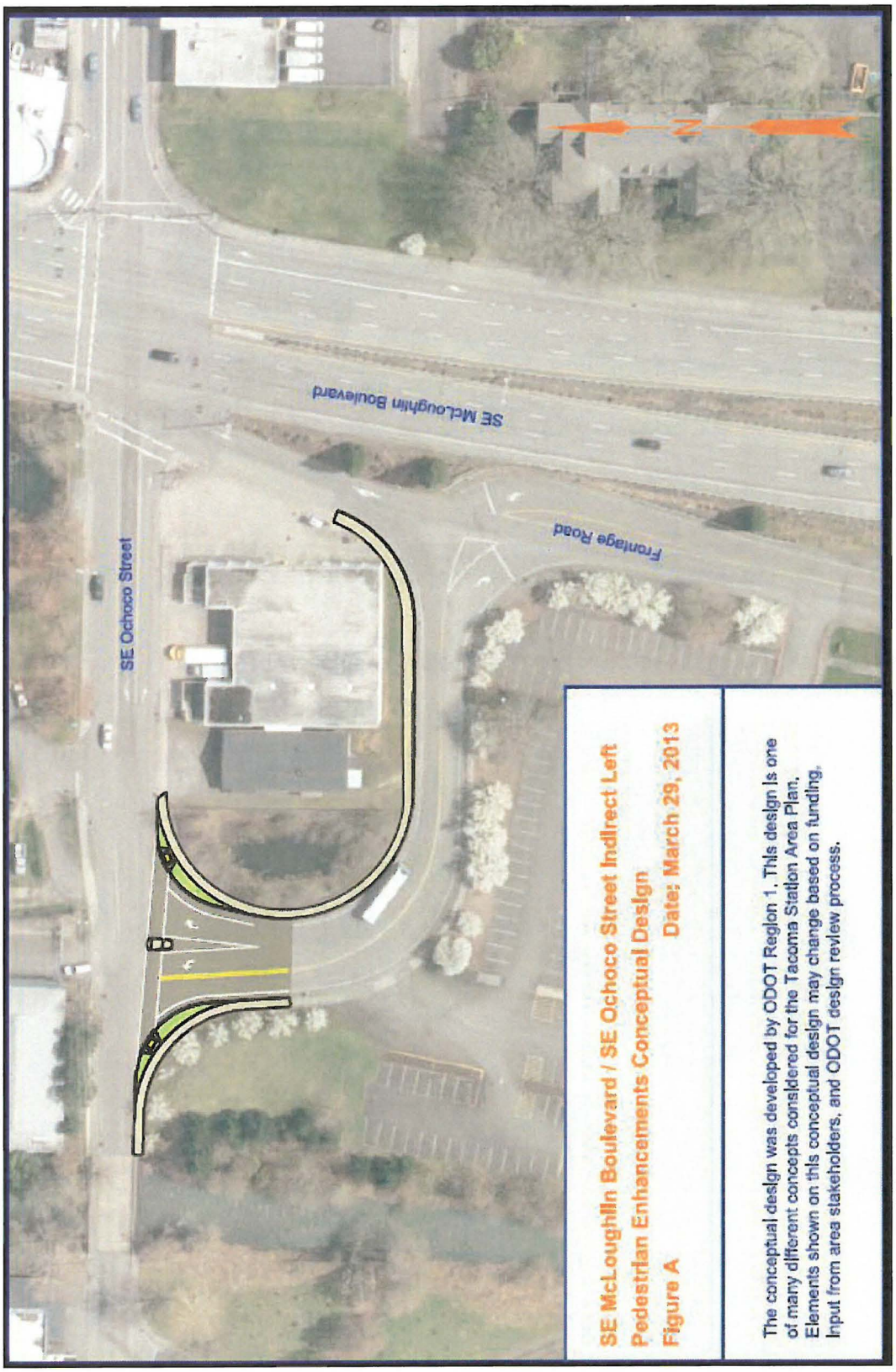
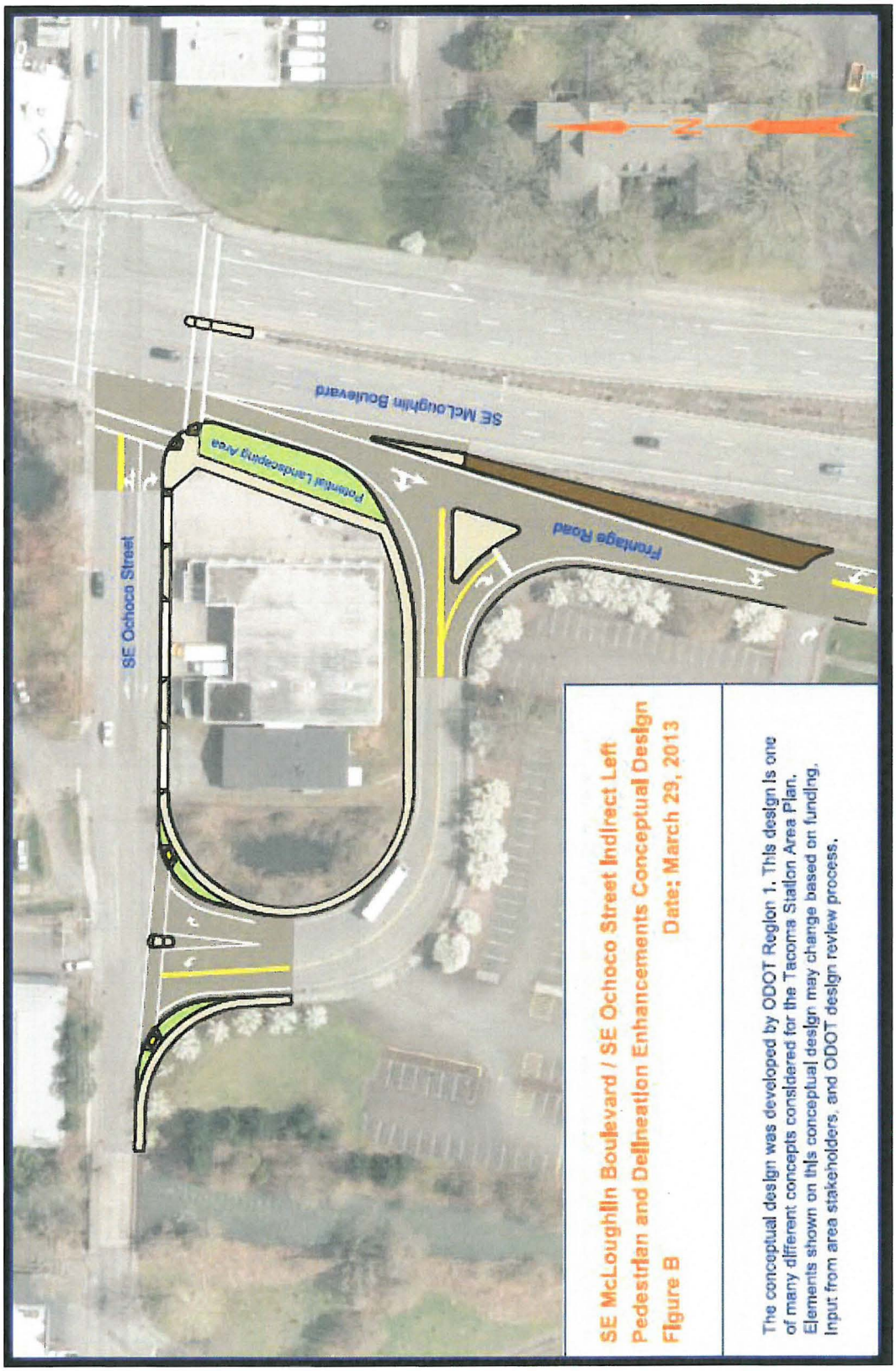


FIGURE 9: INDIRECT LEFT PEDESTRIAN AND DELINEATION ENHANCEMENTS CONCEPTUAL DESIGN



The Ochoco corridor is a gateway from the Sellwood neighborhood to the heart of the district. Johnson Creek is an important feature on the west side of the NMIA.

Where Ochoco St crosses Johnson Creek, viewing areas should be included at the bridge and green street design should incorporate, to the extent possible, native vegetation that is also appropriate to the riparian area along the creek.

- **Main Street:** The Plan provides a cross section, shown in **Figures 10, 11, 12, 13, and 14,** for a separated 12-14 ft wide multi-use path. In addition, the Plan also recommends an improved pedestrian path under the Springwater Trail at Main St, connecting pedestrians and bicyclists to the LRT station. The Plan provides for minimum 8 ft wide sidewalks along Main St with special paving, wayfinding signage and public art.

TABLE 2: PROPOSED NMIA PLAN STREET TYPES

Street Name	Regional Route	Arterial	Collector	Local Industrial	Transitional Street Approach
McLoughlin Boulevard/99E	X				
Highway 224	X				
17th Avenue		X			
Main Street			X	X	
Ochoco Street			X	X	
Beta Street				X	
Clatsop Street				X	
Frontage Road				X	
Hanna Harvester Drive				X	
Mailwell Drive				X	X
Milport Road				X	
McBrod Avenue				X	X
Moores Street				X	
Omark Drive				X	X
Stubb Street				X	
24th Avenue				X	
25th Avenue				X	
New streets				X	X

FIGURE 10: CONCEPTUAL CROSS-SECTION FOR MAIN ST - MILPORT RD TO BETA ST WITHIN EXISTING RIGHT-OF-WAY (LOOKING NORTH)

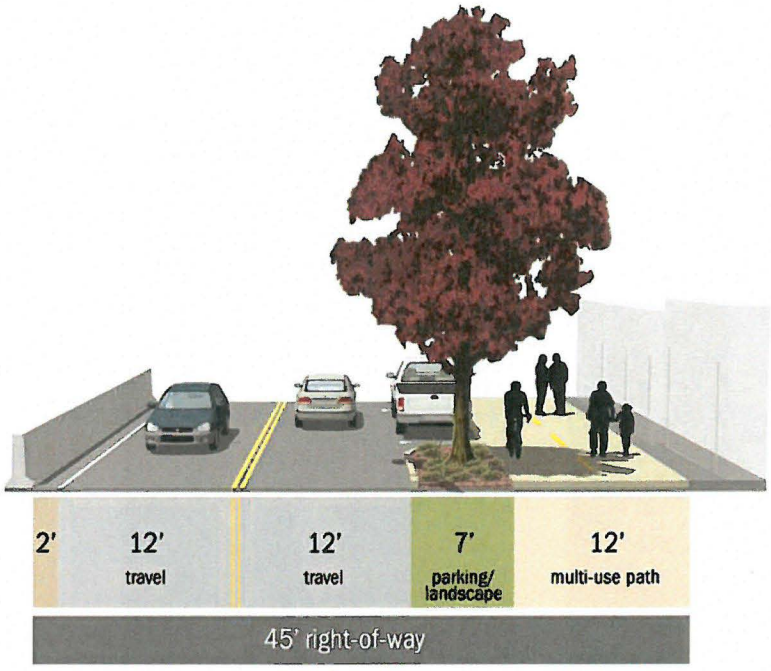
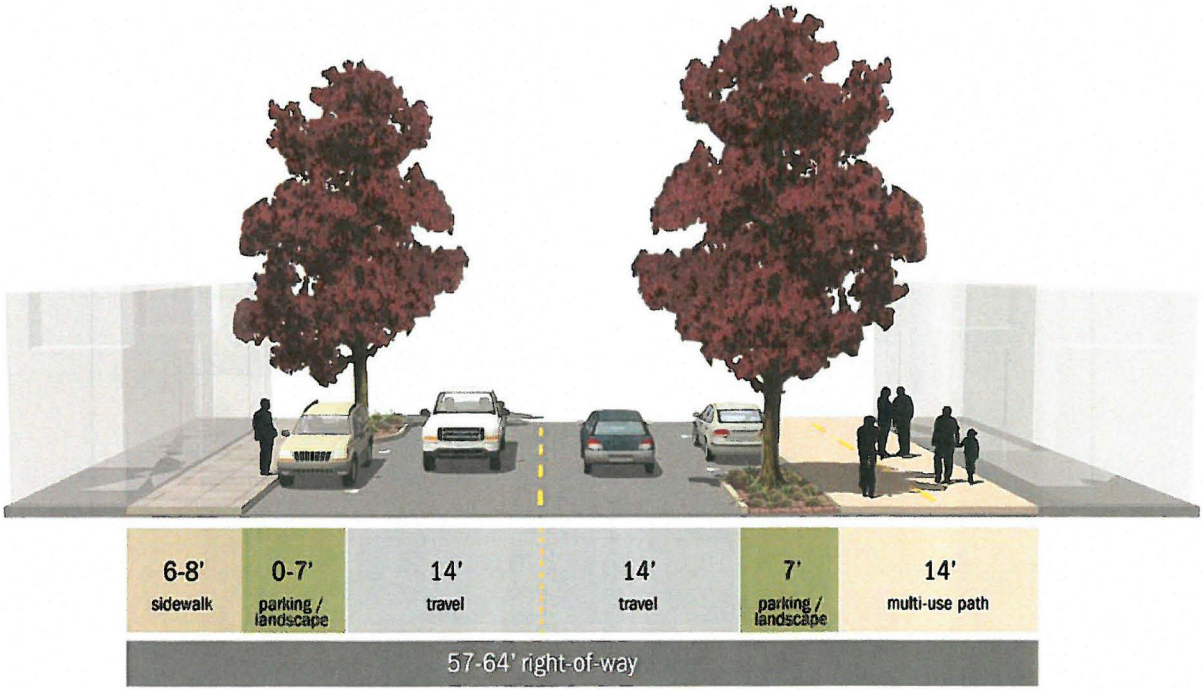


FIGURE 11: CONCEPTUAL CROSS-SECTION FOR MAIN ST - NORTH OF BETA ST WITHIN EXISTING RIGHT-OF-WAY (LOOKING NORTH)



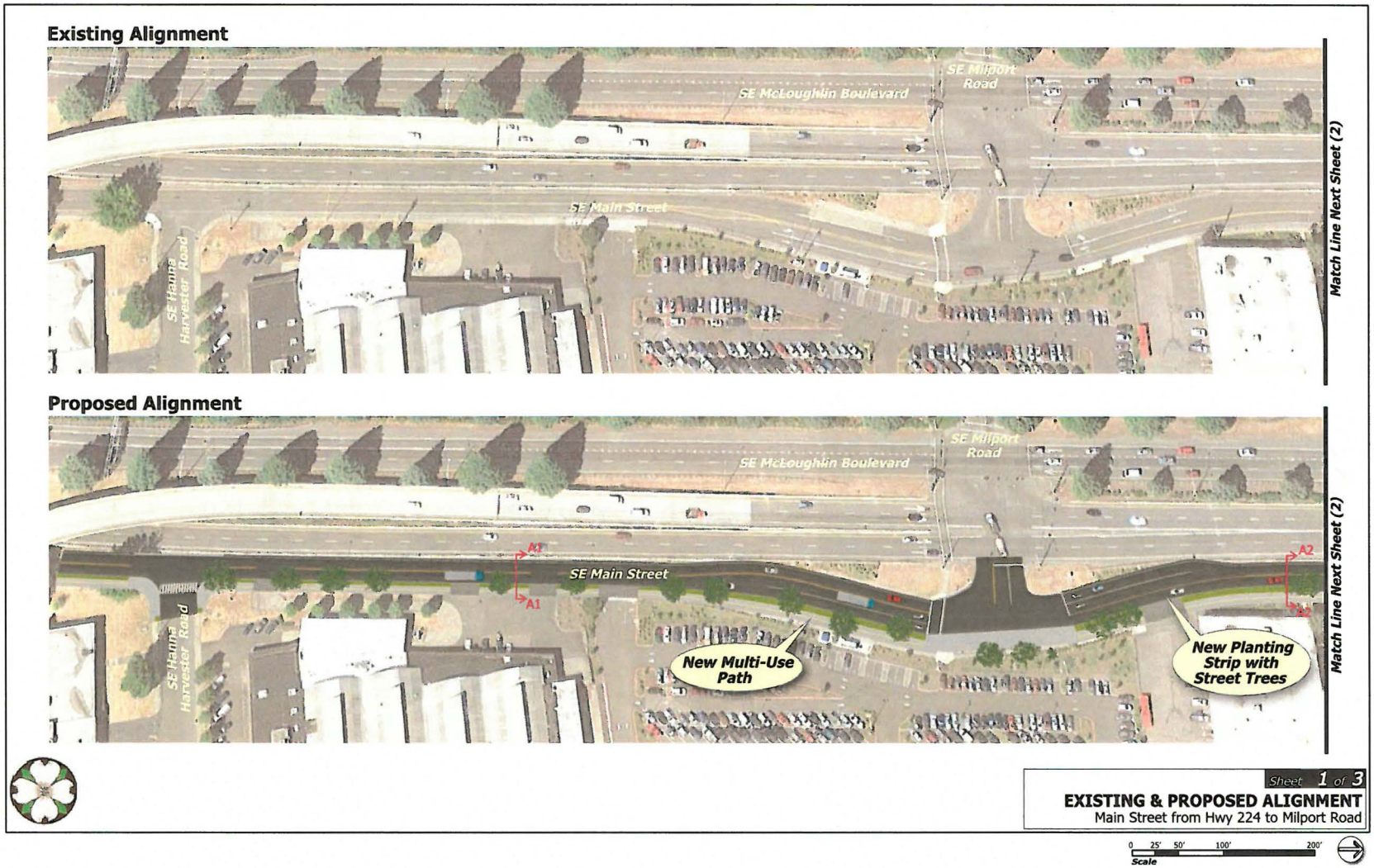


FIGURE 12: CONCEPTUAL DESIGNS FOR MAIN ST EXISTING AND PROPOSED ALIGNMENT

FIGURE 13: CONCEPTUAL DESIGNS FOR MAIN ST EXISTING AND PROPOSED ALIGNMENT

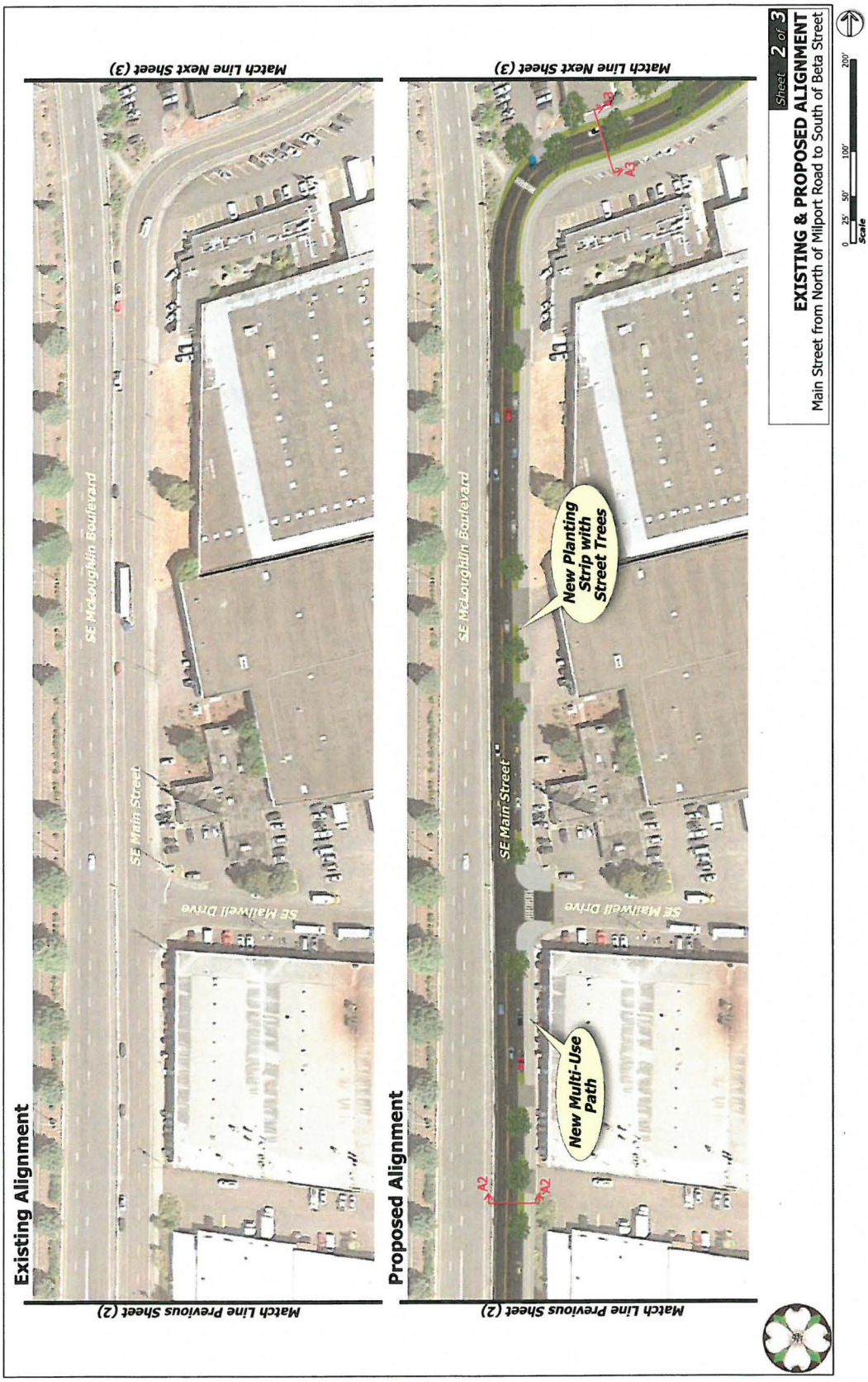


FIGURE 14: CONCEPTUAL DESIGNS FOR MAIN ST EXISTING AND PROPOSED ALIGNMENT

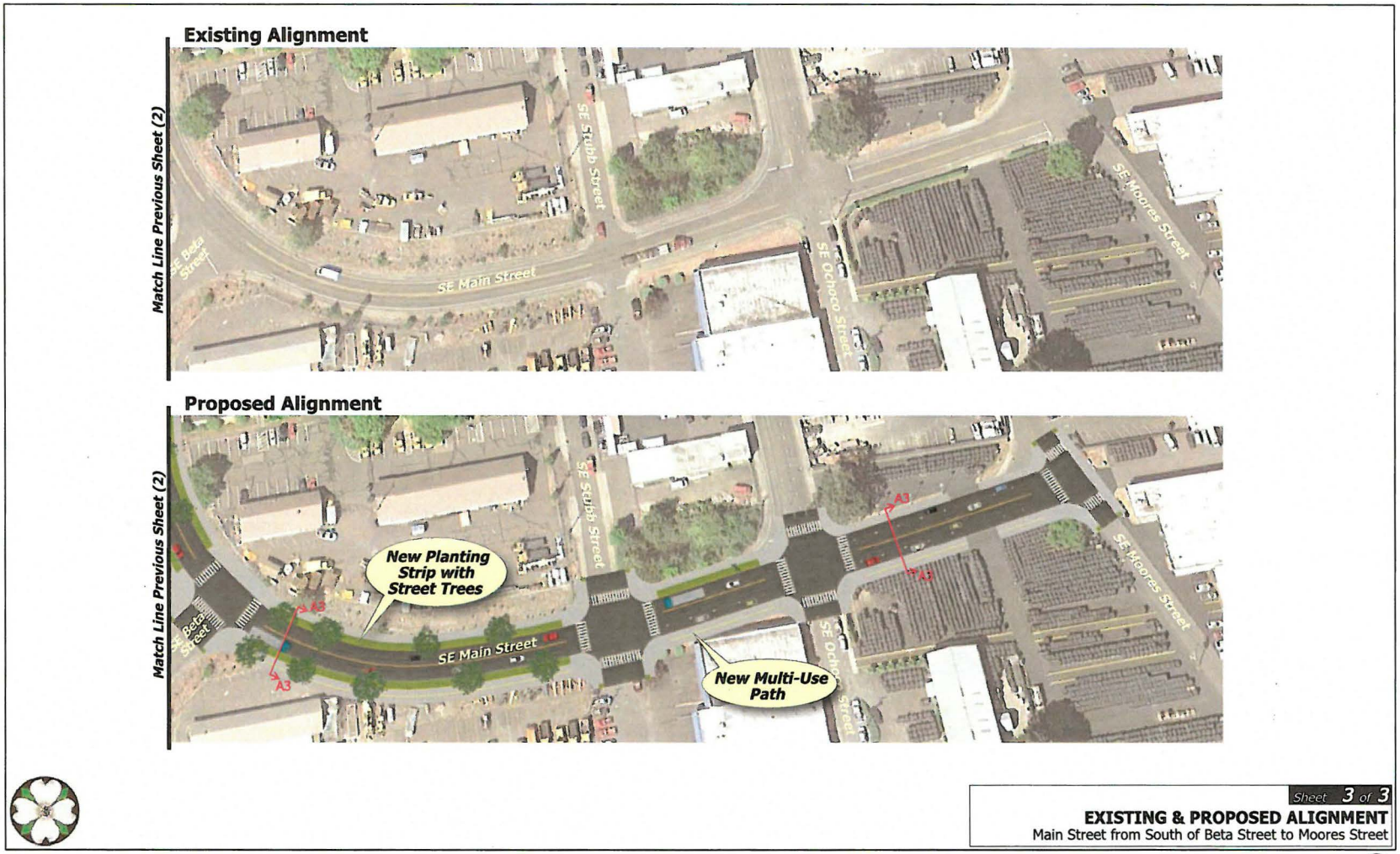
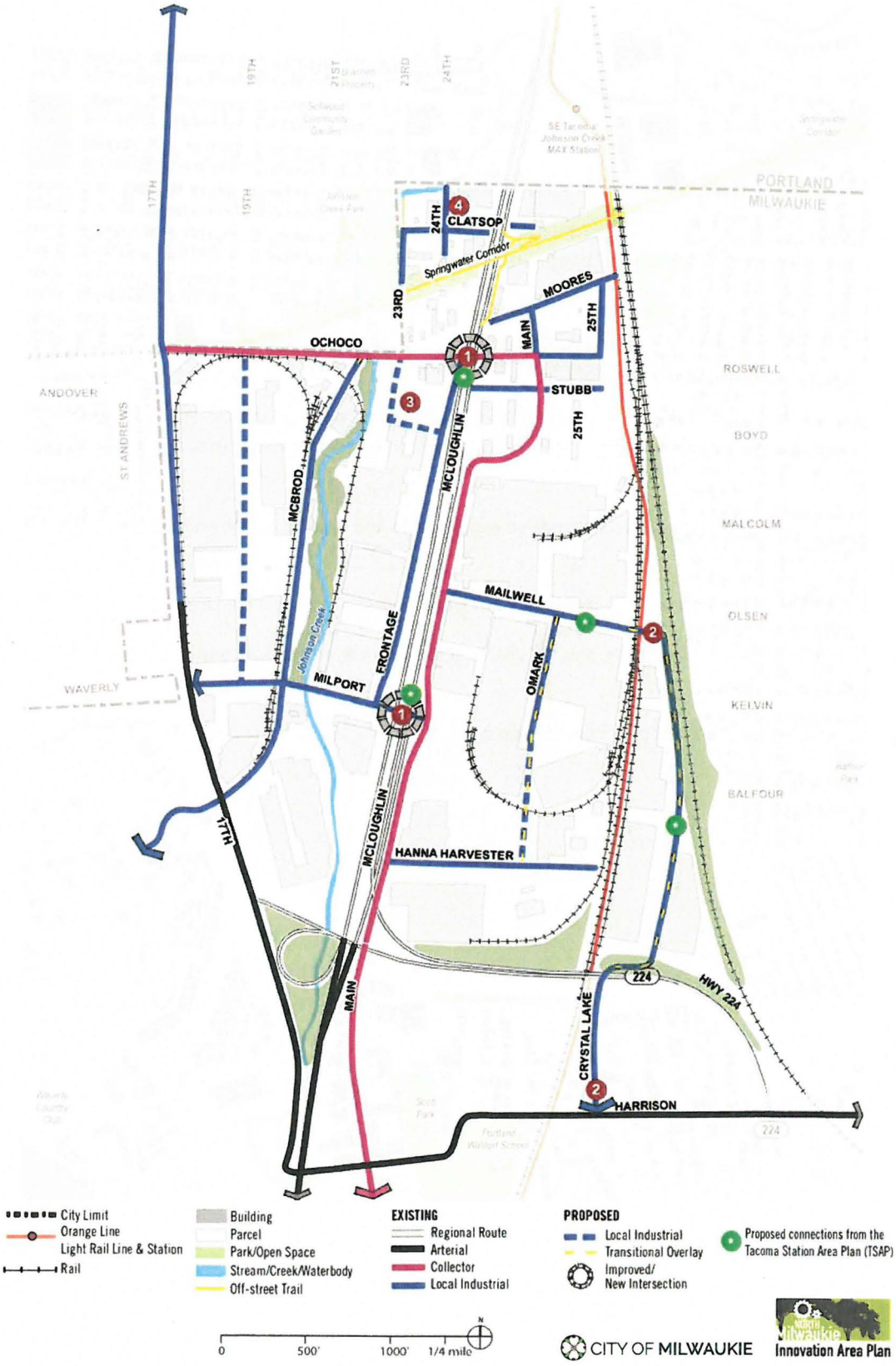


FIGURE 15: FUTURE STREET NETWORK



FUTURE VEHICULAR STREET NETWORK AND IMPROVEMENTS

1. Improve circulation and/or make geometric and wayfinding/signage improvements at the Ochoco St and Milport Rd intersections at McLoughlin Blvd that improves freight access and other modes.
2. Extend Mailwell Dr east across the MAX line connecting to Harrison St via the Hwy 224 underpass. Acquire right-of-way along private parking and loading dock area and also design road to restrict large trucks from entering the adjacent neighborhoods.
3. Reconfigure the street network at Moores/Ochoco/23rd Ave to open up the area for a potential development site at the intersection and remove the turning movements that are dangerous for pedestrians.
4. Provide a road connection for an alternative egress from the area to accommodate future redevelopment.

District-wide: Develop a parking management plan, including shared on-street facilities.

District-wide: As redevelopment occurs, create a local street network to support a more walkable development pattern.

District-wide: Maintain efficient freight access.

Top: Renton, WA has integrated heavy rail into its Downtown to carry 737 fuselages. Bottom: Rail and other uses can function together if properly designed.

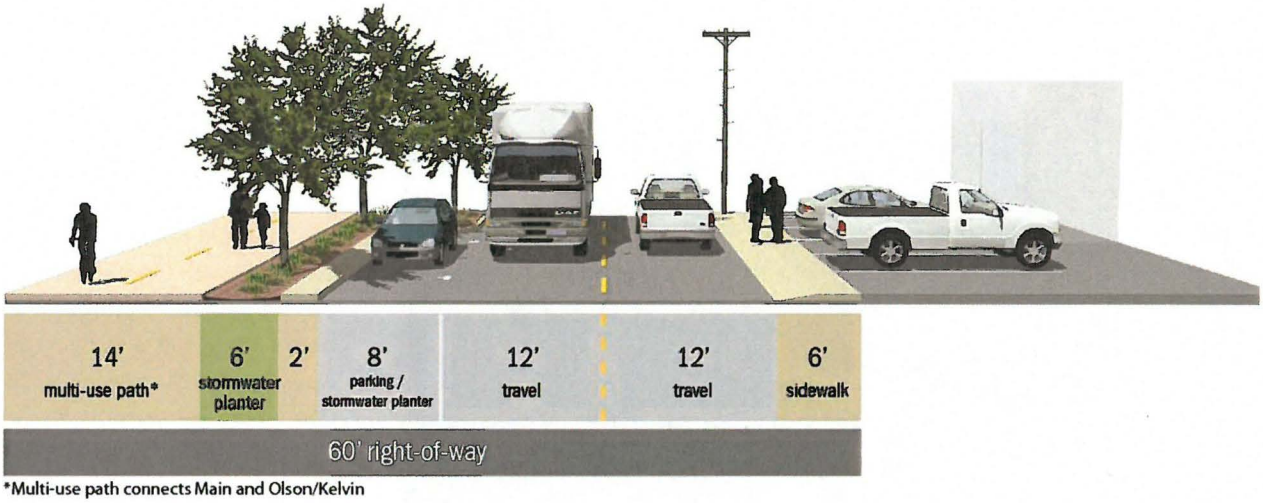
Local Industrial Streets

- **Mailwell Dr:** Cross sections for Mailwell Dr (between Main St and the railroad track) include bicycle and pedestrian facilities to establish direct connections for pedestrians and bicyclists between the project area and the Ardenwald neighborhood. The Plan incorporates **Figure 16** (as shown on next page) which reconciles truck and pedestrian uses. The 12-14' multi-use path should designate bike and pedestrian-only zones to minimize potential conflicts.

  Mailwell Dr is the only street in the NMIA that crosses the LRT line. Though it could offer opportunities for enhanced connectivity, it ends at a private road immediately east of the tracks. The private road (also known as Mailwell Dr) runs south through industrial loading sites in the southeast corner of the project area and subsequently ends under the Hwy 224 overpass, where it connects with Crystal Lake Dr. The private section of street should be dedicated as a public right-of-way by extending Mailwell Dr to connect to Harrison St via Crystal Lake Dr. The cross section for this street should be designed to discourage large trucks from entering adjacent neighborhoods.

- **Stubb St:** The cross section and recommendation (**Figure 17** shown on next page) for Stubb St is incorporated into this Plan. When redevelopment opportunities arise for adjacent properties, continuous access for head-in parking should be replaced with a 12' travel lane, a 5' sidewalk and 4' planting.

FIGURE 16: CONCEPTUAL CROSS-SECTION FOR MAILWELL DR WITH CONTINUOUS ACCESS (LOOKING EAST)



*Multi-use path connects Main and Olson/Kelvin

FIGURE 17: CONCEPTUAL CROSS-SECTION FOR STUBB ST WITH CONTINUOUS ACCESS (LOOKING EAST)

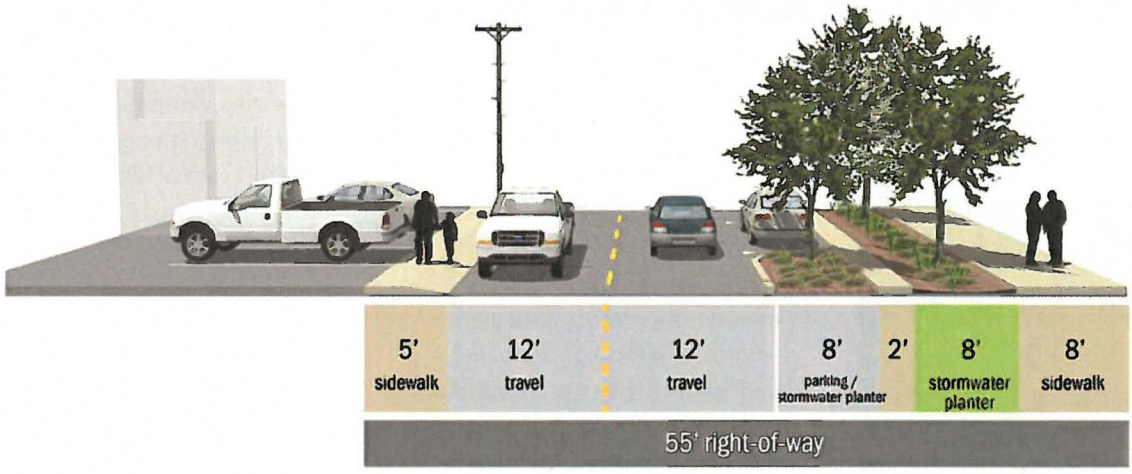


FIGURE 18: INTERIM IMPROVEMENTS ON MCBROD AVE (TRANSITIONAL STREET)

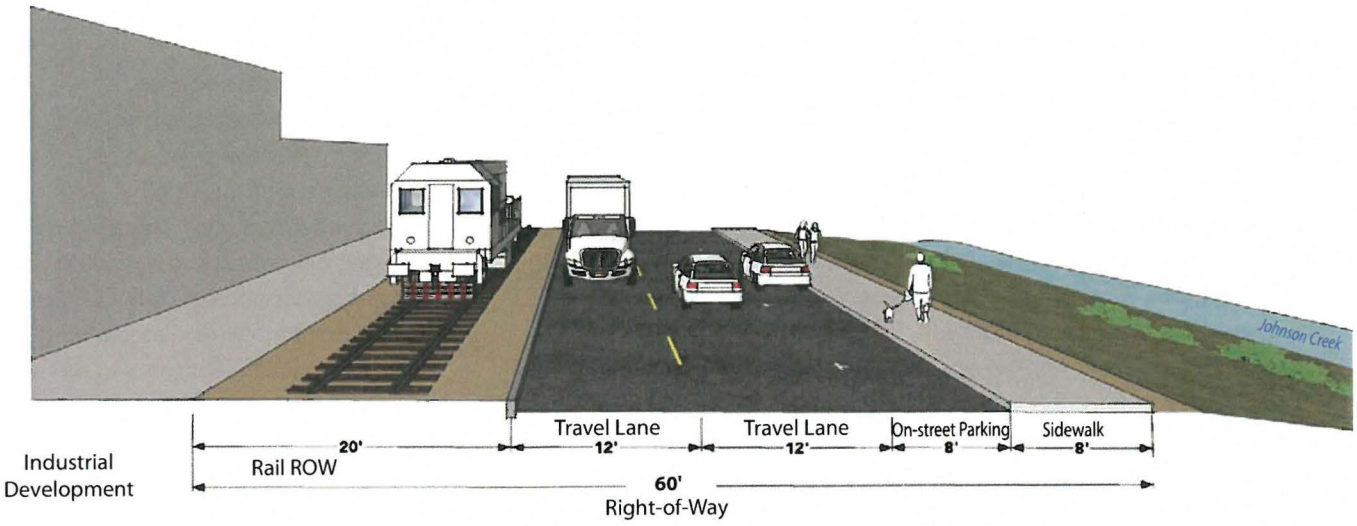
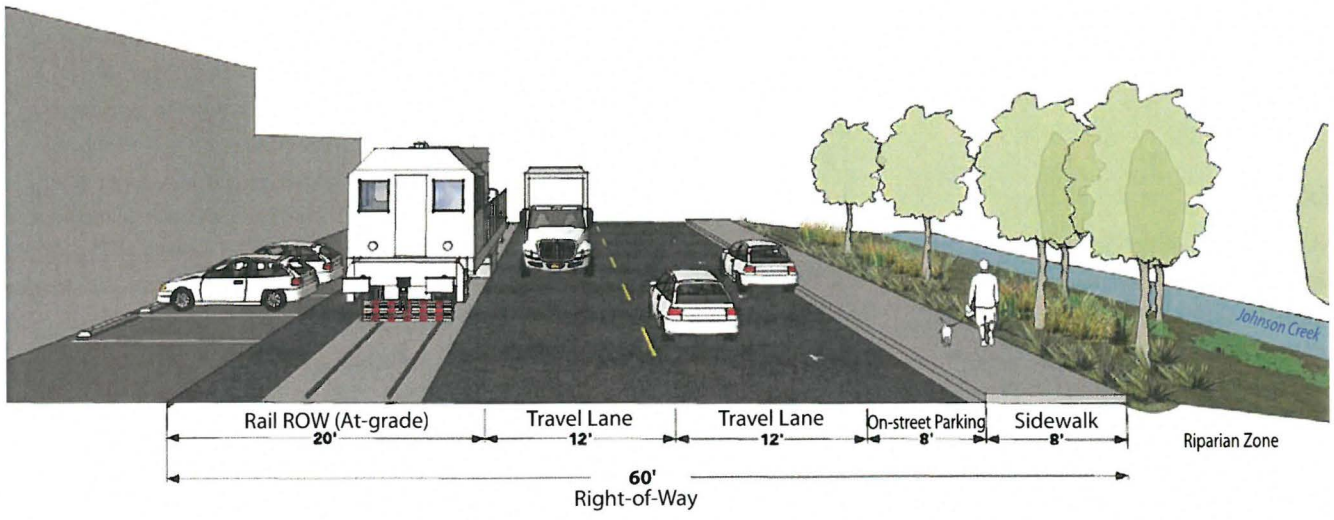


FIGURE 19: FULL BUILD-OUT OF MCBROD AVE



- **Other streets:** Other local streets within the project area vary in right-of-way width from 40'–60.' For streets that are not anticipated to carry additional pedestrian load, the cross sections of 40' and 60' (**Figures 20 and 21**) are adequate. All sidewalks should be 8 ft wide and stormwater planters should also be at least 5 ft wide to function as designed (preferably wider). These streets should meet the desired intersection spacing standards and maximum block length recommendations described in **Chapter 5: Land Use.**

Transitional Street-Phasing

Creating a transitional street is one way to complete initial modifications that enhances mobility, particularly for pedestrians and bicyclists, but the cost of completely rebuilding the street is high.

Example

McBrod Ave, which is essentially the recommended transitional street, has approximately 60' right-of-way with an active rail spur. At present, cars and trucks park on-street in the right-of-way. **Figure 18** illustrates what a transitional street might include. The City of Milwaukie is already planning on improving the roadway, which will address stormwater treatment for the rail line and add sidewalks to the east side of McBrod Ave. A future modification (**Figure 19**) should create an at-grade rail line to provide better access to the adjacent buildings, and incorporate stormwater, open space and riparian area improvements to Johnson Creek.

FUTURE BIKE AND PEDESTRIAN CIRCULATION

Figure 22 shows the non-motorized street network, which would provide better access to MAX, the Springwater Corridor, and areas within and outside the project area.

- **Better east-west connections to the Tacoma LRT station:** Future redevelopment of the NMIA should improve bike and pedestrian circulation to take better advantage of the Tacoma LRT station by addressing the barriers to reaching the station and the challenging pedestrian environment along McLoughlin Blvd and Ochoco St. This includes adding bike lanes and signage along Ochoco St and an improved intersection at Ochoco St and McLoughlin Blvd for all modes of travel.
- **Improved access to the Springwater Corridor:** The Plan recommends the creation of a separated multi-use path. This path will eliminate gaps in the pedestrian network to establish a seamless connection between the Springwater Corridor (as well as the Tacoma LRT station) and other parts of the NMIA, to separate bicycles and pedestrians from freight traffic along the roadway.
- **Creating connections adjacent to the project area as well as within the district:** Better connections for bikes and pedestrians from the Ardenwald neighborhood (east of project area) at Mailwell Dr and Ochoco St/Roswell St.

On the west side of the NMIA, a multi-use path is proposed along McBrod Ave adjacent to Johnson Creek. This new path will make it possible for people traveling along the Springwater Corridor to access the lower reach of Johnson Creek, as well as tie into the 17th Ave multi-use path that connects to Downtown Milwaukie.

FIGURE 20: PROPOSED CONCEPTUAL CROSS-SECTION FOR LOCAL STREETS WITH A 40' RIGHT-OF-WAY

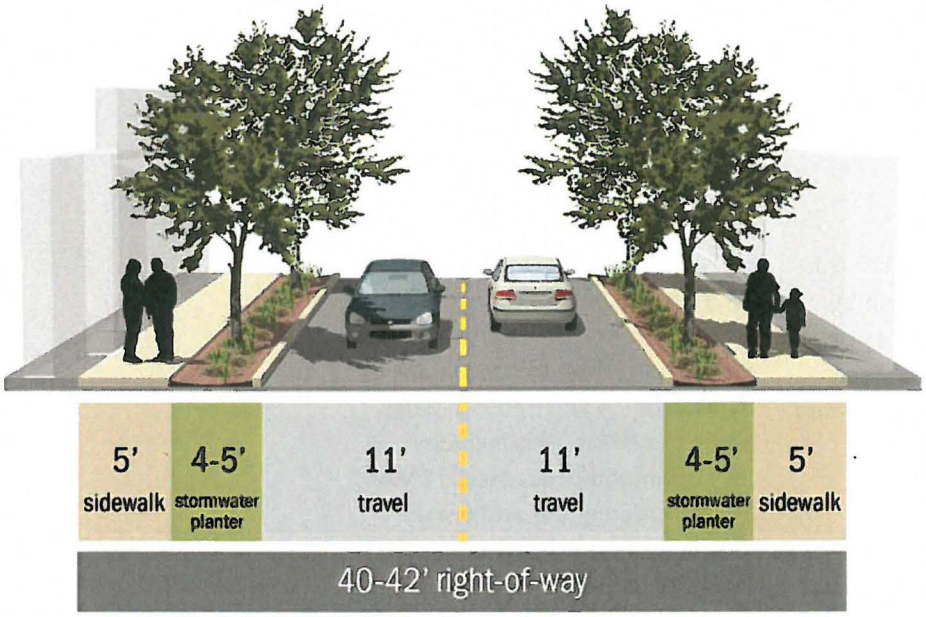
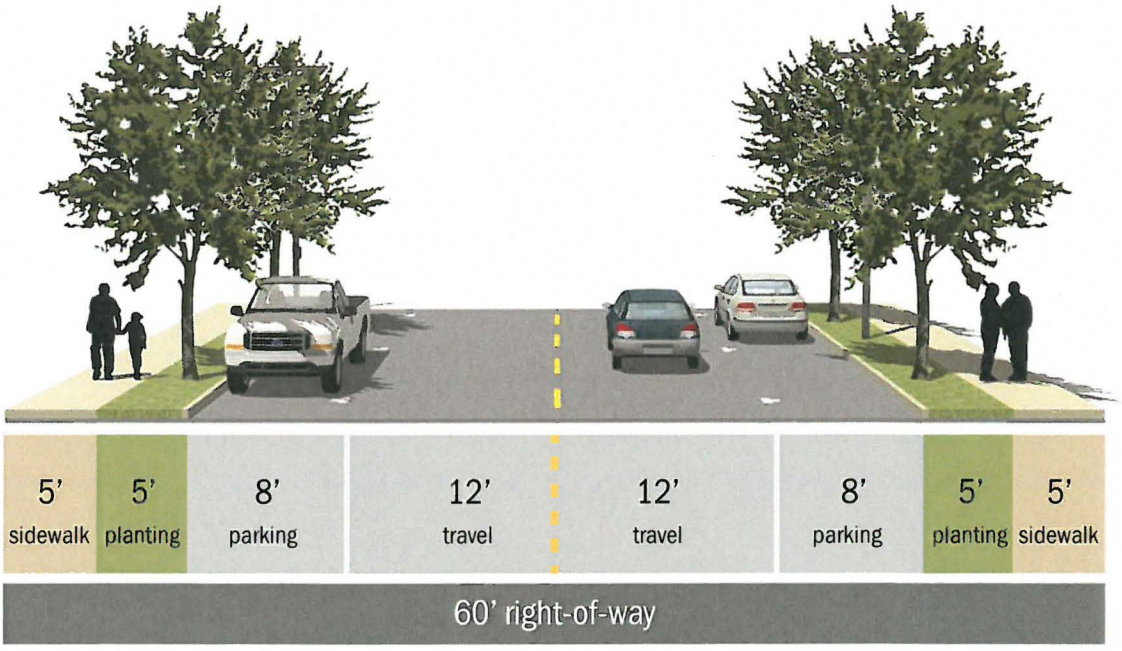


FIGURE 21: PROPOSED CONCEPTUAL CROSS-SECTION FOR LOCAL STREETS WITH A 60' RIGHT-OF-WAY

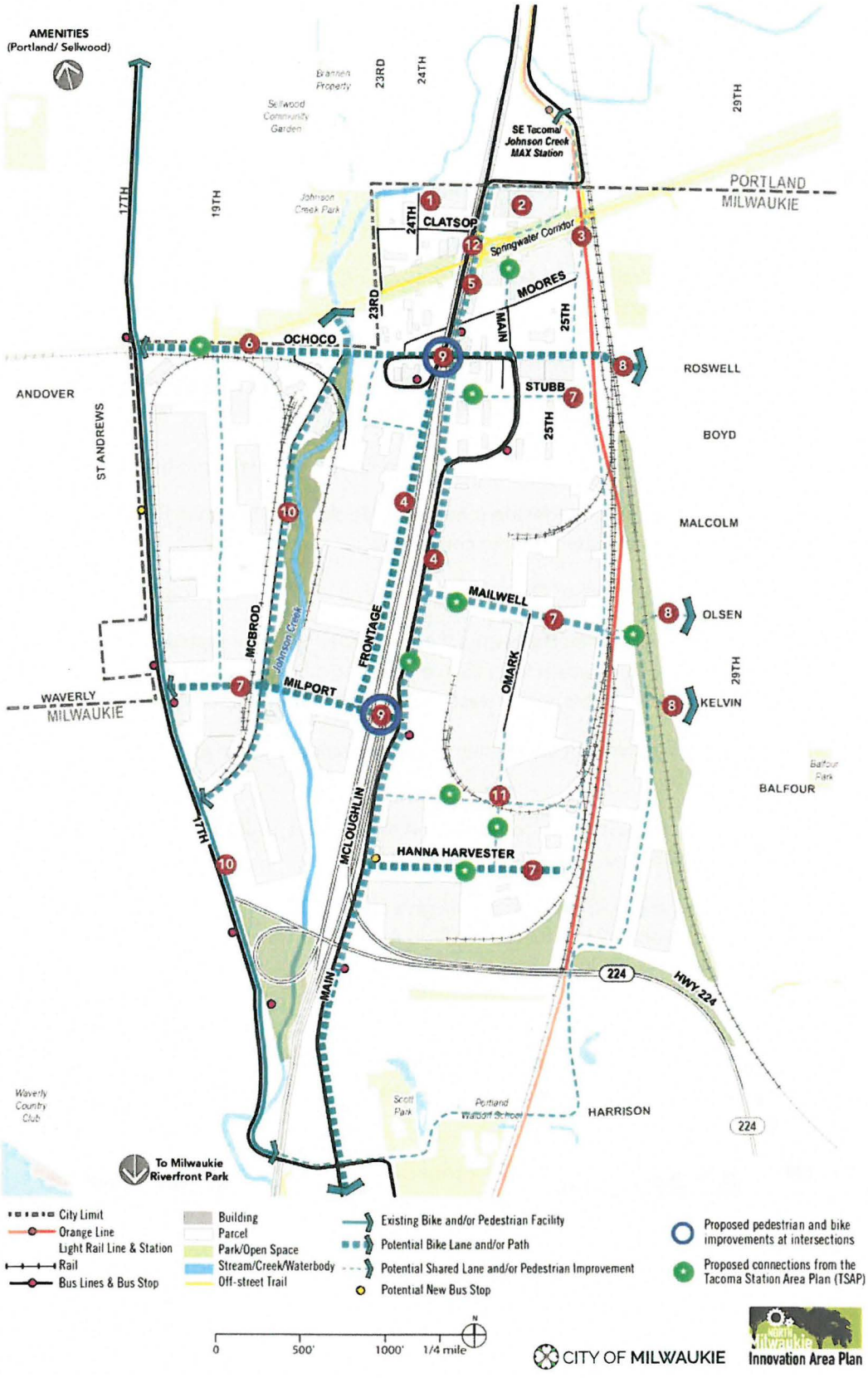


TRANSIT ACCESS CONSIDERATIONS

TriMet bus routes 70 (along 17th Ave) and 30, 34, and 99 (along Main St) serve the project area. The project area is also served by the Tacoma/ Johnson Creek MAX Station, located north of the project boundary.

New smaller-scale, flexible industrial and incubator spaces (without accompanying residential) on both west and east sides of the project area will bring more workers to NMIA. While some NMIA employees will use personal vehicles, a portion of them will rely on transit to get to and from work. Improving connections to adjacent neighborhoods can provide nearby residents access to work, transit, and recreation. Additionally, the Plan recommends creating a transportation management association (TMA) to coordinate transportation and parking issues within the NMIA. This includes researching other successful TMAs and considering the addition of time limits or metered parking. The goal of the TMA is to reduce single occupancy vehicle use, support businesses in the NMIA, and coordinate and manage transportation and parking needs. Implementation of an NMIA parking management plan will further support this effort.

FIGURE 22: NON-MOTORIZED STREET NETWORK



NON-MOTORIZED STREET NETWORK AND IMPROVEMENTS

1. Provide a pedestrian connection over Johnson Creek within the area.
2. Extend the pedestrian path from the Springwater Trail near Clatsop St to circle the Pendleton site and connect to the LRT station.
3. Create a future separated pathway upon redevelopment on the west side of the LRT track from Ochoco St north crossing the Springwater Trail and connecting to the LRT station or use the existing proposed connection on Main St.
4. Enhance pedestrian and bicycle facilities on Main St and Frontage Rd with multi-use paths.
5. Add buffer and signage to protect pedestrians and bicycles along McLoughlin Blvd north of Main St to the LRT station as a current/interim connection.
6. Provide bike lanes along the length of Ochoco St.
7. Improve Stubb St, Milport Rd, Hanna Harvester Dr and Mailwell St for pedestrian and bicycle access and develop a future connection from each of these to a north/south access from Ochoco St to Hanna Harvester Dr along the west side of the LRT track, upon redevelopment.
8. Develop at-grade bicycle/pedestrian connection across the railroad tracks at Kelvin St or Olsen St and at Roswell St.
9. Create a safe crossing for bicyclists and pedestrians at the Ochoco St and Milport Rd intersections at McLoughlin Blvd.
10. Connect Johnson Creek Park to Riverfront Park via greenway trail along Johnson Creek or along McBrod Ave South of Milport Rd, trail follows McBrod Ave to 17th Ave.
11. Develop pedestrian linkages or path upon redevelopment.
12. As an interim measure to connect the light rail station to the NMIA south of the Springwater Corridor, add bicycle/pedestrian improvements of existing right-of-way along McLoughlin Blvd under the Springwater Corridor. Include a stairway from the Springwater Corridor to McLoughlin Blvd on the west side of the NMIA.

District-wide: Provide pedestrian and bicycle connections along new local streets and fill gaps in the sidewalk system on one or both sides of these streets.

chapter 5: land use

Creating an innovative and diverse business mix in the NMIA requires both a commitment to creating and implementing an economic development strategy and implementing a land use regulatory system that is flexible.

The Land Use balances new and existing uses, but also promotes higher density employment with greater flexibility for permitted uses. **Figure 8** illustrates the land use zoning for the NMIA. The figure depicts two zones. The Mixed Use Tacoma Station Area (MUTSA) zone allows a broad mix of residential, commercial, and employment uses. The North Milwaukie Employment (NME) zone allows a mix of manufacturing, distribution, and production office uses.

LAND USES

Table 3 summarizes the primary land uses envisioned for NMIA and indicates whether these uses are permitted as a primary use or as an accessory or conditional use. Primary land uses include similar uses in the North Milwaukie Employment (NME) zone include manufacturing and distribution as well as additional uses that are more flexible in creating employment uses.

The primary land uses in **Table 3** have been translated into zoning and site design standards as part of project implementation.

The plan combines three former Tacoma Station Area subareas (Areas 1, 2, and 3), into a single zone (MUTSA) and combines the former Tacoma Station Area subarea 4 with areas formerly zoned M-Manufacturing to create the NME zone **(Figure 28).** This reduces the number of zones within the NMIA to two districts.

In this chapter:

Hood River Industrial Area mixes traditional warehousing and manufacturing with office mixed-use.

ZONING

The MUTSA district will take advantage of the area's strategic location near the Tacoma MAX Station, the Sellwood neighborhood, Johnson Creek and the Springwater Corridor. The general purpose of the district is to still allow some commercial and residential uses as well as intensive employment uses.

Design considerations within the district include the following:

- 19.303.3 Development Standards regarding commercial mixed-use zones;
- Building heights: minimum of 25 ft and maximum of 90 ft, allowing for multistory mixed use buildings;
- Street frontage: development should be oriented to the local street network where there are strong pedestrian connections
- Maximum block length: 300–530 ft

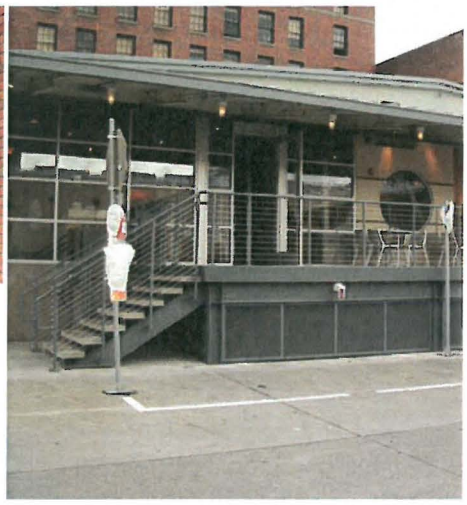
DESIRED BUILT FORM

The NME zone would permit existing industry, but also increase the type and extent of employment uses. Future design considerations should include the following:

- Emphasis on increasing employment density with varied uses and building types, potentially using incentives;
- Priority for flex space, light manufacturing (including maker space), research & development (R&D);
- Building heights: minimum of 25 ft and maximum of 90 ft. Mixed use and vertical industrial permitted;
- Street frontage;
- Maximum block length: 600 to 1,200 ft; and
- Parking standards recommended in the Transportation Demand Management and Parking Strategy.

Future streets and buildings should blend the physical design of buildings in relationship to the street front, and consider a range of factors such as density, public spaces and natural features, and green building design and development. Specific applications can include:

FIGURE 23: INCORPORATING EXISTING ELEMENTS SUCH AS LOADING DOCKS AND COVERED BAYS



SITE DESIGN ELEMENTS

- **Building setbacks:** Landscaped building setbacks can create a layer of semi-public space inviting to pedestrians and create a sense of enclosure along the sidewalk. Forecourts and other public spaces along the sidewalk should be allowed and potentially encouraged along key streets, including adjacent to Main St associated with proposed civic/ gathering spaces there, and where sidewalks are narrower than ideally desired. On-site surface parking will be oriented to secondary streets rather than to key streets, wherever possible.
- **Building Orientation and Entrances:** New buildings will be oriented to and provide entrances that are directly connected to public sidewalks. Building entrances should provide lighting that is architecturally consistent with the overall building design. For corner parcels (particularly at important corners along key streets), buildings should ideally orient to the corner and/or provide architectural elements that address the corner. This may include projecting bays or articulated elements (as seen in Figure 23), chamfered corners, or changes in color/material.
- **Landscaping:** Where on-site surface parking is located adjacent to a sidewalk, dense landscaping should be provided in order to create a visual buffer.
- **Weather Protection:** At a minimum, building entrances should provide ample weather protection in the form of horizontal awnings; more continuous awnings that extend beyond the building entrance may also be provided (both variations are shown in Figure 23). Retrofitting existing industrial buildings to accommodate retail, office, or other commercial or employment uses may also create opportunities to incorporate other industrial building elements such as loading docks and covered bays, as shown in Figure 23.
- **Fenestration:** When retrofitting existing industrial buildings, increasing ground floor transparency is crucial in terms of improving the pedestrian experience along the sidewalk. In many instances this may require increasing the size and number of ground floor windows. Figure 24 illustrates the importance of avoiding blank walls along the sidewalk. A minimum transparency requirement along ground floors can ensure that windows are provided; the minimum will be higher in more pedestrian-oriented portions of the Station Area.

FIGURE 24: EXAMPLES OF RETROFITTED INDUSTRIAL BUILDINGS

FIGURE 24: EXAMPLES OF RETROFITTED INDUSTRIAL BUILDINGS (CONTINUED)

- **Building Materials and Articulation:** A variety of materials and color and/or changes in building articulation should be provided to visually break up large building planes and to create visual interest. **Figure 25** illustrates how articulated ground floor bays can create visual interest along the sidewalk by avoiding large, uninterrupted building planes.

- Design of industrial uses. Design standards for new or redeveloped industrial uses will be less strict than for commercial or retail uses and would focus primarily on landscaping, street design, parking area and building entrances, as illustrated in **Figure 27**. Some window coverage requirements also will be implemented.

- Illumination of Potential Gateway Features. At least two areas can serve as future gateways to the MUTSA – the existing stone building on the ODOT site and the intersection of Ochoco St and McLoughlin Blvd. Illuminating these areas at night would help attract people into the area and highlight these features and points of access.

FIGURE 25: RETROFITTED INDUSTRIAL BUILDING WITH HORIZONTAL AWNINGS

- Activated Street fronts: Successful urban streetscapes attract people because they are active, exciting and safe. Elements such as blank walls and surface parking adjacent to sidewalks discourage street activity and erode the pedestrian realm. Active streetscapes should be encouraged by adopting design standards to ensure that buildings provide a safe and attractive edge to the pedestrian realm. This could include:

- **Building Signage:** Pedestrian-oriented building signage in the form of blade signs, awning signs, building signs, or projecting signs will be provided where uses are transitioning to retail or commercial uses (see **Figure 26**).

FIGURE 26: RETROFITTED INDUSTRIAL BUILDINGS WITH PEDESTRIAN-ORIENTED SIGNS

- » Main building entrances should be located on the street (as opposed to a parking lot);
- » New buildings should meet minimum transparency requirements for the building's primary frontage. This can include glass doors and windows, transparent garage doors and other elements that reduce the monolithic features of large buildings (including warehouses);
- » Require varied façade treatments to reduce the monolithic qualities of a building. Typical requirements found in mixed-use and employment areas require changes in building façade every forty feet;
- » Building materials. While this is an employment district, tilt up concrete construction should only be permitted if it can meet materials and transparency requirements described above. Raw concrete exteriors should be painted.

- Public Spaces and Natural Features: NMIA is well suited to build on unique and district-defining features to create an identity and brand. Existing water towers, historic machinery and rail materials, and Johnson Creek can all be used to better define the unique character of the area. These features should be enhanced, showcased and integrated into the design of new site amenities and public spaces, creating a common identity for NMIA.

- Reuse and Repurposing: Many of the buildings in the NMIA are very old (more than 50 years), but are well maintained and fully utilized. Older buildings can be creatively and adaptively reused as new office space, flex-space and small scale manufacturing. Sites such as the former ODOT building should be preserved and enhanced to protect the character of the NMIA **(Figures 29, 30, and 31)**. The Pendleton Woolen Mills adjacent to the Tacoma LRT station is a prime development opportunity.

- Green Design and Development: Green infrastructure includes alternative energy sources, a healthy urban forest, on-site stormwater management such as green roofs, regional stormwater retention in planted areas, pervious paving, rain barrels and on-site detention tanks, and reuse of stormwater and greywater for irrigation, toilets and heat recovery. Energy consumption can be reduced by adaptively reusing existing buildings and requiring that all new construction and major remodels meet the goals of the greater NMIA as an ecodistrict.

- Restoration and Integration of Johnson Creek: **Chapter 7** provides several actions to improve Johnson Creek, an important local and regional asset that provides a contrasting natural green space to the surrounding industrial lands within NMIA. New development along Johnson Creek should be oriented to the water, including building entrances and pedestrian areas. Other improvements could include stormwater infrastructure, native plant and tree restoration, public trail or interpretive sites and impervious surface reduction projects.

FIGURE 27: IMPROVEMENTS IN AN EXISTING INDUSTRIAL AREA

TABLE 3: PRIMARY LAND USES AND ZONING

Primary Land Use Category (with examples)	Zoning	
	MUTSA	NME
MANUFACTURING		
Manufacturing and Production	•	•
Creative space; studios	•	•
Repair and Service; Construction-related businesses	•	•
Waste Management		•[4]
DISTRIBUTION		
Wholesale Trade	•	•
Warehousing and Storage	•[1]	•
OFFICE		
Service Office *High level of face to face interaction with customers*	•	•
Production Office; Research and Development *Limited face to face interaction with customers*	•	•
COMMERCIAL/RETAIL		
Retail Sales; Personal Service; Repair Businesses	•[3]	•[3]
Eating and Drinking Establishments	•	•[3]
Health Club/Gym	•[3,4]	•[3,4]
COMMUNITY SERVICE USE		
Government offices	•[4]	•
Transit Facilities	•[4]	•[4]
Schools (public or private)	•[4]	•[4]
Recreation facilities (public or private)	•[4]	•[4]
Parks and open space	•	•
Utilities (pumping stations, water wells); communication facilities	•[4]	•
RESIDENTIAL		
Multifamily/Mixed Use	•	

[1] Warehouse must be accessory to an industrial use or other permitted use

[2] See definitions for Service Office and Production Office

[3] Limited Uses: Limitations on size, location, and/or review process; primarily intended to serve district employees

[4] Conditional Use or Community Service Review (Type III)

FIGURE 28: PROPOSED ZONING

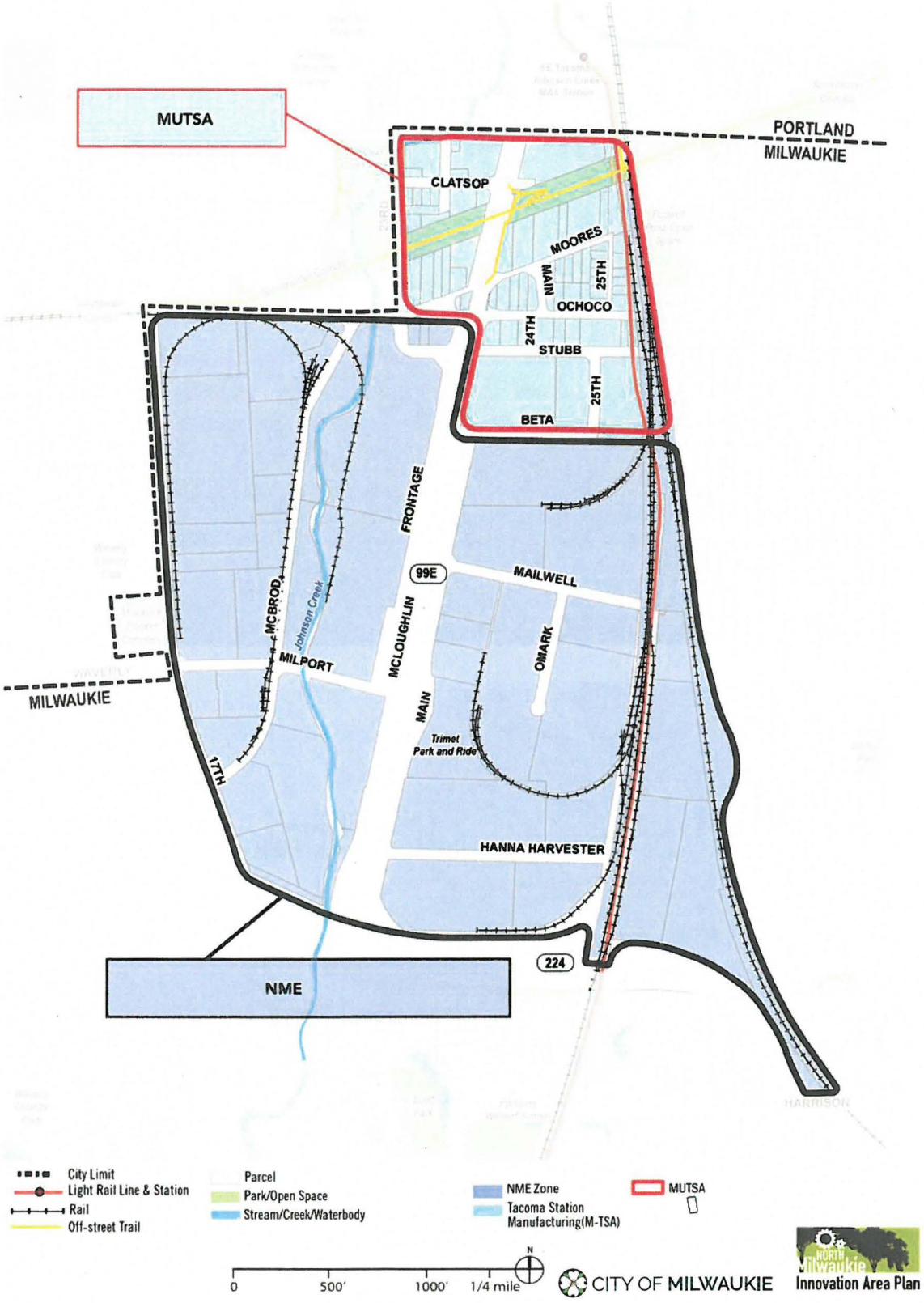


FIGURE 29: ODOT SITE EXISTING AND CONCEPTUAL

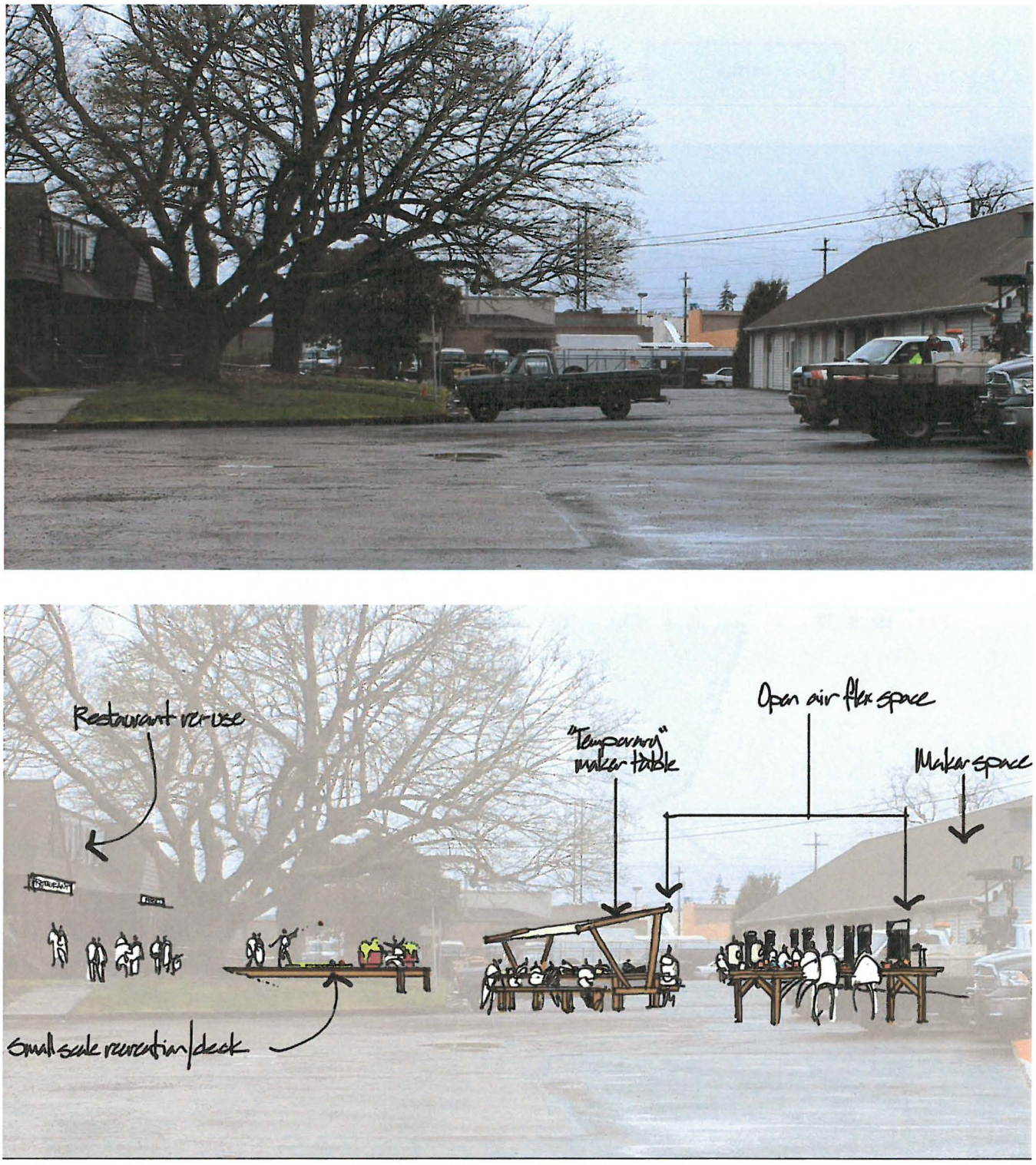


FIGURE 30: MCBROD AVE NORTH EXISTING AND CONCEPTUAL

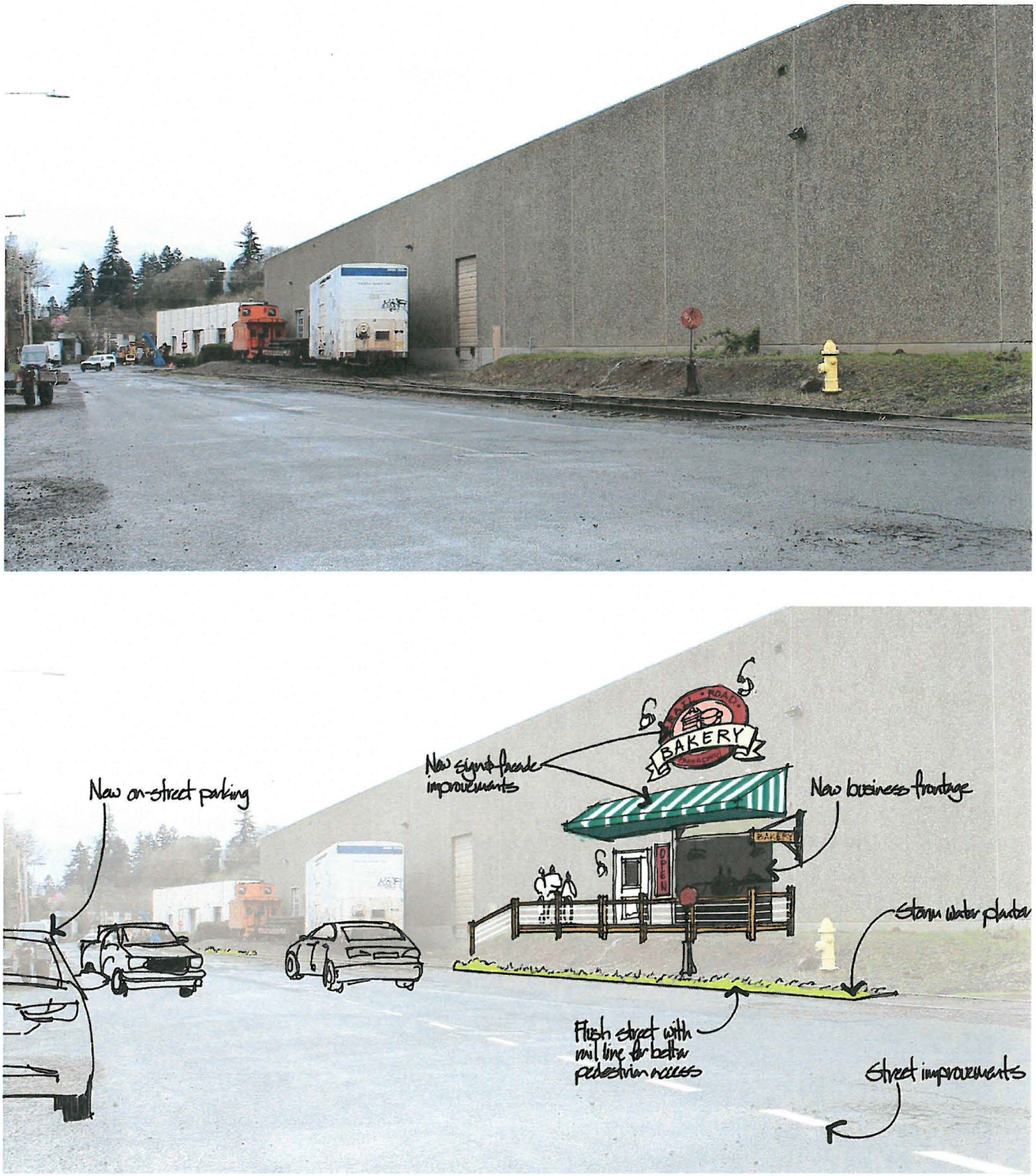
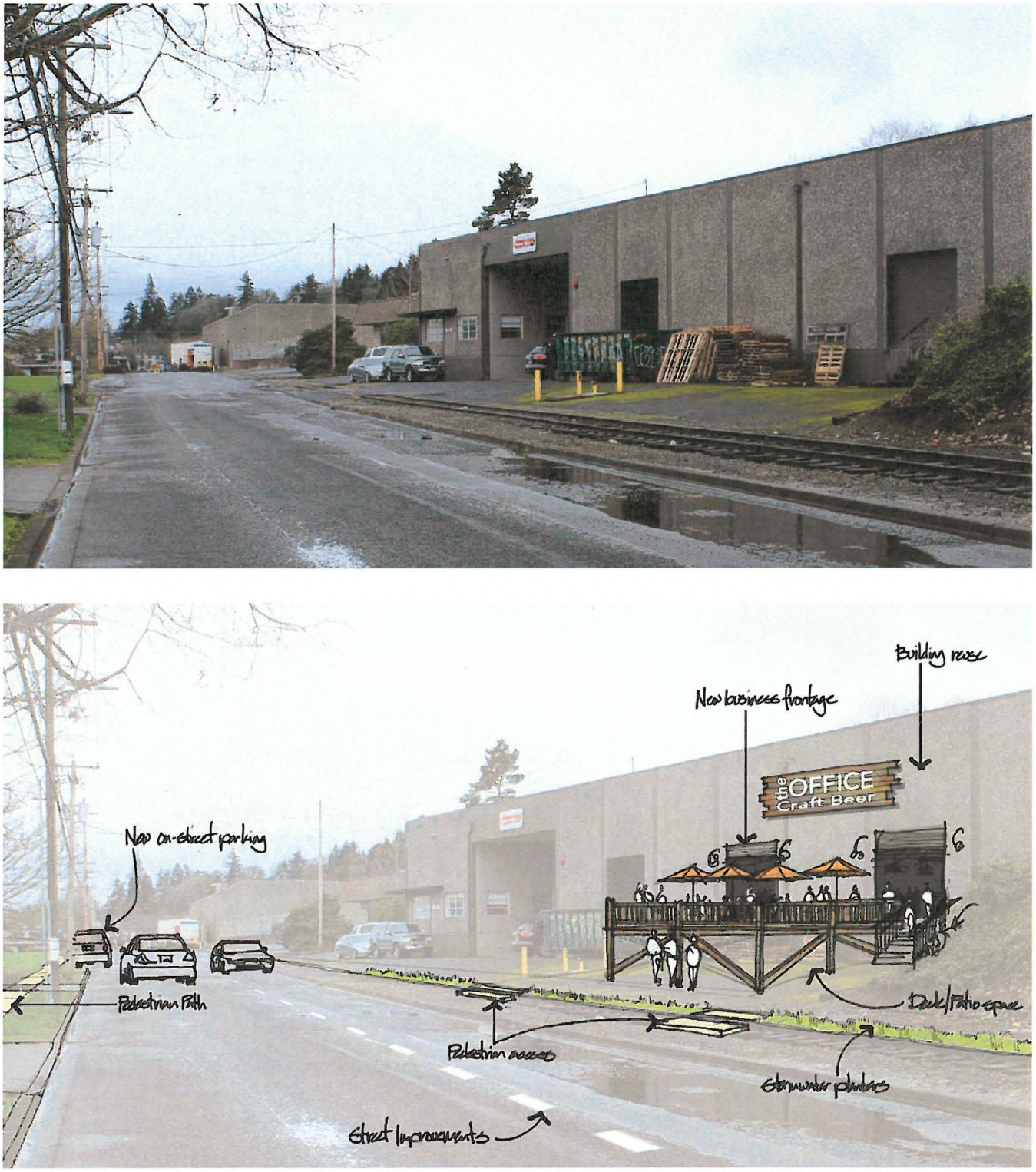


FIGURE 31: MCBROD AVE SOUTH EXISTING AND CONCEPTUAL



chapter 6: infrastructure

As the NMIA redevelops, there will be opportunities to upgrade and improve existing infrastructure systems and restore natural areas.

Specific strategies for stormwater management and district-level services will help support existing businesses as well as redefine the area as an ecodistrict (see **Chapter 3: Ecodistrict**) and attractive environment for future development. Infrastructure improvements focus on implementable strategies that can be reasonably developed without significant changes to existing buildings, while still providing infrastructure to support future uses and construction that implements the sustainability goals of the Plan.

Retrofitting areas with more sustainable and resource reducing systems, such as greywater systems, can be challenging when an area is already highly developed. Incremental infrastructure improvements are more likely to occur. For the NMIA, a combination of building focused systems that can be developed at the individual site level in combination with systems that are easier to create incrementally through public investment and development fees, such as regional or district level stormwater and green streets, are often more feasible and have greater branding and economic development potential.

Generally, existing infrastructure is located within existing rights-of-way. As new development occurs in the NMIA on existing vacant parcels or through redevelopment of existing buildings, water and sewer infrastructure would be extended from the existing system to serve new development. New public roads should include infrastructure to serve future development.

In this chapter:

- Sewer and Water
- Stormwater and Johnson Creek
- District Energy
- Fiber and High Speed Internet

Johnson Creek near Ochoco St

SEWER AND WATER

The 2010 Water System Master Plan states that there is generally capacity in the existing system for build out based on the current zoning. Upgrades to existing sewer and water lines are not assumed to be necessary under the proposed land use mix for this plan.

However, water saving features should be required in all new development to reduce water and sewer demand. Greywater systems should be encouraged (through incentives, such as reduced fees or rates) for new buildings.

The 2011 Wastewater Master Plan states that the system has capacity based on the existing zoning, although there are some failing or damaged pipes that need to be replaced within the NMIA. This would not necessarily limit redevelopment within the area.

There is an existing sewer main along McBrod Ave that could provide an opportunity to treat wastewater and redistribute it back within the industrial area. A membrane bioreactor (MBR) facility (sewer mine) would treat the water for non-potable uses such as irrigation or toilet flushing in new buildings or retrofitted existing buildings. Non-potable uses are distributed in a separate purple pipe system to differentiate from potable uses.

STORMWATER AND JOHNSON CREEK

According to the Department of Environmental Quality, Johnson Creek exceeds the total maximum daily loads for bacteria, temperature, mercury, PCBs, PAHs, DDE, DDT, and Dieldrin, which can originate from untreated stormwater entering Johnson Creek from adjacent areas. Reducing the amount of untreated stormwater can be a challenge if both on site and regional stormwater options are not considered.

Onsite stormwater systems can be challenging to develop, particularly on smaller sites where a high percentage of building coverage can limit stormwater retention and treatment options. An additional challenge is that any new development will trigger the current stormwater code that requires on site treatment. Regional stormwater treatment should be considered for the following reasons:

- Creating regional facilities represents a potential cost savings to individual development projects, insofar as the regional facility creates economies of scale.
- It is an opportunity (with one or more regional facilities) to treat multiple properties in a single facility. These can include detention ponds, bioswales or similar facilities without needing redevelopment to occur to address the stormwater issue onsite.
- Regional stormwater is an opportunity to pursue grant funding through partnerships with other organizations interested in improving conditions along the Johnson Creek corridor, in conjunction with land use changes and infrastructure improvements including roads and natural areas.
- Developing a stormwater treatment project can improve the quality of Johnson Creek, benefiting existing businesses and helping to develop a brand for the area through the project outcome, catalyzing redevelopment along McBrod Ave.
- Existing Johnson Creek riparian and stream buffers could be locations for low impact facilities to treat stormwater runoff and where the City could allow properties to mitigate for on-site stormwater off site in a regional facility.

Regional stormwater facilities may require a variance from the City's "Design and Performance Criteria for Stormwater Detention and Water Quality Treatment Facilities Constructed on Private Property," which states:

"Except as permitted by the Engineering Director, as provided by the Public Works Standards, on-site mitigation facilities shall be located on private property and shall not be located on property that will become a public right-of-way, public stormwater easement, or future street plan."

The Johnson Creek Watershed Council has been working to promote stewardship and restoration of Johnson Creek. There are precedent examples where they have coordinated with businesses and property owners in the project area to restore and improve Johnson Creek and its associated riparian corridor. Working as a partner, the City can coordinate and partner with this group to identify additional restoration efforts that could both meet the needs of Johnson Creek and provide a positive impact to property owners and as a catalyst project for the NMIA.

Potential projects related to Johnson Creek include channel and buffer restoration and upstream stormwater quality improvements to reduce quantity of polluted runoff into the stream.

DISTRICT ENERGY

Creating a district energy system can be challenging to successfully implement, even incrementally, where there is already existing infrastructure and development. District energy systems are often created in new development or through a phased development plan where the district energy system is designed along with the buildings.

However, there are opportunities to incorporate renewable energy, specifically solar energy. The large roof areas of the industrial businesses may provide opportunity for solar panels. Portland General Electric provides power to the project area and individual properties and may provide buy back opportunities for excess energy produced in the district. Solar and other energy conservation measures can be implemented over time as buildings are redeveloped or building owners choose to install systems. The large number of existing buildings could support a significant amount or renewable energy.

FIBER AND HIGH SPEED INTERNET

Fiber and high speed internet (wired or wireless) are essential for future businesses, particularly those with a web presence or where large amounts of data are shared between offices. From a NMIA marketability standpoint, access to high speed internet is something that businesses expect. While some businesses might add their own service if there are other features of the NMIA that make it attractive and affordable, easy access to this infrastructure is a basic component of any modern employment area.

chapter 7: interventions, prioritized actions and funding

The Plan provides a framework for short- and long-term actions to implement the vision, goals, and objectives through specific actions that will be accomplished over the life of the Plan. Change happens slowly, and for dramatic long term change to happen, many factors will need to be addressed.

The Plan focuses on incremental actions and strategic policy initiatives such as zoning, forging key partnerships, and appropriate infrastructure investments scaled to the City's limited resources. The NMIA will not change overnight, nor is the intent to force unwanted change on existing property owners. The aim is to strengthen the best aspects of the area, take advantage of opportunities as they arise, and gradually move towards the aspirations set forth in the vision and goals.

Understanding that the market can change at any time, the City wants to be ready and poised for change in a strategic way that responds to the public feedback received through this process, and in a way that adequately contributes to a healthy jobs/housing balance for the City as whole, providing increased employment density and living wages for a variety of skills and education. In turn, this will allow the City to move toward the aspirations set by the vision and goals as market and opportunities allow.

PRIORITIZED IMPLEMENTATION MATRIX

This chapter identifies the specific action items necessary to implement the Plan with approximate timing and potential funding resources. Advancing the broad range of goals, strategies and projects included in the Plan will require the thoughtful and collaborative implementation of numerous specific actions. In some cases, regulatory actions may be the best ways to facilitate implementation. In other instances, public, private or public-private investment may be required. The City can also facilitate change directly through use of public property (existing or acquired) and/or to help broker property transactions based on implementation strategies. As always, good working collaboration between the City, other public agencies and key stakeholders will be crucial, and where gaps in partnerships exist, the formation of new partnerships will be needed. Table 4 summarizes the prioritized plan recommendations.

In this chapter:

- Prioritized Implementation Matrix
- Funding and Financing
- Tax Credits and Abatements
- Other Incentives

This Implementation Plan will be used by the City throughout the life of the Plan and should be periodically reviewed and updated to reflect conditions as they change over time. Some funding sources, such as Local or Businesses Improvement Districts and Urban Renewal, will require additional analysis to determine if they are appropriate for the NMIA.

TABLE 4: PRIORITIZED IMPLEMENTATION MATRIX

	Action Items	Timeframe	Estimated Cost	Primary Responsibility/ Partners	Potential Funding Sources
	Goal 1: Economic Development and Employment. Encourage a balance of employment-focused land uses, programs and resources that increase private capital investment and family-wage jobs.				
	Objective 1.1. Support existing businesses as the district evolves over time.	*See actions for this objective*			
•	Action 1.1.1. Create a NMIA Business Association that will advocate for the needs of existing and future businesses.	2-5 years	NA	Business and Property Owners, City Staff	Business or Economic Improvement District, General Fund
	Action 1.1.2. Maintain a current business contact list, including those in flex space locations to be used to inform businesses of relevant NMIA and citywide issues.	Ongoing	NA	Community Development Department	General Fund, BID/EID
•	Action 1.1.3. Hire or assign a City economic development coordinator for the NMIA to be the single point of contact for all businesses activity in the district.	1-3 years	NA	Community Development Department	General Fund, BID/EID
	Objective 1.2. Build upon the locational advantages of the NMIA and its role within the region to increase employment density.	*See actions for this objective*			
•	Action 1.2.1. Develop a branding strategy that highlights the industrial history of the area. Specific elements should include: » The historic ODOT building, the water tower on Hanna Harvester Dr, mechanical infrastructure on Frontage Rd, and Johnson Creek as branded elements; » Identifies the area as a unique district and identifiable from McLoughlin Blvd; » Focuses on taking advantage of the district's proximity to transit and TOD supportive zoning.	1-3 years	50-100K	Community Development Department	Urban Renewal, Local Improvement District, (LID), City CIP/Grants
	Action 1.2.2. Develop and implement a business recruitment strategy that targets businesses identified in the City's Economic Opportunities Analysis.	1-3 years	TBD. Dependent on strategy developed.	Community Development Department	General Fund

"•" denotes Ecodistrict-related element

TABLE 4: PRIORITIZED IMPLEMENTATION MATRIX (CONTINUED)

	Action Items	Timeframe	Estimated Cost	Primary Responsibility/ Partners	Potential Funding Sources
	Objective 1.3. Support catalytic development of identified opportunity sites by incentivizing cluster-style development for multiple businesses to locate and grow.	*See actions for this objective*			
	Action 1.3.1. Coordinate with Clackamas County and the State of Oregon to relocate OLCC, County correctional facilities, TriMet and ODOT facilities and acquire properties.	ODOT:1-2 years; Others: TBD	TBD. Dependent on property costs.	Community Development Department, Clackamas County Economic Development	Urban Renewal, General Fund or GO Bonds
	Action 1.3.2. Develop a revenue source, such as urban renewal to devote money to acquiring and controlling land within the NMIA for future development.	2-5 years	50K (for Urban Renewal Study)	Community Development Department	Urban Renewal, General Fund or GO Bonds
	Objective 1.4. Support creative re-use of existing buildings that permit flex-space uses.	*See actions for this objective*			
	Action 1.4.1. Create a funding and incentive program to assist existing building owners to complete low-cost upgrades to systems that increase usage for flex space.	2-5 years	50-100K	Community Development Department	Tenant Improvement Grants could be funded by Urban Renewal, CDBG Loans or grants, or tax exempt bonds. Microenterprise and Small Business Loans
	Objective 1.5. Attract development and users that will take advantage of existing transit and non-motorized travel options.	Ongoing	NA	Community Development Department	General fund
	Objective 1.6. Create an environment where a variety of small, medium and large businesses thrive and co-exist.	*See actions for this objective*			
	Action 1.6.1. Modify zoning to allow multi-story buildings	6-12 months	10K	Community Development Department	General fund
	Action 1.6.2. Permit small scale retail uses in conjunction with other employment or residential development. Retail development should not be the primary use in any portion of the NMIA.	6-12 months	NA	Community Development Department	General fund

"•" denotes Ecodistrict-related element

TABLE 4: PRIORITIZED IMPLEMENTATION MATRIX (CONTINUED)

	Action Items	Timeframe	Estimated Cost	Primary Responsibility/ Partners	Potential Funding Sources
	Objectives 1.7. Support emerging small businesses, including small-scale manufacturing and "maker" spaces.	*See actions for this objective*			
	Action 1.7.1. Fund and implement a "storefront improvement program" to fund small-scale improvements of existing buildings.	5-10 years	50K	Community Development Department	Urban Renewal, General Fund, BID/EID
	Action 1.7.2. Partner with the Portland Community College and Clackamas Community College to provide small business training assistance for emerging small businesses.	2-5 years	TBD	Community Development Department, Clackamas and Portland Community Colleges, Clackamas County	General Fund, BID
	Objective 1.8. Actively recruit target industries while also assisting existing businesses that want to expand employment.	Ongoing	NA	Community Development Department	General Fund, BID, EID
	Objective 1.9. Identify strategies to fund public improvements through a combination of public and private sources.	*See actions for this objective*			
	Action 1.9.1 Encourage the use of local and/or business improvement districts to fund projects.	5-10 years	NA	Community Development and Finance Departments	NA
	Objective 1.10 Develop a parking management plan for the district.	*See actions for this objective*			
•	Action 1.10.1. Create a Transportation Management Association (TMA) that coordinates with the City on managing parking, transit and non-automobile circulation for the workers it serves.	5-10 years	TBD	Community Development Department, City of Milwaukie	Transportation Management Area (TMA), General Fund
•	Action 1.10.2. Acquire or lease land for centralized parking locations.	2-5 years	TBD. Dependent on terms.	Community Development and Finance Departments, City of Milwaukie	Urban Renewal, LID, General fund or GO Bonds

"•" denotes Ecodistrict-related element

TABLE 4: PRIORITIZED IMPLEMENTATION MATRIX (CONTINUED)

	Action Items	Timeframe	Estimated Cost	Primary Responsibility/ Partners	Potential Funding Sources
•	Action 1.10.3. Offer flexible parking options for new construction to locate parking on-site or through a district parking program.	1-5 years	NA	Community Development Department, City of Milwaukie	Transportation Management Area (TMA), General Fund
•	Action 1.10.4. Create a local circulator system that connects shared parking locations with employers and Downtown Milwaukie.	5-7 years	TBD. Dependent on TMA funding.		TMA, BID, General Fund HB 2017 Regional Coordination Program
•	Action 1.10.5. Through a TMA, create an incentive program that provides free or reduced cost bus passes for NMIA employees and/or commuter incentives for those walking, carpooling or riding bicycles to work.	5-7 years	10K		TMA, BID, General Fund
Goal 2: Infrastructure. Identify infrastructure improvements necessary to meet existing and future planned development needs.					
	Objective 2.1. Create a phased infrastructure improvement program that upgrades existing infrastructure to meet current and future demand, including facilities for electric vehicle charging, leverages private investment that embodies the vision for the area and provides a strong return on investment.	*See actions for this objective*			
•	Action 2.1.1. On an annual basis, the City planning and public works staff should review the prioritized project list within this Plan to identify projects to include within the City's Capital Improvement Program.	Ongoing	NA	Community Development, Finance and Public Works departments	General Fund
	Objective 2.2. Explore strategies for infrastructure that reduce demand on citywide systems, such as on-site or district-wide stormwater and wastewater treatment.	*See actions for this objective*			
•	Action 2.2.1. Partner with ODOT to develop a green street demonstration project for McLoughlin Blvd between Downtown Milwaukie and the Springwater Corridor Pedestrian Bridge.	10-15 years	$4,120-4,820 per linear ft	Public Works and ODOT	Urban Renewal; Regional & State Grants

"•" denotes Ecodistrict-related element

TABLE 4: PRIORITIZED IMPLEMENTATION MATRIX (CONTINUED)

	Action Items	Timeframe	Estimated Cost	Primary Responsibility/ Partners	Potential Funding Sources
•	Action 2.2.2. Develop a Johnson Creek Corridor Plan that identifies both water quality and physical improvements to the corridor. The focus should be on improving watershed health and stormwater management from adjacent right-of-way and development.	3-5 years	75-150K	Community Development Department, Watershed Council	Grants, Urban Renewal, General Fund
•	Action 2.2.3. Develop McBrod Ave as a demonstration project that integrates green street/shared facility approaches to treat both right-of-way and adjacent development.	5-10 years	$1,135 per linear ft (pavement / roadway) $185 per linear ft (green infrastructure/ landscape)	Public Works Department (Integrate with current project) Adjacent businesses	Grants, LID, Urban Renewal
•	Action 2.2.4. Develop a stormwater master plan for the NMIA that addresses the following: » Focus on short-term actions that are property focused and can be implemented immediately, particularly adjacent to Johnson Creek. » Identifies locations and sizing for one or more regional facilities on the west side of McLoughlin Blvd. » Explores an integrated street/shared facility approach. » Identifies green or eco roof options to treat stormwater on-site » Explores funding options such as public/ private partnerships and fee-in-lieu approaches.	2-5 years	100-150K	Community Development and Public Works Departments Adjacent Businesses DEQ Johnson Creek Watershed Council	Grants, General Fund
•	Action 2.2.5. Update existing building standards to encourage all new buildings or significant renovations to double plumb buildings for greywater recirculation.	3-5 years	NA	Community Development Department	General Fund
•	Action 2.2.6. Provide incentives for existing businesses to replace existing plumbing fixtures with low-flow and other water saving materials.	3-5 years	100K	Community Development Department	Grants, BID, Private Businesses

"•" denotes Ecodistrict-related element

TABLE 4: PRIORITIZED IMPLEMENTATION MATRIX (CONTINUED)

	Action Items	Timeframe	Estimated Cost	Primary Responsibility/ Partners	Potential Funding Sources
•	Action 2.2.7. Encourage green/eco roof retrofits for existing buildings. Encourage all new buildings to integrate green stormwater infrastructure into the building and/or site design.	Ongoing	NA	Community Development Department	Grants, LID, Urban Renewal
•	Action 2.2.8. Create a "sewer mining district" that connects to the sewer main line at the southwest corner of the NMIA to reduce wastewater flow to the City main treatment system.	10-15 years	$6.5M (plant) $1M (distribution system)	Public Works Department	Grants, Urban Renewal, Private Businesses
	Objective 2.3. Extend high speed fiber optic service to the NMIA.	3-5 years	TBD. Dependent on extension limits.		Business Oregon, LID, Urban Renewal
	Objective 2.4. Increase the use of solar energy and related infrastructure that reduces energy/resource use for existing building retrofits and new building construction.	*See actions for this objective*			
•	Action 2.4.1. Identify a goal for energy consumption in the NMIA that will originate from renewable sources as part of a future citywide Climate Action Plan.	3-5 years	NA	Community Development Department	General Fund
•	Action 2.4.2. Retrofit existing streetlights with LED lighting.	5-10 years	$450 per cobrahead $800-1000 per ornamental	Public Works Department, ODOT	LID, Urban Renewal
•	Action 2.4.3. Through the NMIA coordinator position, aid in securing grant funding for solar energy.	Ongoing	NA	Community Development Department	Energy Trust of Oregon
•	**Objective 2.5. Identify landscape and streetscape enhancements that help address flooding and enhance key gateways to the NMIA District and near significant public use areas such as the Johnson Creek corridor.**	3-5 years	TBD. Dependent on level of enhancement.	Community Development and Public Works Departments Johnson Creek Watershed Council	General Fund, BID, Grants

"•" denotes Ecodistrict-related element

TABLE 4: PRIORITIZED IMPLEMENTATION MATRIX (CONTINUED)

	Action Items	Timeframe	Estimated Cost	Primary Responsibility/ Partners	Potential Funding Sources
	Objective 2.6. Coordinate infrastructure improvements, including parking management, across agencies to implement infrastructure goals.	Ongoing	NA	Community Development, Public Works and Finance Departments ODOT TMA	TMA, Private Businesses, General Fund
•	**Objective 2.7. Increase and protect tree canopy along Johnson Creek, parking areas and streets where right-of-way is available.**	5-10 years	25-50K	Community Development, Public Works and Finance Departments Johnson Creek Watershed Council Regional Organizations Partnership	Grants, LID, BID
Goal 3: Land Use and Urban Design. Provide for a diverse array of land uses that create an active employment center and facilitate commercial and mixed-use development that supports the employment focus of the district.					
	Objective 3.1. Identify land use strategies that increase employment densities and encourage cluster uses.	*See actions for this objective*			
	Action 3.1.1. Review zoning periodically to ensure that code language does not create a significant barrier to appropriate redevelopment.	Annually	NA	Community Development Department	General Fund
	Objective 3.2. Enhance Johnson Creek as an open space amenity and important natural resource that helps attract new and more intensive development, through measures such as riparian restoration and possible creation of a linear park in the open area on the west side of the creek, consistent with the City's designated Habitat Conservation Area requirements	*See actions for this objective*			
•	Action 3.2.1. Identify partnership opportunities, including with the Johnson Creek Watershed Council, to identify and develop grant applications to fund riparian area and stormwater improvements.	Ongoing	NA	City of Milwaukie Johnson Creek Watershed Council	Metro Natural Areas Grant; Foundations

"•" denotes Ecodistrict-related element

TABLE 4: PRIORITIZED IMPLEMENTATION MATRIX (CONTINUED)

	Action Items	Timeframe	Estimated Cost	Primary Responsibility/ Partners	Potential Funding Sources
•	Action 3.2.2. Improve access and viewing opportunities along Johnson Creek by designing existing vacant land east of McBrod Ave for passive recreation. Add viewpoints at the existing bridge crossings.	5-7 years	75-100K (design)	Community Development Department North Clackamas Parks and Recreation District Johnson Creek Watershed Council	Grants, LID, Urban Renewal
	Objective 3.3. Ensure that land use and urban design requirements permit multi-story buildings to accommodate "vertical industrial" and manufacturing uses.	6-12 months	NA	Community Development Department	General Fund
	Objective 3.4. Focus on branding, public art and wayfinding to create distinct, identifiable features of the NMIA as a true district.	1-5 years	NA	Community Development Department	General Fund, Urban Renewal, LID
	Objective 3.5. Through zoning, restrict residential development except in areas near the Tacoma light rail station that are zoned for mixed use.	Ongoing	NA	Community Development Department	General Fund
Goal 4: Transportation and Mobility. Create a transportation system that provides safe and direct connections for bicycles and pedestrians while also providing for efficient truck access and circulation.					
	Objective 4.1. Create safer and more efficient transportation connections within the district, to Downtown and the neighborhoods and across busy corridors, especially McLoughlin Blvd.	*See actions for this objective*			
	Action 4.1.1. Complete a traffic study to identify potential actions to reduce speeds on McLoughlin Blvd to 30-35 miles per hour and reconfigure the Ochoco St and Milport Rd intersections to be more accessible for pedestrians and cyclists.	7-10 years	30-50K	Community Development and Public Works Departments ODOT TMA	General Fund, ODOT, TMA

"•" denotes Ecodistrict-related element

TABLE 4: PRIORITIZED IMPLEMENTATION MATRIX (CONTINUED)

	Action Items	Timeframe	Estimated Cost	Primary Responsibility/ Partners	Potential Funding Sources
	Action 4.1.2. Based on the outcomes of Action 4.1.1, redesign the Ochoco St and Milport Rd intersections to improve wayfinding, circulation and pedestrian safety. Improvements should include geometric and wayfinding/signage improvements.	10-15 years	TBD	Community Development and Public Works Departments ODOT	LID, Urban Renewal, MTIP and CIP
•	Action 4.1.3. Implement recommendations from the Tacoma Station Area Plan that address improved vehicle, bicycle and pedestrian connectivity between the Tacoma light rail station and Downtown Milwaukie.	5-10 years, ongoing	See Tacoma Station Area Plan Project List	Community Development and Public Works Departments ODOT	LID, Urban Renewal, MTIP and CIP
	Action 4.1.4. Create a public right-of-way from Mailwell St through the existing loading docks to 26th Ave. Road design should restrict large trucks from entering the adjacent neighborhoods south of the project area.	5-10 years	TBD. Dependent on level of design.	Community Development and Public Works Departments Private Businesses TriMet UP/P & W Railroads Neighborhoods	LID, Urban Renewal, CIP
	Objective 4.2. Maintain access to heavy rail service where appropriate.				
	Objective 4.3. Develop a street grid that provides options for transit, vehicles, pedestrians and bicyclists to connect to and through the District, where appropriate.	10-20 years, or as development warrants new road construction	TBD. Assumes most improvements occur as part of private development.	Community Development and Public Works Departments Private Businesses TriMet UP/P & W Railroads Neighborhoods	Grants, Urban Renewal, Private Development, MTIP and CIP

"•" denotes Ecodistrict-related element

TABLE 4: PRIORITIZED IMPLEMENTATION MATRIX (CONTINUED)

	Action Items	Timeframe	Estimated Cost	Primary Responsibility/ Partners	Potential Funding Sources
•	Action 4.3.1. Extend bicycle and pedestrian connections along Ochoco St to Roswell St across the railroad tracks to improve connectivity and circulation to/ from the project area.	5-10 years, or as new development creates connections	$435 per linear ft	Community Development and Public Works Departments Private Businesses UP and P&W Railroads Neighborhoods	Grants, LID, Urban Renewal, MTIP and CIP
•	Action 4.3.2. Extend the Main St multi-use path from Beta St to the light rail station.	3-5 years	$425 per linear ft	Community Development and Public Works Departments ODOT TriMet	Grants, LID, Urban Renewal, MTIP and CIP
•	Action 4.3.3. Develop a bicycle and pedestrian connection across the railroad tracks at approximately Kelvin St or Olsen St to connect to 29th St.	5-10 years, or as new development creates connections	$525 per linear ft	Community Development and Public Works Departments TriMet UP/P&W Railroad Neighborhoods	Grants, LID, Urban Renewal, MTIP and CIP
•	Action 4.3.4. Connect Johnson Creek Park to Riverfront Park via a greenway trail along Johnson Creek and McBrod Ave. The trail would terminate at the multi-use path along 17th Ave.	5-10 years	Included in cost for McBrod Ave. (see Action 2.2.3)	Community Development and Public Works Departments Johnson Creek Watershed Council	Grants, LID, Urban Renewal

"•" denotes Ecodistrict-related element

TABLE 4: PRIORITIZED IMPLEMENTATION MATRIX (CONTINUED)

	Action Items	Timeframe	Estimated Cost	Primary Responsibility/ Partners	Potential Funding Sources
	Action 4.3.5. Provide sidewalks along Milport Rd, Ochoco St and new local streets. This includes filling gaps in the sidewalk network.	5-20 years, as development occurs	$860 per linear ft	Community Development and Public Works Departments	Grants, LID, Urban Renewal, MTIP and CIP
	Action 4.3.6. Reconfigure the Moores/ Ochoco/23rd Ave area to be more navigable and easier to develop adjacent properties.	10-15 years	TBD. Dependent on traffic analysis completed under Action 4.1.1.	Community Development and Public Works Departments ODOT	Grants, LID, Urban Renewal, MTIP and CIP
	Objective 4.4. Provide safe, direct connections to the Tacoma light rail station and Springwater Corridor from both the east and west sides of McLoughlin Blvd.	5-15 years	See Tacoma Station Area Plan Project List	Community Development and Public Works Departments ODOT TriMet	Grants, LID, Urban Renewal
Goal 5: Community Supported Vision. Create opportunities for NMIA businesses, landowners, employees and the greater community to stay informed and involved in the ongoing development of the District.					
	Objective 5.1. Continue to engage businesses and employees in the NMIA and the Milwaukie community in a conversation about the NMIA and its role as an employment and mixed use district.	*See actions for this objective*			
	Action 5.1.1. Maintain and regularly update an NMIA website that identifies ongoing projects, new businesses and actions.	Ongoing	5-10K (annual)	Community Development Department	General Fund
	Objective 5.2. Maintain ongoing communications with existing businesses and landowners to identify potential opportunities and issues in implementing the Plan.	*See actions for this objective*			

"•" denotes Ecodistrict-related element

TABLE 4: PRIORITIZED IMPLEMENTATION MATRIX (CONTINUED)

	Action Items	Timeframe	Estimated Cost	Primary Responsibility/ Partners	Potential Funding Sources
	Action 5.2.1. Develop and maintain an NMIA email list that is regularly updated with changing businesses to provide district information (see also Objective 1).	Ongoing	NA	Community Development Department	General Fund

"•" denotes Ecodistrict-related element

FUNDING AND FINANCING

Encouraging new development and redevelopment of properties in the NMIA and improving infrastructure to meet the needs of new and existing users will require financial tools to fill feasibility gaps (especially in the near future when redevelopment is financially challenged), and capital funding programs to construct infrastructure projects. Filling these gaps and financing infrastructure could take several forms and come from several sources. Every community is different, and have difference assumptions, expectations, and capacities to support private development and fund public infrastructure projects.

This chapter contains a library of potential programs and tools that could be used by public and private stakeholders to support existing business, assist with new developments, and finance needed infrastructure. Some of these tools may not be attractive, feasible, or realistic for each private development or infrastructure project. Nevertheless, few areas that have undergone significant redevelopment have relied on a single source of funds or a single public financing tool. It is through the collaboration of multiple stakeholders working in partnership that successful area rejuvenation happens.

Below are four criteria for use when evaluating programs and tools to identify the most appropriate tool for each project. These criteria are focused on public investments and tools, but also provide a helpful framework for any funding mechanism.

1. Economic feasibility. This category covers everything related to creating and maintaining net revenues as efficiently as possible. Efficiency can be broken down into four subcategories: (1) revenue-generating capacity, (2) administrative costs, (3) revenue stability, and (4) revenue flexibility:

    - Revenue-generating capacity considers how much money the source can generate.
    - Administrative cost considers the portion of gross revenues that will be spent on administration. The easier it is to administer the tax or fee, the more of the gross revenue collected that will be available as net revenue for transportation projects and programs in the corridor.
    - Revenue stability and predictability considers whether the source is likely to avoid large fluctuations each year and whether the source is likely to be close to the forecasts analysts might make.
    - Revenue flexibility considers limitations on the types of projects that can be funded with a given source. A funding source may be a little less useful to jurisdictions if its use is limited to certain types of projects.
    - Return on investment. To justify the use of public funds, whether directly as part of a public-private partnership or indirectly in the form of infrastructure investment, the public funds should generate a considerably higher return over time. That is, for every public dollar of investment, the project generates several dollars or more of property tax revenues over time. Other measures, may be considered, such as jobs created or value of private investment.

2. Political acceptability. Will stakeholders accept or support the tool? Political acceptability considers whether elected officials and the public at large are likely to support the funding source. This depends to a large extent on the efficiency components described above: if a revenue source is legal, efficient, and fair, then it should get political support from the public, advisory groups, and decision makers. For this analysis, we evaluate whether a source is politically acceptable using two approaches: (1) is the source widely used elsewhere in Oregon? And (2) does the source collect revenue mostly from non-locals (as opposed to local residents)?

3. Fairness. In the context of infrastructure funding, the key question related to fairness is "who pays?" A standard definition of fairness in public finance, especially relating to transportation infrastructure, is that the charges that fund the infrastructure system are tied to the users who receive benefits from (or impose costs on) the system. Fairness may also be referred to as equity.

4. Legality. All the benefits of a funding source are moot if the source is not legal or cannot become legal within the desired timeframe. If the source is currently prohibited by State statute, then there is a very big administrative hurdle to be surmounted up front.

Using the above criteria identified a range of potential funding tools. The tools outlined below are grouped into the following funding categories:

- Local Financing – Development Driven
- Tax Abatements and Credits

TABLE 5: LOCAL FINANCING - DEVELOPMENT DRIVEN

1. URBAN RENEWAL / TAX INCREMENT FINANCE (TIF)	
How It Works	Tax increment finance revenues are generated by the increase in total assessed value in an urban renewal district from the time the district is first established. As property values increase in the district, the increase in total property taxes (i.e., city, county, school portions) is used to pay off the bonds. When the bonds are paid off the entire valuation is returned to the general property tax rolls. Urban renewal funds can be invested in the form of low interest loans and/or grants for a variety of capital investments: » Redevelopment projects, such as public/private, mixed-use or infill housing developments. » Economic development strategies, such as capital improvement loans for small or startup businesses which can be linked to family-wage jobs. » Streetscape improvements, including new lighting, trees and sidewalks. » Land assembly for public as well as private re-use. » Transportation enhancements, including intersection improvements. » Historic preservation projects. » Parks and open spaces.
Fund Sources	Local taxing jurisdictions' permanent rate property taxes.
Benefits	» Over the long term (most districts are established for a period of 20 or more years), the district could produce significant revenues for capital projects. » TIF can be used to help pay for infrastructure improvements (including parking garages), and provide loans/grants for adaptive re-use and new development. » Among the most flexible incentives. » Option exists to have a single project-based TIF district
Drawbacks	» Defers incremental property tax accumulation by the city and county until the urban renewal district expires or pays off bonds. » Due to the sometimes slow or indirect nature of property tax growth in relation to targeted projects, urban renewal can often take five or more years to produce meaningful levels of revenue resulting in loss of project alignment. » Complex process requires extensive public involvement and community support, especially from other taxing jurisdictions. The City would need to explore options with county officials and elected leadership, tracking legislative changes in urban renewal law, and meeting with adjacent jurisdictions and overlapping taxing entities. » Use of urban renewal can be politically contentious because of its impact on funds available to overlapping taxing districts, and because of the perception that the school districts are adversely impacted. » Investing over $750,000 in TIF directly into a new or rehab private project may trigger prevailing wage requirements, which can increase overall project costs by 10 – 20%.

TABLE 5: LOCAL FINANCING - DEVELOPMENT DRIVEN (CONTINUED)

2. LOCAL IMPROVEMENT DISTRICT (LID)	
How It Works	A special assessment district where property owners are assessed a fee to pay for capital improvements, such as streetscape enhancements, underground utilities, or shared open space. LIDs must be supported by most affected property owners.
Fund Sources	LID bonds are backed by revenue committed by property owners (which can be public as well as private).
Benefits	» Organizes property owners around a common goal. » Allows property owners to make payments over time to bring about improvements quickly that benefit them individually. » Improvements within smaller areas can enhance catalytic and redevelopment value of the area. » LIDs can be bundled with other resources such as TIF.
Drawbacks	» Setting up fair LID payments for various property owners, who are located different distances from the improvement, is challenging. » Some lenders insist that LIDs be paid off when properties are transferred. » Small geographic areas may not have sufficient LID revenues to support bonds for the desired improvement.
3. ECONOMIC IMPROVEMENT DISTRICT (EID) / BUSINESS IMPROVEMENT AREA (BID)	
How It Works	An EID is a funding mechanism designed to enable a community to fulfill its commercial revitalization goals and plans; and is established as an assessment to property owners for use in promoting and improving the defined business district. A BID is a funding mechanism designed to enable a community to fulfill its commercial revitalization goals and plans; and is established as an assessment (surcharge on business licenses) to business owners for use in promoting and improving the defined business district
Fund Sources	EID (property owners), BID (Business Owners)
Benefits	» Flexible source of funding that organizes property owners around a common goal. » Allows property owners to make payments over time to bring about improvements quickly that benefit them individually. » Improvements within smaller areas can enhance catalytic and redevelopment value of the area. » Like LID's, can be bundled with other resources such as TIF. » A BID can be renewed indefinitely, but an EID has a term limit of 5 years.
Drawbacks	» Can be disestablished with property or business owner petition. » Does not fund capital improvements.

TABLE 5: LOCAL FINANCING - DEVELOPMENT DRIVEN (CONTINUED)

4. MICROENTERPRISE AND SMALL BUSINESS LOANS	
How It Works	Direct loans to help start-ups, micro-enterprises and small businesses expand or become established.
Fund Sources	Urban Renewal (capital projects only), CDBG.
Benefits	» Targeted to support small businesses and start-ups » Can be tailored to support local economic development strategies
Drawbacks	» Requires careful underwriting and program administration to reduce public sector risk
5. TENANT IMPROVEMENT GRANTS/LOANS	
How It Works	Assist property owners and new business owners with tenant improvements to the interiors of commercial spaces. Used for office and industrial assistance in addition to retail.
Fund Sources	Urban Renewal and CDBG loans or grants, tax exempt revenue bonds.
Benefits	» Reduces costs of tenant improvements
Drawbacks	» Often tied to job goals » In some cases, prevailing wage would apply
6. SDC FINANCING OR CREDITS	
How It Works	SDC financing enables developers to stretch their SDC payment over time, thereby reducing upfront costs. Jurisdictions may opt to subordinate financed SDCs to other debt, potentially making this tool even more beneficial. Alternately, credits allow developers to make necessary improvements to the site in lieu of paying SDCs. Note that the City can control its own SDCs, but often small cities manage them on behalf of other jurisdictions including the County and special districts.
Fund Sources	SDC fund / general fund. In some cases, there may be no financial impact.
Benefits	» Reduced up-front costs for developers can enable quicker development timeframe and increase the availability of property to be taxed.
Drawbacks	» Reduces the availability of SDC funds over the short term.

TABLE 6: TAX CREDITS AND ABATEMENTS

7. ELECTRONIC COMMERCE ZONE (STATE OF OREGON ENABLED, LOCALLY ADOPTED)	
How It Works	Qualifying businesses in the zone receive a credit against the business's annual state income or corporate excise tax liability based on 25% of the investment cost made in capital assets used in electronic-commerce operations.
Fund Sources	State general fund (via income tax), and local general fund (via property taxes)
Benefits	» Reduces the costs of operating a business, which increases the business' financial viability
Drawbacks	» Limited to supporting just electronic commerce (transactions via the internet or an internet-based computer platform)
8. ENTERPRISE ZONE (STATE OF OREGON ENABLED, LOCALLY ADOPTED)	
How It Works	Enterprise zones exempt businesses from local property taxes on new investments for a specified amount of time (3-5 years). Qualified investments include a new building/structure, structural modifications or additions, or newly installed machinery and equipment but not land, previously used property value and miscellaneous personal items. Eligible businesses include manufacturers, processors, and shippers. Retail, construction, financial and certain other defined activities are ineligible. The NMIA is currently inside the North Clackamas Enterprise Zone.
Fund Sources	Foregone revenue from general funds of local taxing jurisdictions that agree to participate–cities, school districts, counties, etc.
Benefits	» Targeted tool to support businesses that is already adopted.
Drawbacks	» Entails foregone general fund revenue funds for all overlapping taxing districts.
9. INDUSTRIAL DEVELOPMENT BONDS	
How It Works	Tax-exempt bonds issued by the state of Oregon that provide long-term financing for land, buildings and equipment for manufacturers.
Fund Sources	Bonds are purchased by institutional investors
Benefits	» Lower interest rates and tax-exempt status assist in reducing capital expenses. » Generally, provide the greatest benefit to the borrower for bonds of $5 million or more. The Oregon Express Bond program is available for loans between $500,000 and $5 million. » Can pay for up to 100% of project's development costs
Drawbacks	» Requires State backing » Must have identified end user (can't be used for speculative development)

TABLE 6: TAX CREDITS AND ABATEMENTS (CONTINUED)

10. STRATEGIC INVESTMENT PROGRAM (STATE OF OREGON)	
How It Works	Exempts a portion of very large (100M+)capital investments from property taxes, most often used for manufacturing firms and other "traded-sector" businesses.
Fund Sources	Foregone revenue from local taxing jurisdictions' general funds–cities, school districts, counties, etc.
Benefits	» Targeted specifically to support traded-sector firms » Can be very beneficial for businesses, depending on the investment size, in terms of net present value
Drawbacks	» Revisitation clause is necessary to ensure that the program is functioning for the jurisdiction and the business. » Foregone revenue from general funds for all overlapping taxing districts.
11. VERTICAL HOUSING TAX ABATEMENT (STATE OF OREGON ENABLED, LOCALLY ADOPTED)	
How It Works	Subsidizes "mixed-use" projects to encourage dense development or redevelopment by providing a partial property tax exemption on increased property value for qualified developments. The exemption varies in accordance with the number of residential floors on a mixed-use project with a maximum property tax exemption of 80 percent of imporvement value over 10 years. An additional property tax exemption on the land may be given if some or all the residential housing is for low-income persons (80 percent of area is median income or below). The proposed zone must meet at least one of the following criteria: » Completely within the core area of an urban center. » Entirely within half-mile radius of existing/planned light rail station. » Entirely within one-quarter mile of fixed-route transit service (including a bus line). » Contains property for which land-use comprehensive plan and imple¬menting ordinances effectively allow "mixed use" with residential. State program webpage: http://www.oregon.gov/OHCS/Pages/HFS_Vertical_Housing_Program.aspx
Fund Sources	Foregone revenue from general funds of local taxing jurisdictions that agree to participate–cities, school districts, counties, etc.
Benefits	» Targeted tool to support mixed-use development in places with locational advantages. » City may control on project-by-project basis, or it may create a zone as allowed by right.
Drawbacks	» Entails foregone revenue from general fund for all overlapping taxing districts. » Requires a lengthy approval process with taxing districts.

TABLE 6: TAX CREDITS AND ABATEMENTS (CONTINUED)

The list of tax credits and abatements can be used for industrial and economic development, and mixed-use buildings.

12. LAND BANKING (STATE OF OREGON ENABLED FOR BROWNFIELD REDEVELOPMENT)	
How It Works	Municipalities purchase or acquire real property in anticipation of a future public/private partnership for private development or other public/community use. Property acquisition is most advantageous in down market cycles or before property values have appreciated to high levels.
Fund Sources	Urban Renewal or general funds
Benefits	» City-controlled development process » Ability to achieve community goals after land prices have appreciated, e.g. affordable housing, or park development.
Drawbacks	» Can be costly » There may be legal restrictions on land acquisition or future disposition.
13. EPA BROWNFIELDS GRANTS	
How It Works	EPA funds several grant programs that help to pay for assessment, planning, remediation, revolving loan funds and environmental job training for sites identified as brownfields. EPA collaborates with other federal partners and state agencies to leverage resources for a variety of brownfields activities. These grants include: » Cleanup Grants. Directly fund remediation of brownfield sites. » Area-Wide Planning Grants. Grants fund research, planning and development of implementation strategies for areas affected by brownfields. Plans should inform the assessment, cleanup and reuse of brownfields and promote area-wide revitalization. » Cleanup Grants. Directly fund remediation of brownfield sites. » Environmental Workforce Development and Job Training Grants. Provide funding for recruitment, training and placement of low-income, minority, unemployed and under-employed residents of solid and hazardous waste-impacted communities with the skills needed to secure full-time, sustainable employment in environmental fields, including the assessment and cleanup work taking place in their communities. » Training, Research and Technical Assistance Grants. Provide funding to eligible organizations to facilitate brownfields revitalization. » More information: https://www.epa.gov/brownfields/types-brownfields-grant-funding#tab-5 In 2016, Clackamas County received EPA Assessment grant funds to identify brownfields in 5 communities, including Milwaukie, along McLoughlin Blvd.
Fund Sources	Federal and State funds
Benefits	» Direct public investment into private projects. » Does not impact City funds.
Drawbacks	» Highly competitive and must meet EPA-identified criteria (varies by program).

TABLE 6: TAX CREDITS AND ABATEMENTS (CONTINUED)

14. AFFORDABLE HOUSING PROPERTY TAX ABATEMENT (LOCALLY MANAGED, ENABLED BY STATE OF OREGON)	
How It Works	Since 1985, the State of Oregon has allowed for affordable housing property tax abatements when they are sought separately by non-profits that develop and operate affordable rental housing. Only the residential portion of a property located within a City that is used to house very low-income people, or space that is used directly in providing housing for its low-income residents is eligible for a property tax exemption.
Fund Sources	Local taxing jurisdictions' general funds–cities, school districts, counties, etc.
Benefits	» Targeted tool to support multi-family rentals or mixed-use development in places with locational advantages. » The affordable housing tax abatement can stand alone (without tax credits). For example, if a non-profit housing provider were to use bonds, it could still be eligible for an abatement, but it must apply for them separately. » Can be blended with other resources such as TIF, tax credits, housing bonds.
Drawbacks	» Reduces general fund revenues for all overlapping taxing districts if property tax abatement is sought by affordable housing providers and approved by local jurisdictions.
15. OREGON AFFORDABLE HOUSING TAX CREDIT (OAHTC)	
How It Works	Provides a state income tax credit for affordable housing equity investments that help reduce the financing costs for multi family rental units. Applications must demonstrate a 20 year term that the benefit of the tax credit will be entirely passed on to reduce rents for the tenants. Program webpage: http://www.oregon.gov/ohcs/pages/hrs_oahtc_program.aspx
Fund Sources	Institutional investors or high net worth individuals makes investments. State general fund is impacted.
Benefits	» Targeted tool to support multi-family rentals or mixed-use development in places with locational advantages. » The credit contributes to project equity, reducing developer's out-of-pocket investment and can be a significant incentive for the provision of affordable housing.
Drawbacks	» The state allows for affordable housing property tax abatements. These are applied for separately. » Entails foregone revenue from general fund. » Highly competitive process.

TABLE 6: TAX CREDITS AND ABATEMENTS (CONTINUED)

16. LOW-INCOME HOUSING TAX CREDIT (FEDERAL PROGRAM, ADMINISTERED BY STATE OF OREGON)	
How It Works	Provides federal and state income tax credit for affordable housing equity investments that help reduce the financing costs for multi-family rental units. Applications must demonstrate that the project will be maintained as affordable housing for a minimum 30-year term. To be eligible, at least 20% of units must be at or below 50% or AMI, OR 40% must be at or below 60% AMI. There are two rates: » The "9%" credit rate. New construction and substantial rehabilitation projects that are not otherwise subsidized by the federal government earn credits at a rate of approximately 9% of qualified basis, each year for a 10-year period. "9%" credits are more powerful but also more competitive. » The "4%" credit rate. The 4% rate applies to acquisition of eligible, existing buildings and to federally-subsidized new construction or rehabilitation. The 4% rate also applies to all eligible bases in projects that are financed through the issuance of volume-cap multi-family tax-exempt bonds (the associated LIHTCs are sometimes called "as of right" credits because they are automatically attached to the volume-cap bonds). State program webpage: http://www.oregon.gov/OHCS/Pages/HRS_LIHTC_Program.aspx
Fund Sources	Institutional investors or high net worth individuals make investments by purchasing tax credits, which infuses cash equity into a project that does not require repayment. Income tax receipts are impacted because investors' income tax payments are reduced.
Benefits	» Targeted tool to support multi-family rentals or mixed-use development in places with locational advantages. The credit contributes to project equity, reducing developer's out-of-pocket investment and can be a significant incentive (particularly at the 9% level) for the provision of affordable housing. » Can be blended with other resources such as TIF, property tax abatements, and housing bonds.
17. EB5	
How It Works	Attracts investment dollars for new commercial enterprises that will benefit the US economy primarily by creating new jobs for US citizens. There are two versions of the program: 1) the original program that requires foreign investor to commit $1 million for eligible projects that create at least 10 full-time direct jobs, and 2) the newer program that allows foreign investors to commit $500,000 in eligible projects within Targeted Employment Areas that create at least 10 direct and/or indirect jobs. In return for these investments, foreigners are eligible for US citizenship.
Fund Sources	Foreign investors
Benefits	» Relatively low-cost source of equity for appropriate projects. Projects can be construction (new or rehabilitation), or direct investments into businesses that will create required jobs. » EB5 can be bundled with many other funding sources such as TIF. » Among the most commonly sought-after projects are hotels and senior housing developments since both generate considerable jobs.
Drawbacks	» $500,000 program investor projects must be in an EB-5 eligible "targeted employment area" or TEA. TEAs are areas that have unemployment rates in excess of 150% of the federal rate for a given year. TEAs are established and adjusted by the governors of each state. » Must meet job generation requirements within 2.5 years. » Investors expect to get their equity investment repaid at the end of five years. » It takes added time to secure EB5 funds due to federally required process.

TABLE 6: TAX CREDITS AND ABATEMENTS (CONTINUED)

18. LAND ASSEMBLY AND PROPERTY PRICE BUY DOWN	
How It Works	The public sector sometimes controls land that has been acquired with resources that enable it to dispose of that land for targeted private and/or nonprofit redevelopment. Land acquired with funding sources such as urban renewal, EB5, or through federal resources such as CDBG or HUD Section 108 can be sold or leased at below market rates for various projects to help achieve redevelopment objectives. Publicly owned parcels can often be disposed of at lower costs or more flexible terms to induce redevelopment. The public sector can provide technical assistance with the process of acquiring a private parcel for redevelopment or combining parcels together into one developable site. Other times, the public sector acquires the parcel(s), combines them, and sells to a private party.
Fund Sources	Urban Renewal, CDBG/HUD 108
Benefits	» Can help overcome development feasibility challenges by creating more viable redevelopment sites. Public ownership of assembled land makes land write-downs or ground leases more viable. » Increases development feasibility by reducing development costs. » Gives the public sector leverage to achieve its goals for the development via development agreement process with developer.
Drawbacks	» Public agencies sometimes buy land at the appraised value because they want to achieve multiple goals – which can impact costs of future public and private acquisitions. » Requires careful underwriting and program administration to reduce public sector risk and ensure program compliance.
19. WORKFORCE DEVELOPMENT PROGRAMS	
How It Works	Specially designed workforce training programs that cities, community colleges and workforce training entities help to jointly provide to businesses to train existing and potential employees.
Fund Sources	Various
Benefits	» Reduces difficulty of recruiting and cost of training staff » Creates opportunities to partner with community colleges and other educational institutions » Creates lasting benefits for individuals
Drawbacks	» No clearly-delineated source of funds » May require re-tooling of existing programs to ensure that the training programs are targeted to local industry needs

TABLE 6: TAX CREDITS AND ABATEMENTS (CONTINUED)

20. PRE-DEVELOPMENT ASSISTANCE	
How It Works	Pre-development assistance. Grants or low interest loans for pre-development (evaluation of site constraints and opportunities, development feasibility, conceptual planning, etc.) to reduce pre-development costs.
Fund Sources	CDBG, General Fund, Urban Renewal
Benefits	» Reduces what are often risky pre- development costs for developments that fulfill community goals. » Enables developers and communities to explore wider range of project possibilities, particularly those that can meet more community as well as private sector objectives.
Drawbacks	» Can be perceived as favoring particular developers or property owners. » CDBG and Urban Renewal are only available in eligible areas
21. NEW MARKETS TAX CREDITS (FEDERAL PROGRAM, ADMINISTERED BY A COMMUNITY DEVELOPMENT ENTITY)	
How It Works	The New Markets Tax Credits (NMTC) program is designed to attract capital investment to low-income communities by allowing investors to receive a tax credit (against their Federal income tax) in return for equity investments in Community Development Entities (CDEs), which invest in low-income communities. The tax credit is 39% of the original investment, claimed over seven years.
Fund Sources	Investors
Benefits	» Relatively low-cost source of equity for appropriate projects. » Projects can be construction (new or rehabilitation). » NMTC can be bundled with many other funding sources such as TIF.
Drawbacks	» NMTC are only available for use in areas identified as distressed within a community. » Requires partnership with a CDE to receive the NMTC. » Costly and complex to use » It takes added time to secure NMTC due to federally required process.
22. MICROENTERPRISE AND SMALL BUSINESS LOANS	
How It Works	Direct loans to help start-ups, micro-enterprises and small businesses expand or become established.
Fund Sources	Urban Renewal (for capital only), CDBG
Benefits	» Targeted to support small businesses and start-ups » Can be tailored to support local economic development strategies
Drawbacks	» Requires careful underwriting and program administration to reduce public sector risk

Underline/Strikeout Amendments

Transportation System Plan (TSP)

Executive Summary

TSP UPDATE PROCESS

Identification of Needs and Potential Improvements

The traffic volume projections forecasted from the Metro model formed the basis for identifying potential roadway deficiencies and evaluating alternative circulation improvements within Milwaukie. Needs for other modes were then identified, based on the future traffic forecasts and deficiencies in the existing infrastructure (sidewalks, bike lanes, transit stops, etc.).

Collectively, the master plans in Chapters 5 through 12 of the TSP describe the proposed capital and operational improvements to the transportation system between 2013 and 2035. While many of these potential improvements are presented as benefiting one mode, when possible, multiple modes are combined into one project. For instance, the Railroad Ave road-widening project listed in the Street Network Master Plan could include new bike lanes and sidewalks, as well as improvements for freight and transit.

Between the 2007 and 2013 TSP updates, the PMLR project became more defined, with construction starting in 2012. A thorough feasibility and impact study was conducted for the PMLR project, identifying and developing appropriate mitigation for the new light rail system's impacts to Milwaukie's transportation infrastructure. The warranted improvements are being constructed as the new light rail system is being built. Once completed, PMLR will become a part of the City's transportation system and will be further studied to identify and address needed improvements as part of future updates to the TSP.

In June 2013, the Tacoma Station Area Plan (TSAP) was adopted to address potential redevelopment opportunities near the new PMLR station at Tacoma St. The TSAP included a list of approximately 20 projects identified to meet new transportation needs. These projects were assigned order-of-magnitude costs and were added to the relevant project lists for the various modes.

In 2015, the Central Milwaukie Land Use and Transportation Plan (CMLUTP) was adopted to address potential new development and redevelopment opportunities in the central Milwaukie area. The CMLUTP included a variety of projects, particularly pedestrian and bicycle connections, which were added to the relevant project lists.

In 2017, the North Milwaukie Innovation Area Plan (NMIA Plan) was adopted to build on the TSAP to encourage redevelopment of this critical employment area. At the time it was adopted, the TSAP was repealed, as it was incorporated into the NMIA Plan. Additional transportation projects were identified in the NMIA Plan, which were added to the relevant project lists for the various modes.

Ranking and Prioritizing Improvements

The action plans in Chapters 5 through 12 focus on the highest priority projects that are most likely to be funded over the next 22 years with limited City funds. The action plans are built upon the premise that, given the limited funds available, the City should prioritize funding of

transportation projects that 1) effectively address identified problems, and 2) best meet the City's Goals.

To prioritize the projects as part of the 2007 TSP update, project staff and the Advisory Committee used three sources: the project rankings from the working groups, evaluation of each project against the nine TSP Goals, and other information regarding dependence on other projects, neighborhood support, etc. Using this approach, project staff and the Advisory Committee developed a relative ranking of the projects, grouping them into three categories (high, medium, and low priority).

For the 2013 TSP update, project staff did not reevaluate projects against the nine TSP Goals but, instead, considered the input generated around a public meeting that was held to discuss transportation project priorities. For approximately 20% of the existing projects, the priority classification was adjusted to reflect changes in current conditions or a new awareness of community need. For new projects arising from the Tacoma Station Area Plan (TSAP), staff assigned a priority to each based on input from the TSAP Advisory Committee as well as staff knowledge of overall system needs. Projects identified in the CMLUTP and NMIA Plan were not prioritized at the time of identification.

Transportation System Plan (TSP)

Table 5-1 Pedestrian Master Plan Projects

Map ID[1]	Priority	Type	Project Name	Project Description[2]	From	To	Cost ($1,000s[3])
High Priority Projects							
AX	High	C	Improved Connection to Springwater Trail at 29th Ave and Sherrett St	Pave the connection to Springwater Trail at 29th Ave and Sherrett St. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$20
AY	High	C	Improved Connection from Springwater Trail to Pendleton Site (Ramps)	Construct ramps to improve existing connection of Springwater Trail to Pendleton site at Clatsop St. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$630
AY	High	C	Improved Connection from Springwater Trail to Pendleton Site (Widened Undercrossing)	Widen existing undercrossing to improve connection of Springwater Trail to Pendleton site at Clatsop St. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$100
AZ	High	C	Improved Connection from Springwater Trail to Tacoma Station	Construct stairs to connect Springwater Trail to Tacoma station. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$80
Medium Priority Projects							
BB	Med	C	Bicycle/Pedestrian Improvements to Main St	Construct multiuse path or other improved bike/ped facilities on Main St to provide safer connection between downtown and Tacoma station. (~~TSAP~~NMIA Plan)	Hanna Harvester Dr	Tacoma station	$2,900
BC	Med	C	Bicycle/Pedestrian Connection from Eastern Neighborhoods to Tacoma Station Area	Establish bike/ped connection over existing railroad tracks and light rail to Tacoma station area. (~~TSAP~~NMIA Plan)	Olsen St & Kelvin St	Mailwell Dr	$4,000

[1] See Figure 5-1a.

[2] The projects in this table assume traditional sidewalks on both sides of the street. In some cases, it may be appropriate to construct a nontraditional pedestrian facility on one side of the street. See Chapter 10 Street Design for more information on the City's approach to designing pedestrian facilities.

[3] Project costs are order-of-magnitude estimates and are in 2012 dollars. Future costs may be more due to inflation. In the case of operational projects, estimated costs are for the entire 22-year planning period.

Map ID[1]	Priority	Type	Project Name	Project Description[2]	From	To	Cost ($1,000s[3])
BD	Med	C	Improved Connection from Springwater Trail to McLoughlin Blvd	Construct stairs or other facility to connect Springwater Trail to west side of McLoughlin Blvd. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$500
BE	Med	C	Bicycle/Pedestrian Connection over Johnson Creek	Construct bike/ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect Tacoma station area with adjacent neighborhood. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$400
BF	Med	C	Improved Bicycle/Pedestrian Connections on West Side of Tacoma Station Area	Improve bike/ped connections to adjacent neighborhood to west of Tacoma station area at Ochoco St and Milport Rd. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$500
Low Priority Projects							
AY	Low	C	Improved Connection from Springwater Trail to Pendleton Site (Tunnel)	Construct tunnel under Springwater Trail to improve connection to Pendleton site at Clatsop St. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$1,200
BJ	Low	C	Crossing Improvements for McLoughlin Blvd at Ochoco St and Milport Rd	Construct improvements at Ochoco St and Milport Rd to improve bike/ped crossing of McLoughlin Blvd (per ODOT, this will require full intersection improvements). (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$8,320
BK	Low	C	Bicycle/Pedestrian Connection between McLoughlin Blvd and Stubb St	Establish bike/ped connection to McLoughlin Blvd sidewalk at west end of Stubb St. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$20
Priority to be Determined							
CA	-	C	NMIA Bike-Ped Connections – Ochoco	Provide pedestrian/bicycle connection along Ochoco St to Roswell St across the railroad tracks to improve connectivity and circulation to/from the NMIA.	Location-specific	Location-specific	-
CB	-	C	McBrod Ave green street	Develop McBrod Ave as a demonstration project, where appropriate, that integrates green street/shared facility approaches to treat both the right-of-way and adjacent development.	Location-specific	Location-specific	-

Map ID[1]	Priority	Type	Project Name	Project Description[2]	From	To	Cost ($1,000s[3])
CC	-	C	NMIA sidewalk improvements	Provide sidewalks along Milport Rd, Ochoco St and new local streets. This includes filling gaps in the sidewalk network.	Location-specific	Location-specific	-
CD	-	C	NMIA McLoughlin Blvd green street demonstration	Partner with ODOT to develop a green street demonstration project for McLoughlin Boulevard between Downtown Milwaukie and the Springwater Corridor Pedestrian Bridge.	Location-specific	Location-specific	-

Notes:

C = Capital Project
O = Operational Project
P = Policy Project

High = High priority
Med = Medium priority
Low = Low priority

~~TSAP~~ NMIA Plan = North Milwaukie Innovation Area Plan ~~Tacoma Station Area Plan~~

Table 6-2 Bicycle Master Plan Projects

Map ID[4]	Priority	Type	Project Name	Project Description	From	To	Cost ($1,000s[5])
High Priority Projects							
AG	High	C	Improved Connection to Springwater Trail at 29th Ave and Sherrett St	Pave the connection to Springwater Trail at 29th Ave and Sherrett St. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$20
AH	High	C	Improved Connection from Springwater Trail to Pendleton Site (Ramps)	Construct ramps to improve existing connection of Springwater Trail to Pendleton site at Clatsop St. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$630
AH	High	C	Improved Connection from Springwater Trail to Pendleton Site (Widened Undercrossing)	Widen existing undercrossing to improve connection of Springwater Trail to Pendleton site at Clatsop St. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$100

[4] See Figure 6-~~83~~a.

[5] Project costs are order-of-magnitude estimates and are in 2012 dollars. Future costs may be more due to inflation. In the case of operational projects, estimated costs are for the entire 22-year planning period.

Map ID[4]	Priority	Type	Project Name	Project Description	From	To	Cost ($1,000s[5])
Medium Priority Projects							
AJ	Med	C	Bicycle/Pedestrian Improvements to Main St	Construct multiuse path or other improved bike/ped facilities on Main St to provide safer connection between downtown and Tacoma station. (~~TSAP~~NMIA Plan)	Hanna Harvester Dr	Tacoma station	$2,900
AK	Med	C	Bicycle/Pedestrian Connection from Eastern Neighborhoods to Tacoma Station Area	Establish bike/ped connection over existing railroad tracks and light rail to Tacoma station area. (~~TSAP~~NMIA Plan)	Olsen St & Kelvin St	Mailwell Dr	$4,000
AL	Med	C	Improved Connection from Springwater Trail to McLoughlin Blvd	Construct stairs or other facility to connect Springwater Trail to west side of McLoughlin Blvd. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$500
AM	Med	C	Bicycle/Pedestrian Connection over Johnson Creek	Construct bike/ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect Tacoma station area with adjacent neighborhood. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$400
AN	Med	C	Improved Bicycle/Pedestrian Connections on West Side of Tacoma Station Area	Improve bike/ped connections to adjacent neighborhood to west of Tacoma station area at Ochoco St and Milport Rd. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$500
Low Priority Projects							
AH	Low	C	Improved Connection from Springwater Trail to Pendleton Site (Tunnel)	Construct tunnel under Springwater Trail to improve connection to Pendleton site at Clatsop St. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$1,200
AQ	Low	C	Crossing Improvements for McLoughlin Blvd at Ochoco St and Milport Rd	Construct improvements at Ochoco St and Milport Rd to improve bike/ped crossing of McLoughlin Blvd (per ODOT, this will require full intersection improvements). (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$8,320
AR	Low	C	Bicycle/Pedestrian Connection between McLoughlin Blvd and Stubb St	Establish bike/ped connection to McLoughlin Blvd sidewalk at west end of Stubb St. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$20

Map ID[4]	Priority	Type	Project Name	Project Description	From	To	Cost ($1,000s[5])
Priority to be Determined							
BA	-	C	NMIA Bike-Ped Connections – Ochoco St	Provide pedestrian/bicycle connection along Ochoco St to Roswell St across the railroad tracks to improve connectivity and circulation to/from the NMIA.	Location-specific	Location-specific	-
BB	-	C	McBrod Ave green street	Develop McBrod Ave as a demonstration project, where appropriate, that integrates green street/shared facility approaches to treat both the right-of-way and adjacent development.	Location-specific	Location-specific	-
BC	-	C	NMIA McLoughlin Blvd green street demonstration	Partner with ODOT to develop a green street demonstration project for McLoughlin Boulevard between Downtown Milwaukie and the Springwater Corridor Pedestrian Bridge.	Location-specific	Location-specific	-

Notes:
C = Capital Project
O = Operational Project
P = Policy Project

High = High priority
Med = Medium priority
Low = Low priority

~~TSAP~~ NMIA Plan = North Milwaukie Innovation Area Plan ~~Tacoma Station Area Plan~~

Table 8-10 Street Network Master Plan Projects

Map ID[6]	Priority	Type	Project Name	Project Description	From	To	Cost ($1,000s)[7]
Low Priority Projects							
X	Low	C	Local Street Connections in Tacoma Station Area	Connect local streets within Tacoma station area: 24th Ave between Ochoco St/Moores St & Clatsop St; Omark St between Mailwell Dr & Beta St (w/midblock connection from Main St); and Mailwell Dr to Harrison St via 26th Ave. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$8,120

[6] See Figure 8-54.
[7] Project costs are order-of-magnitude estimates and are in 2012 dollars. Future costs may be more due to inflation. In the case of operational projects, estimated costs are for the entire 22-year planning period.

Map ID[6]	Priority	Type	Project Name	Project Description	From	To	Cost ($1,000s)[7]
Y	Low	C	Local Street Improvements in Tacoma Station Area	Construct street improvements on Stubb St, Beta St, Ochoco St, Hanna Harvester Dr, and Mailwell Dr. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$5,280
Priority to be Determined							
AA	-	C	McBrod Ave green street	Develop McBrod Ave as a demonstration project, where appropriate, that integrates green street/shared facility approaches to treat both the right-of-way and adjacent development.	Location-specific	Location-specific	-
AB	-	C	NMIA intersection redesign	Based on the outcomes, redesign the Ochoco St and Milport Rd intersections to improve wayfinding, circulation and pedestrian safety. Improvements should include geometric and wayfinding/signage improvements.	Location-specific	Location-specific	-
AC	-	C	NMIA McLoughlin Blvd green street demonstration	Partner with ODOT to develop a green street demonstration project for McLoughlin Boulevard between Downtown Milwaukie and the Springwater Corridor Pedestrian Bridge.	Location-specific	Location-specific	-
AD	-	C	NMIA navigability reconfiguration	Reconfigure the Moores St/Ochoco St/23rd Ave area to be more navigable and easier to develop adjacent properties.	Location-specific	Location-specific	-
AE	-	C	NMIA right-of-way road design	Create a public right-of-way from Mailwell Dr through the existing loading docks to 26th Ave. Road design should restrict large trucks from entering the adjacent neighborhoods south of the project area.	Location-specific	Location-specific	-

Notes:

C = Capital Project
O = Operational Project
P = Policy Project

High = High priority
Med = Medium priority
Low = Low priority

~~TSAP~~ NMIA Plan = North Milwaukie Innovation Area Plan ~~Tacoma Station Area Plan~~

Updates for Section References and Housekeeping Only

Chapter 9 Freight Element

Table 9-1 Freight Master Plan Projects

Map ID[8]	Priority	Type	Project Name	Project Description	From	To	Cost(s) ($1,000s[9])
High Priority Projects							
I	High	C	Signage and Intersection Improvements at McLoughlin Blvd and Ochoco St	Establish signage for trucks and improve intersection. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$1,600

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P = Policy Project

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Med = Medium priority
Low = Low priority

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[8] See Figure 9-1.

[9] Project costs are order-of-magnitude estimates and are in 2012 dollars. Future costs may be more due to inflation. In the case of operational projects, estimated costs are for the entire 22-year planning period.

Chapter 13 Funding and Implementation Plan

Table 13-4 Prioritized Master Plan Project List

Project Name	TSP Chapter	Project Description	From	To	Estimated Cost ($1,000s)[10]	Priority Ranking[11]	Is Project in Action Plan?	Project Type
HIGH PRIORITY PROJECTS								
Improved Connection to Springwater Trail at 29th Ave and Sherrett St	Pedestrian & Bicycle	Pave the connection to Springwater Trail at 29th Ave and Sherrett St. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$20	High	No	Capital
Improved Connection from Springwater Trail to Pendleton Site (Ramps)	Pedestrian & Bicycle	Construct ramps to improve existing connection of Springwater Trail to Pendleton site at Clatsop St. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$630	High	No	Capital
Improved Connection from Springwater Trail to Pendleton Site (Widened Undercrossing)	Pedestrian & Bicycle	Widen existing undercrossing to improve connection of Springwater Trail to Pendleton site at Clatsop St. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$100	High	No	Capital
Improved Connection from Springwater Trail to Tacoma Station	Pedestrian	Construct stairs to connect Springwater Trail to Tacoma station. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$80	High	No	Capital
Signage and Intersection Improvements at McLoughlin Blvd and Ochoco St	Freight	Establish signage for trucks and improve intersection. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$1,600	High	No	Capital
MEDIUM PRIORITY PROJECTS								
Bicycle/ Pedestrian Improvements to Main St	Pedestrian & Bicycle	Construct multiuse path or other improved bike/ped facilities on Main St to provide safer connection between downtown and Tacoma station. (~~TSAP~~NMIA Plan)	Hanna Harvester Dr	Tacoma station	$2,900	Medium	No	Capital
Bicycle/ Pedestrian Connection from Eastern Neighborhoods to Tacoma Station Area	Pedestrian & Bicycle	Establish bike/ped connection over existing railroad tracks and light rail to Tacoma station area. (~~TSAP~~NMIA Plan)	Olsen St & Kelvin St	Mailwell Dr	$4,000	Medium	No	Capital
Improved Connection from Springwater Trail to McLoughlin Blvd	Pedestrian & Bicycle	Construct stairs or other facility to connect Springwater Trail to west side of McLoughlin Blvd. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$500	Medium	No	Capital
Bicycle/ Pedestrian Connection over Johnson Creek	Pedestrian & Bicycle	Construct bike/ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect Tacoma station area with adjacent neighborhood. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$400	Medium	No	Capital

[10] Project costs are order-of-magnitude estimates and are in 2012 dollars. Future costs may be more due to inflation. In the case of operational projects, estimated costs are for the entire 22-year planning period.

[11] Projects are ranked as either high, medium, or low. They are in no particular order within their ranking.

Project Name	TSP Chapter	Project Description	From	To	Estimated Cost ($1,000s)[10]	Priority Ranking[11]	Is Project in Action Plan?	Project Type
Improved Bicycle/ Pedestrian Connections on West Side of Tacoma Station Area	Pedestrian & Bicycle	Improve bike/ped connections to adjacent neighborhood to west of Tacoma station area at Ochoco St and Milport Rd. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$500	Medium	No	Capital
LOW PRIORITY PROJECTS								
Improved Connection from Springwater Trail to Pendleton Site (Tunnel)	Pedestrian & Bicycle	Construct tunnel under Springwater Trail to improve connection to Pendleton site at Clatsop St. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$1,200	Low	No	Capital
Crossing Improvements for McLoughlin Blvd at Ochoco St and Milport Rd	Pedestrian & Bicycle	Construct improvements at Ochoco St and Milport Rd to improve bike/ped crossing of McLoughlin Blvd (per ODOT, this will require full intersection improvements). (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$8,320	Low	No	Capital
Local Street Connections in Tacoma Station Area	Street	Connect local streets within Tacoma station area: 24th Ave between Ochoco St/Moores St & Clatsop St; Omark St between Mailwell Dr & Beta St (w/ midblock connection from Main St); and Mailwell Dr to Harrison St via 26th Ave. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$8,120	Low	No	Capital
Local Street Improvements in Tacoma Station Area	Street	Construct street improvements on Stubb St, Beta St, Ochoco St, Hanna Harvester Dr, and Mailwell Dr. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$5,280	Low	No	Capital
Bicycle/ Pedestrian Connection between McLoughlin Blvd and Stubb St	Pedestrian & Bicycle	Establish bike/ped connection to McLoughlin Blvd sidewalk at west end of Stubb St. (~~TSAP~~NMIA Plan)	Location-specific	Location-specific	$20	Low	No	Capital
REGIONAL PROJECTS WITHIN OR THROUGH THE CITY OF MILWAUKIE[12]								
Pedestrian Overcrossing of McLoughlin Blvd at Umatilla St	—	Construct bike/ped overcrossing of McLoughlin Blvd at Umatilla St. (~~TSAP~~NMIA Plan)	Location Specific	Location Specific	$2,200	—	No	Capital
Portland Bike-Share Station and Car Share Spaces at Tacoma Station	—	Establish a Portland Bike-Share station and car-share spaces at Tacoma station. (~~TSAP~~NMIA Plan)	Location Specific	Location Specific	$70	—	No	Capital

Key:
~~TSAP = Tacoma Station Area Plan~~
NMIA Plan = North Milwaukie Innovation Area Plan

[12] 2004 Regional Transportation Plan (RTP) projects in the Milwaukie area that may or may not be shown on mode-specific master plans or project lists.

Clean Amendments

Transportation System Plan (TSP)

Executive Summary

TSP UPDATE PROCESS

Identification of Needs and Potential Improvements

The traffic volume projections forecasted from the Metro model formed the basis for identifying potential roadway deficiencies and evaluating alternative circulation improvements within Milwaukie. Needs for other modes were then identified, based on the future traffic forecasts and deficiencies in the existing infrastructure (sidewalks, bike lanes, transit stops, etc.).

Collectively, the master plans in Chapters 5 through 12 of the TSP describe the proposed capital and operational improvements to the transportation system between 2013 and 2035. While many of these potential improvements are presented as benefiting one mode, when possible, multiple modes are combined into one project. For instance, the Railroad Ave road-widening project listed in the Street Network Master Plan could include new bike lanes and sidewalks, as well as improvements for freight and transit.

Between the 2007 and 2013 TSP updates, the PMLR project became more defined, with construction starting in 2012. A thorough feasibility and impact study was conducted for the PMLR project, identifying and developing appropriate mitigation for the new light rail system's impacts to Milwaukie's transportation infrastructure. The warranted improvements are being constructed as the new light rail system is being built. Once completed, PMLR will become a part of the City's transportation system and will be further studied to identify and address needed improvements as part of future updates to the TSP.

In June 2013, the Tacoma Station Area Plan (TSAP) was adopted to address potential redevelopment opportunities near the new PMLR station at Tacoma St. The TSAP included a list of approximately 20 projects identified to meet new transportation needs. These projects were assigned order-of-magnitude costs and were added to the relevant project lists for the various modes.

In 2015, the Central Milwaukie Land Use and Transportation Plan (CMLUTP) was adopted to address potential new development and redevelopment opportunities in the central Milwaukie area. The CMLUTP included a variety of projects, particularly pedestrian and bicycle connections, which were added to the relevant project lists.

In 2017, the North Milwaukie Innovation Area Plan (NMIA Plan) was adopted to build on the TSAP to encourage redevelopment of this critical employment area. At the time it was adopted, the TSAP was repealed, as it was incorporated into the NMIA Plan. Additional transportation projects were identified in the NMIA Plan, which were added to the relevant project lists for the various modes.

Ranking and Prioritizing Improvements

The action plans in Chapters 5 through 12 focus on the highest priority projects that are most likely to be funded over the next 22 years with limited City funds. The action plans are built upon the premise that, given the limited funds available, the City should prioritize funding of

transportation projects that 1) effectively address identified problems, and 2) best meet the City's Goals.

To prioritize the projects as part of the 2007 TSP update, project staff and the Advisory Committee used three sources: the project rankings from the working groups, evaluation of each project against the nine TSP Goals, and other information regarding dependence on other projects, neighborhood support, etc. Using this approach, project staff and the Advisory Committee developed a relative ranking of the projects, grouping them into three categories (high, medium, and low priority).

For the 2013 TSP update, project staff did not reevaluate projects against the nine TSP Goals but, instead, considered the input generated around a public meeting that was held to discuss transportation project priorities. For approximately 20% of the existing projects, the priority classification was adjusted to reflect changes in current conditions or a new awareness of community need. For new projects arising from the Tacoma Station Area Plan (TSAP), staff assigned a priority to each based on input from the TSAP Advisory Committee as well as staff knowledge of overall system needs. Projects identified in the CMLUTP and NMIA Plan were not prioritized at the time of identification.

Transportation System Plan (TSP)

Table 5-1 Pedestrian Master Plan Projects

Map ID[1]	Priority	Type	Project Name	Project Description[2]	From	To	Cost ($1,000s[3])
High Priority Projects							
AX	High	C	Improved Connection to Springwater Trail at 29th Ave and Sherrett St	Pave the connection to Springwater Trail at 29th Ave and Sherrett St. (NMIA Plan)	Location-specific	Location-specific	$20
AY	High	C	Improved Connection from Springwater Trail to Pendleton Site (Ramps)	Construct ramps to improve existing connection of Springwater Trail to Pendleton site at Clatsop St. (NMIA Plan)	Location-specific	Location-specific	$630
AY	High	C	Improved Connection from Springwater Trail to Pendleton Site (Widened Undercrossing)	Widen existing undercrossing to improve connection of Springwater Trail to Pendleton site at Clatsop St. (NMIA Plan)	Location-specific	Location-specific	$100
AZ	High	C	Improved Connection from Springwater Trail to Tacoma Station	Construct stairs to connect Springwater Trail to Tacoma station. (NMIA Plan)	Location-specific	Location-specific	$80
Medium Priority Projects							
BB	Med	C	Bicycle/Pedestrian Improvements to Main St	Construct multiuse path or other improved bike/ped facilities on Main St to provide safer connection between downtown and Tacoma station. (NMIA Plan)	Hanna Harvester Dr	Tacoma station	$2,900
BC	Med	C	Bicycle/Pedestrian Connection from Eastern Neighborhoods to Tacoma Station Area	Establish bike/ped connection over existing railroad tracks and light rail to Tacoma station area. (NMIA Plan)	Olsen St & Kelvin St	Mailwell Dr	$4,000
BD	Med	C	Improved Connection from Springwater Trail to McLoughlin Blvd	Construct stairs or other facility to connect Springwater Trail to west side of McLoughlin Blvd. (NMIA Plan)	Location-specific	Location-specific	$500

[1] See Figure 5-1a.

[2] The projects in this table assume traditional sidewalks on both sides of the street. In some cases, it may be appropriate to construct a nontraditional pedestrian facility on one side of the street. See Chapter 10 Street Design for more information on the City's approach to designing pedestrian facilities.

[3] Project costs are order-of-magnitude estimates and are in 2012 dollars. Future costs may be more due to inflation. In the case of operational projects, estimated costs are for the entire 22-year planning period.

Map ID[1]	Priority	Type	Project Name	Project Description[2]	From	To	Cost ($1,000s[3])
BE	Med	C	Bicycle/Pedestrian Connection over Johnson Creek	Construct bike/ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect Tacoma station area with adjacent neighborhood. (NMIA Plan)	Location-specific	Location-specific	$400
BF	Med	C	Improved Bicycle/Pedestrian Connections on West Side of Tacoma Station Area	Improve bike/ped connections to adjacent neighborhood to west of Tacoma station area at Ochoco St and Milport Rd. (NMIA Plan)	Location-specific	Location-specific	$500
Low Priority Projects							
AY	Low	C	Improved Connection from Springwater Trail to Pendleton Site (Tunnel)	Construct tunnel under Springwater Trail to improve connection to Pendleton site at Clatsop St. (NMIA Plan)	Location-specific	Location-specific	$1,200
BJ	Low	C	Crossing Improvements for McLoughlin Blvd at Ochoco St and Milport Rd	Construct improvements at Ochoco St and Milport Rd to improve bike/ped crossing of McLoughlin Blvd (per ODOT, this will require full intersection improvements). (NMIA Plan)	Location-specific	Location-specific	$8,320
BK	Low	C	Bicycle/Pedestrian Connection between McLoughlin Blvd and Stubb St	Establish bike/ped connection to McLoughlin Blvd sidewalk at west end of Stubb St. (NMIA Plan)	Location-specific	Location-specific	$20
Priority to be Determined							
CA	-	C	NMIA Bike-Ped Connections – Ochoco	Provide pedestrian/bicycle connection along Ochoco St to Roswell St across the railroad tracks to improve connectivity and circulation to/from the NMIA.	Location-specific	Location-specific	-
CB	-	C	McBrod Ave green street	Develop McBrod Ave as a demonstration project, where appropriate, that integrates green street/shared facility approaches to treat both the right-of-way and adjacent development.	Location-specific	Location-specific	-
CC	-	C	NMIA sidewalk improvements	Provide sidewalks along Milport Rd, Ochoco St and new local streets. This includes filling gaps in the sidewalk network.	Location-specific	Location-specific	-

Map ID[1]	Priority	Type	Project Name	Project Description[2]	From	To	Cost ($1,000s[3])
CD	-	C	NMIA McLoughlin Blvd green street demonstration	Partner with ODOT to develop a green street demonstration project for McLoughlin Boulevard between Downtown Milwaukie and the Springwater Corridor Pedestrian Bridge.	Location-specific	Location-specific	-

Notes:

C = Capital Project
O = Operational Project
P = Policy Project

High = High priority
Med = Medium priority
Low = Low priority

NMIA Plan = North Milwaukie Innovation Area Plan

Table 6-2 Bicycle Master Plan Projects

Map ID[4]	Priority	Type	Project Name	Project Description	From	To	Cost ($1,000s[5])
High Priority Projects							
AG	High	C	Improved Connection to Springwater Trail at 29th Ave and Sherrett St	Pave the connection to Springwater Trail at 29th Ave and Sherrett St. (NMIA Plan)	Location-specific	Location-specific	$20
AH	High	C	Improved Connection from Springwater Trail to Pendleton Site (Ramps)	Construct ramps to improve existing connection of Springwater Trail to Pendleton site at Clatsop St. (NMIA Plan)	Location-specific	Location-specific	$630
AH	High	C	Improved Connection from Springwater Trail to Pendleton Site (Widened Undercrossing)	Widen existing undercrossing to improve connection of Springwater Trail to Pendleton site at Clatsop St. (NMIA Plan)	Location-specific	Location-specific	$100
Medium Priority Projects							
AJ	Med	C	Bicycle/Pedestrian Improvements to Main St	Construct multiuse path or other improved bike/ped facilities on Main St to provide safer connection between downtown and Tacoma station. (NMIA Plan)	Hanna Harvester Dr	Tacoma station	$2,900

[4] See Figure 6-8a.

[5] Project costs are order-of-magnitude estimates and are in 2012 dollars. Future costs may be more due to inflation. In the case of operational projects, estimated costs are for the entire 22-year planning period.

Map ID[4]	Priority	Type	Project Name	Project Description	From	To	Cost ($1,000s[5])
AK	Med	C	Bicycle/Pedestrian Connection from Eastern Neighborhoods to Tacoma Station Area	Establish bike/ped connection over existing railroad tracks and light rail to Tacoma station area. (NMIA Plan)	Olsen St & Kelvin St	Mailwell Dr	$4,000
AL	Med	C	Improved Connection from Springwater Trail to McLoughlin Blvd	Construct stairs or other facility to connect Springwater Trail to west side of McLoughlin Blvd. (NMIA Plan)	Location-specific	Location-specific	$500
AM	Med	C	Bicycle/Pedestrian Connection over Johnson Creek	Construct bike/ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect Tacoma station area with adjacent neighborhood. (NMIA Plan)	Location-specific	Location-specific	$400
AN	Med	C	Improved Bicycle/Pedestrian Connections on West Side of Tacoma Station Area	Improve bike/ped connections to adjacent neighborhood to west of Tacoma station area at Ochoco St and Milport Rd. (NMIA Plan)	Location-specific	Location-specific	$500
Low Priority Projects							
AH	Low	C	Improved Connection from Springwater Trail to Pendleton Site (Tunnel)	Construct tunnel under Springwater Trail to improve connection to Pendleton site at Clatsop St. (NMIA Plan)	Location-specific	Location-specific	$1,200
AQ	Low	C	Crossing Improvements for McLoughlin Blvd at Ochoco St and Milport Rd	Construct improvements at Ochoco St and Milport Rd to improve bike/ped crossing of McLoughlin Blvd (per ODOT, this will require full intersection improvements). (NMIA Plan)	Location-specific	Location-specific	$8,320
AR	Low	C	Bicycle/Pedestrian Connection between McLoughlin Blvd and Stubb St	Establish bike/ped connection to McLoughlin Blvd sidewalk at west end of Stubb St. (NMIA Plan)	Location-specific	Location-specific	$20
Priority to be Determined							
BA	-	C	NMIA Bike-Ped Connections – Ochoco St	Provide pedestrian/bicycle connection along Ochoco St to Roswell St across the railroad tracks to improve connectivity and circulation to/from the NMIA.	Location-specific	Location-specific	-
BB	-	C	McBrod Ave green street	Develop McBrod Ave as a demonstration project, where appropriate, that integrates green street/shared facility approaches to treat both the right-of-way and adjacent development.	Location-specific	Location-specific	-

Map ID[4]	Priority	Type	Project Name	Project Description	From	To	Cost ($1,000s[5])
BC	-	C	NMIA McLoughlin Blvd green street demonstration	Partner with ODOT to develop a green street demonstration project for McLoughlin Boulevard between Downtown Milwaukie and the Springwater Corridor Pedestrian Bridge.	Location-specific	Location-specific	-

Notes:
C = Capital Project
O = Operational Project
P = Policy Project
High = High priority
Med = Medium priority
Low = Low priority
NMIA Plan = North Milwaukie Innovation Area Plan

Table 8-10 Street Network Master Plan Projects

Map ID[6]	Priority	Type	Project Name	Project Description	From	To	Cost ($1,000s)[7]
Low Priority Projects							
X	Low	C	Local Street Connections in Tacoma Station Area	Connect local streets within Tacoma station area: 24th Ave between Ochoco St/Moores St & Clatsop St; Omark St between Mailwell Dr & Beta St (w/midblock connection from Main St); and Mailwell Dr to Harrison St via 26th Ave. (NMIA Plan)	Location-specific	Location-specific	$8,120
Y	Low	C	Local Street Improvements in Tacoma Station Area	Construct street improvements on Stubb St, Beta St, Ochoco St, Hanna Harvester Dr, and Mailwell Dr. (NMIA Plan)	Location-specific	Location-specific	$5,280
Priority to be Determined							
AA	-	C	McBrod Ave green street	Develop McBrod Ave as a demonstration project, where appropriate, that integrates green street/shared facility approaches to treat both the right-of-way and adjacent development.	Location-specific	Location-specific	-

[6] See Figure 8-5.
[7] Project costs are order-of-magnitude estimates and are in 2012 dollars. Future costs may be more due to inflation. In the case of operational projects, estimated costs are for the entire 22-year planning period.

Map ID[6]	Priority	Type	Project Name	Project Description	From	To	Cost ($1,000s)[7]
AB	-	C	NMIA intersection redesign	Based on the outcomes, redesign the Ochoco St and Milport Rd intersections to improve wayfinding, circulation and pedestrian safety. Improvements should include geometric and wayfinding/signage improvements.	Location-specific	Location-specific	-
AC	-	C	NMIA McLoughlin Blvd green street demonstration	Partner with ODOT to develop a green street demonstration project for McLoughlin Boulevard between Downtown Milwaukie and the Springwater Corridor Pedestrian Bridge.	Location-specific	Location-specific	-
AD	-	C	NMIA navigability reconfiguration	Reconfigure the Moores St/Ochoco St/23rd Ave area to be more navigable and easier to develop adjacent properties.	Location-specific	Location-specific	-
AE	-	C	NMIA right-of-way road design	Create a public right-of-way from Mailwell Dr through the existing loading docks to 26th Ave. Road design should restrict large trucks from entering the adjacent neighborhoods south of the project area.	Location-specific	Location-specific	-

Notes:
C = Capital Project
O = Operational Project
P = Policy Project
High = High priority
Med = Medium priority
Low = Low priority
NMIA Plan = North Milwaukie Innovation Area Plan

Updates for Section References and Housekeeping Only

Chapter 9 Freight Element

Table 9-1 Freight Master Plan Projects

Map ID[8]	Priority	Type	Project Name	Project Description	From	To	Cost(s) ($1,000s[9])
High Priority Projects							
I	High	C	Signage and Intersection Improvements at McLoughlin Blvd and Ochoco St	Establish signage for trucks and improve intersection. (NMIA Plan)	Location-specific	Location-specific	$1,600

Notes:
C = Capital Project
O = Operational Project
P = Policy Project
High = High priority
Med = Medium priority
Low = Low priority
NMIA Plan = North Milwaukie Innovation Area Plan

[8] See Figure 9-1.
[9] Project costs are order-of-magnitude estimates and are in 2012 dollars. Future costs may be more due to inflation. In the case of operational projects, estimated costs are for the entire 22-year planning period.

Chapter 13 Funding and Implementation Plan

Table 13-4 Prioritized Master Plan Project List

Project Name	TSP Chapter	Project Description	From	To	Estimated Cost ($1,000s)[10]	Priority Ranking[11]	Is Project in Action Plan?	Project Type
HIGH PRIORITY PROJECTS								
Improved Connection to Springwater Trail at 29th Ave and Sherrett St	Pedestrian & Bicycle	Pave the connection to Springwater Trail at 29th Ave and Sherrett St. (NMIA Plan)	Location-specific	Location-specific	$20	High	No	Capital
Improved Connection from Springwater Trail to Pendleton Site (Ramps)	Pedestrian & Bicycle	Construct ramps to improve existing connection of Springwater Trail to Pendleton site at Clatsop St. (NMIA Plan)	Location-specific	Location-specific	$630	High	No	Capital
Improved Connection from Springwater Trail to Pendleton Site (Widened Undercrossing)	Pedestrian & Bicycle	Widen existing undercrossing to improve connection of Springwater Trail to Pendleton site at Clatsop St. (NMIA Plan)	Location-specific	Location-specific	$100	High	No	Capital
Improved Connection from Springwater Trail to Tacoma Station	Pedestrian	Construct stairs to connect Springwater Trail to Tacoma station. (NMIA Plan)	Location-specific	Location-specific	$80	High	No	Capital
Signage and Intersection Improvements at McLoughlin Blvd and Ochoco St	Freight	Establish signage for trucks and improve intersection. (NMIA Plan)	Location-specific	Location-specific	$1,600	High	No	Capital
MEDIUM PRIORITY PROJECTS								
Bicycle/ Pedestrian Improvements to Main St	Pedestrian & Bicycle	Construct multiuse path or other improved bike/ped facilities on Main St to provide safer connection between downtown and Tacoma station. (NMIA Plan)	Hanna Harvester Dr	Tacoma station	$2,900	Medium	No	Capital
Bicycle/ Pedestrian Connection from Eastern Neighborhoods to Tacoma Station Area	Pedestrian & Bicycle	Establish bike/ped connection over existing railroad tracks and light rail to Tacoma station area. (NMIA Plan)	Olsen St & Kelvin St	Mailwell Dr	$4,000	Medium	No	Capital
Improved Connection from Springwater Trail to McLoughlin Blvd	Pedestrian & Bicycle	Construct stairs or other facility to connect Springwater Trail to west side of McLoughlin Blvd. (NMIA Plan)	Location-specific	Location-specific	$500	Medium	No	Capital
Bicycle/ Pedestrian Connection over Johnson Creek	Pedestrian & Bicycle	Construct bike/ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect Tacoma station area with adjacent neighborhood. (NMIA Plan)	Location-specific	Location-specific	$400	Medium	No	Capital

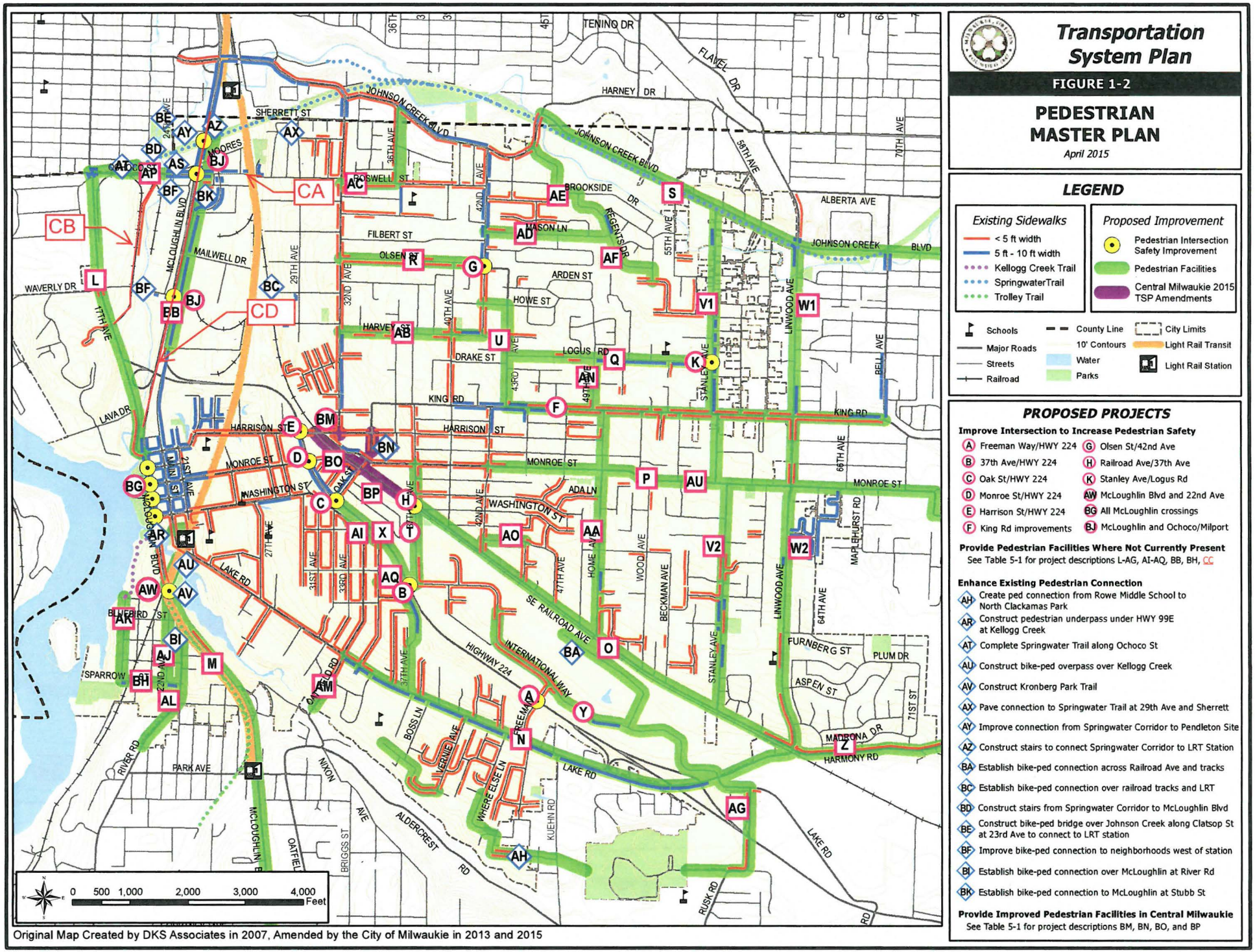
[10] Project costs are order-of-magnitude estimates and are in 2012 dollars. Future costs may be more due to inflation. In the case of operational projects, estimated costs are for the entire 22-year planning period.

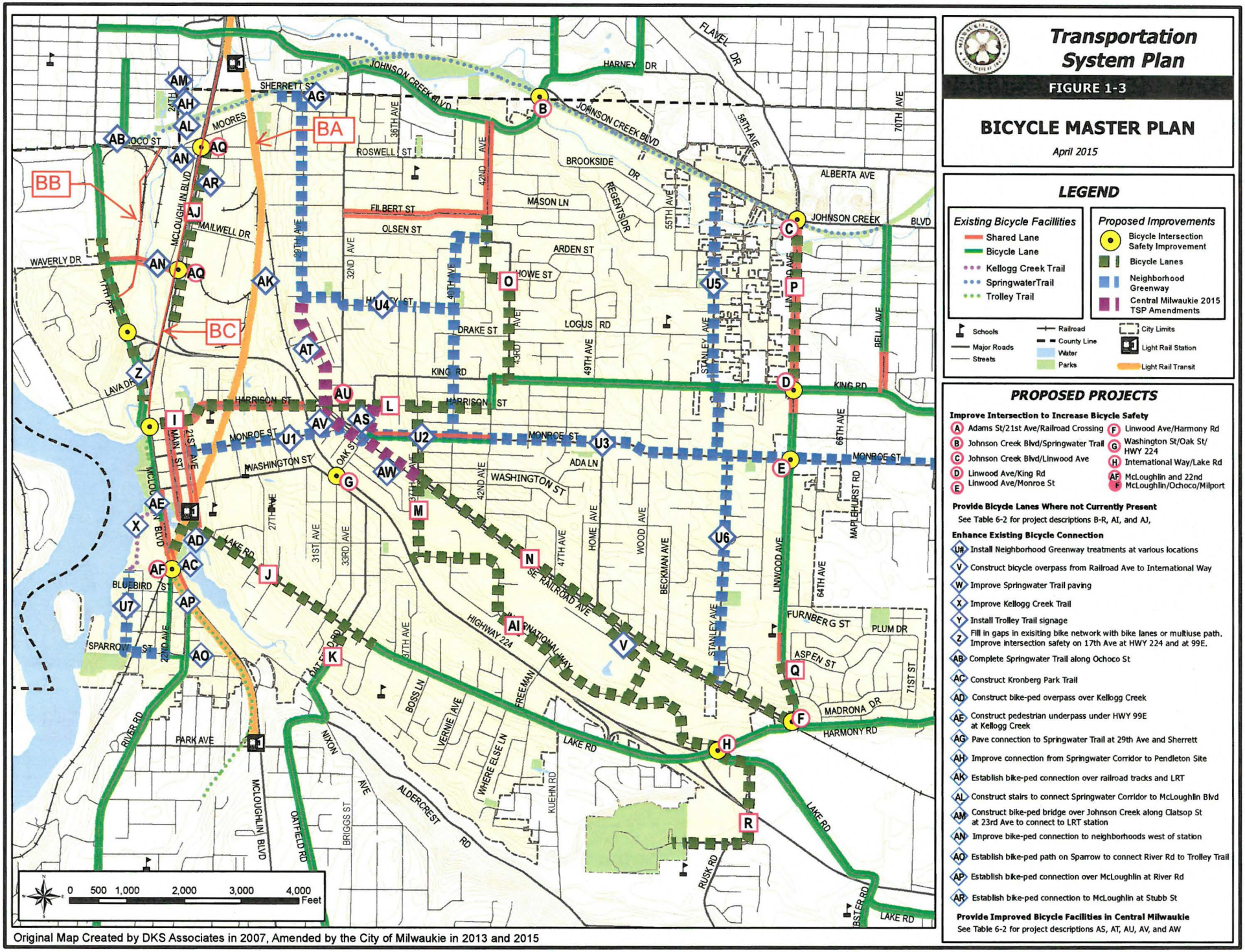
[11] Projects are ranked as either high, medium, or low. They are in no particular order within their ranking.

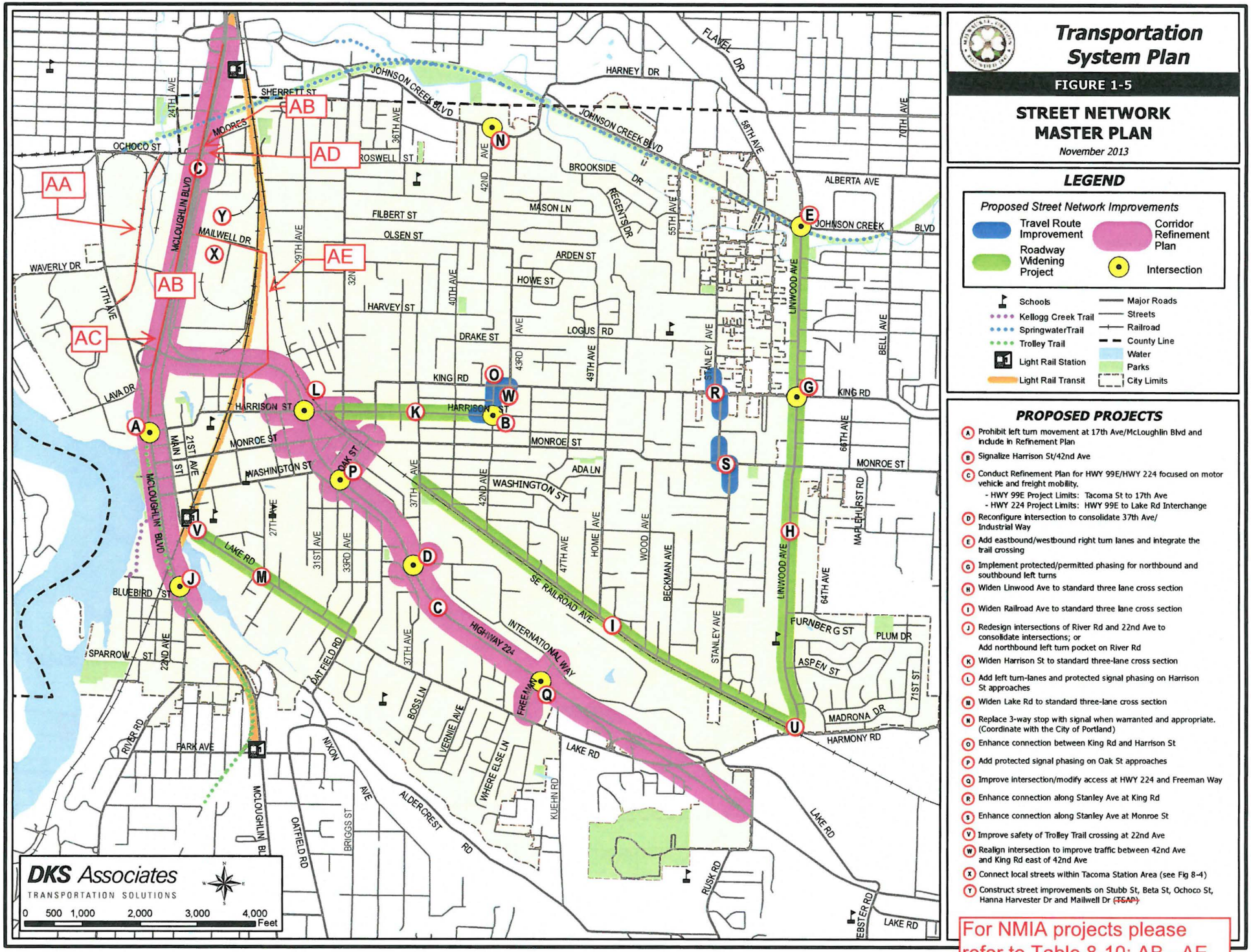
Project Name	TSP Chapter	Project Description	From	To	Estimated Cost ($1,000s)[10]	Priority Ranking[11]	Is Project in Action Plan?	Project Type
Improved Bicycle/ Pedestrian Connections on West Side of Tacoma Station Area	Pedestrian & Bicycle	Improve bike/ped connections to adjacent neighborhood to west of Tacoma station area at Ochoco St and Milport Rd. (NMIA Plan)	Location-specific	Location-specific	$500	Medium	No	Capital
LOW PRIORITY PROJECTS								
Improved Connection from Springwater Trail to Pendleton Site (Tunnel)	Pedestrian & Bicycle	Construct tunnel under Springwater Trail to improve connection to Pendleton site at Clatsop St. (NMIA Plan)	Location-specific	Location-specific	$1,200	Low	No	Capital
Crossing Improvements for McLoughlin Blvd at Ochoco St and Milport Rd	Pedestrian & Bicycle	Construct improvements at Ochoco St and Milport Rd to improve bike/ped crossing of McLoughlin Blvd (per ODOT, this will require full intersection improvements). (NMIA Plan)	Location-specific	Location-specific	$8,320	Low	No	Capital
Local Street Connections in Tacoma Station Area	Street	Connect local streets within Tacoma station area: 24th Ave between Ochoco St/Moores St & Clatsop St; Omark St between Mailwell Dr & Beta St (w/ midblock connection from Main St); and Mailwell Dr to Harrison St via 26th Ave. (NMIA Plan)	Location-specific	Location-specific	$8,120	Low	No	Capital
Local Street Improvements in Tacoma Station Area	Street	Construct street improvements on Stubb St, Beta St, Ochoco St, Hanna Harvester Dr, and Mailwell Dr. (NMIA Plan)	Location-specific	Location-specific	$5,280	Low	No	Capital
Bicycle/ Pedestrian Connection between McLoughlin Blvd and Stubb St	Pedestrian & Bicycle	Establish bike/ped connection to McLoughlin Blvd sidewalk at west end of Stubb St. (NMIA Plan)	Location-specific	Location-specific	$20	Low	No	Capital
REGIONAL PROJECTS WITHIN OR THROUGH THE CITY OF MILWAUKIE[12]								
Pedestrian Overcrossing of McLoughlin Blvd at Umatilla St	—	Construct bike/ped overcrossing of McLoughlin Blvd at Umatilla St. (NMIA Plan)	Location Specific	Location Specific	$2,200	—	No	Capital
Portland Bike-Share Station and Car Share Spaces at Tacoma Station	—	Establish a Portland Bike-Share station and car-share spaces at Tacoma station. (NMIA Plan)	Location Specific	Location Specific	$70	—	No	Capital

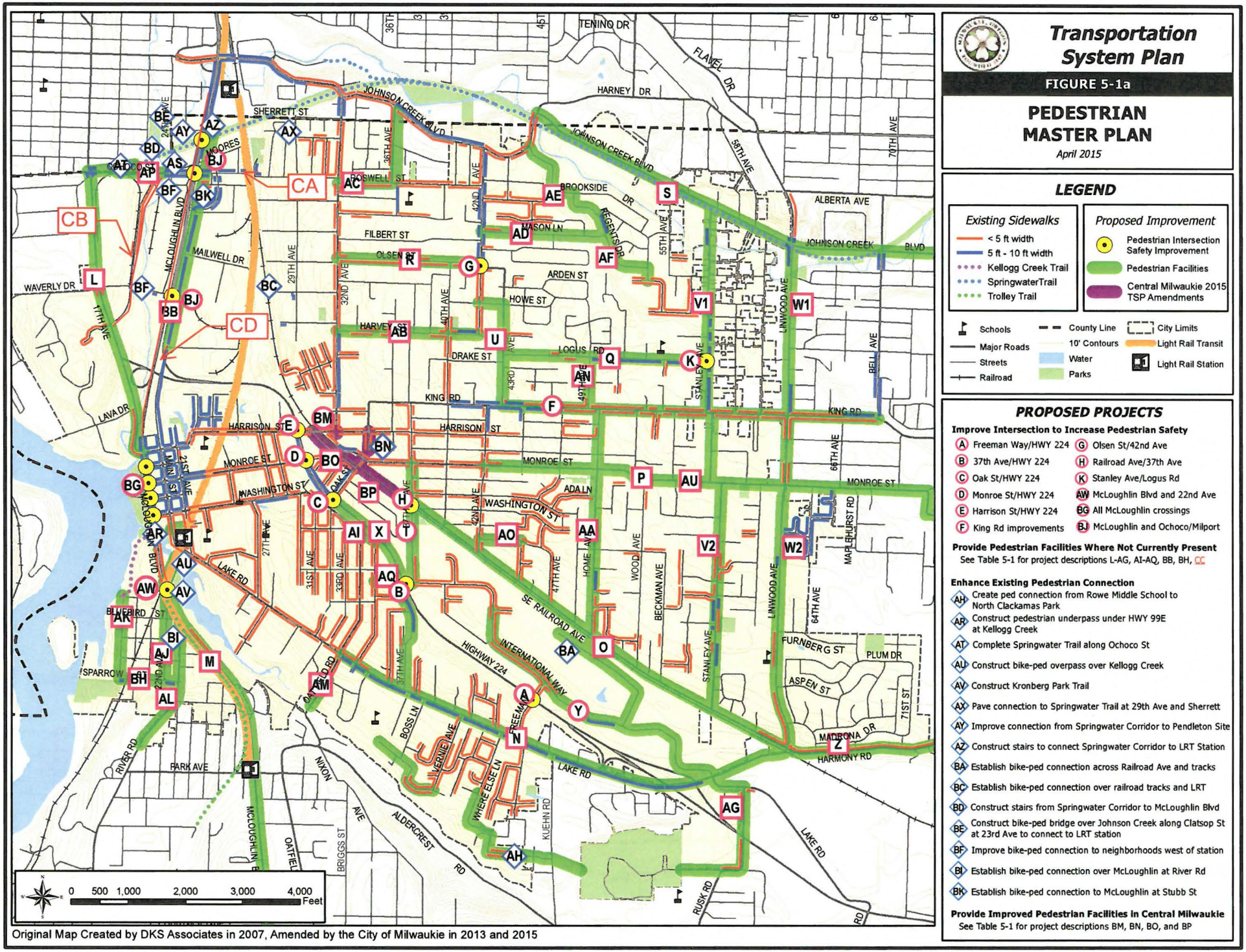
Key:
NMIA Plan – North Milwaukie Innovation Area Plan

[12] 2004 Regional Transportation Plan (RTP) projects in the Milwaukie area that may or may not be shown on mode-specific master plans or project lists.


Transportation System Plan
FIGURE 1-2
PEDESTRIAN MASTER PLAN
April 2015
LEGEND
Existing Sidewalks
< 5 ft width
5 ft - 10 ft width
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Proposed Improvement
Pedestrian Intersection Safety Improvement
Pedestrian Facilities
Central Milwaukie 2015 TSP Amendments
Schools
Major Roads
Streets
Railroad
County Line
10' Contours
Water
Parks
City Limits
Light Rail Transit
Light Rail Station
PROPOSED PROJECTS
Improve Intersection to Increase Pedestrian Safety
A Freeman Way/HWY 224
B 37th Ave/HWY 224
C Oak St/HWY 224
D Monroe St/HWY 224
E Harrison St/HWY 224
F King Rd improvements
G Olsen St/42nd Ave
H Railroad Ave/37th Ave
K Stanley Ave/Logus Rd
AW McLoughlin Blvd and 22nd Ave
BG All McLoughlin crossings
BJ McLoughlin and Ochoco/Milport
Provide Pedestrian Facilities Where Not Currently Present
See Table 5-1 for project descriptions L-AG, AI-AQ, BB, BH, CC
Enhance Existing Pedestrian Connection
AH Create ped connection from Rowe Middle School to North Clackamas Park
AR Construct pedestrian underpass under HWY 99E at Kellogg Creek
AT Complete Springwater Trail along Ochoco St
AU Construct bike-ped overpass over Kellogg Creek
AV Construct Kronberg Park Trail
AX Pave connection to Springwater Trail at 29th Ave and Sherrett
AY Improve connection from Springwater Corridor to Pendleton Site
AZ Construct stairs to connect Springwater Corridor to LRT Station
BA Establish bike-ped connection across Railroad Ave and tracks
BC Establish bike-ped connection over railroad tracks and LRT
BD Construct stairs from Springwater Corridor to McLoughlin Blvd
BE Construct bike-ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect to LRT station
BF Improve bike-ped connection to neighborhoods west of station
BI Establish bike-ped connection over McLoughlin at River Rd
BK Establish bike-ped connection to McLoughlin at Stubb St
Provide Improved Pedestrian Facilities in Central Milwaukie
See Table 5-1 for project descriptions BM, BN, BO, and BP
CA
CB
CD
0 500 1,000 2,000 3,000 4,000 Feet
Original Map Created by DKS Associates in 2007, Amended by the City of Milwaukie in 2013 and 2015


Transportation System Plan
FIGURE 1-3
BICYCLE MASTER PLAN
April 2015
LEGEND
Existing Bicycle Facilities
Shared Lane
Bicycle Lane
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Proposed Improvements
Bicycle Intersection Safety Improvement
Bicycle Lanes
Neighborhood Greenway
Central Milwaukie 2015 TSP Amendments
Schools
Major Roads
Streets
Railroad
County Line
Water
Parks
City Limits
Light Rail Station
Light Rail Transit
PROPOSED PROJECTS
Improve Intersection to Increase Bicycle Safety
A Adams St/21st Ave/Railroad Crossing
B Johnson Creek Blvd/Springwater Trail
C Johnson Creek Blvd/Linwood Ave
D Linwood Ave/King Rd
E Linwood Ave/Monroe St
F Linwood Ave/Harmony Rd
G Washington St/Oak St/ HWY 224
H International Way/Lake Rd
AF McLoughlin and 22nd
F McLoughlin/Ochoco/Milport
Provide Bicycle Lanes Where not Currently Present
See Table 6-2 for project descriptions B-R, AI, and AJ,
Enhance Existing Bicycle Connection
U1 Install Neighborhood Greenway treatments at various locations
V Construct bicycle overpass from Railroad Ave to International Way
W Improve Springwater Trail paving
X Improve Kellogg Creek Trail
Y Install Trolley Trail signage
Z Fill in gaps in exisiting bike network with bike lanes or multiuse path. Improve intersection safety on 17th Ave at HWY 224 and at 99E.
AB Complete Springwater Trail along Ochoco St
AC Construct Kronberg Park Trail
AD Construct bike-ped overpass over Kellogg Creek
AE Construct pedestrian underpass under HWY 99E at Kellogg Creek
AG Pave connection to Springwater Trail at 29th Ave and Sherrett
AH Improve connection from Springwater Corridor to Pendleton Site
AK Establish bike-ped connection over railroad tracks and LRT
AL Construct stairs to connect Springwater Corridor to McLoughlin Blvd
AM Construct bike-ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect to LRT station
AN Improve bike-ped connection to neighborhoods west of station
AO Establish bike-ped path on Sparrow to connect River Rd to Trolley Trail
AP Establish bike-ped connection over McLoughlin at River Rd
AR Establish bike-ped connection to McLoughlin at Stubb St
Provide Improved Bicycle Facilities in Central Milwaukie
See Table 6-2 for project descriptions AS, AT, AU, AV, and AW
0 500 1,000 2,000 3,000 4,000 Feet
JOHNSON CREEK BLVD
HARNEY DR
FLAVEL DR
SHERRETT ST
MOORES
OCHOCO ST
ROSWELL ST
BROOKSIDE DR
ALBERTA AVE
MASON LN
FILBERT ST
OLSEN ST
ARDEN ST
HOWE ST
MAILWELL DR
WAVERLY DR
MCLOUGHLIN BLVD
DRAKE ST
LOGUS RD
KING RD
HARRISON ST
LAVA DR
MONROE ST
WASHINGTON ST
ADA LN
MAIN ST
21ST AVE
OAK ST
MCLOUGHLIN BLVD
LAKE RD
BLUEBIRD ST
SPARROW ST
PARK AVE
RIVER RD
OATFIELD RD
BRIGGS ST
ALDERCREST RD
KUEHN RD
WHERE ELSE LN
VERNIE AVE
BOSS LN
FREEMAN
NIXON AVE
HIGHWAY 224
SE RAILROAD AVE
INTERNATIONAL WAY
FURNBERG ST
PLUM DR
ASPEN ST
MADRONA DR
HARMONY RD
RUSK RD
BUSTER RD
LINWOOD AVE
MAPLEHURST RD
BELL AVE
STANLEY AVE
BECKMAN AVE
WOOD AVE
HOME AVE
47TH AVE
42ND AVE
37TH AVE
32ND AVE
27TH AVE
22ND AVE
17TH AVE
24TH
36TH AVE
42ND AVE
43RD
49TH AVE
55TH AVE
58TH AVE
66TH AVE
64TH AVE
71ST ST
70TH AVE
BA
BB
BC
Original Map Created by DKS Associates in 2007, Amended by the City of Milwaukie in 2013 and 2015


Transportation System Plan
FIGURE 1-5
STREET NETWORK MASTER PLAN
November 2013
LEGEND
Proposed Street Network Improvements
Travel Route Improvement
Corridor Refinement Plan
Roadway Widening Project
Intersection
Schools
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Light Rail Station
Light Rail Transit
Major Roads
Streets
Railroad
County Line
Water
Parks
City Limits
PROPOSED PROJECTS
A Prohibit left turn movement at 17th Ave/McLoughlin Blvd and include in Refinement Plan
B Signalize Harrison St/42nd Ave
C Conduct Refinement Plan for HWY 99E/HWY 224 focused on motor vehicle and freight mobility.
- HWY 99E Project Limits: Tacoma St to 17th Ave
- HWY 224 Project Limits: HWY 99E to Lake Rd Interchange
D Reconfigure intersection to consolidate 37th Ave/ Industrial Way
E Add eastbound/westbound right turn lanes and integrate the trail crossing
G Implement protected/permitted phasing for northbound and southbound left turns
H Widen Linwood Ave to standard three lane cross section
I Widen Railroad Ave to standard three lane cross section
J Redesign intersections of River Rd and 22nd Ave to consolidate intersections; or
Add northbound left turn pocket on River Rd
K Widen Harrison St to standard three-lane cross section
L Add left turn-lanes and protected signal phasing on Harrison St approaches
M Widen Lake Rd to standard three-lane cross section
N Replace 3-way stop with signal when warranted and appropriate. (Coordinate with the City of Portland)
O Enhance connection between King Rd and Harrison St
P Add protected signal phasing on Oak St approaches
Q Improve intersection/modify access at HWY 224 and Freeman Way
R Enhance connection along Stanley Ave at King Rd
S Enhance connection along Stanley Ave at Monroe St
V Improve safety of Trolley Trail crossing at 22nd Ave
W Realign intersection to improve traffic between 42nd Ave and King Rd east of 42nd Ave
X Connect local streets within Tacoma Station Area (see Fig 8-4)
Y Construct street improvements on Stubb St, Beta St, Ochoco St, Hanna Harvester Dr and Mailwell Dr (TSAP)
For NMIA projects please refer to Table 8-10; AB - AE
DKS Associates
TRANSPORTATION SOLUTIONS
0 500 1,000 2,000 3,000 4,000 Feet
JOHNSON CREEK BLVD
SHERRETT ST
OCHOCO ST
MOORES
ROSWELL ST
HARNEY DR
FLAVEL DR
BROOKSIDE DR
ALBERTA AVE
JOHNSON CREEK BLVD
FILBERT ST
OLSEN ST
MASON LN
REGENTS DR
ARDEN ST
HOWE ST
HARVEY ST
DRAKE ST
LOGUS RD
KING RD
WAVERLY DR
MAILWELL DR
LAVA DR
HARRISON ST
MONROE ST
WASHINGTON ST
ADA LN
OAK ST
LAKE RD
BLUEBIRD ST
SPARROW ST
PARK AVE
RIVER RD
OATFIELD RD
BOSS LN
VERNIE LAVE
WHERE ELSE LN
KUEHN RD
ALDERCREST RD
NIXON AVE
BRIGGS ST
SE RAILROAD AVE
INTERNATIONAL WAY
HIGHWAY 224
FREEMAN
FURNBERG ST
PLUM DR
ASPEN ST
MADRONA DR
HARMONY RD
MAPLEHURST RD
RUSK RD
EBSTER RD
LINWOOD AVE
STANLEY AVE
BECKMAN AVE
WOOD AVE
HOME AVE
BELL AVE
MCLOUGHLIN BLVD
AA
AB
AC
AD
AE


Transportation System Plan
FIGURE 5-1a
PEDESTRIAN MASTER PLAN
April 2015
LEGEND
Existing Sidewalks
< 5 ft width
5 ft - 10 ft width
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Proposed Improvement
Pedestrian Intersection Safety Improvement
Pedestrian Facilities
Central Milwaukie 2015 TSP Amendments
Schools
Major Roads
Streets
Railroad
County Line
10' Contours
Water
Parks
City Limits
Light Rail Transit
Light Rail Station
PROPOSED PROJECTS
Improve Intersection to Increase Pedestrian Safety
A Freeman Way/HWY 224
B 37th Ave/HWY 224
C Oak St/HWY 224
D Monroe St/HWY 224
E Harrison St/HWY 224
F King Rd improvements
G Olsen St/42nd Ave
H Railroad Ave/37th Ave
K Stanley Ave/Logus Rd
AW McLoughlin Blvd and 22nd Ave
BG All McLoughlin crossings
BJ McLoughlin and Ochoco/Milport
Provide Pedestrian Facilities Where Not Currently Present
See Table 5-1 for project descriptions L-AG, AI-AQ, BB, BH, CC
Enhance Existing Pedestrian Connection
AH Create ped connection from Rowe Middle School to North Clackamas Park
AR Construct pedestrian underpass under HWY 99E at Kellogg Creek
AT Complete Springwater Trail along Ochoco St
AU Construct bike-ped overpass over Kellogg Creek
AV Construct Kronberg Park Trail
AX Pave connection to Springwater Trail at 29th Ave and Sherrett
AY Improve connection from Springwater Corridor to Pendleton Site
AZ Construct stairs to connect Springwater Corridor to LRT Station
BA Establish bike-ped connection across Railroad Ave and tracks
BC Establish bike-ped connection over railroad tracks and LRT
BD Construct stairs from Springwater Corridor to McLoughlin Blvd
BE Construct bike-ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect to LRT station
BF Improve bike-ped connection to neighborhoods west of station
BI Establish bike-ped connection over McLoughlin at River Rd
BK Establish bike-ped connection to McLoughlin at Stubb St
Provide Improved Pedestrian Facilities in Central Milwaukie
See Table 5-1 for project descriptions BM, BN, BO, and BP
0 500 1,000 2,000 3,000 4,000 Feet
Original Map Created by DKS Associates in 2007, Amended by the City of Milwaukie in 2013 and 2015

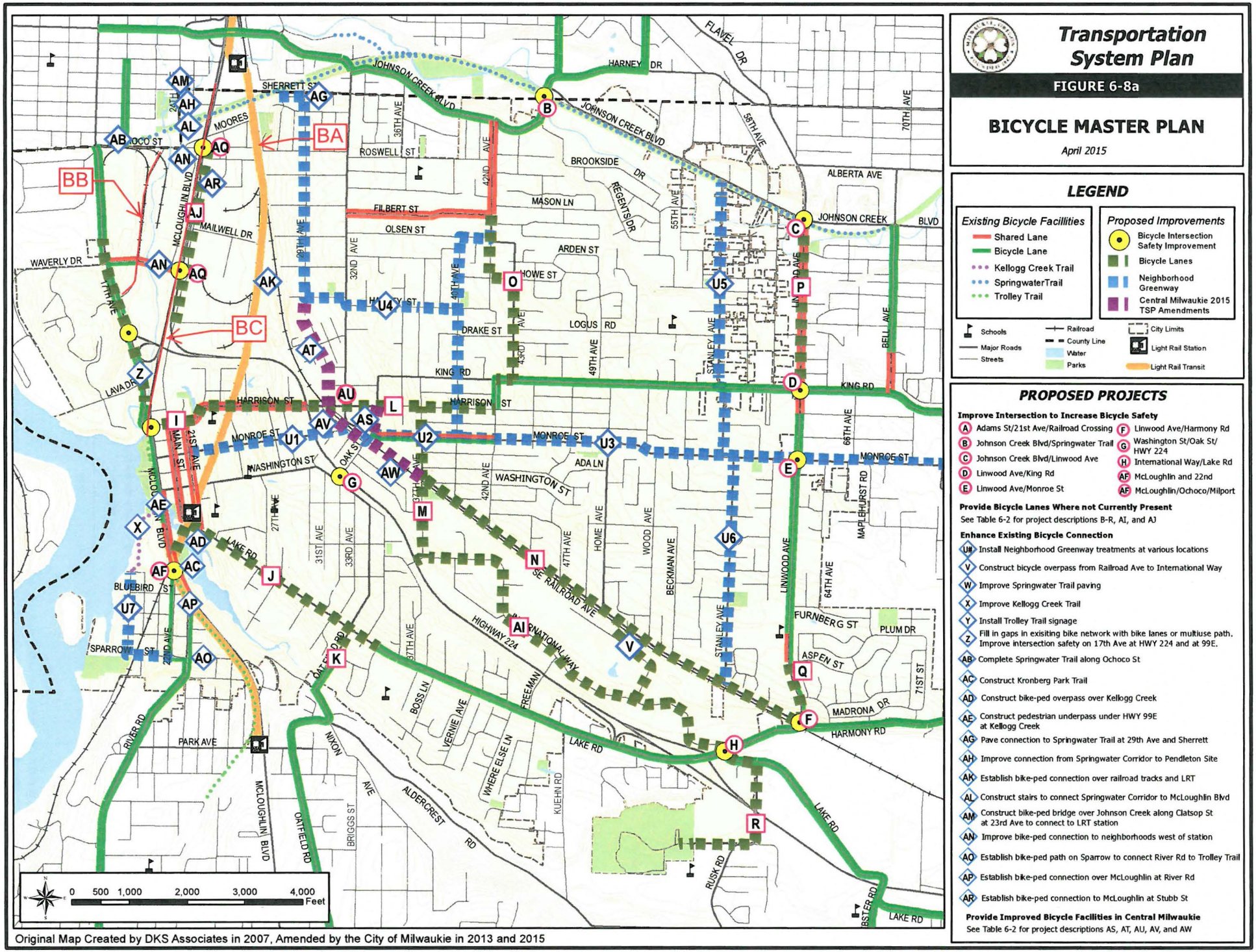
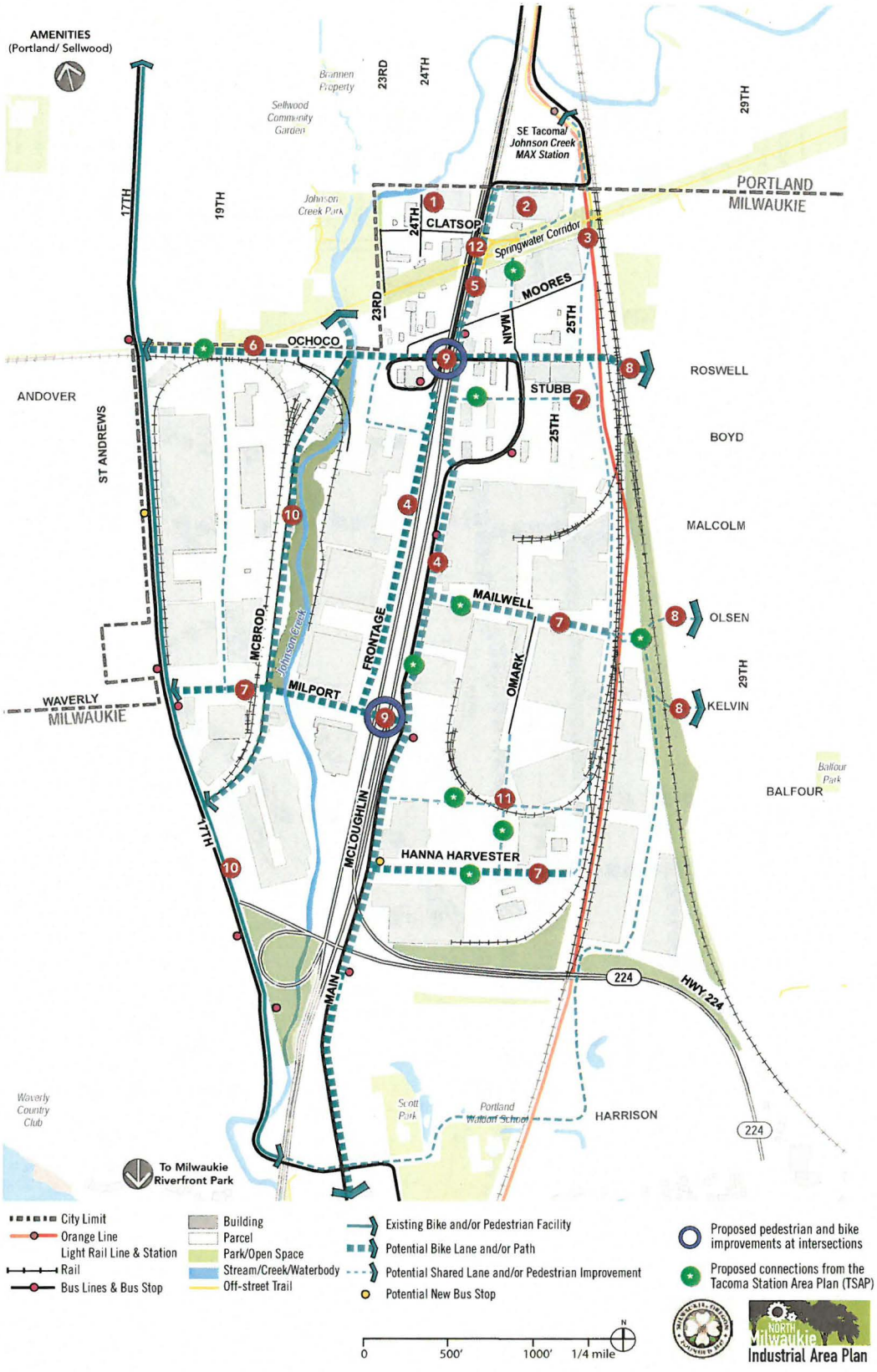

Transportation System Plan
FIGURE 6-8a
BICYCLE MASTER PLAN
April 2015
LEGEND
Existing Bicycle Facilities
Shared Lane
Bicycle Lane
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Proposed Improvements
Bicycle Intersection Safety Improvement
Bicycle Lanes
Neighborhood Greenway
Central Milwaukie 2015 TSP Amendments
Schools
Major Roads
Streets
Railroad
County Line
Water
Parks
City Limits
Light Rail Station
Light Rail Transit
PROPOSED PROJECTS
Improve Intersection to Increase Bicycle Safety
A Adams St/21st Ave/Railroad Crossing
B Johnson Creek Blvd/Springwater Trail
C Johnson Creek Blvd/Linwood Ave
D Linwood Ave/King Rd
E Linwood Ave/Monroe St
F Linwood Ave/Harmony Rd
G Washington St/Oak St/ HWY 224
H International Way/Lake Rd
AF McLoughlin and 22nd
AF McLoughlin/Ochoco/Milport
Provide Bicycle Lanes Where not Currently Present
See Table 6-2 for project descriptions B-R, AI, and AJ
Enhance Existing Bicycle Connection
U Install Neighborhood Greenway treatments at various locations
V Construct bicycle overpass from Railroad Ave to International Way
W Improve Springwater Trail paving
X Improve Kellogg Creek Trail
Y Install Trolley Trail signage
Z Fill in gaps in exisiting bike network with bike lanes or multiuse path. Improve intersection safety on 17th Ave at HWY 224 and at 99E.
AB Complete Springwater Trail along Ochoco St
AC Construct Kronberg Park Trail
AD Construct bike-ped overpass over Kellogg Creek
AE Construct pedestrian underpass under HWY 99E at Kellogg Creek
AG Pave connection to Springwater Trail at 29th Ave and Sherrett
AH Improve connection from Springwater Corridor to Pendleton Site
AK Establish bike-ped connection over railroad tracks and LRT
AL Construct stairs to connect Springwater Corridor to McLoughlin Blvd
AM Construct bike-ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect to LRT station
AN Improve bike-ped connection to neighborhoods west of station
AO Establish bike-ped path on Sparrow to connect River Rd to Trolley Trail
AP Establish bike-ped connection over McLoughlin at River Rd
AR Establish bike-ped connection to McLoughlin at Stubb St
Provide Improved Bicycle Facilities in Central Milwaukie
See Table 6-2 for project descriptions AS, AT, AU, AV, and AW
0 500 1,000 2,000 3,000 4,000 Feet
JOHNSON CREEK BLVD
HARNEY DR
FLAVEL DR
SHERRETT ST
MOORES
OCHOCO ST
MCLOUGHLIN BLVD
MAILWELL DR
WAVERLY DR
17TH AVE
LAVA DR
ROSWELL ST
FILBERT ST
OLSEN ST
ARDEN ST
HOWE ST
DRAKE ST
KING RD
HARRISON ST
MONROE ST
WASHINGTON ST
ADA LN
LAKE RD
BLUEBIRD ST
SPARROW ST
PARK AVE
RIVER RD
OATFIELD RD
BRIGGS ST
ALDERCREST RD
NIXON AVE
BOSS LN
VERNIE AVE
WHERE ELSE LN
KUEHN RD
FREEMAN
HIGHWAY 224
SE RAILROAD AVE
NATIONAL WAY
BROOKSIDE DR
REGENTS DR
ALBERTA AVE
JOHNSON CREEK BLVD
BELL AVE
LINWOOD AVE
MAPLEHURST RD
FURNBERG ST
PLUM DR
ASPEN ST
MADRONA DR
HARMONY RD
RUSK RD
OAK ST
MAIN ST
21ST AVE
27TH AVE
31ST AVE
33RD AVE
36TH AVE
37TH AVE
42ND AVE
43RD AVE
47TH AVE
49TH AVE
55TH AVE
58TH AVE
66TH AVE
70TH AVE
71ST ST
HOME AVE
WOOD AVE
BECKMAN AVE
STANLEY AVE
Original Map Created by DKS Associates in 2007, Amended by the City of Milwaukie in 2013 and 2015

FIGURE 7: NON-MOTORIZED STREET NETWORK



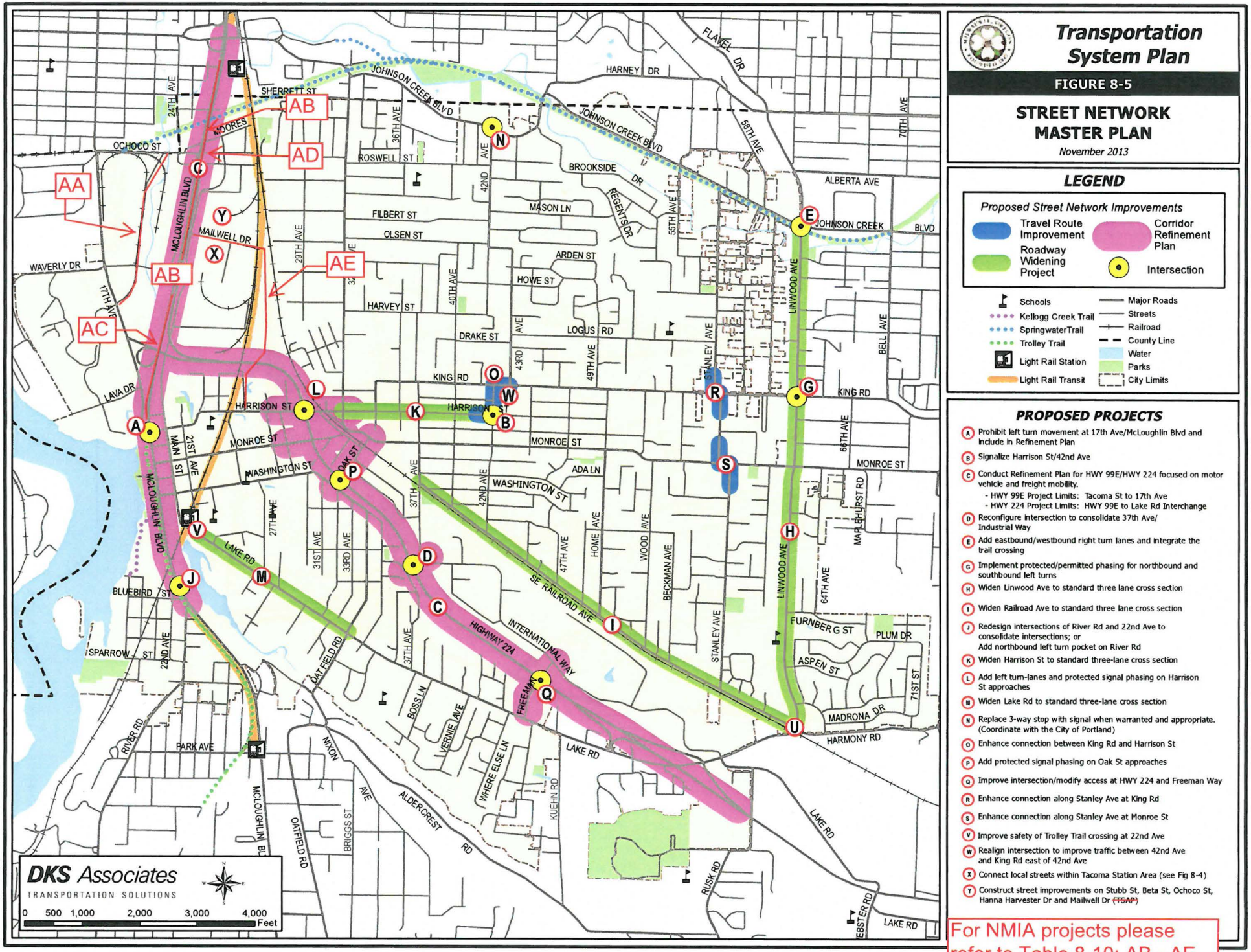
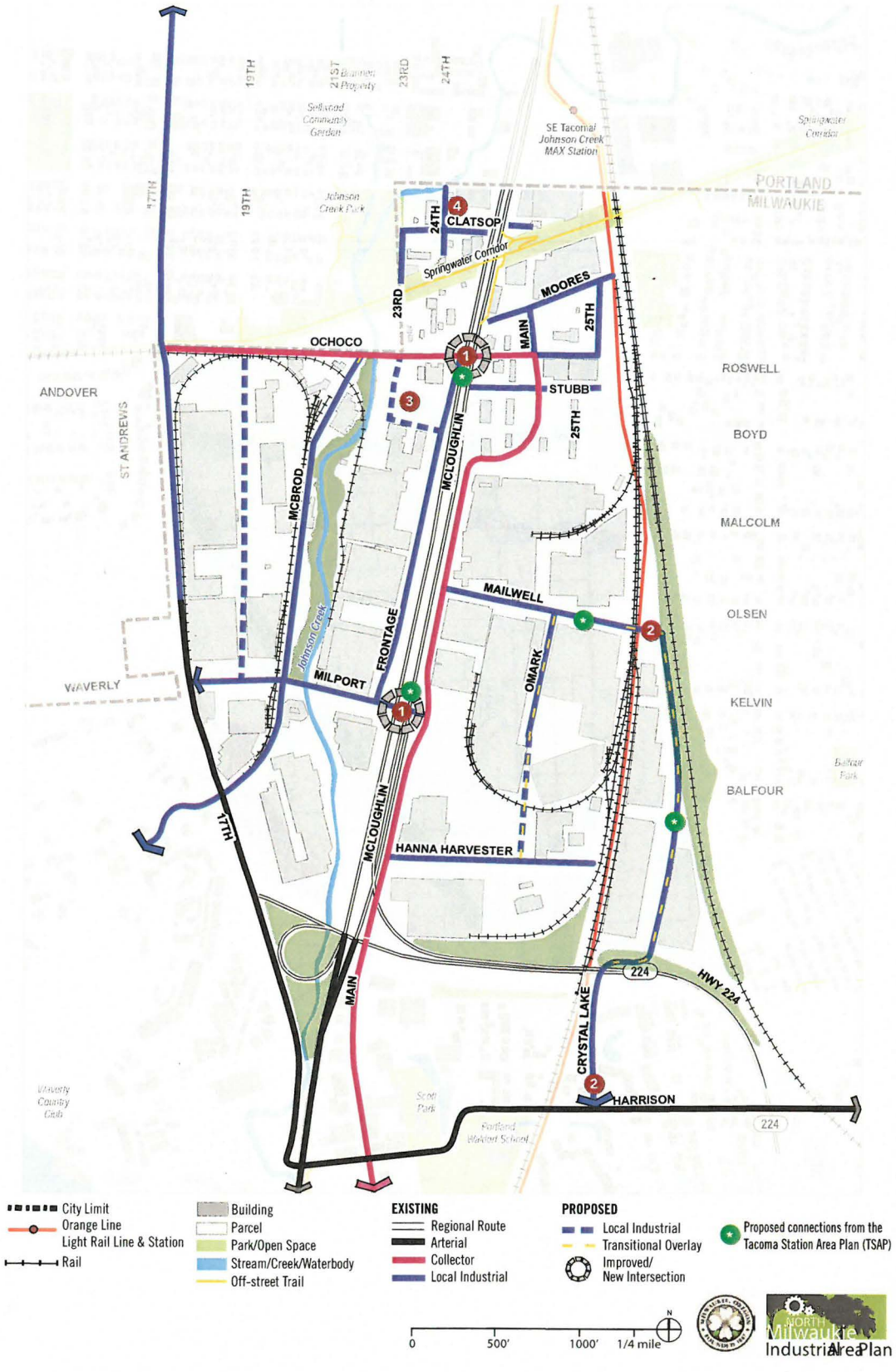
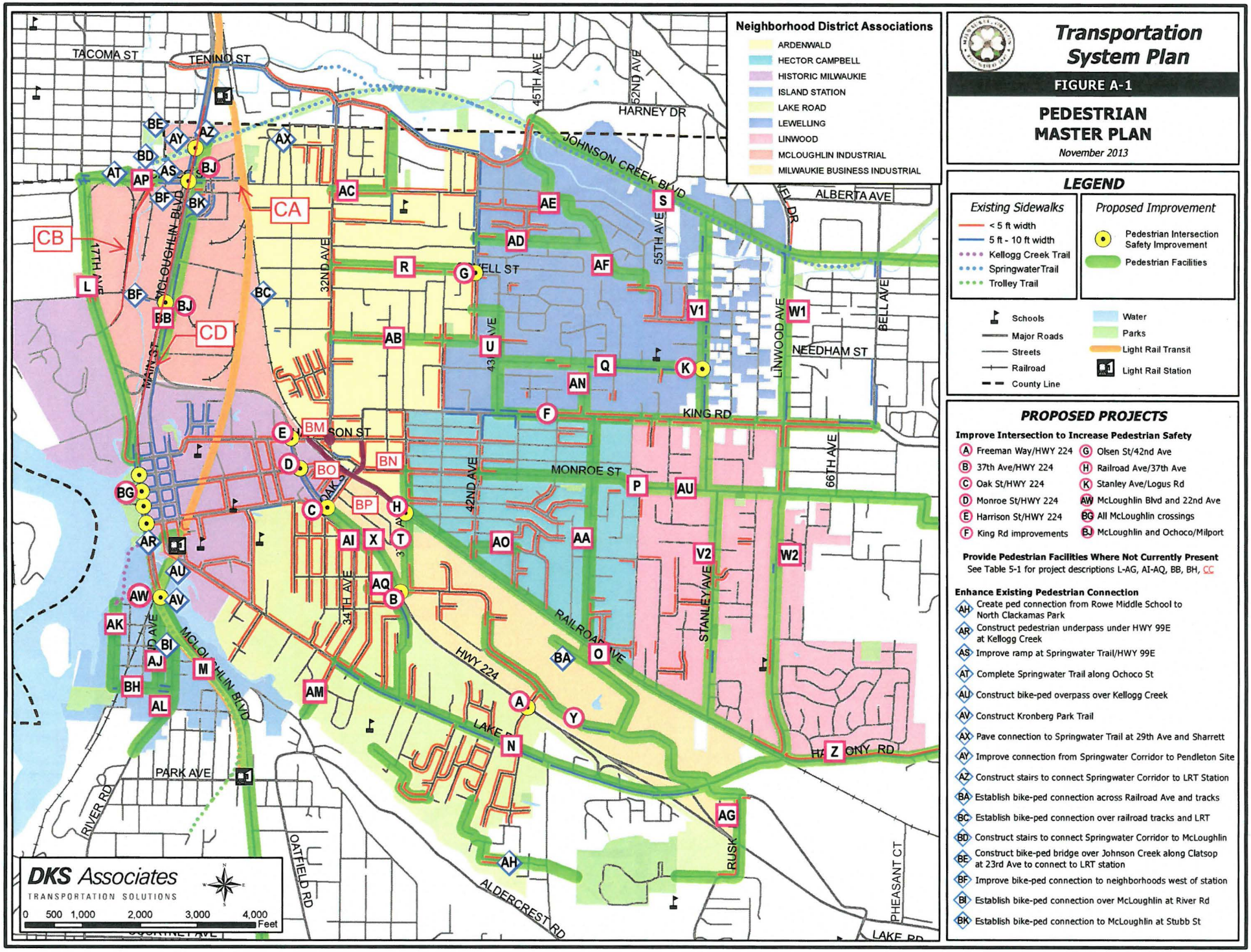

Transportation System Plan
FIGURE 8-5
STREET NETWORK MASTER PLAN
November 2013
LEGEND
Proposed Street Network Improvements
Travel Route Improvement
Corridor Refinement Plan
Roadway Widening Project
Intersection
Schools
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Light Rail Station
Light Rail Transit
Major Roads
Streets
Railroad
County Line
Water
Parks
City Limits
PROPOSED PROJECTS
A Prohibit left turn movement at 17th Ave/McLoughlin Blvd and include in Refinement Plan
B Signalize Harrison St/42nd Ave
C Conduct Refinement Plan for HWY 99E/HWY 224 focused on motor vehicle and freight mobility.
- HWY 99E Project Limits: Tacoma St to 17th Ave
- HWY 224 Project Limits: HWY 99E to Lake Rd Interchange
D Reconfigure intersection to consolidate 37th Ave/ Industrial Way
E Add eastbound/westbound right turn lanes and integrate the trail crossing
G Implement protected/permitted phasing for northbound and southbound left turns
H Widen Linwood Ave to standard three lane cross section
I Widen Railroad Ave to standard three lane cross section
J Redesign intersections of River Rd and 22nd Ave to consolidate intersections; or
Add northbound left turn pocket on River Rd
K Widen Harrison St to standard three-lane cross section
L Add left turn-lanes and protected signal phasing on Harrison St approaches
M Widen Lake Rd to standard three-lane cross section
N Replace 3-way stop with signal when warranted and appropriate. (Coordinate with the City of Portland)
O Enhance connection between King Rd and Harrison St
P Add protected signal phasing on Oak St approaches
Q Improve intersection/modify access at HWY 224 and Freeman Way
R Enhance connection along Stanley Ave at King Rd
S Enhance connection along Stanley Ave at Monroe St
V Improve safety of Trolley Trail crossing at 22nd Ave
W Realign intersection to improve traffic between 42nd Ave and King Rd east of 42nd Ave
X Connect local streets within Tacoma Station Area (see Fig 8-4)
Y Construct street improvements on Stubb St, Beta St, Ochoco St, Hanna Harvester Dr and Mailwell Dr (TSAP)
For NMIA projects please refer to Table 8-10; AB - AE
DKS Associates
TRANSPORTATION SOLUTIONS
0 500 1,000 2,000 3,000 4,000 Feet
JOHNSON CREEK BLVD
SHERRETT ST
MOORES
OCHOCO ST
ROSWELL ST
HARNEY DR
FLAVEL DR
BROOKSIDE DR
ALBERTA AVE
JOHNSON CREEK BLVD
MAILWELL DR
WAVERLY DR
FILBERT ST
OLSEN ST
ARDEN ST
MASON LN
REGENTS DR
HOWE ST
HARVEY ST
DRAKE ST
LOGUS RD
KING RD
LAVA DR
HARRISON ST
MONROE ST
WASHINGTON ST
ADA LN
BLUEBIRD ST
LAKE RD
SPARROW ST
PARK AVE
RIVER RD
MCLOUGHLIN BLVD
MAIN ST
OAK ST
SE RAILROAD AVE
INTERNATIONAL WAY
HIGHWAY 224
FREEMAN
OATFIELD RD
BOSS LN
VERNIE LAVE
WHERE ELSE LN
KUEHN RD
NIXON AVE
ALDERCREST RD
BRIGGS ST
RUSK RD
EBSTER RD
FURNBERG ST
PLUM DR
ASPEN ST
MADRONA DR
HARMONY RD
MAPLEHURST RD
BELL AVE
LINWOOD AVE
BECKMAN AVE
HOME AVE
WOOD AVE
STANLEY AVE
17TH AVE
21ST AVE
22ND AVE
24TH AVE
27TH AVE
29TH AVE
31ST AVE
33RD AVE
36TH AVE
37TH AVE
40TH AVE
42ND AVE
43RD AVE
47TH AVE
49TH AVE
55TH AVE
58TH AVE
64TH AVE
66TH AVE
70TH AVE
71ST ST

FIGURE 4: FUTURE STREET NETWORK





Transportation System Plan

FIGURE A-1

PEDESTRIAN MASTER PLAN

November 2013

LEGEND

Existing Sidewalks
- < 5 ft width
- 5 ft - 10 ft width
- Kellogg Creek Trail
- SpringwaterTrail
- Trolley Trail

Proposed Improvement
- Pedestrian Intersection Safety Improvement
- Pedestrian Facilities

- Schools
- Major Roads
- Streets
- Railroad
- County Line
- Water
- Parks
- Light Rail Transit
- Light Rail Station

PROPOSED PROJECTS

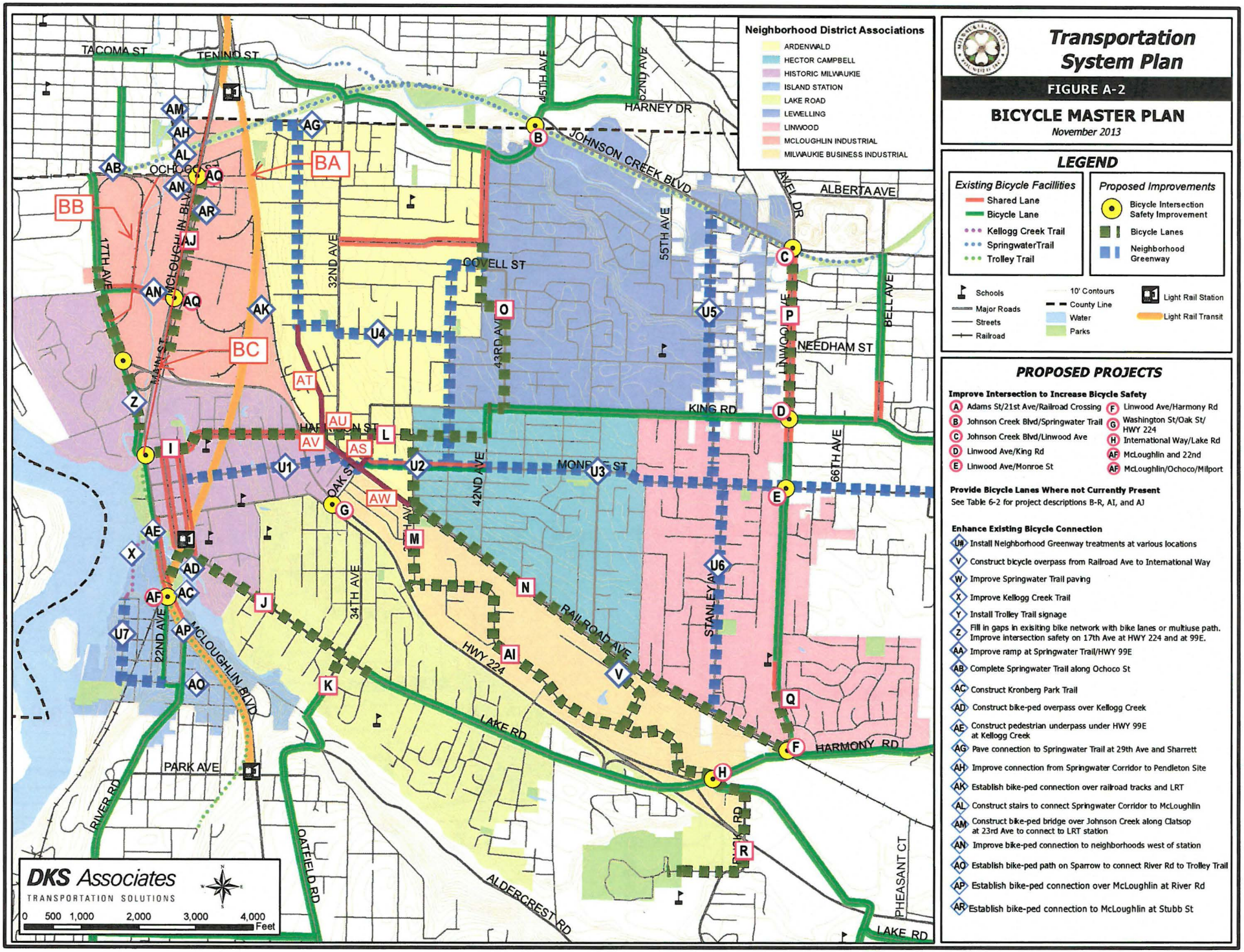
Improve Intersection to Increase Pedestrian Safety

- A Freeman Way/HWY 224
- B 37th Ave/HWY 224
- C Oak St/HWY 224
- D Monroe St/HWY 224
- E Harrison St/HWY 224
- F King Rd improvements
- G Olsen St/42nd Ave
- H Railroad Ave/37th Ave
- K Stanley Ave/Logus Rd
- AW McLoughlin Blvd and 22nd Ave
- BG All McLoughlin crossings
- BJ McLoughlin and Ochoco/Milport

Provide Pedestrian Facilities Where Not Currently Present
See Table 5-1 for project descriptions L-AG, AI-AQ, BB, BH, CC

Enhance Existing Pedestrian Connection

- AH Create ped connection from Rowe Middle School to North Clackamas Park
- AR Construct pedestrian underpass under HWY 99E at Kellogg Creek
- AS Improve ramp at Springwater Trail/HWY 99E
- AT Complete Springwater Trail along Ochoco St
- AU Construct bike-ped overpass over Kellogg Creek
- AV Construct Kronberg Park Trail
- AX Pave connection to Springwater Trail at 29th Ave and Sharrett
- AY Improve connection from Springwater Corridor to Pendleton Site
- AZ Construct stairs to connect Springwater Corridor to LRT Station
- BA Establish bike-ped connection across Railroad Ave and tracks
- BC Establish bike-ped connection over railroad tracks and LRT
- BD Construct stairs to connect Springwater Corridor to McLoughlin
- BE Construct bike-ped bridge over Johnson Creek along Clatsop at 23rd Ave to connect to LRT station
- BF Improve bike-ped connection to neighborhoods west of station
- BI Establish bike-ped connection over McLoughlin at River Rd
- BK Establish bike-ped connection to McLoughlin at Stubb St



Transportation System Plan

FIGURE A-2

BICYCLE MASTER PLAN

November 2013

LEGEND

Existing Bicycle Facilities
- Shared Lane
- Bicycle Lane
- Kellogg Creek Trail
- SpringwaterTrail
- Trolley Trail

Proposed Improvements
- Bicycle Intersection Safety Improvement
- Bicycle Lanes
- Neighborhood Greenway

- Schools
- Major Roads
- Streets
- Railroad
- 10' Contours
- County Line
- Water
- Parks
- Light Rail Station
- Light Rail Transit

PROPOSED PROJECTS

Improve Intersection to Increase Bicycle Safety

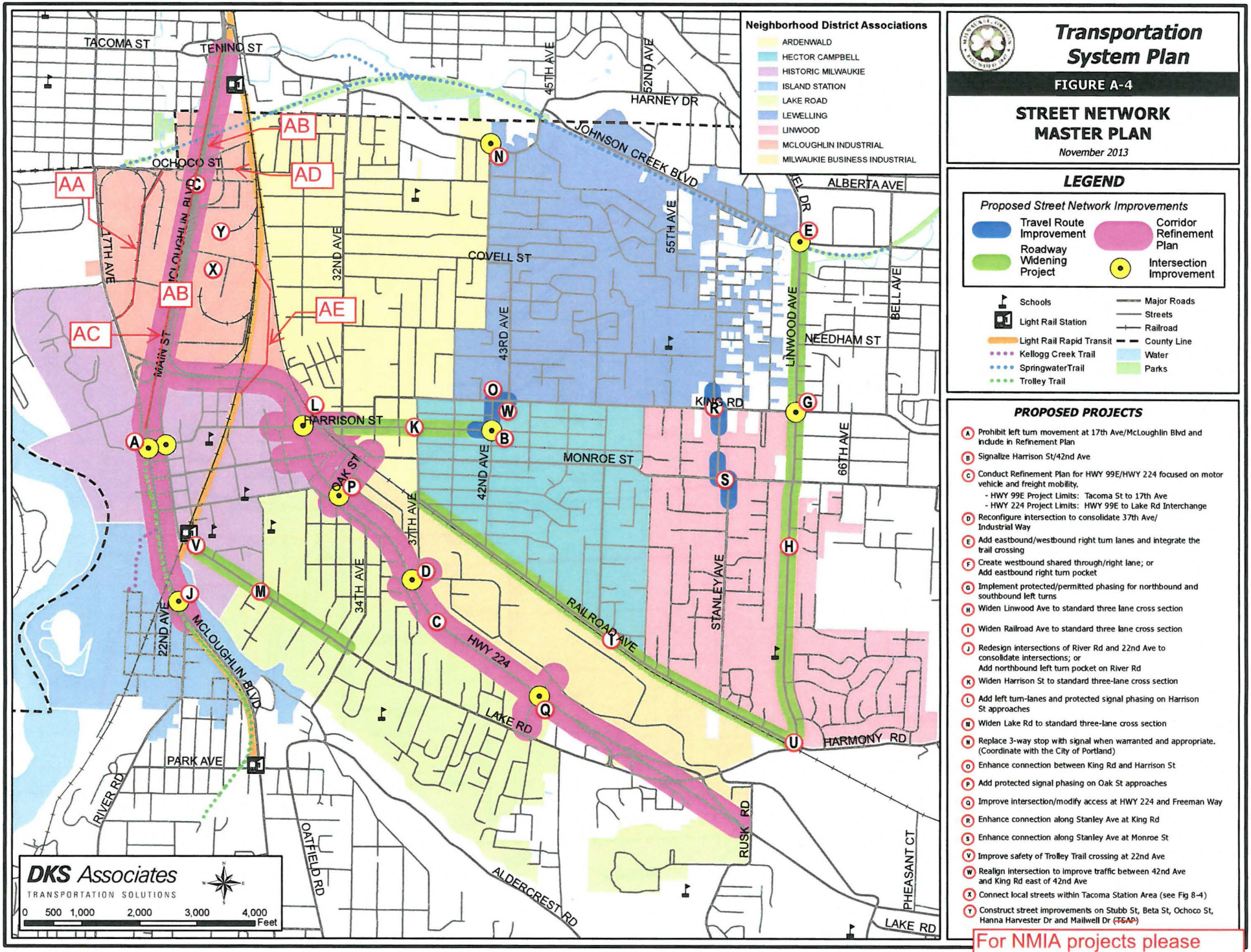
- A Adams St/21st Ave/Railroad Crossing
- B Johnson Creek Blvd/Springwater Trail
- C Johnson Creek Blvd/Linwood Ave
- D Linwood Ave/King Rd
- E Linwood Ave/Monroe St
- F Linwood Ave/Harmony Rd
- G Washington St/Oak St/ HWY 224
- H International Way/Lake Rd
- AF McLoughlin and 22nd
- AF McLoughlin/Ochoco/Milport

Provide Bicycle Lanes Where not Currently Present

See Table 6-2 for project descriptions B-R, AI, and AJ

Enhance Existing Bicycle Connection

- U# Install Neighborhood Greenway treatments at various locations
- V Construct bicycle overpass from Railroad Ave to International Way
- W Improve Springwater Trail paving
- X Improve Kellogg Creek Trail
- Y Install Trolley Trail signage
- Z Fill in gaps in exisiting bike network with bike lanes or multiuse path. Improve intersection safety on 17th Ave at HWY 224 and at 99E.
- AA Improve ramp at Springwater Trail/HWY 99E
- AB Complete Springwater Trail along Ochoco St
- AC Construct Kronberg Park Trail
- AD Construct bike-ped overpass over Kellogg Creek
- AE Construct pedestrian underpass under HWY 99E at Kellogg Creek
- AG Pave connection to Springwater Trail at 29th Ave and Sharrett
- AH Improve connection from Springwater Corridor to Pendleton Site
- AK Establish bike-ped connection over railroad tracks and LRT
- AL Construct stairs to connect Springwater Corridor to McLoughlin
- AM Construct bike-ped bridge over Johnson Creek along Clatsop at 23rd Ave to connect to LRT station
- AN Improve bike-ped connection to neighborhoods west of station
- AO Establish bike-ped path on Sparrow to connect River Rd to Trolley Trail
- AP Establish bike-ped connection over McLoughlin at River Rd
- AR Establish bike-ped connection to McLoughlin at Stubb St



Transportation System Plan

FIGURE A-4

STREET NETWORK MASTER PLAN

November 2013

LEGEND

Proposed Street Network Improvements

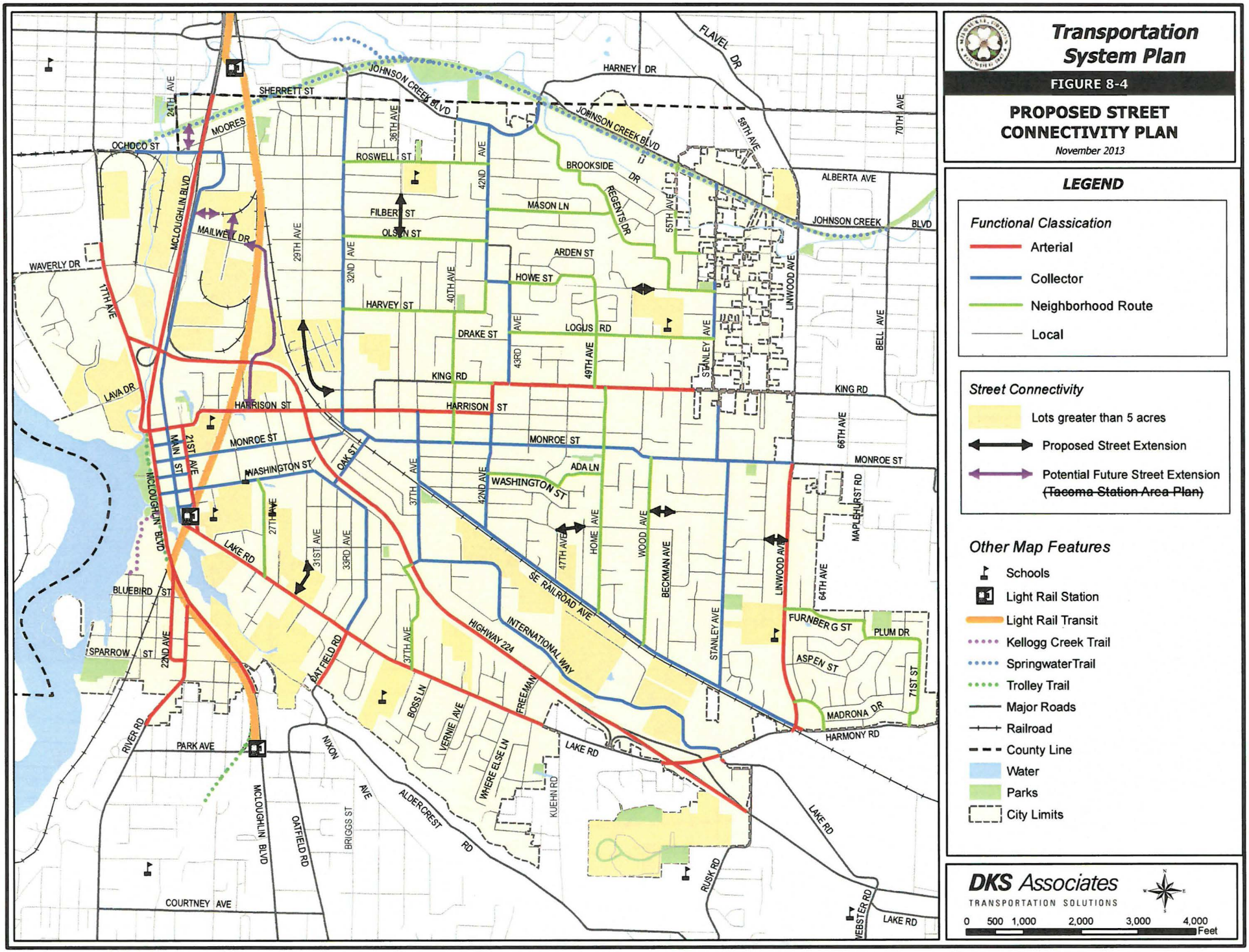
- Travel Route Improvement
- Corridor Refinement Plan
- Roadway Widening Project
- Intersection Improvement

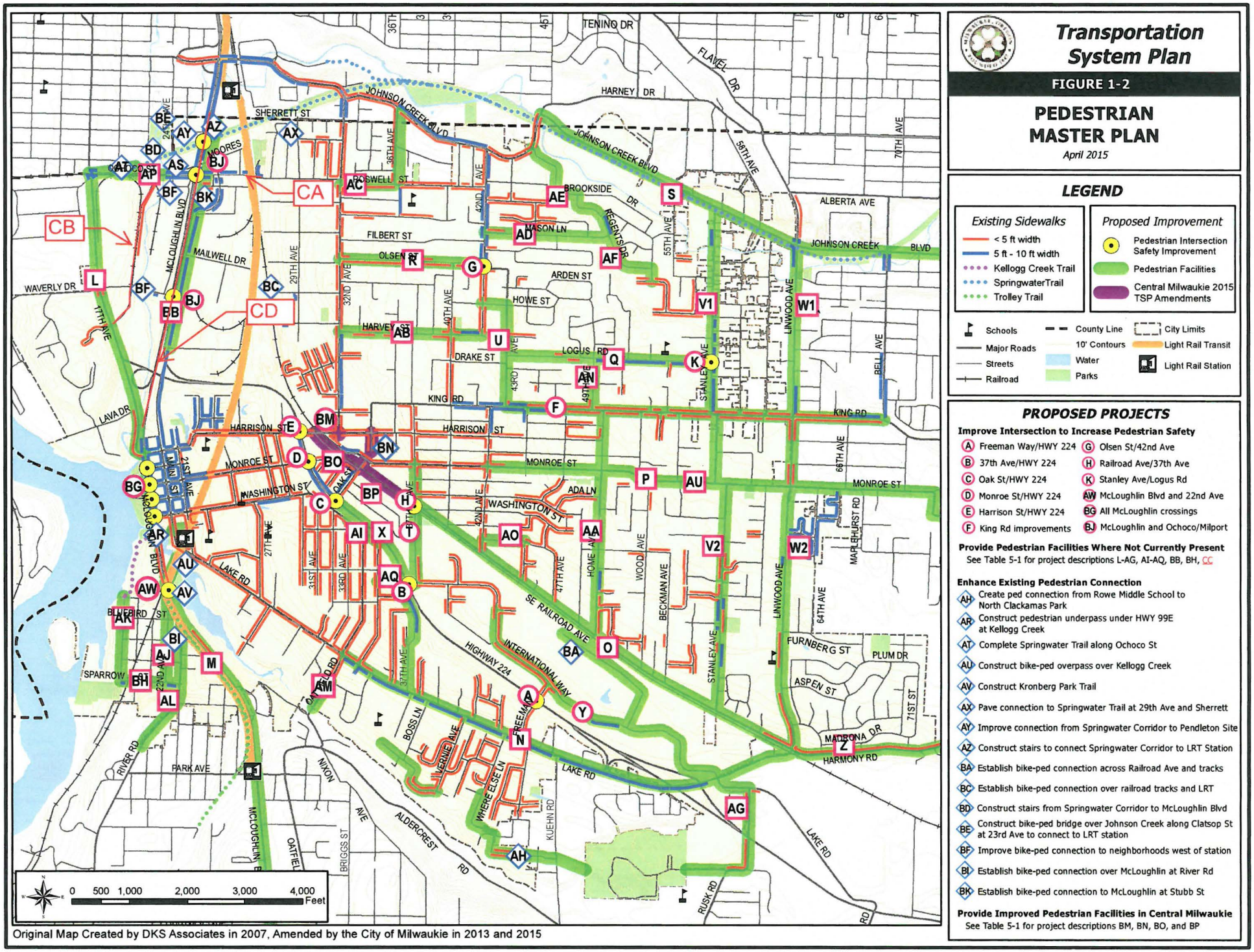
- Schools
- Light Rail Station
- Light Rail Rapid Transit
- Kellogg Creek Trail
- SpringwaterTrail
- Trolley Trail
- Major Roads
- Streets
- Railroad
- County Line
- Water
- Parks

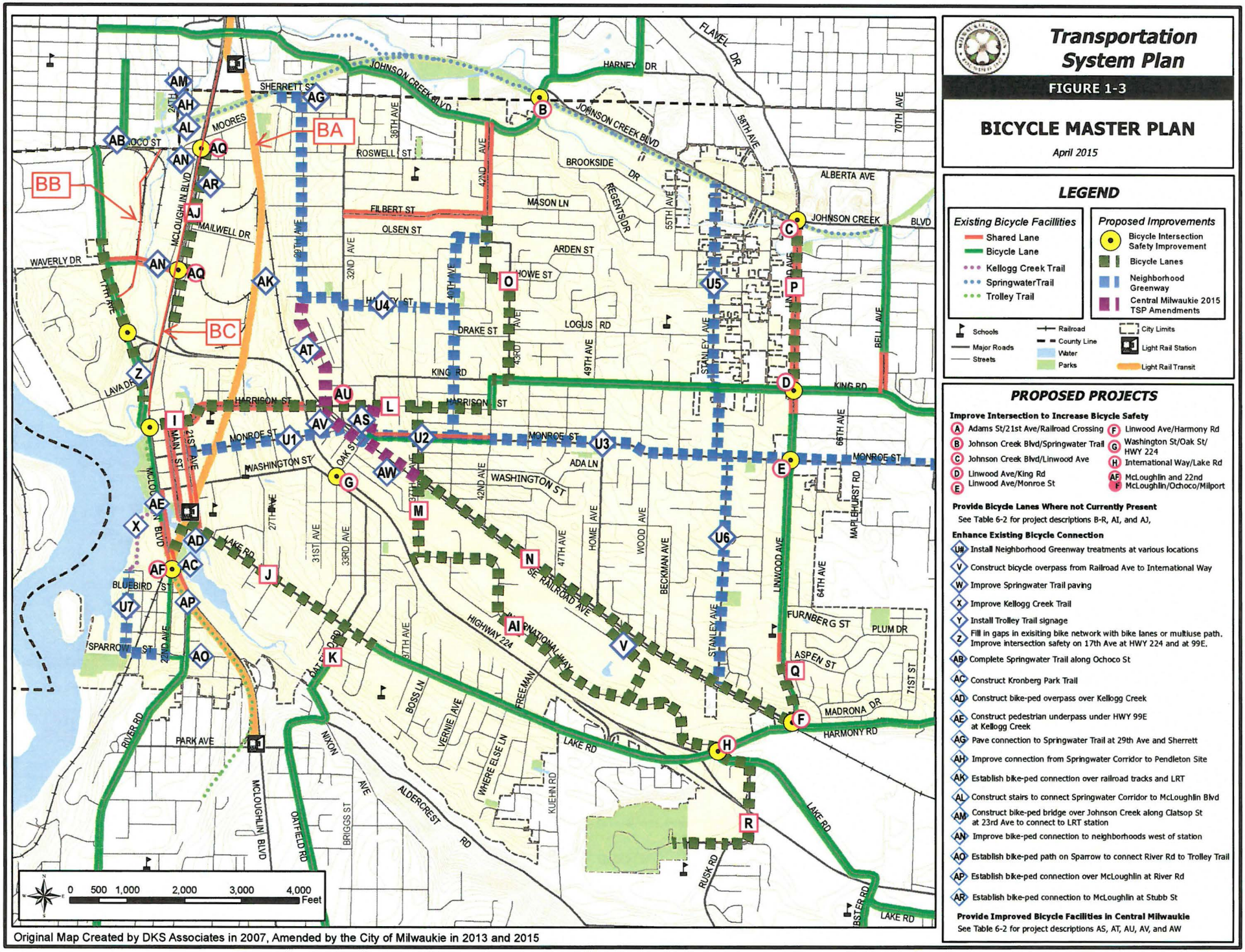
PROPOSED PROJECTS

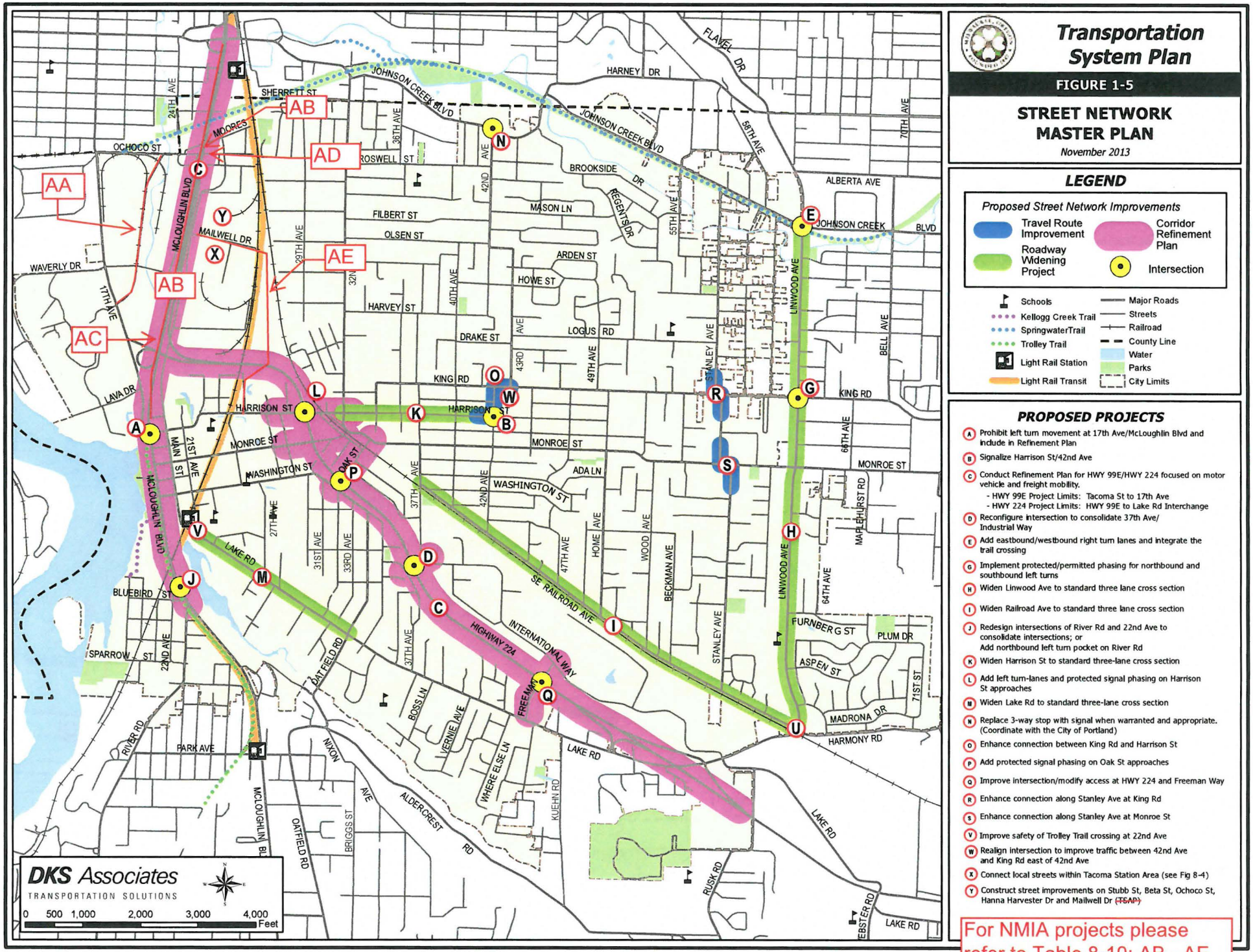
- (A) Prohibit left turn movement at 17th Ave/McLoughlin Blvd and include in Refinement Plan
- (B) Signalize Harrison St/42nd Ave
- (C) Conduct Refinement Plan for HWY 99E/HWY 224 focused on motor vehicle and freight mobility.
  - HWY 99E Project Limits: Tacoma St to 17th Ave
  - HWY 224 Project Limits: HWY 99E to Lake Rd Interchange
- (D) Reconfigure intersection to consolidate 37th Ave/ Industrial Way
- (E) Add eastbound/westbound right turn lanes and integrate the trail crossing
- (F) Create westbound shared through/right lane; or Add eastbound right turn pocket
- (G) Implement protected/permitted phasing for northbound and southbound left turns
- (H) Widen Linwood Ave to standard three lane cross section
- (I) Widen Railroad Ave to standard three lane cross section
- (J) Redesign intersections of River Rd and 22nd Ave to consolidate intersections; or Add northbound left turn pocket on River Rd
- (K) Widen Harrison St to standard three-lane cross section
- (L) Add left turn-lanes and protected signal phasing on Harrison St approaches
- (M) Widen Lake Rd to standard three-lane cross section
- (N) Replace 3-way stop with signal when warranted and appropriate. (Coordinate with the City of Portland)
- (O) Enhance connection between King Rd and Harrison St
- (P) Add protected signal phasing on Oak St approaches
- (Q) Improve intersection/modify access at HWY 224 and Freeman Way
- (R) Enhance connection along Stanley Ave at King Rd
- (S) Enhance connection along Stanley Ave at Monroe St
- (V) Improve safety of Trolley Trail crossing at 22nd Ave
- (W) Realign intersection to improve traffic between 42nd Ave and King Rd east of 42nd Ave
- (X) Connect local streets within Tacoma Station Area (see Fig 8-4)
- (Y) Construct street improvements on Stubb St, Beta St, Ochoco St, Hanna Harvester Dr and Mailwell Dr ~~(TSAP)~~

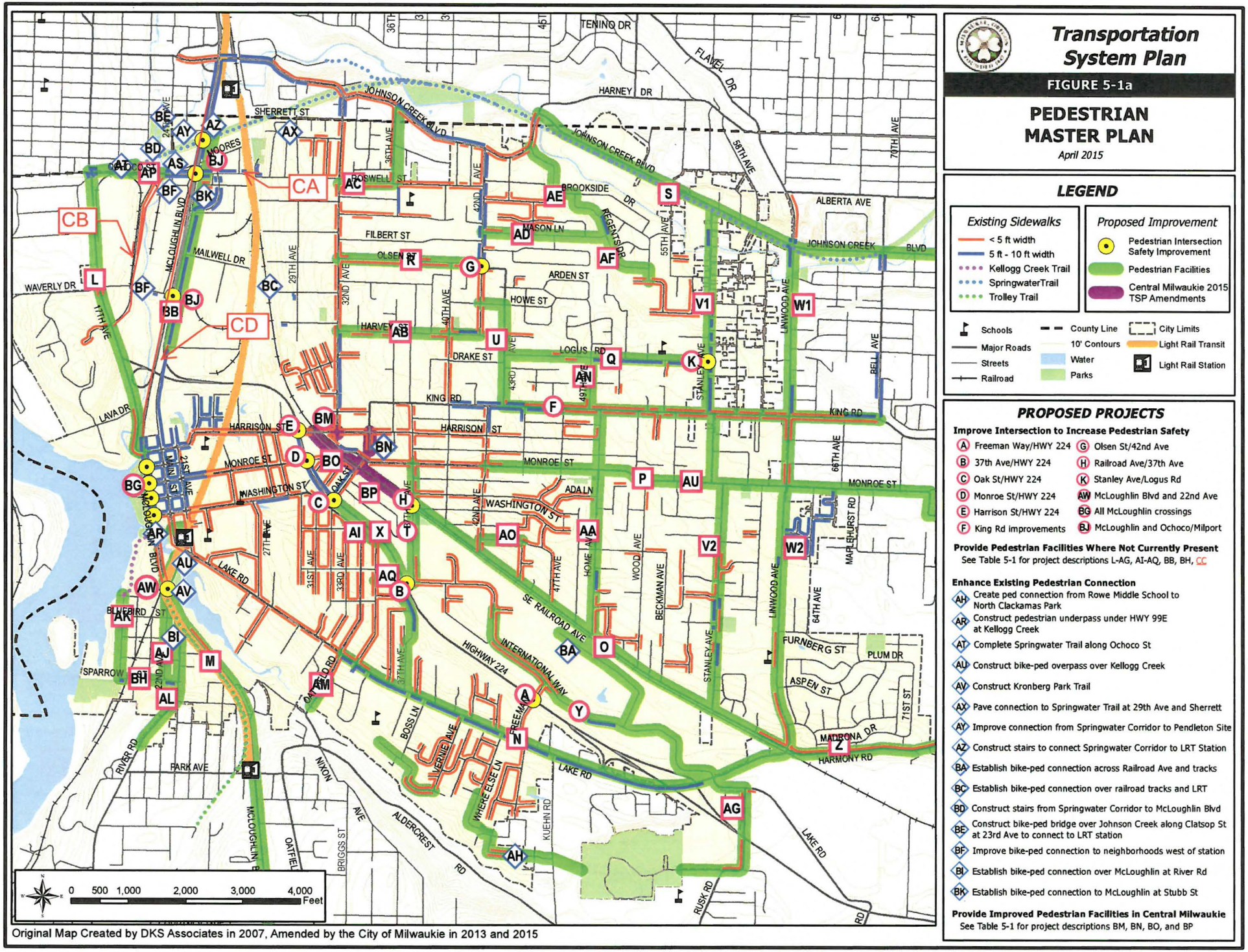
For NMIA projects please refer to Table 8-10; AB - AE


Transportation System Plan
FIGURE 8-4
PROPOSED STREET CONNECTIVITY PLAN
November 2013
LEGEND
Functional Classication
Arterial
Collector
Neighborhood Route
Local
Street Connectivity
Lots greater than 5 acres
Proposed Street Extension
Potential Future Street Extension
~~(Tacoma Station Area Plan)~~
Other Map Features
Schools
Light Rail Station
Light Rail Transit
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Major Roads
Railroad
County Line
Water
Parks
City Limits
DKS Associates
TRANSPORTATION SOLUTIONS
0 500 1,000 2,000 3,000 4,000 Feet
SHERRETT ST
JOHNSON CREEK BLVD
HARNEY DR
FLAVEL DR
MOORES
OCHOCO ST
ROSWELL ST
BROOKSIDE DR
ALBERTA AVE
JOHNSON CREEK BLVD
MASON LN
FILBERT ST
OLSEN ST
ARDEN ST
HOWE ST
HARVEY ST
DRAKE ST
LOGUS RD
KING RD
HARRISON ST
MONROE ST
WASHINGTON ST
ADA LN
LAKE RD
SE RAILROAD AVE
INTERNATIONAL WAY
HIGHWAY 224
FURNBERG ST
PLUM DR
ASPEN ST
MADRONA DR
HARMONY RD
BLUEBIRD ST
SPARROW ST
PARK AVE
COURTNEY AVE
MAILWELL DR
WAVERLY DR
LAVA DR
MCLOUGHLIN BLVD
RIVER RD
OATFIELD RD
BRIGGS ST
NIXON AVE
ALDERCREST RD
KUEHNI RD
WHERE ELSE LN
VERNIE AVE
BOSS LN
FREEMAN
RUSK RD
WEBSTER RD
BELL AVE
LINWOOD AVE
STANLEY AVE
BECKMAN AVE
WOOD AVE
HOME AVE
MAPLEHURST RD
OAK ST
MAIN ST
17TH AVE
21ST AVE
22ND AVE
24TH AVE
27TH AVE
29TH AVE
31ST AVE
32ND AVE
33RD AVE
36TH AVE
37TH AVE
40TH AVE
42ND AVE
43RD AVE
47TH AVE
49TH AVE
55TH AVE
58TH AVE
64TH AVE
66TH AVE
70TH AVE
71ST ST


Transportation System Plan
FIGURE 1-2
PEDESTRIAN MASTER PLAN
April 2015
LEGEND
Existing Sidewalks
< 5 ft width
5 ft - 10 ft width
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Proposed Improvement
Pedestrian Intersection Safety Improvement
Pedestrian Facilities
Central Milwaukie 2015 TSP Amendments
Schools
Major Roads
Streets
Railroad
County Line
10' Contours
Water
Parks
City Limits
Light Rail Transit
Light Rail Station
PROPOSED PROJECTS
Improve Intersection to Increase Pedestrian Safety
A Freeman Way/HWY 224
B 37th Ave/HWY 224
C Oak St/HWY 224
D Monroe St/HWY 224
E Harrison St/HWY 224
F King Rd improvements
G Olsen St/42nd Ave
H Railroad Ave/37th Ave
K Stanley Ave/Logus Rd
AW McLoughlin Blvd and 22nd Ave
BG All McLoughlin crossings
BJ McLoughlin and Ochoco/Milport
Provide Pedestrian Facilities Where Not Currently Present
See Table 5-1 for project descriptions L-AG, AI-AQ, BB, BH, CC
Enhance Existing Pedestrian Connection
AH Create ped connection from Rowe Middle School to North Clackamas Park
AR Construct pedestrian underpass under HWY 99E at Kellogg Creek
AT Complete Springwater Trail along Ochoco St
AU Construct bike-ped overpass over Kellogg Creek
AV Construct Kronberg Park Trail
AX Pave connection to Springwater Trail at 29th Ave and Sherrett
AY Improve connection from Springwater Corridor to Pendleton Site
AZ Construct stairs to connect Springwater Corridor to LRT Station
BA Establish bike-ped connection across Railroad Ave and tracks
BC Establish bike-ped connection over railroad tracks and LRT
BD Construct stairs from Springwater Corridor to McLoughlin Blvd
BE Construct bike-ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect to LRT station
BF Improve bike-ped connection to neighborhoods west of station
BI Establish bike-ped connection over McLoughlin at River Rd
BK Establish bike-ped connection to McLoughlin at Stubb St
Provide Improved Pedestrian Facilities in Central Milwaukie
See Table 5-1 for project descriptions BM, BN, BO, and BP
CA
CB
CC
CD
0 500 1,000 2,000 3,000 4,000 Feet
Original Map Created by DKS Associates in 2007, Amended by the City of Milwaukie in 2013 and 2015


Transportation System Plan
FIGURE 1-3
BICYCLE MASTER PLAN
April 2015
LEGEND
Existing Bicycle Facilities
Shared Lane
Bicycle Lane
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Proposed Improvements
Bicycle Intersection Safety Improvement
Bicycle Lanes
Neighborhood Greenway
Central Milwaukie 2015 TSP Amendments
Schools
Major Roads
Streets
Railroad
County Line
Water
Parks
City Limits
Light Rail Station
Light Rail Transit
PROPOSED PROJECTS
Improve Intersection to Increase Bicycle Safety
A Adams St/21st Ave/Railroad Crossing
B Johnson Creek Blvd/Springwater Trail
C Johnson Creek Blvd/Linwood Ave
D Linwood Ave/King Rd
E Linwood Ave/Monroe St
F Linwood Ave/Harmony Rd
G Washington St/Oak St/ HWY 224
H International Way/Lake Rd
AF McLoughlin and 22nd
F McLoughlin/Ochoco/Milport
Provide Bicycle Lanes Where not Currently Present
See Table 6-2 for project descriptions B-R, AI, and AJ,
Enhance Existing Bicycle Connection
U1 Install Neighborhood Greenway treatments at various locations
V Construct bicycle overpass from Railroad Ave to International Way
W Improve Springwater Trail paving
X Improve Kellogg Creek Trail
Y Install Trolley Trail signage
Z Fill in gaps in exisiting bike network with bike lanes or multiuse path. Improve intersection safety on 17th Ave at HWY 224 and at 99E.
AB Complete Springwater Trail along Ochoco St
AC Construct Kronberg Park Trail
AD Construct bike-ped overpass over Kellogg Creek
AE Construct pedestrian underpass under HWY 99E at Kellogg Creek
AG Pave connection to Springwater Trail at 29th Ave and Sherrett
AH Improve connection from Springwater Corridor to Pendleton Site
AK Establish bike-ped connection over railroad tracks and LRT
AL Construct stairs to connect Springwater Corridor to McLoughlin Blvd
AM Construct bike-ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect to LRT station
AN Improve bike-ped connection to neighborhoods west of station
AQ Establish bike-ped path on Sparrow to connect River Rd to Trolley Trail
AP Establish bike-ped connection over McLoughlin at River Rd
AR Establish bike-ped connection to McLoughlin at Stubb St
Provide Improved Bicycle Facilities in Central Milwaukie
See Table 6-2 for project descriptions AS, AT, AU, AV, and AW
0 500 1,000 2,000 3,000 4,000 Feet
JOHNSON CREEK BLVD
HARNEY DR
FLAVEL DR
SHERRETT ST
MOORES
OCHOCO ST
ROSWELL ST
BROOKSIDE DR
ALBERTA AVE
MASON LN
FILBERT ST
OLSEN ST
ARDEN ST
HOWE ST
LOGUS RD
DRAKE ST
KING RD
HARRISON ST
MONROE ST
WASHINGTON ST
ADA LN
MAILWELL DR
WAVERLY DR
LAVA DR
MAIN ST
OAK ST
LAKE RD
BLUEBIRD ST
SPARROW ST
PARK AVE
RIVER RD
MCLOUGHLIN BLVD
OATFIELD RD
BRIGGS ST
ALDERCREST RD
NIXON AVE
BOSS LN
VERNIE AVE
WHERE ELSE LN
KUEHN RD
FREEMAN DR
HIGHWAY 224
SE RAILROAD AVE
INTERNATIONAL WAY
RUSK RD
BOSTER RD
FURNBERG ST
PLUM DR
ASPEN ST
MADRONA DR
HARMONY RD
LINWOOD AVE
MAPLEHURST RD
BELL AVE
STANLEY AVE
BECKMAN AVE
WOOD AVE
HOME AVE
42ND AVE
43RD AVE
49TH AVE
47TH AVE
37TH AVE
36TH AVE
32ND AVE
31ST AVE
27TH AVE
24TH AVE
22ND AVE
17TH AVE
21ST AVE
55TH AVE
58TH AVE
66TH AVE
64TH AVE
71ST ST
70TH AVE
BA
BB
BC
Original Map Created by DKS Associates in 2007, Amended by the City of Milwaukie in 2013 and 2015


Transportation System Plan
FIGURE 1-5
STREET NETWORK MASTER PLAN
November 2013
LEGEND
Proposed Street Network Improvements
Travel Route Improvement
Corridor Refinement Plan
Roadway Widening Project
Intersection
Schools
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Light Rail Station
Light Rail Transit
Major Roads
Streets
Railroad
County Line
Water
Parks
City Limits
PROPOSED PROJECTS
A Prohibit left turn movement at 17th Ave/McLoughlin Blvd and include in Refinement Plan
B Signalize Harrison St/42nd Ave
C Conduct Refinement Plan for HWY 99E/HWY 224 focused on motor vehicle and freight mobility.
- HWY 99E Project Limits: Tacoma St to 17th Ave
- HWY 224 Project Limits: HWY 99E to Lake Rd Interchange
D Reconfigure intersection to consolidate 37th Ave/ Industrial Way
E Add eastbound/westbound right turn lanes and integrate the trail crossing
G Implement protected/permitted phasing for northbound and southbound left turns
H Widen Linwood Ave to standard three lane cross section
I Widen Railroad Ave to standard three lane cross section
J Redesign intersections of River Rd and 22nd Ave to consolidate intersections; or
Add northbound left turn pocket on River Rd
K Widen Harrison St to standard three-lane cross section
L Add left turn-lanes and protected signal phasing on Harrison St approaches
M Widen Lake Rd to standard three-lane cross section
N Replace 3-way stop with signal when warranted and appropriate. (Coordinate with the City of Portland)
O Enhance connection between King Rd and Harrison St
P Add protected signal phasing on Oak St approaches
Q Improve intersection/modify access at HWY 224 and Freeman Way
R Enhance connection along Stanley Ave at King Rd
S Enhance connection along Stanley Ave at Monroe St
V Improve safety of Trolley Trail crossing at 22nd Ave
W Realign intersection to improve traffic between 42nd Ave and King Rd east of 42nd Ave
X Connect local streets within Tacoma Station Area (see Fig 8-4)
Y Construct street improvements on Stubb St, Beta St, Ochoco St, Hanna Harvester Dr and Mailwell Dr (TSAP)
For NMIA projects please refer to Table 8-10; AB - AE
DKS Associates
TRANSPORTATION SOLUTIONS
0 500 1,000 2,000 3,000 4,000 Feet
JOHNSON CREEK BLVD
SHERRETT ST
OCHOCO ST
MOORES
MAILWELL DR
WAVERLY DR
LAVA DR
HARRISON ST
MONROE ST
WASHINGTON ST
BLUEBIRD ST
SPARROW ST
PARK AVE
RIVER RD
MCLOUGHLIN BLVD
LAKE RD
OATFIELD RD
HIGHWAY 224
INTERNATIONAL WAY
SE RAILROAD AVE
HARNEY DR
FLAVEL DR
BROOKSIDE DR
ALBERTA AVE
JOHNSON CREEK BLVD
FILBERT ST
OLSEN ST
MASON LN
REGENTS DR
ARDEN ST
HOWE ST
HARVEY ST
DRAKE ST
LOGUS RD
KING RD
ADA LN
OAK ST
BOSS LN
VERNIE AVE
WHERE ELSE LN
KUEHN RD
ALDERCREST RD
BRIGGS ST
NOKAN AVE
RUSH RD
FURNBERG ST
PLUM DR
ASPEN ST
MADRONA DR
HARMONY RD
MAPLEHURST RD
BELL AVE
LINWOOD AVE
STANLEY AVE
BECKMAN AVE
WOOD AVE
HOME AVE
FREEMAN
24TH AVE
36TH AVE
42ND AVE
58TH AVE
70TH AVE
17TH AVE
21ST AVE
27TH AVE
29TH AVE
31ST AVE
33RD AVE
37TH AVE
40TH AVE
43RD AVE
47TH AVE
49TH AVE
55TH AVE
64TH AVE
66TH AVE
71ST ST
22ND AVE


Transportation System Plan
FIGURE 5-1a
PEDESTRIAN MASTER PLAN
April 2015
LEGEND
Existing Sidewalks
< 5 ft width
5 ft - 10 ft width
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Proposed Improvement
Pedestrian Intersection Safety Improvement
Pedestrian Facilities
Central Milwaukie 2015 TSP Amendments
Schools
Major Roads
Streets
Railroad
County Line
10' Contours
Water
Parks
City Limits
Light Rail Transit
Light Rail Station
PROPOSED PROJECTS
Improve Intersection to Increase Pedestrian Safety
A Freeman Way/HWY 224
B 37th Ave/HWY 224
C Oak St/HWY 224
D Monroe St/HWY 224
E Harrison St/HWY 224
F King Rd improvements
G Olsen St/42nd Ave
H Railroad Ave/37th Ave
K Stanley Ave/Logus Rd
AW McLoughlin Blvd and 22nd Ave
BG All McLoughlin crossings
BJ McLoughlin and Ochoco/Milport
Provide Pedestrian Facilities Where Not Currently Present
See Table 5-1 for project descriptions L-AG, AI-AQ, BB, BH, CC
Enhance Existing Pedestrian Connection
AH Create ped connection from Rowe Middle School to North Clackamas Park
AR Construct pedestrian underpass under HWY 99E at Kellogg Creek
AT Complete Springwater Trail along Ochoco St
AU Construct bike-ped overpass over Kellogg Creek
AV Construct Kronberg Park Trail
AX Pave connection to Springwater Trail at 29th Ave and Sherrett
AY Improve connection from Springwater Corridor to Pendleton Site
AZ Construct stairs to connect Springwater Corridor to LRT Station
BA Establish bike-ped connection across Railroad Ave and tracks
BC Establish bike-ped connection over railroad tracks and LRT
BD Construct stairs from Springwater Corridor to McLoughlin Blvd
BE Construct bike-ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect to LRT station
BF Improve bike-ped connection to neighborhoods west of station
BI Establish bike-ped connection over McLoughlin at River Rd
BK Establish bike-ped connection to McLoughlin at Stubb St
Provide Improved Pedestrian Facilities in Central Milwaukie
See Table 5-1 for project descriptions BM, BN, BO, and BP
0 500 1,000 2,000 3,000 4,000 Feet
Original Map Created by DKS Associates in 2007, Amended by the City of Milwaukie in 2013 and 2015

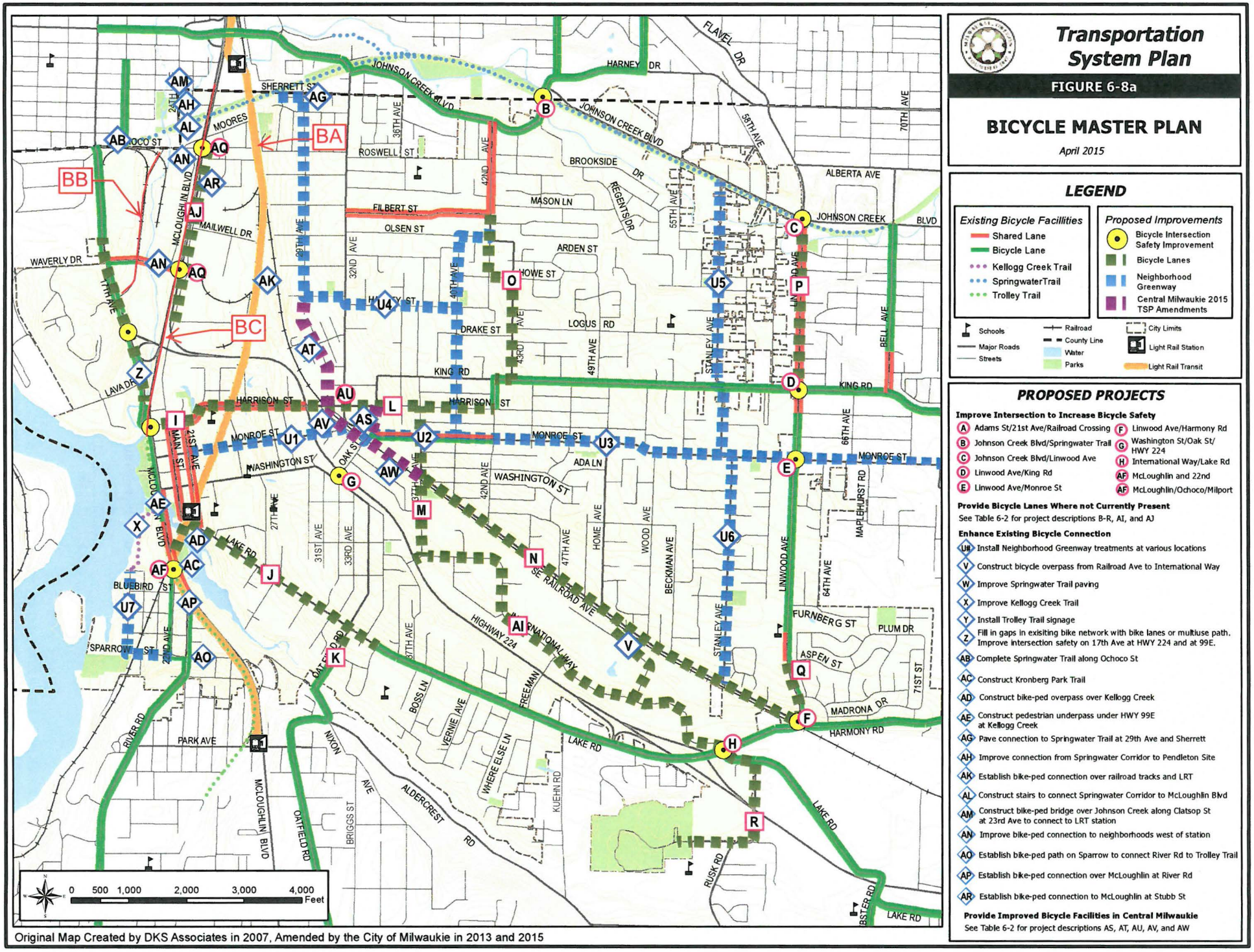
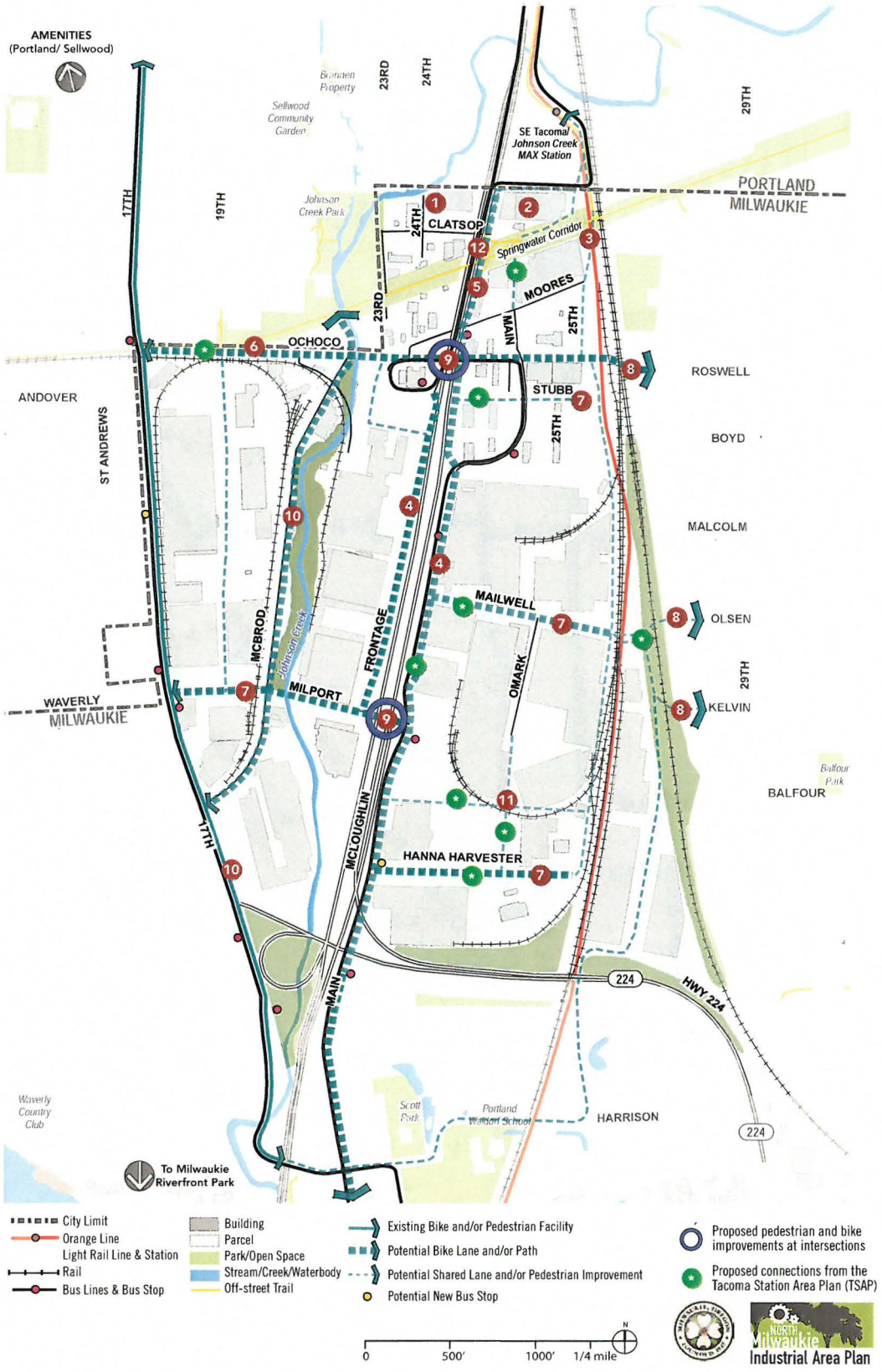

Transportation System Plan
FIGURE 6-8a
BICYCLE MASTER PLAN
April 2015
LEGEND
Existing Bicycle Facilities
Shared Lane
Bicycle Lane
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Proposed Improvements
Bicycle Intersection Safety Improvement
Bicycle Lanes
Neighborhood Greenway
Central Milwaukie 2015 TSP Amendments
Schools
Major Roads
Streets
Railroad
County Line
Water
Parks
City Limits
Light Rail Station
Light Rail Transit
PROPOSED PROJECTS
Improve Intersection to Increase Bicycle Safety
A Adams St/21st Ave/Railroad Crossing
B Johnson Creek Blvd/Springwater Trail
C Johnson Creek Blvd/Linwood Ave
D Linwood Ave/King Rd
E Linwood Ave/Monroe St
F Linwood Ave/Harmony Rd
G Washington St/Oak St/ HWY 224
H International Way/Lake Rd
AF McLoughlin and 22nd
AF McLoughlin/Ochoco/Milport
Provide Bicycle Lanes Where not Currently Present
See Table 6-2 for project descriptions B-R, AI, and AJ
Enhance Existing Bicycle Connection
U Install Neighborhood Greenway treatments at various locations
V Construct bicycle overpass from Railroad Ave to International Way
W Improve Springwater Trail paving
X Improve Kellogg Creek Trail
Y Install Trolley Trail signage
Z Fill in gaps in exisiting bike network with bike lanes or multiuse path. Improve intersection safety on 17th Ave at HWY 224 and at 99E.
AB Complete Springwater Trail along Ochoco St
AC Construct Kronberg Park Trail
AD Construct bike-ped overpass over Kellogg Creek
AE Construct pedestrian underpass under HWY 99E at Kellogg Creek
AG Pave connection to Springwater Trail at 29th Ave and Sherrett
AH Improve connection from Springwater Corridor to Pendleton Site
AK Establish bike-ped connection over railroad tracks and LRT
AL Construct stairs to connect Springwater Corridor to McLoughlin Blvd
AM Construct bike-ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect to LRT station
AN Improve bike-ped connection to neighborhoods west of station
AO Establish bike-ped path on Sparrow to connect River Rd to Trolley Trail
AP Establish bike-ped connection over McLoughlin at River Rd
AR Establish bike-ped connection to McLoughlin at Stubb St
Provide Improved Bicycle Facilities in Central Milwaukie
See Table 6-2 for project descriptions AS, AT, AU, AV, and AW
0 500 1,000 2,000 3,000 4,000 Feet
Original Map Created by DKS Associates in 2007, Amended by the City of Milwaukie in 2013 and 2015

FIGURE 7: NON-MOTORIZED STREET NETWORK



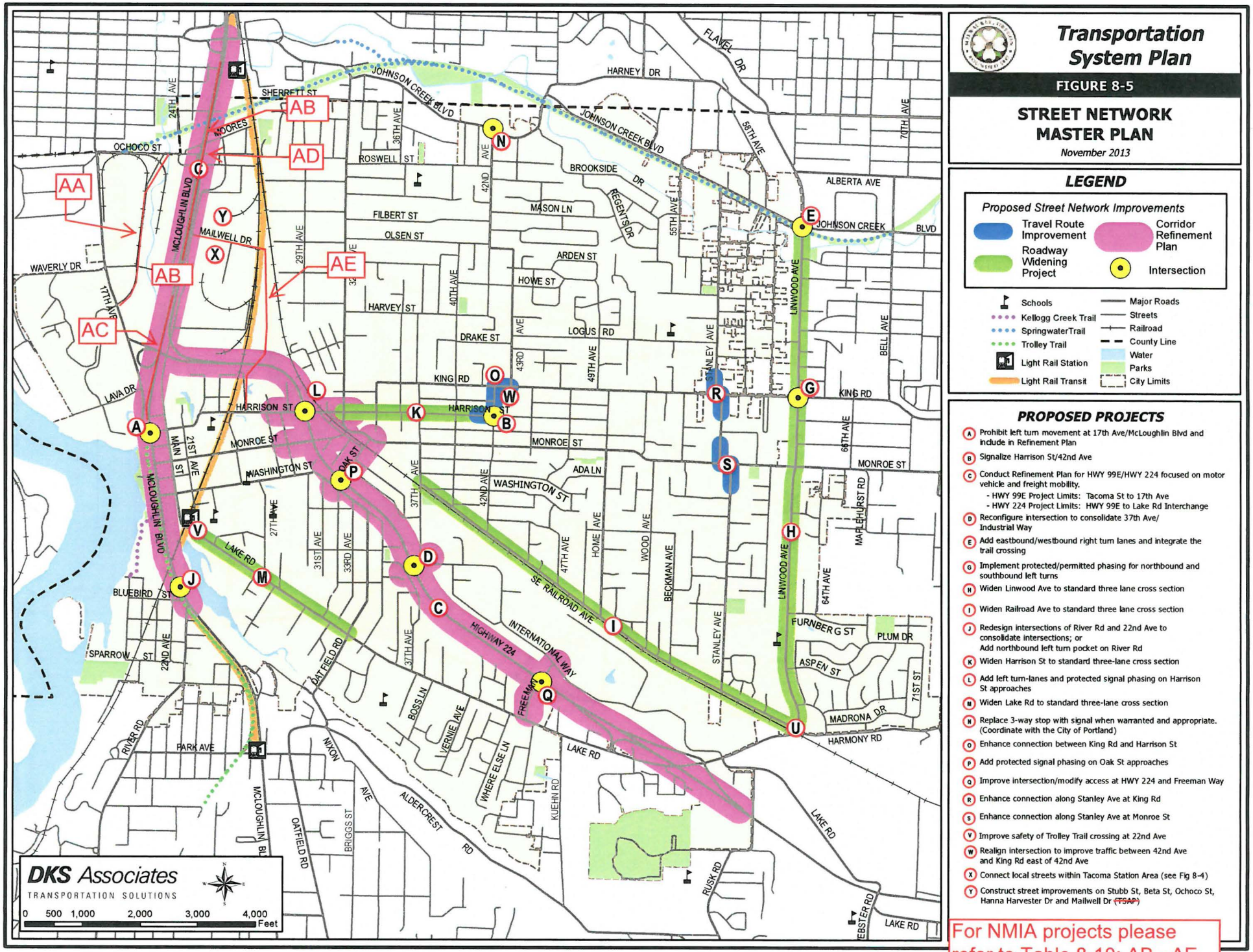
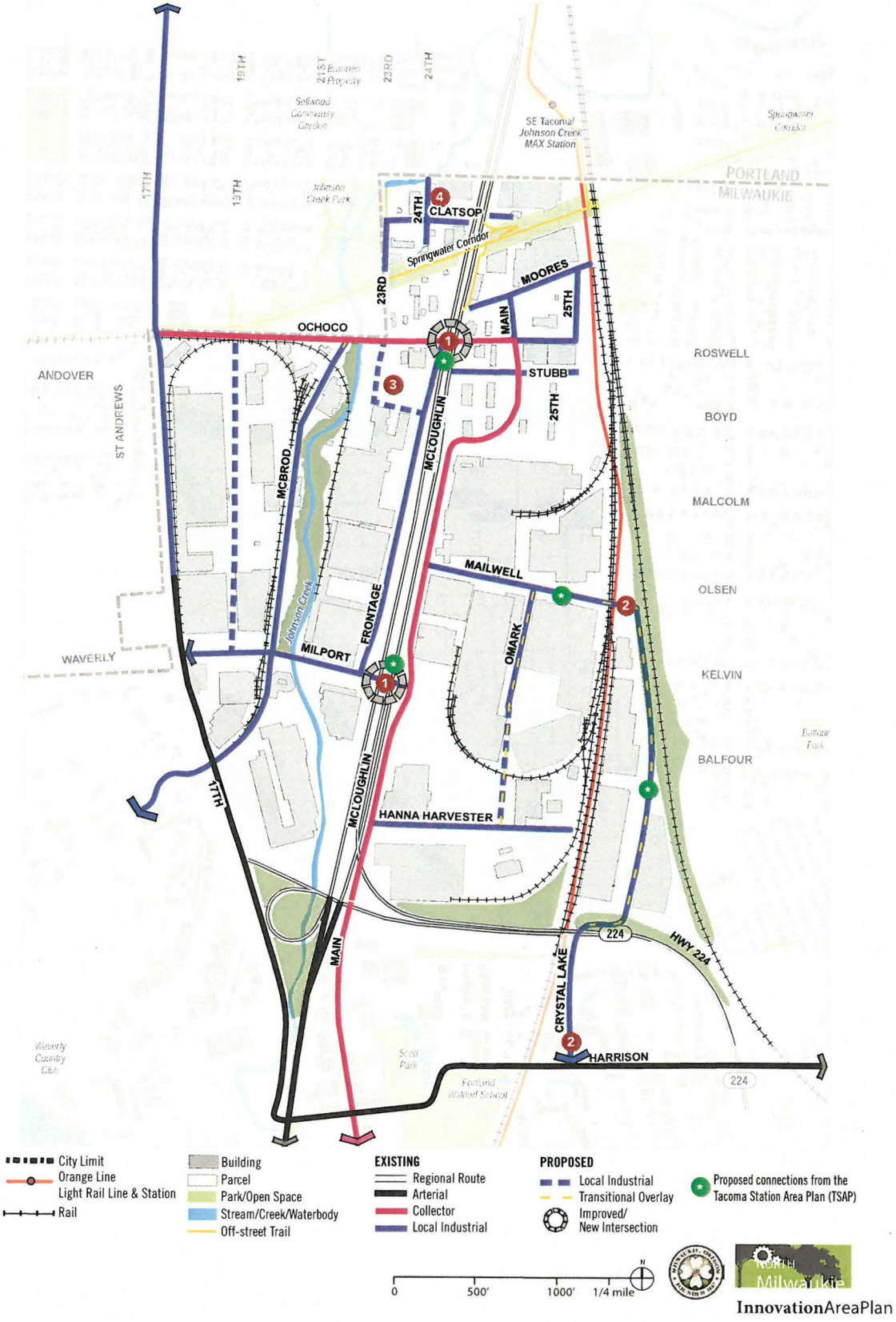
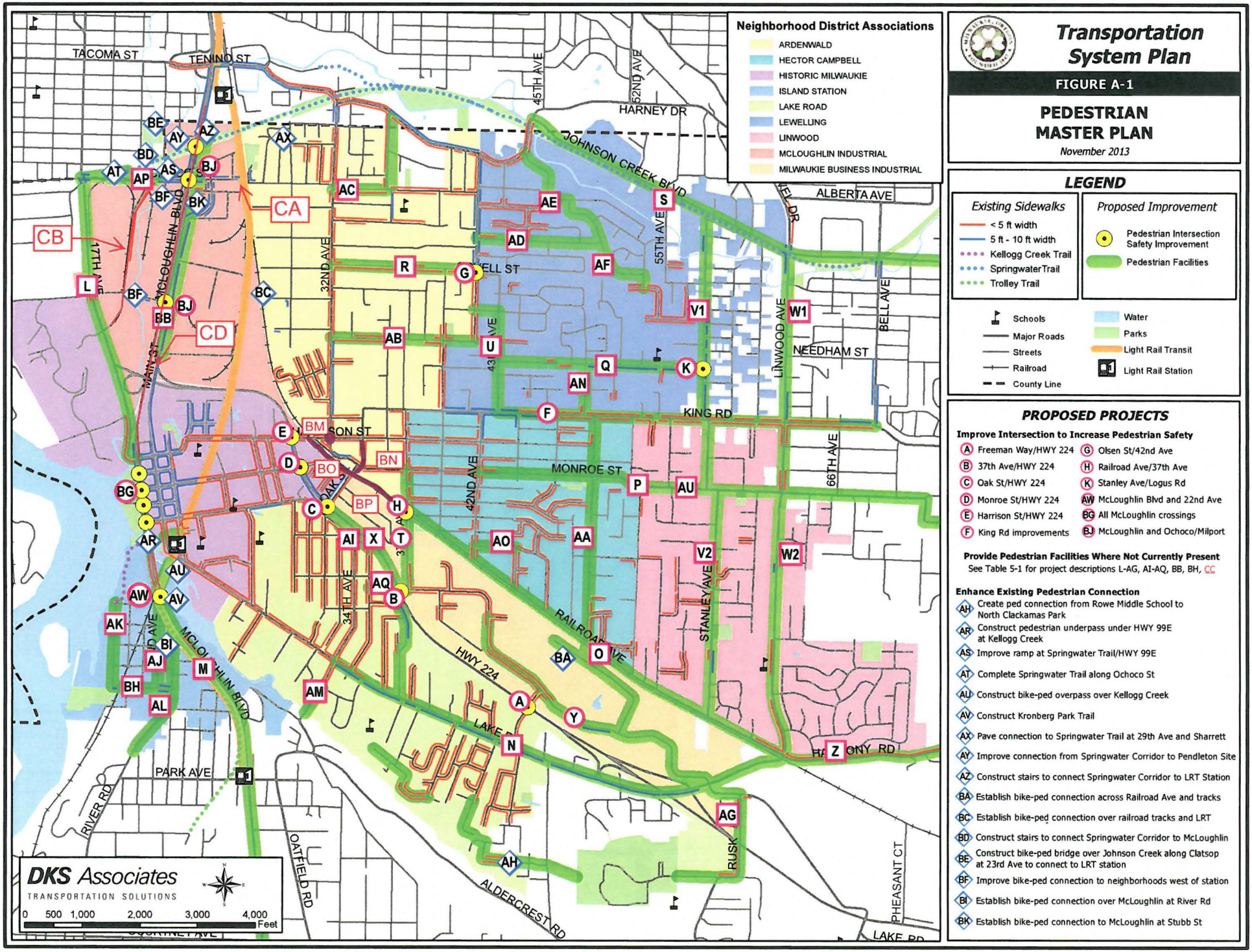
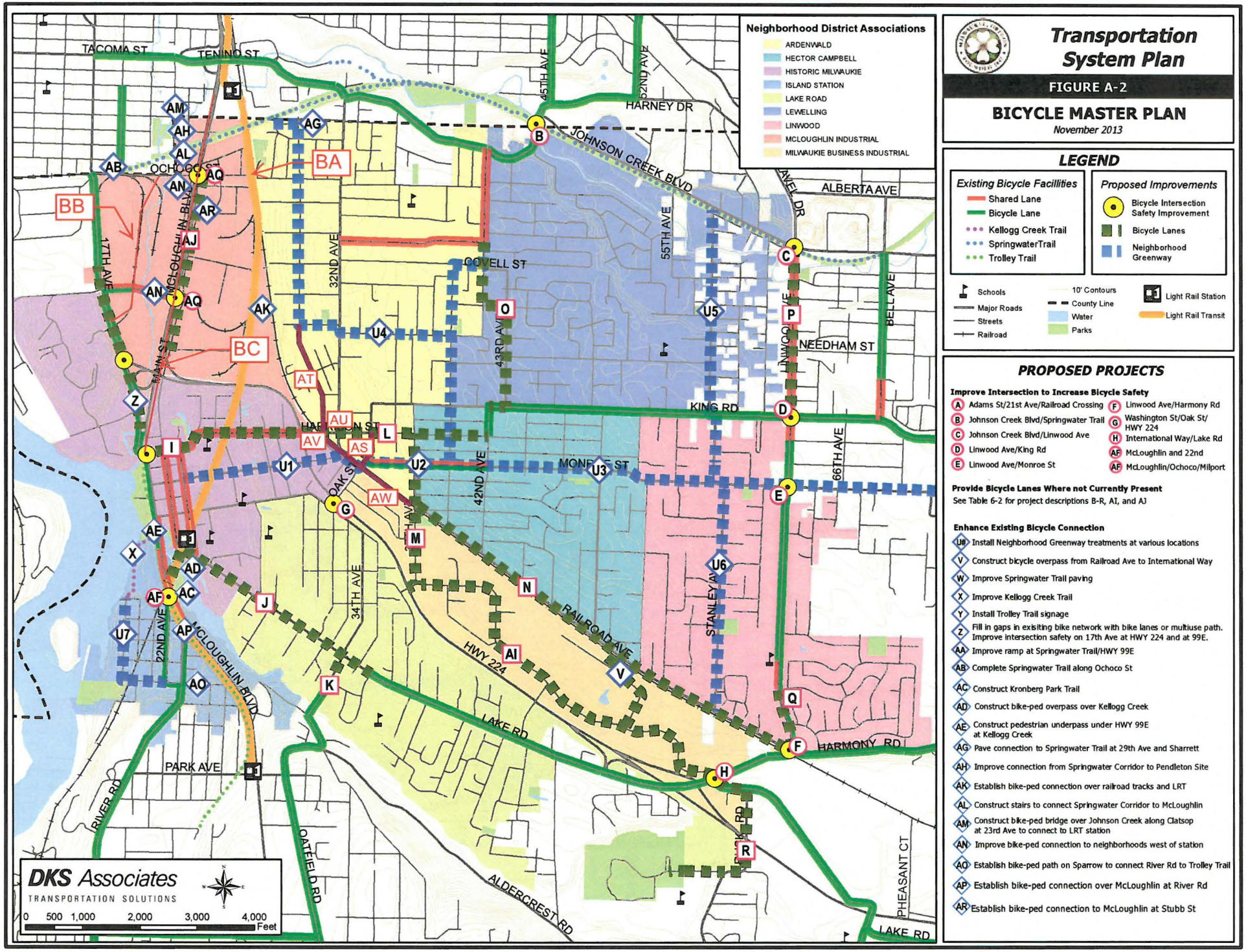

Transportation System Plan
FIGURE 8-5
STREET NETWORK MASTER PLAN
November 2013
LEGEND
Proposed Street Network Improvements
Travel Route Improvement
Corridor Refinement Plan
Roadway Widening Project
Intersection
Schools
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Light Rail Station
Light Rail Transit
Major Roads
Streets
Railroad
County Line
Water
Parks
City Limits
PROPOSED PROJECTS
A Prohibit left turn movement at 17th Ave/McLoughlin Blvd and include in Refinement Plan
B Signalize Harrison St/42nd Ave
C Conduct Refinement Plan for HWY 99E/HWY 224 focused on motor vehicle and freight mobility.
- HWY 99E Project Limits: Tacoma St to 17th Ave
- HWY 224 Project Limits: HWY 99E to Lake Rd Interchange
D Reconfigure intersection to consolidate 37th Ave/ Industrial Way
E Add eastbound/westbound right turn lanes and integrate the trail crossing
G Implement protected/permitted phasing for northbound and southbound left turns
H Widen Linwood Ave to standard three lane cross section
I Widen Railroad Ave to standard three lane cross section
J Redesign intersections of River Rd and 22nd Ave to consolidate intersections; or Add northbound left turn pocket on River Rd
K Widen Harrison St to standard three-lane cross section
L Add left turn-lanes and protected signal phasing on Harrison St approaches
M Widen Lake Rd to standard three-lane cross section
N Replace 3-way stop with signal when warranted and appropriate. (Coordinate with the City of Portland)
O Enhance connection between King Rd and Harrison St
P Add protected signal phasing on Oak St approaches
Q Improve intersection/modify access at HWY 224 and Freeman Way
R Enhance connection along Stanley Ave at King Rd
S Enhance connection along Stanley Ave at Monroe St
V Improve safety of Trolley Trail crossing at 22nd Ave
W Realign intersection to improve traffic between 42nd Ave and King Rd east of 42nd Ave
X Connect local streets within Tacoma Station Area (see Fig 8-4)
Y Construct street improvements on Stubb St, Beta St, Ochoco St, Hanna Harvester Dr and Mailwell Dr (TSAP)
For NMIA projects please refer to Table 8-10; AB - AE
DKS Associates
TRANSPORTATION SOLUTIONS
0 500 1,000 2,000 3,000 4,000 Feet

FIGURE 4: FUTURE STREET NETWORK




Neighborhood District Associations
ARDENWALD
HECTOR CAMPBELL
HISTORIC MILWAUKIE
ISLAND STATION
LAKE ROAD
LEWELLING
LINWOOD
MCLOUGHLIN INDUSTRIAL
MILWAUKIE BUSINESS INDUSTRIAL
TACOMA ST
TENINO ST
HARNEY DR
JOHNSON CREEK BLVD
ALBERTA AVE
45TH AVE
52ND AVE
55TH AVE
32ND AVE
42ND AVE
43RD AVE
34TH AVE
17TH AVE
MCLOUGHLIN BLVD
MAIN ST
BELL ST
LINWOOD AVE
BELL AVE
NEEDHAM ST
KING RD
MONROE ST
66TH AVE
RAILROAD AVE
STANLEY AVE
HWY 224
LAKE RD
PARK AVE
RIVER RD
OATFIELD RD
ALDERCREST RD
RUSK
PHEASANT CT
CA
CB
CD
DKS Associates
TRANSPORTATION SOLUTIONS
0 500 1,000 2,000 3,000 4,000 Feet
Transportation System Plan
FIGURE A-1
PEDESTRIAN MASTER PLAN
November 2013
LEGEND
Existing Sidewalks
< 5 ft width
5 ft - 10 ft width
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Proposed Improvement
Pedestrian Intersection Safety Improvement
Pedestrian Facilities
Schools
Major Roads
Streets
Railroad
County Line
Water
Parks
Light Rail Transit
Light Rail Station
PROPOSED PROJECTS
Improve Intersection to Increase Pedestrian Safety
A Freeman Way/HWY 224
B 37th Ave/HWY 224
C Oak St/HWY 224
D Monroe St/HWY 224
E Harrison St/HWY 224
F King Rd improvements
G Olsen St/42nd Ave
H Railroad Ave/37th Ave
K Stanley Ave/Logus Rd
AW McLoughlin Blvd and 22nd Ave
BG All McLoughlin crossings
BJ McLoughlin and Ochoco/Milport
Provide Pedestrian Facilities Where Not Currently Present
See Table 5-1 for project descriptions L-AG, AI-AQ, BB, BH, CC
Enhance Existing Pedestrian Connection
AH Create ped connection from Rowe Middle School to North Clackamas Park
AR Construct pedestrian underpass under HWY 99E at Kellogg Creek
AS Improve ramp at Springwater Trail/HWY 99E
AT Complete Springwater Trail along Ochoco St
AU Construct bike-ped overpass over Kellogg Creek
AV Construct Kronberg Park Trail
AX Pave connection to Springwater Trail at 29th Ave and Sharrett
AY Improve connection from Springwater Corridor to Pendleton Site
AZ Construct stairs to connect Springwater Corridor to LRT Station
BA Establish bike-ped connection across Railroad Ave and tracks
BC Establish bike-ped connection over railroad tracks and LRT
BD Construct stairs to connect Springwater Corridor to McLoughlin
BE Construct bike-ped bridge over Johnson Creek along Clatsop at 23rd Ave to connect to LRT station
BF Improve bike-ped connection to neighborhoods west of station
BI Establish bike-ped connection over McLoughlin at River Rd
BK Establish bike-ped connection to McLoughlin at Stubb St



Transportation System Plan

FIGURE A-2

BICYCLE MASTER PLAN

November 2013

LEGEND

Existing Bicycle Facilities
- Shared Lane
- Bicycle Lane
- Kellogg Creek Trail
- SpringwaterTrail
- Trolley Trail

Proposed Improvements
- Bicycle Intersection Safety Improvement
- Bicycle Lanes
- Neighborhood Greenway

- Schools
- Major Roads
- Streets
- Railroad
- 10' Contours
- County Line
- Water
- Parks
- Light Rail Station
- Light Rail Transit

PROPOSED PROJECTS

Improve Intersection to Increase Bicycle Safety

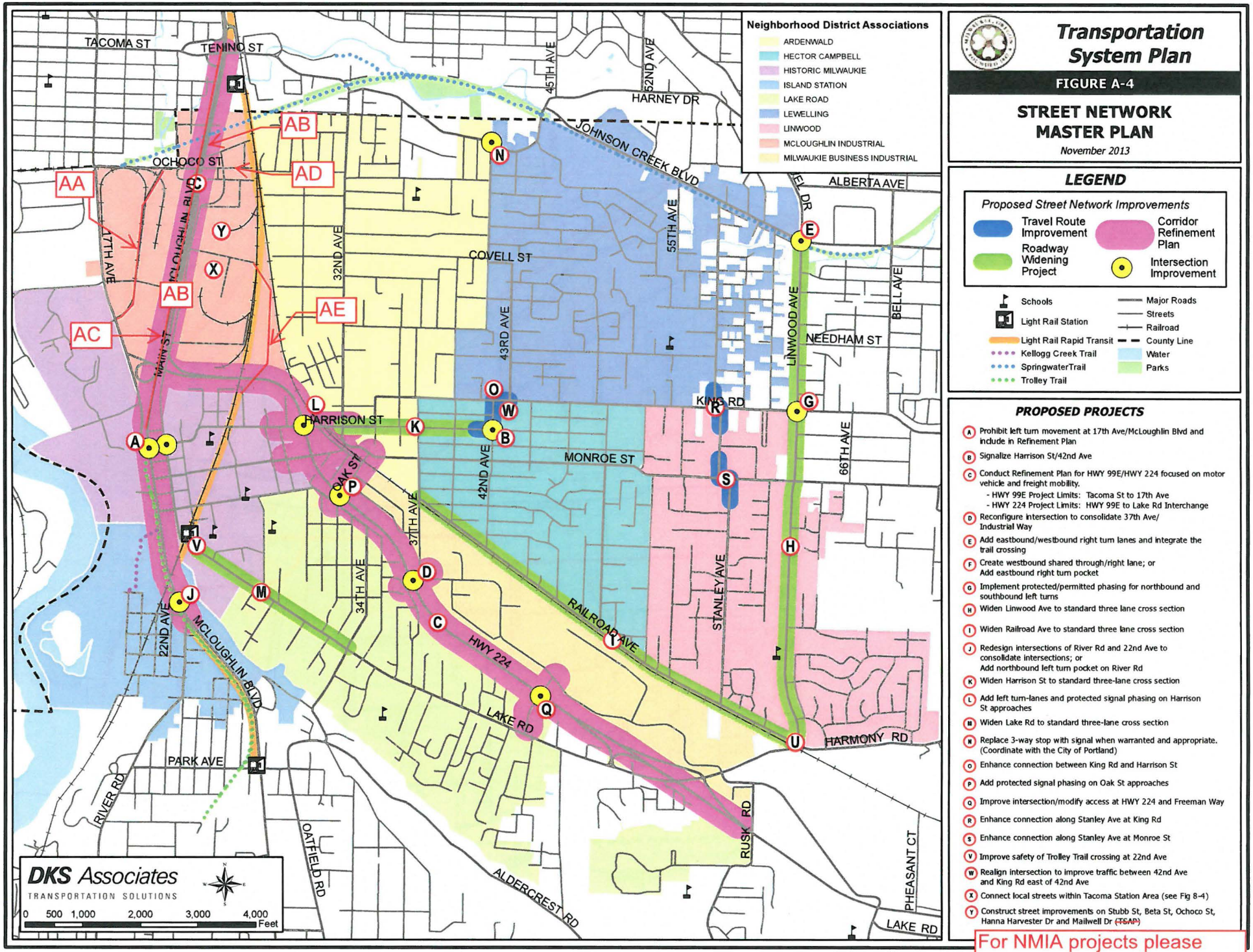
- A Adams St/21st Ave/Railroad Crossing
- B Johnson Creek Blvd/Springwater Trail
- C Johnson Creek Blvd/Linwood Ave
- D Linwood Ave/King Rd
- E Linwood Ave/Monroe St
- F Linwood Ave/Harmony Rd
- G Washington St/Oak St/ HWY 224
- H International Way/Lake Rd
- AF McLoughlin and 22nd
- AF McLoughlin/Ochoco/Milport

Provide Bicycle Lanes Where not Currently Present

See Table 6-2 for project descriptions B-R, AI, and AJ

Enhance Existing Bicycle Connection

- U# Install Neighborhood Greenway treatments at various locations
- V Construct bicycle overpass from Railroad Ave to International Way
- W Improve Springwater Trail paving
- X Improve Kellogg Creek Trail
- Y Install Trolley Trail signage
- Z Fill in gaps in exisiting bike network with bike lanes or multiuse path. Improve intersection safety on 17th Ave at HWY 224 and at 99E.
- AA Improve ramp at Springwater Trail/HWY 99E
- AB Complete Springwater Trail along Ochoco St
- AC Construct Kronberg Park Trail
- AD Construct bike-ped overpass over Kellogg Creek
- AE Construct pedestrian underpass under HWY 99E at Kellogg Creek
- AG Pave connection to Springwater Trail at 29th Ave and Sharrett
- AH Improve connection from Springwater Corridor to Pendleton Site
- AK Establish bike-ped connection over railroad tracks and LRT
- AL Construct stairs to connect Springwater Corridor to McLoughlin
- AM Construct bike-ped bridge over Johnson Creek along Clatsop at 23rd Ave to connect to LRT station
- AN Improve bike-ped connection to neighborhoods west of station
- AO Establish bike-ped path on Sparrow to connect River Rd to Trolley Trail
- AP Establish bike-ped connection over McLoughlin at River Rd
- AR Establish bike-ped connection to McLoughlin at Stubb St



Transportation System Plan

FIGURE A-4

STREET NETWORK MASTER PLAN

November 2013

LEGEND

Proposed Street Network Improvements

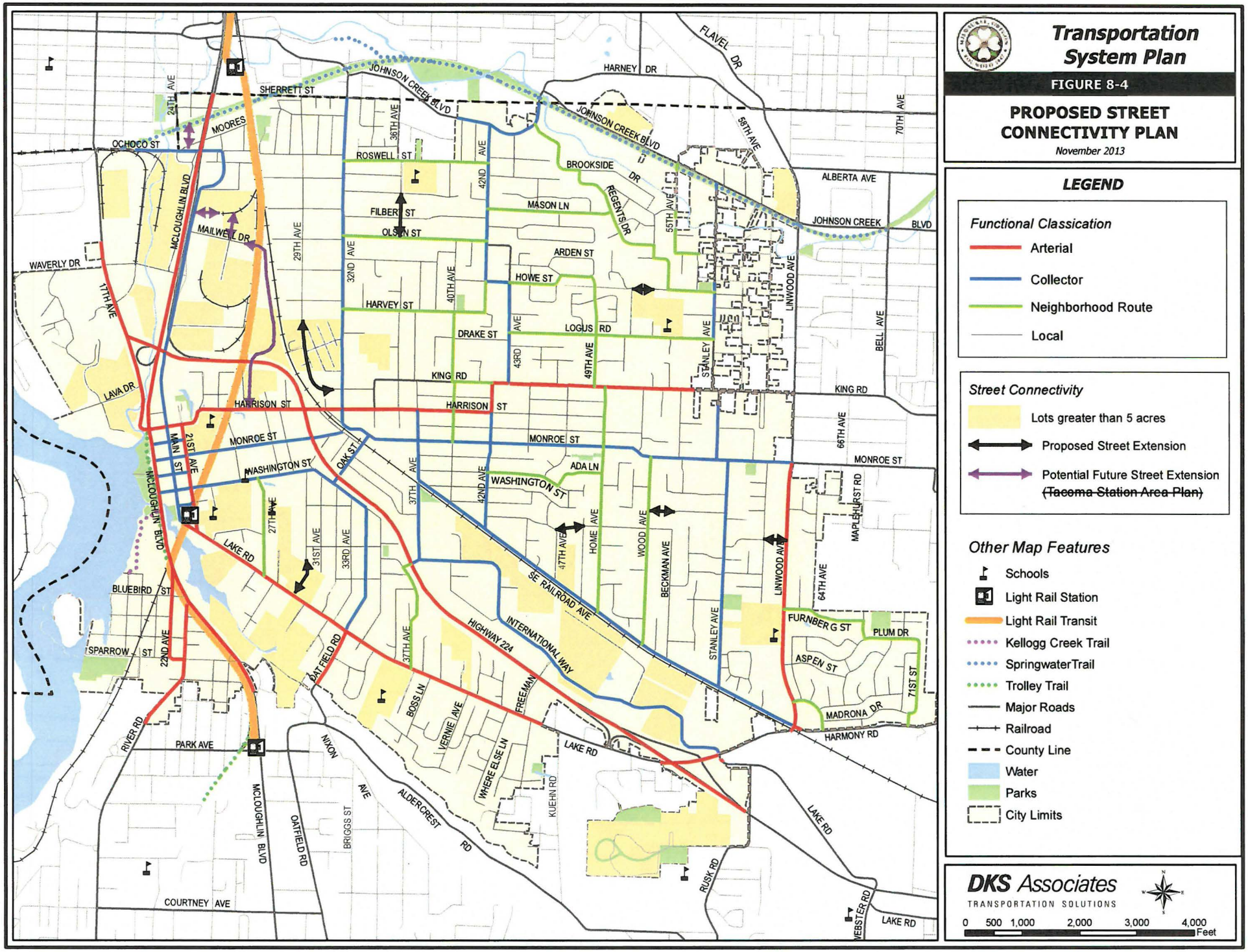
- Travel Route Improvement
- Corridor Refinement Plan
- Roadway Widening Project
- Intersection Improvement

- Schools
- Light Rail Station
- Light Rail Rapid Transit
- Kellogg Creek Trail
- SpringwaterTrail
- Trolley Trail
- Major Roads
- Streets
- Railroad
- County Line
- Water
- Parks

PROPOSED PROJECTS

- (A) Prohibit left turn movement at 17th Ave/McLoughlin Blvd and include in Refinement Plan
- (B) Signalize Harrison St/42nd Ave
- (C) Conduct Refinement Plan for HWY 99E/HWY 224 focused on motor vehicle and freight mobility.
  - HWY 99E Project Limits: Tacoma St to 17th Ave
  - HWY 224 Project Limits: HWY 99E to Lake Rd Interchange
- (D) Reconfigure intersection to consolidate 37th Ave/ Industrial Way
- (E) Add eastbound/westbound right turn lanes and integrate the trail crossing
- (F) Create westbound shared through/right lane; or Add eastbound right turn pocket
- (G) Implement protected/permitted phasing for northbound and southbound left turns
- (H) Widen Linwood Ave to standard three lane cross section
- (I) Widen Railroad Ave to standard three lane cross section
- (J) Redesign intersections of River Rd and 22nd Ave to consolidate intersections; or Add northbound left turn pocket on River Rd
- (K) Widen Harrison St to standard three-lane cross section
- (L) Add left turn-lanes and protected signal phasing on Harrison St approaches
- (M) Widen Lake Rd to standard three-lane cross section
- (N) Replace 3-way stop with signal when warranted and appropriate. (Coordinate with the City of Portland)
- (O) Enhance connection between King Rd and Harrison St
- (P) Add protected signal phasing on Oak St approaches
- (Q) Improve intersection/modify access at HWY 224 and Freeman Way
- (R) Enhance connection along Stanley Ave at King Rd
- (S) Enhance connection along Stanley Ave at Monroe St
- (V) Improve safety of Trolley Trail crossing at 22nd Ave
- (W) Realign intersection to improve traffic between 42nd Ave and King Rd east of 42nd Ave
- (X) Connect local streets within Tacoma Station Area (see Fig 8-4)
- (Y) Construct street improvements on Stubb St, Beta St, Ochoco St, Hanna Harvester Dr and Mailwell Dr ~~(TSAP)~~

For NMIA projects please refer to Table 8-10; AB - AE


Transportation System Plan
FIGURE 8-4
PROPOSED STREET CONNECTIVITY PLAN
November 2013
LEGEND
Functional Classication
Arterial
Collector
Neighborhood Route
Local
Street Connectivity
Lots greater than 5 acres
Proposed Street Extension
Potential Future Street Extension
(Tacoma Station Area Plan)
Other Map Features
Schools
Light Rail Station
Light Rail Transit
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Major Roads
Railroad
County Line
Water
Parks
City Limits
DKS Associates
TRANSPORTATION SOLUTIONS
0 500 1,000 2,000 3,000 4,000
Feet
JOHNSON CREEK BLVD
HARNEY DR
FLAVEL DR
SHERRETT ST
MOORES
OCHOCO ST
ROSWELL ST
BROOKSIDE DR
ALBERTA AVE
JOHNSON CREEK BLVD
MASON LN
FILBERT ST
OLSEN ST
MAILWELL DR
WAVERLY DR
ARDEN ST
HOWE ST
HARVEY ST
DRAKE ST
LOGUS RD
KING RD
LAVA DR
HARRISON ST
MONROE ST
WASHINGTON ST
ADA LN
MAIN ST
OAK ST
LAKE RD
BLUEBIRD ST
SPARROW ST
SE RAILROAD AVE
HIGHWAY 224
INTERNATIONAL WAY
FURNBERG ST
PLUM DR
ASPEN ST
MADRONA DR
HARMONY RD
RIVER RD
PARK AVE
NIXON AVE
ALDERCREST RD
WHERE ELSE LN
KUEHN RD
FREEMAN
VERNIE AVE
BOSS LN
OATFIELD RD
BRIGGS ST
COURTNEY AVE
RUSK RD
WEBSTER RD
MCLOUGHLIN BLVD
LINWOOD AVE
STANLEY AVE
BECKMAN AVE
WOOD AVE
HOME AVE
BELL AVE
MAPLEHURST RD
11TH AVE
21ST AVE
22ND AVE
24TH AVE
27TH AVE
29TH AVE
31ST AVE
32ND AVE
33RD AVE
36TH AVE
37TH AVE
40TH AVE
42ND AVE
43RD AVE
47TH AVE
49TH AVE
55TH AVE
58TH AVE
64TH AVE
66TH AVE
70TH AVE
71ST ST

Underline/Strikeout Amendments

Zoning Ordinance

CHAPTER 19.300 BASE ZONES

19.312 NORTH MILWAUKIE INNOVATION AREA

19.312.1 Purpose

A. The Tacoma Station Area Mixed Use Zone (MUTSA) is intended to support the goals and policies of the North Milwaukie Innovation Area (NMIA) Plan. The MUTSA district is intended to take advantage of its unique location near the Tacoma light rail station and provide opportunities for a wide range of uses. The primary uses in this zone include housing, limited commercial and service-related office use, high intensity office employment, and light industrial uses including uses involved in production, manufacturing and processing, of goods. The intent of light industrial uses in the MUTSA is to provide an area to serve a wide variety of manufacturing and other industrial activities with controlled external impacts. These types of industries are often involved in the secondary processing of materials into components, the assembly of components into finished products, food and beverage processing, warehousing, and wholesaling. The external impact from these uses is generally less than heavy industrial uses and activities are generally located indoors.

B. The North Milwaukie Employment Zone (NME) Zone is intended to support the goals and policies of the NMIA Plan and retain the area as a viable industrial and employment zone. The primary uses in the zone are intended to be uses involved in production, manufacturing, processing, and transportation of goods, as well as uses providing opportunities for higher intensity employment such as production-related office, laboratories, and research and development uses. Limited specific uses not involving the production and transportation of goods, which are appropriate for industrial areas due to their use characteristics, are also allowed. Service-related office and commercial uses are intended to be incidental uses that are minor in relation to the industrial uses on a site and should be subordinate and accessory to the industrial uses in the zone.

19.312.2 Uses

A. Permitted Uses

Uses allowed outright in the NMIA zones are listed in Table 19.312.2 with a "P." These uses are allowed if they comply with the development and design standards and other regulations of this title.

B. Community Service Uses

Uses listed in Table 19.312.2 as "CSU" are permitted only as community service uses in conformance with Section 19.904.

C. Conditional Uses

Uses listed in Table 19.312.2 as "CU" are permitted only as conditional uses in conformance with Section 19.905.

D. Nonconforming Uses, Structures, and Development

Existing structures and uses that do not meet the standards for the NMIA zones may continue in existence. Alteration or expansion of a nonconforming use, structure, or development that brings the use, structure, or development closer to compliance may be allowed through development review pursuant to Section 19.906. Alteration or expansion of a nonconforming use or structure that does not bring the use or structure closer to compliance may be allowed through a Type III variance pursuant to Section 19.911. Except where otherwise stated in this section, the provisions of Chapter 19.800 Nonconforming Uses and Development apply.

E. Prohibited Uses

Uses not listed in Table 19.312.2, and not considered accessory or similar pursuant to Subsections 19.312.2.F and G below, are prohibited. Uses listed with an "N" in Table 19.312.2 are also prohibited.

F. Limited Uses

Uses listed in Table 19.312.2 as "L" are permitted only as limited uses in conformance with Section 19.312.4.

G. Accessory Uses

Uses that are accessory to a primary use are allowed if they comply with all development standards.

H. Similar Uses

The Planning Director, through a Type I review, may determine that a use that is not listed is considered similar to an example use listed in Table 19.312.2. The unlisted use shall be subject to the standards applicable to the similar example use.

Table 19.312.2
Uses Allowed in the North Milwaukie Innovation Area

Uses and Use Categories	NME	MUTSA	Standards/Additional Provisions
Residential[1]			
Multifamily	N	P	**Subsection 19.312.6** Detailed Development Standards **Subsection 19.505.3** Multifamily Housing
Mixed use residential	N	P	**Subsection 19.312.6** Detailed Development Standards
Live/work units	N	P	**Subsection 19.312.6** Detailed Development Standards **Subsection 19.505.6** Live/Work Units
Commercial			
Office 1. Production-related office uses are characterized by activities that, while conducted in an office-like setting, involve less face-to-face customer contact and do not tend to generate foot traffic. Their operations are less service-oriented than traditional office uses and focus on the development, testing,	P	P	

Table 19.312.2 Uses Allowed in the North Milwaukie Innovation Area			
Uses and Use Categories	**NME**	**MUTSA**	**Standards/Additional Provisions**
research, production, processing, packaging, or assembly of goods and products. Examples include: corporate headquarters, architects, engineers, financial services or accounting firm headquarters, call offices/call centers; software and internet content development and publishing; telecommunication service providers; data processing; television, video, radio, and internet studios and broadcasting; scientific and technical services; government and utility research offices; call centers, marijuana testing and research facilities, and medical and dental labs or research/bioscience facility.			
2. Service-Related Office Traditional service-related office uses are characterized by activities that generally focus on direct in-person, customer-focused services including government, professional, medical, or financial services. These office uses generally involve a high level of face-to-face customer contact and are typically expected to generate foot traffic. Examples include: professional services such as lawyers; financial businesses such as lenders, retail brokerage houses, bank branches, or real estate agents; sales offices; government offices and public utility offices; counseling offices; and medical and dental clinics.	L	L	**Subsection 19.312.4.A** Standards for Limited Uses
Drinking establishments Drinking establishments primarily involve the sale of alcoholic beverages for on-site consumption. Examples include taverns, bars, or cocktail lounges.	L	L/CU	**Subsection 19.312.4.A** Standards for Limited Uses
Eating establishments Eating establishments primarily involve the sale of prepared food and beverages for on-site consumption or takeout. Eating establishments may include incidental sales of alcoholic beverages.	L	L/CU	**Subsection 19.312.4.A** Standards for Limited Uses

Table 19.312.2 Uses Allowed in the North Milwaukie Innovation Area			
Uses and Use Categories	**NME**	**MUTSA**	**Standards/Additional Provisions**
Examples include restaurants, delicatessens, retail bakeries, coffee shops, concession stands, and espresso bars.			
Retail-oriented sales Sales-oriented retail firms are involved in the sale, leasing, and rental of new or used products to the general public. Examples include stores selling, leasing, or renting consumer, home, and business goods including art, art supplies, bicycles, clothing, dry goods, electronics, fabric, gifts, groceries, hardware, household products, jewelry, pets and pet products, pharmaceuticals, plants, printed materials, stationery, and printed and electronic media.	L	L	**Subsection 19.312.4.A** Standards for Limited Uses
Personal service Personal service firms are involved in providing consumer services. Examples include hair, tanning, and spa services; pet grooming; photo and laundry drop-off; dry cleaners; and quick printing.	L	L	**Subsection 19.312.4.A** Standards for Limited Uses
Day care. Day care is the provision of regular childcare, with or without compensation, to 4 or more children by a person or person(s) who are not the child's parent, guardian, or person acting in place of the parent, in a facility meeting all State requirements. Examples include nursery schools, before- and after-school care facilities, and child development centers.	L	L	**Subsection 19.312.4.B.2** Standards for Limited Uses
Hotel/motel	N	CU	**Subsection 19.905** Conditional Uses
Adult entertainment businesses[2]	N	CU	**Subsection 19.905** Conditional Uses
Industrial, Manufacturing and Production			
Manufacturing and production. This category comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products, including the assembly of component parts.	P	L	**Subsection 19.312.4.B.1** Standards for Limited Uses

Table 19.312.2 Uses Allowed in the North Milwaukie Innovation Area			
Uses and Use Categories	**NME**	**MUTSA**	**Standards/Additional Provisions**
Examples include: alternative energy development; biosciences; food and beverage processing; software and electronics production; printing; fabrication of metal products; products made from manufactured glass; products made from rubber, plastic, or resin; converted paper and cardboard products; and microchip fabrication. Manufacturing may also include high-tech and research and development companies.			
Construction: Contractors and Related Businesses This category comprises businesses whose primary activity is performing specific building or other construction-related work, on- or off-site. Examples include: residential and nonresidential building construction; utility/civil engineering construction; specialty trade contractors; and moving companies.	P	P	
Wholesale Trade, Warehousing, Distribution This category comprises establishments engaged in selling and/or distributing merchandise to retailers; to industrial, commercial, or professional business users; or to other wholesalers, generally without transformation, and rendering services incidental to the sale of merchandise. Wholesalers sell or distribute merchandise exclusively to other businesses, not the general public, and normally operate from a warehouse or office and are not intended for walk-in traffic. Examples include: operating warehousing and storage facilities for general merchandise, refrigerated goods, and other products and materials that have been manufactured and are generally being stored in anticipation of delivery to final customer. Includes fleet parking. Ministorage facilities (generally used by many individual customers to store	P	P	

Table 19.312.2 Uses Allowed in the North Milwaukie Innovation Area			
Uses and Use Categories	**NME**	**MUTSA**	**Standards/Additional Provisions**
personal property) are not considered industrial warehousing and storage and are not permitted.			
Repair and Service This category comprises firms involved in repair and servicing of industrial, business, or consumer electronic equipment, machinery, and related equipment, products, or by-products. Few customers come to the site, particularly not general public daily customers. Auto service and repair shops for personal vehicles are not included in this category and are not permitted. Examples include: welding shops; machine shops; tool, electric motor, and industrial instrument repair; sales, repair, or storage of heavy machinery, metal, and building materials; heavy truck servicing and repair; tire retreading or recapping; exterminators, including chemical mixing or storage and fleet storage and maintenance; janitorial and building maintenance services that include storage of materials and fleet storage and maintenance; fuel oil distributors; solid fuel yards; and large-scale laundry, dry-cleaning, and carpet cleaning plants.	P	L	**Subsection 19.312.4.B.1** Standards for Limited Uses
Trade Schools and Training Facilities[3] This category comprises establishments whose primary purpose is to provide training for industrial needs and job-specific certification. Examples include: electronic equipment repair training; truck-driving school; welding school; training for repair of industrial machinery; job skills training classrooms; and other industrial/employment skills training.	P	P	
Creative Space Industrial/manufacturing space specifically for artist-type uses. Examples include: artist manufacturing studios (welding, pottery, ceramics, painting, glass, etc.); sound stage and/or	P	P	

Table 19.312.2 Uses Allowed in the North Milwaukie Innovation Area			
Uses and Use Categories	**NME**	**MUTSA**	**Standards/Additional Provisions**
film production; set design and production; music studio/production.			
Waste Management[4] This category comprises businesses that provide garbage and recycling hauling, including fleet parking and maintenance. Storage of waste or recycling materials collected by a waste management business for any period of time is not permitted.	CU/P	N	
Community Service Use			
Only the following community service uses are included in this district:			**Section 19.904** Community Service Uses
1. Institutions			
a. Government offices	P	P	
b. Public transit facilities or passenger terminal	CSU	CSU	
c. Schools (public or private)	CSU	CSU	See Trade Schools and Training Facilities
d. Recreation facilities (public or private)	CSU	CSU	
e. Parks and open space	P	P	
f. Transitional or correctional facilities (public or private)	CSU	CSU	
g. Hospitals	CSU	CSU	
2. Infrastructure			
a. Utilities (water, sewer, and storm sewer facilities including but not limited to sewage pumping stations, water wells, pump stations, sewer mining)	P	P	
b. Communication facilities (includes WCF)	P	P	
c. Electrical power substations; solar facilities	P	P	
Marijuana Businesses			
1. Marijuana retailers subject to the standards of Subsections 19.312.4 and 19.509.1.	N	CU	**Subsection 19.509.2** Security and Odor Control for Certain Marijuana Businesses **Subsection 19.312.4.A.5** Standards for Limited Uses
2. Marijuana processing, testing, research, and warehousing subject to the standards of Subsection 19.509.2.	P	P	**Subsection 19.509.2** Security and Odor Control for Certain Marijuana Businesses

Table 19.312.2 Uses Allowed in the North Milwaukie Innovation Area			
Uses and Use Categories	**NME**	**MUTSA**	**Standards/Additional Provisions**
3. Marijuana production subject to the conditional use process and the standards of Subsections 19.509.2 and 19.509.3.	CU	CU	**Subsection 19.509.2** Security and Odor Control for Certain Marijuana Businesses **Subsection 19.509.3** Marijuana Production Limitations **Section 19.905** Conditional Uses

P = Permitted.

N = Not permitted.

L = Limited

CSU = Permitted with community service use approval subject to provisions of Section 19.904. Type III review required to establish a new CSU or for major modification of an existing CSU. Type I review required for a minor modification of an existing CSU.

CU = Permitted with conditional use approval subject to the provisions of Section 19.905. Type III review required to establish a new CU or for major modification of an existing CU. Type I review required for a minor modification of an existing CU.

1. Multifamily residential is permitted outright in a stand-alone building or in stories above a ground-floor commercial or office use. Deed restrictions will apply to residential development in order to reduce potential conflicts between residential uses and surrounding manufacturing uses, which will serve as actual and constructive notice to potential purchasers and tenants of the owner's property that the residential use is located within a zone that permits and encourages industrial uses.

2. When considering an adult entertainment business, the following criteria shall be used:

   a. The proposed location of an adult entertainment business shall not be within 500 ft of an existing or previously approved adult entertainment business or within 500 ft of either a public park, a church, a day-care center, a primary, elementary, junior high, or high school, or any residentially zoned property.

   b. Distances shall be measured in a straight line, without regard to intervening structures, between the closest structural wall of the adult entertainment business and either the closest property line of the applicable property or the closest structural wall of any preexisting or previously approved adult entertainment business.

3. All activities related to trade schools must be conducted inside an enclosed building.

4. Waste Management uses in existence prior to December 31, 2017 are Permitted; uses proposed after that date are permitted as a Conditional Use.

19.312.3 Specific Prohibited Uses

Any use which has a primary function of storing or manufacturing explosive materials or other hazardous material as defined by the Oregon Fire Code, Chapter 27.

19.312.4 Standards for Limited Uses

The following standards apply to those uses listed as limited (L) in Table 19.312.2.

A. Retail, Service-Related Office, Eating and Drinking Establishments, and Personal Service Uses

To ensure that these uses are limited in size and scale and do not dominate land intended for manufacturing and higher intensity employment uses, the following standards apply. See Figure 19.312.4.A for an illustration of the size limitations.

1. In the NME, the total gross leasable square footage of an individual retail, service-related office, eating and drinking establishment, and personal service use shall not exceed 5,000 sq ft or 40% of the floor area of an individual building, whichever is less. The total cumulative gross leasable square footage of these uses in a development project shall not exceed 20,000 sq ft or 40% of the floor area. In the NME, retail, service-related office, eating and drinking establishments, and personal service uses

are not permitted in a stand-alone building. They must be included within a building whose primary purpose is for an allowed industrial, manufacturing and production, or production-office use. The retail, service-related office, eating and drinking establishment, and personal service use is not required to be related to the primary manufacturing use. Nonconforming retail textile sales uses in existence at the time of adoption of this code provision may be replaced but shall not be more out of conformance with the land use or development regulations than the original use or development.

2. Food carts or a food cart pod are permitted. A food cart pod is limited to 5,000 sq ft or 40% of the floor area of the building on site and must be included on a site with an allowed industrial, manufacturing and production, or production-office use.

3. In the MUTSA, retail, service-related office, eating and drinking establishments, and personal service uses are permitted in a stand-alone building, or within a building with another permitted use, but shall not exceed a cumulative total of 20,000 gross sq ft per building or property.

4. In the MUTSA, eating and drinking establishments that exceed the above standards are subject to a conditional use review pursuant to Section 19.905.

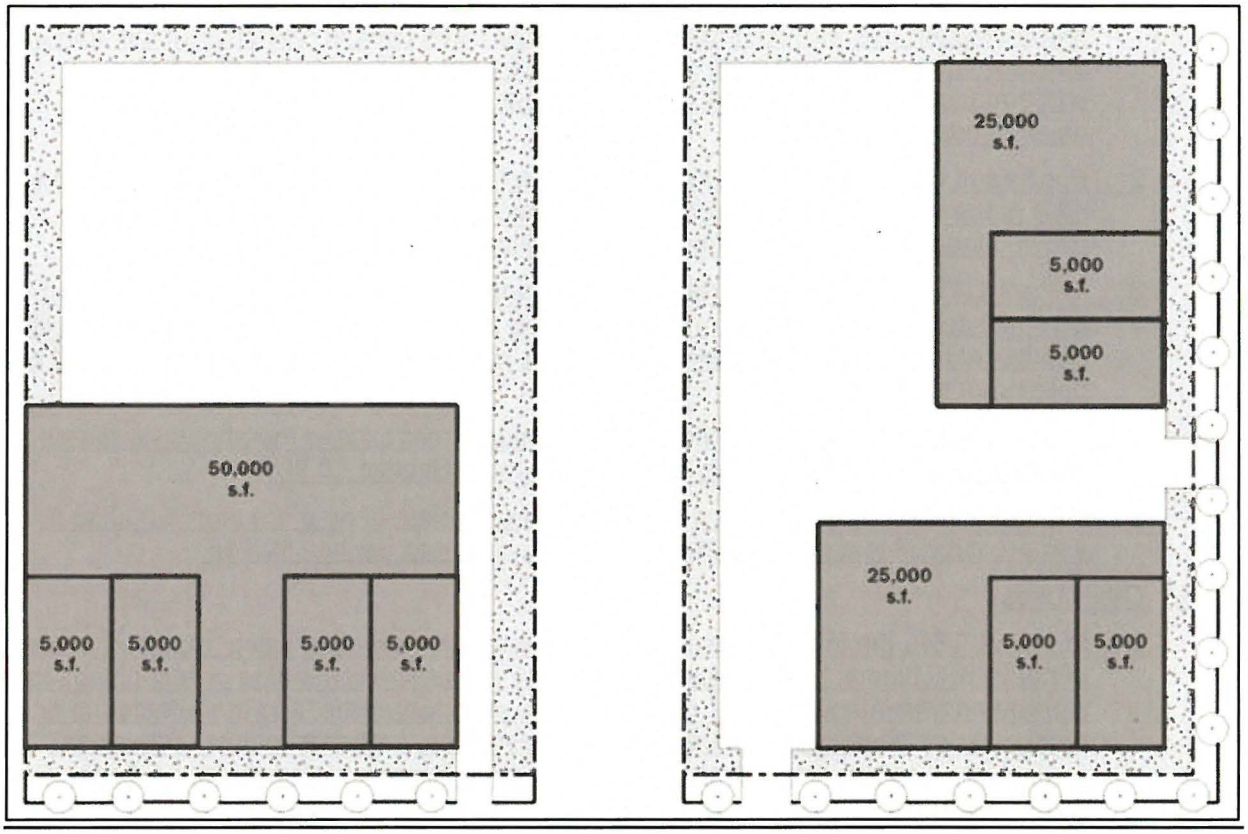
5. Marijuana retail uses shall have a gross square footage of no more than 5,000 sq ft and are subject to a conditional use review pursuant to Section 19.905.

B. Other Uses

1. In the MUTSA, the following uses, or similar, are not permitted: sales, repair, or storage of heavy machinery; heavy truck servicing and repair; tire retreading or recapping; fleet storage and maintenance; fuel oil distributors; solid fuel yards; and manufacturing or production of: chemicals, synthetic rubber, pesticides, fertilizers, paints, adhesives, explosives, plastics, tires, cement, concrete, steel, ferroalloy, aluminum, nonferrous metal, and ammunition.

2. Day care uses must be part of a larger building and shall not be permitted in standalone buildings.

Figure 19.312.4.A
Size Limitations for Retail, Service Office, Eating and Drinking Establishments, and Personal Service Uses (Illustrative Example)



19.312.5 Development Standards

These development standards are intended to ensure that new development is appropriate in terms of building mass and scale, how the building addresses the street, and where buildings are located on a site.

Table 19.312.5 summarizes some of the development standards that apply in the NMIA. Development standards are presented in detail in Subsection 19.312.6.

Table 19.312.5
North Milwaukie Innovation Area —Summary of Development Standards

Standard	NME	MUTSA	Standards/ Additional Provisions
A. Lot Standards			
1. Minimum lot size (sq ft)	None	None	
2. Minimum street frontage (ft)	None	None	
B. Development Standards			
1. Floor area ratio (min/max)	0.5:1/3:1	0.5:1/3:1	
2. Building height (ft)			
a. Minimum	25	25	

b. Maximum (Height bonus available)	45-90	45-90	**Subsection 19.312.6.A** Building height bonus **Subsection 19.510** Green Building Standards
3. Setbacks (ft)			**Subsection 19.501.2** Yard Exceptions
a. Minimum front yard setback	None	None	
b. Maximum front yard setback	10-30[1]	10-30[1]	
c. Side and rear setbacks	None[2]	None[2]	
4. Maximum lot coverage	85%	85%	
5. Minimum Landscaping	15%	15%	**Subsection 19.312.6.G** Landscaping
6. Flexible ground-floor space	Yes, where applicable	Yes, where applicable	**Subsection 19.312.7.B.7** Flexible ground-floor space
7. Off-street parking required	Yes	Yes	**Subsection 19.312.6.C** Loading and Unloading Areas **Subsection 19.312.7.C** Parking, Loading and Unloading Areas **Chapter 19.600** Off-Street Parking and Loading
8. Frontage occupancy	50%	50%	**Subsection 19.312.7.8** Frontage occupancy
C. Other Standards			
1. Residential density requirements (dwelling units per acre)			**Subsection 19.202.4** Density Calculations
a. Stand-alone residential			
(1) Minimum	N/A	None	
(2) Maximum	N/A	None	
b. Mixed-use buildings	N/A	None	
2. Signs	Yes	Yes	**Subsection 14.16.050** Commercial Zone **Subsection 19.312.6.F** Signage for Non-manufacturing Uses
3. Design Standards	Yes	Yes	**Subsection 19.312.7.A** Design Standards for All New Construction and Major Exterior Alterations

1. Properties in the MUTSA have a maximum front yard setback of 10 ft. Properties on key streets in the NME have a maximum front yard setback of 30 ft. Refer to 19.312.7 for key streets.
2. Side and rear lot lines abutting a residential zone have a minimum 10-ft setback. Side and rear lot lines not abutting a residential zone have no required setback.

19.312.6 Detailed Development Standards

The following detailed development standards describe additional allowances, restrictions, and exemptions related to the development standards of Table 19.312.5.

The following development standards apply to all uses in the NMIA.

A. Height Bonuses

To incentivize the provision of additional public amenities or benefits beyond those required by the baseline standards, height bonuses are available for buildings that help meet sustainability goals.

Project proposals that receive green building approvals and certification as identified in Section 19.510 are permitted a total of 45 ft of additional height above the 45-ft base height maximum.

B. Screening of Outdoor Uses

Outdoor uses shall be screened as follows:

1. All outdoor storage areas shall be screened from adjacent properties by a 6-ft-high sight-obscuring fence or wall or by the use of vegetation. Vegetation used to screen outdoor storage areas shall be of such species, number, and spacing to provide the required screening within 1 year after planting.
2. All screened or walled outdoor use and storage areas which abut a public street shall be set back a minimum of 25 ft from the property line(s). Within that setback area, trees and evergreen shrubs shall be planted. The plants shall be of such a variety and arranged to allow only minimum gaps between foliage of mature trees and plants within 4 years of planting.
3. All plantings used to screen outdoor uses shall be maintained on an ongoing basis and shall be replaced if vegetation is diseased, dying, or dead.

C. Loading and Unloading Areas

In the NMIA, no loading or unloading facilities shall be located adjacent to lands designated for residential uses, or residential community services, if there are alternative locations of adequate size on the subject site.

D. External Effects

1. The potential external effects of industrial, manufacturing, and production uses shall be minimized in the NME as follows:
   a. Except for exterior lighting, operations producing heat or glare shall be conducted entirely within an enclosed building.
   b. Potential nuisances such as noise, odor, electrical disturbances, and other public health nuisances are subject to MMC Title 8 Health and Safety.
   c. Roof-mounted mechanical equipment, such as ventilators and ducts, for buildings located adjacent to residential districts, arterial streets, or transit streets, shall be contained within a completely enclosed structure that may include louvers, latticework, or other similar features. This screening requirement does not apply to roof-mounted solar energy systems or wind energy systems.
2. In order to ensure greater compatibility between industrial, manufacturing, and production uses and other uses in the Tacoma station area, the following off-site impact standards apply in the MUTSA:
   a. Applicability

      The off-site impact standards in this section apply to all new machinery, equipment, and facilities associated with manufacturing uses. Machinery, equipment, or facilities that were at the site and in compliance with existing

regulations as of August 1, 2013, the effective date of Ordinance #2071, are not subject to these off-site impact standards.

b. Noise

The City's noise control standards and requirements in Chapter 8.08 apply.

c. Vibration

Continuous, frequent, or repetitive vibrations that exceed 0.002g peak are prohibited. Generally, this means that a person of normal sensitivities should not be able to feel any vibrations.

(1) Temporary vibrations from construction activities or vehicles leaving the site are exempt.

(2) Vibrations lasting less than 5 minutes per day are exempt.

(3) Seismic or electronic measuring equipment may be used when there are doubts about the level of vibrations.

d. Odor

Continuous, frequent, or repetitive odors are prohibited. The odor threshold is the point at which an odor may just be detected. An odor detected for less than 15 minutes per day is exempt.

e. Illumination

Machinery, equipment, and facilities may not directly or indirectly cause illumination on other properties in excess of 0.5 footcandles of light.

f. Measurements

Measurements for compliance with these standards may be made from the property line or within the property of the affected site. Measurements may be made at ground level or at habitable levels of buildings.

g. Documentation

An applicant must provide documentation certified by a registered engineer or architect, as appropriate, to ensure that the proposed activity can achieve compliance with these standards.

E. Additional Standards

When new residential development is proposed adjacent to existing industrial, manufacturing, and production uses, visual screening, which may include walls, fences, horizontal separation or plantings, shall be provided for those areas adjacent to loading docks, truck or other delivery vehicle ingress or egress areas, dumpsters or other recycling vessels, and outdoor storage areas.

Chapter 19.500 Supplementary Development Regulations contains additional standards that may apply.

F. Signage for Non-manufacturing Uses

In addition to signage permitted in Title 14 Signs, 1 pedestrian-oriented sign per business may be provided along the building façade that faces the street. Pedestrian-oriented signs may be attached to the building, an awning, a kiosk, hanging, projecting, or otherwise so

long as they are displayed no higher than 10 ft above the sidewalk and face the street and have a maximum area of 4 sq ft per sign face. All signs must comply with Title 14 Signs.

G. Landscaping

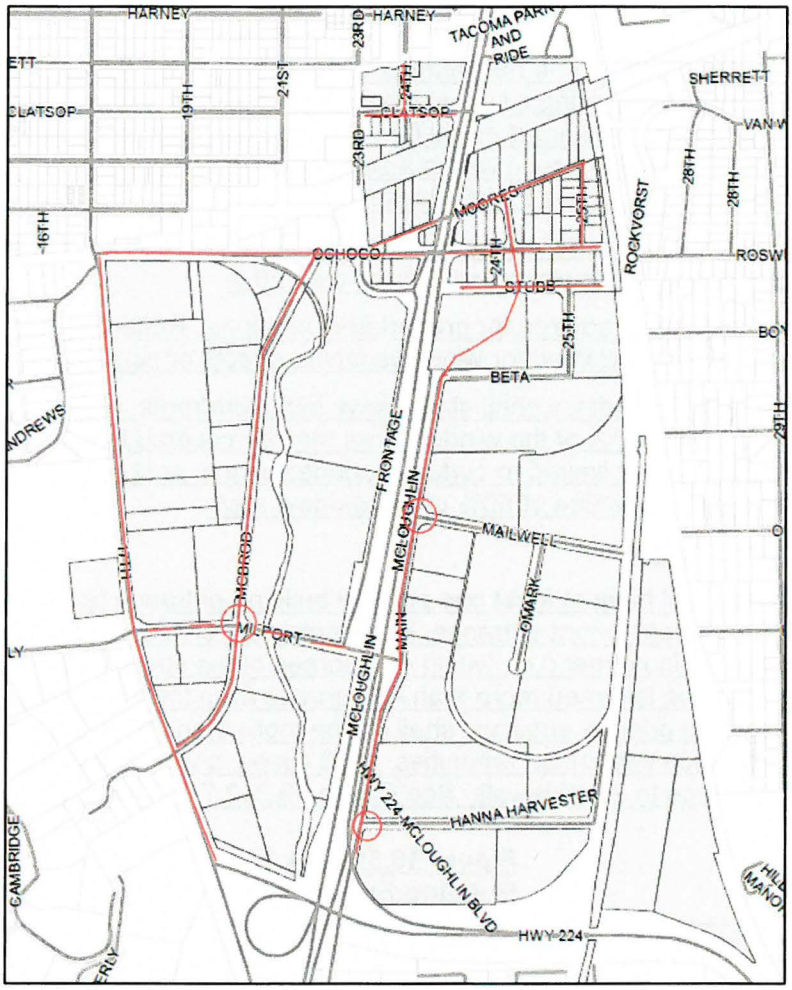
A minimum of 15% landscaping of the site is required. The required landscape area shall comply with the following:

1. Permitted landscape materials include trees, shrubs, ground cover plants, non-plant ground covers, and outdoor hardscape features.
2. No more than 20% of the required landscape area shall be covered in mulch or barkdust. Mulch or barkdust under the canopy of trees or shrubs is excluded from this limit.
3. Trees shall have a minimum 2-in caliper at time of planting, measured at 4 ft above grade.
4. Shrubs shall be planted from 5-gallon containers or larger.
5. All plantings shall be maintained on an ongoing basis and shall be replaced if vegetation is diseased, dying, or dead.
6. A green roof and/or green/living wall may be used as a substitute for this landscaping requirement.

19.312.7 Development Standards for All Uses in the MUTSA and on NME Key Streets

The following development standards apply to all uses in the MUTSA Zone and in the NME Zone on properties located on the following key streets and key corners: McBrod Ave, Main St, 17th Ave, and Ochoco St (see Figure 312.7.1).

Figure 19.312.7.1
Key Streets



A. Design Standards for All New Construction and Major Exterior Alterations

The design standards contained in this section are intended to encourage building design and construction with durable, high-quality materials. The design standards in this section generally apply to the street-facing façades of new, and major alterations to, commercial, institutional, manufacturing, and mixed-use buildings. Exterior maintenance and repair and minor exterior alterations are not subject to these standards. Subsection 19.312.7.B below defines exterior maintenance and repair and major/minor exterior and interior alterations.

1. Ground-Floor and Street-facing Windows and Doors

Long expanses of blank walls facing the street or other public area have negative impacts on the streetscape and the pedestrian environment.

The ground-floor street wall area is defined as the area up to the finished ceiling height of the space fronting the street or 15 ft above finished grade, whichever is less.

a. For nonresidential and mixed-use buildings:

(1) A minimum of 30% of the ground-floor street wall area must consist of openings; i.e., windows or glazed doors; or

(2) A combination of a minimum of 20% of the ground-floor street wall area must consist of openings; i.e., windows or glazed doors in addition to a living wall/green wall or art mural for the remaining area to equal the minimum 30%. A living wall or green wall is a self-sufficient vertical garden that is attached to the exterior or interior of a building.

b. Ground-floor windows shall be distributed along the wall area such that there are no lengths of windowless wall greater than 20 ft.

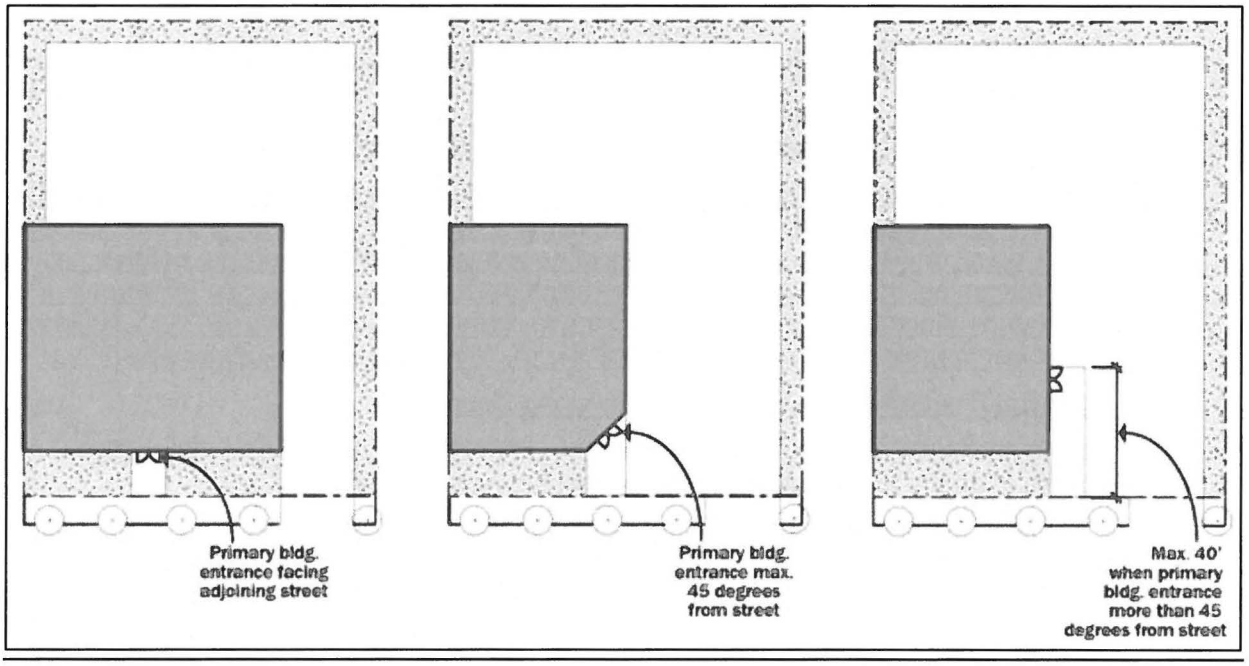
c. Clear glazing is required for ground-floor windows. Reflective, tinted, or opaque glazing is not permitted for windows facing streets or courtyards.

d. Ground-floor windows shall allow views into storefronts, working areas, or lobbies. No more than 50% of the window area may be covered by interior furnishings including but not limited to curtains, shades, signs, or shelves. Signs are limited to a maximum coverage of 50% of the window area.

2. Building Orientation

All buildings shall have at least one primary building entrance (e.g., dwelling entrance, customer entrance, tenant entrance, lobby entrance, or breezeway/courtyard entrance) facing an adjoining street (i.e., within 45 degrees of the street property line). If the building entrance is turned more than 45 degrees from the street (e.g., front door is on a side wall), the primary entrance shall not be more than 40 ft from a street sidewalk, except to provide pedestrian amenities. In all cases, a walkway shall connect the primary entrance to the sidewalk. See Figure 19.312.7.A.2 for illustration.

Figure 19.312.7.A.2
Building Entrances



3. Weather Protection

   All building entrances shall include an awning, canopy, recess, or some other form of shelter to provide weather protection and shade for users.

4. Design Standards for Walls

   The following standards are applicable to the exterior walls of buildings facing streets, courtyards, and/or public squares.

   a. Exterior wall-mounted mechanical equipment is prohibited.

   b. The following standards are applicable to the exterior walls of new buildings facing streets, courtyards, and/or public squares. Table 19.312.6.I.4 specifies the primary, secondary, and prohibited material types referenced in this standard.

      (1) Buildings shall utilize primary materials for at least 60% of the applicable building façades.

      (2) Secondary materials are permitted on no greater than 40% of each applicable building façade.

      (3) Accent materials are permitted on no greater than 10% of each applicable building façade as trims or accents (e.g. flashing, projecting features, ornamentation, etc.)

      (4) Buildings shall not utilize materials listed as (N) prohibited material.

      (5) For existing development, façade modifications that affect more than 50% of the façade shall comply with standards in this subsection. The Planning Director may waive this requirement if application of the standards would create an incongruous appearance of existing and new materials.

Table 19.312.7.B.4 Commercial Exterior Building Materials	
Material Type	**Nonresidential and Mixed-Use**
Brick	P
Stone/masonry	P
Stucco, when installed over concrete	P
Glass (transparent, spandrel)	P
Concrete (poured in place or precast)	P
Finished wood, wood veneers, and wood siding	P
Finished metal panels—such as anodized aluminum, stainless steel, or copper—featuring polished, brushed, or patina finish	S
Concrete blocks with integral color (ground, polished, or split-face finish)	S
Fiber-reinforced cement siding and panels	S
Ceramic tile	S
Concrete blocks with integral color (glazed finish)	A
Standing seam and corrugated metal	A
Glass block	A
Vegetated wall panels or trellises	A
Vinyl siding	N
Exterior insulation finishing system (EIFS)	N
Plywood paneling	N

P = Primary material
S = Secondary material
A = Accent material
N = Prohibited material

5. Design Standards for Roofs

   The following standards are applicable to building roofs.

   a. Flat roofs shall include a cornice with no less than 6 in depth (relief) and a height of no less than 12 in.

   b. Mansard or decorative roofs on buildings less than 3 stories are prohibited.

6. Flexible ground-floor space

   For newly constructed non-residential and mixed-use buildings, a minimum of 75% of the ground-floor space in a new building must meet the following requirements.

   a. The ground-floor height must be at least 14 ft, as measured from the finished floor to the ceiling, or from the finished floor to the bottom of the structure above (as in a multistory building). The bottom of the structure above is the lowest portion of the structure and includes supporting beams, and any heating, ventilation and/or fire suppression sprinkler systems.

   b. The interior floor area adjacent to the key street must be at least 20 ft deep, as measured from the inside building wall or windows facing the key street.

7. Frontage Occupancy Requirements

   For block faces on key streets, 50% of the site frontage must be occupied by a building or buildings. If the development site has frontage on more than 1 street, the frontage occupancy requirement must be met on 1 street only.

B. Applicability of Design Standards

Pre-existing buildings that do not meet the site or building design standards may continue and be modified subject to the standards below. Applicable standards only apply to the proposed modification and not to the nonmodified portion of the existing building unless the modification is a major exterior or interior alteration as defined below.

1. The design standards in Subsection 19.312.7.A above are applicable to major exterior and interior alterations as follows:
   a. Major exterior alterations involving a wall(s) shall comply with the design standards for walls and the design standards for windows for that wall(s). A wall is considered the entire wall plane if the change in wall plane is less than 24 in.
   b. Major exterior alterations involving a roof shall comply with the design standards for roofs.
   c. Major interior alterations require compliance with 19.312.7.A for applicable frontages.
2. Major exterior alterations include any of the following:
   a. Alterations that do not fall within the definitions of "exterior maintenance and repair" or "minor exterior alterations."
   b. Demolition or replacement of more than 50% of the surface area of any exterior wall or roof. A wall is considered the entire wall plane if the change in wall plane is less than 24 in.
   c. In the MUTSA, floor area additions that exceed 50% of the existing floor area or demolition or replacement of 50% or more of the existing floor area.
   d. In the NME, floor area additions that exceed 75% of the existing floor area or demolition or replacement of 50% or more of the existing floor area.
3. Major interior alterations include any of the following:
   a. In the MUTSA, interior floor area additions that exceed 50% of the existing floor area.
   b. In the NME, interior floor area additions that exceed 75% of the existing floor area.
4. Exterior maintenance and repair includes refurbishing, painting, and weatherproofing of deteriorated materials, as well as in-kind restoration or replacement of damaged materials. Exterior maintenance and repair does not include replacement of materials due to obsolescence or when associated with minor or major exterior renovation, as defined below. Exterior maintenance and repair does not include the placement of signs.
5. Minor exterior alterations include the exterior alterations of any portion of a structure that do not fall within the definitions of "exterior maintenance and repair" or "major exterior alterations." Minor exterior alterations include, but are not limited to, the application or installation of finish building treatments, including windows and other glazing, doors, lintels, copings, vertical and horizontal projections (including awnings), and exterior sheathing and wall materials. Minor exterior alteration does not include the placement of signs.

6. Additions may be considered minor exterior alterations only when the additional floor area is designed and used solely for utility, HVAC, other mechanical equipment, ADA upgrades, or egress required by applicable fire safety or building codes.

C. Parking, Loading, and Unloading Areas

In the MUTSA and on NME key streets, parking, loading, and unloading areas shall be located as follows:

1. Parking areas shall not be located in more than 50% of the front yard.
2. No loading or unloading facilities shall be located adjacent to lands designated for residential uses, or residential community services, if there are alternative locations of adequate size on the subject site. No loading area shall be located between the front of a building and a front lot line, regardless of required setbacks.

19.510 Green Building Standards

Green building is the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's life cycle from siting to design, construction, operation, maintenance, renovation, and deconstruction. For the purposes of height bonuses and/or meeting the local criteria for the Milwaukie Vertical Housing Development Zone, a green building shall be defined as a building that receives certification (any level) under an ANSI-approved green building rating system (e.g., LEED, Earth Advantage, or Green Globes certified).

Height bonus eligibility shall be verified at the time of building permit submittal and shall be contingent upon submittal of green building certification. The height bonus may be binding under a development agreement and height bonus awards may be revoked, and/or other permits or approvals may be withheld, if the project fails to achieve certification.

~~**19.312 TACOMA STATION AREA MANUFACTURING ZONE M-TSA**~~

~~**19.312.1 Purpose**~~

~~The M-TSA Zone is intended to support the goals and policies of the Tacoma Station Area Plan and retain the area as a viable industrial zone as the uses allowed by the Tacoma Station Area Overlay Zone become established. The primary uses in the zone are intended to be uses involved in production, manufacturing, processing, and transportation of goods. Some specific uses not involving goods, which are appropriate for industrial areas due to their use characteristics, are also allowed. Office uses are intended to be subordinate and accessory to the industrial uses, and commercial uses are intended to be incidental uses that are minor in relation to the industrial uses on a site.~~

~~**19.312.2 Use Categories**~~

~~The categories of land uses that are permitted in the M-TSA Zone are listed in Table 19.312.2. Permitted uses are designated with a "P." A "C" in this table indicates a use that may be authorized as a conditional use in conformance with Chapter 19.905. An "L" indicates a use that is permitted outright with certain limitations as described in Subsection 19.312.6. Uses not listed in the table are not allowed.~~

~~All uses must comply with the land use district standards of this section and all other applicable requirements of the Zoning Ordinance. If it is unclear whether a proposed use is allowed under~~

~~the use categories, the applicant may submit a Director determination application per Subsection 19.903 to resolve the issue.~~

~~Table 19.312.2 M-TSA Zone Uses~~	
~~**Use Category**~~	~~**Status**~~
~~**A. Construction: Contractors and Related Businesses**~~	
~~This category comprises businesses whose primary activity is performing specific building or other construction-related work, on- or off-site. Examples include: residential and nonresidential building construction, utility/civil engineering construction, specialty trade contractors, and moving companies. Any associated on-site office use must be accessory to the primary construction business consistent with Subsection 19.312.2.G.1.~~	~~P~~
~~**B. Manufacturing**~~	
~~This category comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products, including the assembly of component parts. Examples include: alternative energy development; biosciences; food and beverage processing; software and electronics production; printing; fabrication of metal products; products made from manufactured glass; products made from rubber, plastic, or resin; converted paper and cardboard products; and microchip fabrication. Manufacturing may also include high-tech and research and development companies.~~	~~P~~
~~**C. Wholesale Trade**~~	
~~This category comprises establishments engaged in selling and/or distributing merchandise to retailers; to industrial, commercial, or professional business users; or to other wholesalers, generally without transformation, and rendering services incidental to the sale of merchandise. Wholesalers sell or distribute merchandise exclusively to other businesses, not the general public, and normally operate from a warehouse or office and are not intended for walk-in traffic. Associated retail is only allowed as an accessory use in conformance with Subsection 19.312.2.G.2 and other applicable standards in this section.~~	~~P~~
~~**D. Warehousing and Storage**~~	
~~This category comprises industries that are primarily engaged in operating warehousing and storage facilities for general merchandise, refrigerated goods, and other products and materials that have been manufactured and are generally being stored in anticipation of delivery to final customer. Examples include: transportation and distribution uses with loading docks, temporary outdoor storage, and fleet parking. Ministorage facilities (generally used by many individual customers to store personal property) are not considered industrial warehousing and storage and are not permitted in the M-TSA Zone.~~	~~P~~
~~**E. Trade Schools**~~	
~~This category comprises establishments whose primary purpose is to provide training for industrial needs and job-specific certification. Examples include: electronic equipment repair training, truck-driving school, welding school, training for repair of industrial machinery, and other industrial skills training.~~	~~P~~
~~**F. Accessory Uses and Structures**~~	
~~This category comprises uses and structures defined as incidental and subordinate to the main use of a property and located on the same lot as the main use, including accessory parking.~~	~~P~~
~~**G. Limited Uses**~~	

This category comprises uses that are primarily intended to support and serve other allowed uses in the M-TSA Zone. Limited uses are divided into two subcategories. See Subsection 19.312.6 for applicable limitations on these uses. 1. Administration and Support in Office Buildings This subcategory comprises uses in office-type buildings that are accessory to industrial uses. They administer, oversee, and manage companies; manage financial assets and securities; do research and design; do laboratory testing; and/or provide document preparation and other industrial support services. Examples include: corporate offices, company business offices, call centers, and other office-type uses that primarily serve other industries and do not generate a significant number of daily customer visits. 2. Retail Commercial and Professional Services This subcategory comprises the sale of goods, materials, and professional services. Examples of retail commercial uses include: restaurants, minimarts, factory outlet stores, and office supply stores. Examples of professional services that cater to employees and customers include: bank branches, day-care centers, dry cleaners, and health clubs.	L
H. Exclusive Heavy Industrial Uses	
This category comprises uses exclusive to heavy industrial. Examples include: rock crushing facilities; natural resource extraction facilities; aggregate storage and distribution facilities; and concrete and/or asphalt batch plants. See Subsection 19.312.5.A.	C
I. Waste Management	
This category comprises businesses that provide garbage and recycling hauling, including fleet parking and maintenance. Storage of waste or recycling materials collected by a waste management business for any period of time is not permitted.	P
J. Repair and Service	
This category comprises firms involved in repair and servicing of industrial, business, or consumer electronic equipment, machinery, and related equipment, products, or by-products. Examples include: welding shops; machine shops; tool, electric motor, and industrial instrument repair; sales, repair, or storage of heavy machinery, metal, and building materials; heavy truck servicing and repair; tire retreading or recapping; exterminators, including chemical mixing or storage and fleet storage and maintenance; janitorial and building maintenance services that include storage of materials and fleet storage and maintenance; fuel oil distributors; solid fuel yards; and large-scale laundry, dry-cleaning, and carpet cleaning plants. Few customers come to the site, particularly not general public daily customers. Auto service and repair shops for personal vehicles are not included in this category and are not allowed in the M-TSA Zone.	P
K. High-Impact Commercial Use	
This category comprises uses that generate substantial traffic, noise, light, irregular hours, or other potential impact on the community. Examples include, but are not limited to: drinking establishments, commercial recreation, adult entertainment businesses, theaters, hotels, and motels. See Subsection 19.312.5.B.	C
L. Marijuana Businesses (as Limited and Conditional Uses)	
This category includes the following businesses: 1. Marijuana retailers subject to the standards of Subsections 19.312.6.B and 19.509.1. 2. Marijuana processing, testing, research, and warehousing subject to the standards of Subsection19.509.2. 3. Marijuana production subject to the conditional use process and the standards of Subsections 19.509.2 and 19.509.3.	L C1

P = Permitted.

L = Limited.

~~C = Conditional use.~~

~~1 Only marijuana production is subject to the conditional use process.~~

~~19.312.3 Preexisting Uses and Developments~~

~~Notwithstanding the provisions of Chapter 19.800 Nonconforming Uses and Development, prohibited uses and structures located in any mapped "employment" or "industrial" area, as shown on the Milwaukie Comprehensive Plan Title 4 Lands Map, that were lawfully in existence prior to May 6, 1999, and would be impacted by the size limitations on retail uses in Subsection 19.312.6, are considered to be approved uses and structures for the purposes of this section. If such a preexisting use or development is damaged or destroyed by fire, earthquake, or other natural force, then the use will retain its preexisting status under this provision, so long as it is substantially reestablished within 3 years of the date of the loss.~~

~~Notwithstanding the provisions of Chapter 19.800 Nonconforming Uses and Development, prohibited uses and structures located in any mapped "industrial" area, as shown on the Milwaukie Comprehensive Plan Title 4 Lands Map, that were lawfully in existence prior to March 17, 2009, may continue and expand to add up to 20% more floor area and 10% more land area than exists on the above-stated date. This expansion requires a conditional use review.~~

~~19.312.4 Specific Prohibited Uses~~

~~A. Any use which has a primary function of storing, utilizing, or manufacturing explosive materials or other hazardous material as defined by the Oregon Fire Code, Chapter 27.~~

~~B. New residential, religious institutions, or public schools.~~

~~19.312.5 Standards for Conditional Uses~~

~~The following standards apply to those uses listed as conditional (C) in Table 19.312.2.~~

~~A. Exclusive Heavy Industrial Uses~~

~~1. Open pit and gravel excavating or processing shall not be permitted nearer than 50 ft to the boundary of an adjoining property line, unless written consent of the owner of such property is first obtained. Excavating or processing shall not be permitted closer than 30 ft to the right-of-way line of an existing platted street or an existing public utility right-of-way.~~

~~2. An open pit or sand and gravel operation shall be enclosed by a fence suitable to prevent unauthorized access.~~

~~3. A rock crusher, washer, or sorter shall not be located nearer than 500 ft to a residential or commercial zone. Surface mining equipment and necessary access roads shall be constructed, maintained, and operated in such a manner as to eliminate, as far as is practicable, noise, vibration, or dust which is injurious or substantially annoying to persons living in the vicinity.~~

~~B. High-Impact Commercial Uses~~

~~When considering a high-impact commercial use, the Commission shall consider the following:~~

~~1. Nearness to dwellings, churches, hospitals, or other uses which require a quiet environment.~~

~~2. Building entrances, lighting, exterior signs, and other features which could generate or be conducive to noise or other disturbance for adjoining uses.~~

3. Parking vehicles and pedestrian access and circulation could contribute to noise or attract habitual assembly or unruly persons.

4. Hours of operation.

5. In addition to consideration of the above with respect to building and site design, the Planning Commission may attach conditions or standards of performance and impact, and methods for monitoring and evaluating these, to ensure that such establishments do not become unduly or unnecessarily disruptive.

6. In addition, when considering an adult entertainment business, the following criteria shall be used:

   a. The proposed location of an adult entertainment business shall not be within 500 ft of an existing or previously approved adult entertainment business or within 500 ft of either a public park, a church, a day-care center, a primary, elementary, junior high, or high school, or any residentially zoned property.

   b. Distances shall be measured in a straight line, without regard to intervening structures, between the closest structural wall of the adult entertainment business and either the closest property line of the applicable property or the closest structural wall of any preexisting or previously approved adult entertainment business.

C. Marijuana Production

1. Marijuana production shall be subject to the security and odor control standards of Subsection 19.509.2and the marijuana production limitations set forth in subsection 19.509.3.

19.312.6 Standards for Limited Uses

The following standards apply to those uses listed as limited (L) in Table 19.312.2.

A. Administration and Support in Office Buildings

Only administrative and support offices which are related to the operation of a manufacturing use on the property are permitted in the M-TSA Zone. No greater than 20% of the floor area of a building may be used for administrative office space.

B. Retail Commercial and Professional Services

In order to ensure that these uses are limited in size and scale and do not dominate land intended for manufacturing uses, the following standards apply. See Figure 19.312.6.B for an illustration of the size limitations.

1. The total gross leasable square footage of an individual retail or professional service use shall not exceed 5,000 sq ft or 40% of the floor area of an individual building, whichever is less.

2. Multiple retail or professional service uses shall not exceed 20,000 cumulative gross leasable sq ft within the same development project. For the purposes of this section, a development project is defined as:

   a. A single building with 50,000 sq ft or more of gross floor area.

   b. Multiple buildings, each with less than 50,000 sq ft of gross floor area, that share common development features (such as access, parking, or utilities), whether or not the buildings are located on the same or a different parcel or lot.

3. ~~Retail and professional service uses shall not be permitted in a stand-alone building. They must be included within a building whose primary purpose is for an allowed manufacturing use. The retail commercial or professional service use is not required to be related to the primary manufacturing use. Food carts are permitted as a stand-alone use.~~

~~Figure 19.312.6.B~~
~~Size Limitations for Retail and Professional Service Uses~~

~~19.312.7 Development Standards for All Uses~~

~~The following development standards apply to all uses in the M-TSA Zone.~~

~~A. Setbacks (Minimum)~~

~~Front: 20 ft~~

~~Side: None*~~

~~Corner side yard: 10 ft~~

~~Rear: None*~~

~~* Except when abutting a residential district, in which case the setback shall match the abutting property.~~

~~B. Height (Maximum)~~

~~45 ft~~

~~C. Parking and Loading~~

~~See Chapter 19.600.~~

~~D. Landscaping~~

~~15% landscaping of the site is required. The required landscape area shall comply with the following:~~

~~1. Permitted landscape materials include trees, shrubs, ground cover plants, nonplant ground covers, and outdoor hardscape features.~~

~~2. No more than 20% of the required landscape area shall be covered in mulch or barkdust. Mulch or barkdust under the canopy of trees or shrubs is excluded from this limit.~~

~~3. Hardscape features (i.e., patios, decks, plazas, and similar) may cover up to 10% of the required landscape area.~~

~~4. Trees shall have a minimum 2-in caliper at time of planting, measured at 4 ft above grade.~~

~~5. Shrubs shall be planted from 5-gallon containers or larger.~~

~~6. All landscaped area that is not planted with trees and shrubs, or covered with nonplant material (barkdust or mulch), shall have ground cover plants that are sized and spaced as follows: a minimum of 1 plant per 12 in on center in triangular spacing, or other planting pattern that is designed to achieve 75% coverage of the area not covered by shrubs and tree canopy.~~

~~7. All plantings shall be maintained on an ongoing basis and shall be replaced if vegetation is diseased, dying, or dead.~~

~~E. Public Facility Improvements~~

~~As specified in Chapter 19.700.~~

~~F. Screening of Outdoor Uses~~

~~Outdoor uses shall be screened as follows:~~

~~1. All outdoor storage areas shall be screened from adjacent properties by a 6-ft-high sight-obscuring fence or wall or by the use of vegetation. Vegetation used to screen outdoor storage areas shall be of such species, number, and spacing to provide the required screening within 1 year after planting.~~

~~2. All screened or walled outdoor use and storage areas which abut a public street shall be set back a minimum of 25 ft from the property line(s). Within that setback area trees and evergreen shrubs shall be planted. The plants shall be of such a variety and arranged to allow only minimum gaps between foliage of mature trees and plants within 4 years of planting.~~

~~3. All plantings used to screen outdoor uses shall be maintained on an ongoing basis and shall be replaced if vegetation is diseased, dying, or dead.~~

~~G. Parking, Loading, and Unloading Areas~~

~~Parking, loading, and unloading areas shall be located as follows:~~

~~1. Parking, loading, and unloading areas shall not be located within required setbacks.~~

2. No loading or unloading facilities shall be located adjacent to lands designated for residential uses, or residential community services, if there are alternative locations of adequate size on the subject site.

H. External Effects

The potential external effects of manufacturing uses shall be minimized as follows:

1. Except for exterior lighting, operations producing heat or glare shall be conducted entirely within an enclosed building.
2. Potential nuisances such as noise, odor, electrical disturbances and other public health nuisances are subject to Title 8 Health and Safety.
3. Roof-mounted mechanical equipment, such as ventilators and ducts, for buildings located adjacent to residential districts, arterial streets, or transit streets, shall be contained within a completely enclosed structure that may include louvers, latticework, or other similar features. This screening requirement does not apply to roof-mounted solar energy systems or wind energy systems.

I. Additional Standards

Chapter 19.500 Supplementary Development Regulations contains additional standards that may apply.

19.406 TACOMA STATION AREA OVERLAY ZONE TSA

19.406.1 Purpose

This overlay zone implements the Tacoma Station Area Plan and will help ensure that future development in the station area is consistent with the vision established in the plan. The overlay zone is intended to facilitate the following:

A. A mix of employment and other appropriate uses with employment densities that support light rail transit, particularly in close proximity to the Tacoma light rail station.

B. Support for existing businesses.

C. An appropriate amount of parking for employees and visitors.

D. Attractive building designs and public facilities.

E. A simple and timely review process for new development.

19.406.2 Applicability

The standards and requirements in this section apply to all properties within the Tacoma Station Area Overlay Zone as shown on the Zoning Map.

19.406.3 General Provisions

The following provisions apply to all development within the Tacoma Station Area Overlay Zone.

A. Consistency with Base Zone

The M-TSA Zone is the base zone for the properties within the Tacoma Station Area Overlay Zone and all requirements of the base zone apply unless otherwise noted in this

~~section. Where conflicts occur between this section and other sections of the code, the standards and requirements of this section shall supersede.~~

~~B. Off-Site Impacts~~

~~In order to ensure greater compatibility between manufacturing and nonmanufacturing uses in the Tacoma station area, the following off-site impact standards apply in Subareas 1-3.~~

~~1. Applicability~~

~~The off-site impact standards in this section apply to all new machinery, equipment, and facilities associated with manufacturing uses. Machinery, equipment, or facilities that were at the site and in compliance with existing regulations as of August 1, 2013, the effective date of Ordinance #2071, are not subject to these off-site impact standards.~~

~~2. Noise~~

~~The City's noise control standards and requirements in Chapter 8.08 apply.~~

~~3. Vibration~~

~~Continuous, frequent, or repetitive vibrations that exceed 0.002g peak are prohibited. Generally, this means that a person of normal sensitivities should not be able to feel any vibrations.~~

~~a. Temporary vibrations from construction activities or vehicles leaving the site are exempt.~~

~~b. Vibrations lasting less than 5 minutes per day are exempt.~~

~~c. Seismic or electronic measuring equipment may be used when there are doubts about the level of vibrations.~~

~~4. Odor~~

~~Continuous, frequent, or repetitive odors are prohibited. The odor threshold is the point at which an odor may just be detected. An odor detected for less than 15 minutes per day is exempt.~~

~~5. Illumination~~

~~Machinery, equipment, and facilities may not directly or indirectly cause illumination on other properties in excess of 0.5 footcandles of light.~~

~~6. Measurements~~

~~Measurements for compliance with these standards may be made from the property line or within the property of the affected site. Measurements may be made at ground level or at habitable levels of buildings.~~

~~7. Documentation~~

~~An applicant must provide documentation certified by a registered engineer or architect, as appropriate, to ensure that the proposed activity can achieve compliance with these standards.~~

~~C. Additional Standards~~

~~In addition to the standards of the base zone and the overlay zone, the following chapters contain requirements and standards that may apply:~~

1. Chapter 19.500 Supplementary Development Regulations
2. Chapter 19.600 Off-Street Parking and Loading
3. Chapter 19.700 Public Facility Improvements
4. Chapter 19.800 Nonconforming Uses and Development

D. Street Design

New or improved streets within the station area shall be constructed consistent with the street design cross sections established in the Public Works Standards.

E. Review Process

All new or expanded/modified development in the overlay zone will be processed through Type I or Type II Development Review consistent with Section 19.906.

19.406.4 Tacoma Station Area Overlay Zone Subareas

The Tacoma Station Area Overlay Zone has been divided into four subareas to further refine the design and appropriate mix of uses within the station area. Subarea boundaries are shown on the Zoning Map. The intent of the subareas is to recognize that the station area is not anticipated to develop uniformly in the future. Lands closest to the future Tacoma light rail station are expected to support a different mix of uses and design standards than lands further from the station. The transportation network, existing and planned, also establishes a distinction between the varying transportation demands associated with anticipated land uses within the subareas. As such, street design cross sections for the Tacoma station area, found in the Public Works Standards, may vary by subarea. The following subsections define the four subareas and provide specific requirements and standards for each.

19.406.5 Subarea 1: North of Springwater

A. Subarea Boundary

Subarea 1 is located north of the Springwater Corridor and south of the Tacoma light rail station, as shown on the Zoning Map.

B. Subarea Characteristics

Due to its proximity to the Tacoma light rail station, Subarea 1 is intended to develop a mix of land uses, including retail commercial and limited residential uses that cater to light rail users. Subarea 1 is anticipated to develop as an active "station area community" supported by convenient access to light rail.

C. Permitted Uses

Permitted uses in Subarea 1 are the same as those permitted in the base M-TSA Zone, with the following exceptions:

1. Professional service and office uses are permitted in a stand-alone building with no size limitations (they do not need to be accessory to a manufacturing use).
2. Multifamily residential is permitted outright in a stand-alone building or in stories above a ground-floor commercial or office use.

D. Limited and Prohibited Uses

The following uses are not allowed or are allowed with limitations.

1. Retail uses are permitted in a stand-alone building (they do not need to be accessory to a manufacturing use). Retail uses shall not exceed 60,000 sq ft per building or development project.

2. Warehousing and storage uses, as defined in Subsection 19.312.2.D, are allowed only as accessory or secondary uses to a permitted use. Stand-alone warehouse and storage uses are prohibited.

3. Only those manufacturing uses that comply with the off-site impact standards in Subsection 19.406.3.B are allowed.

E. Development Standards for Nonmanufacturing Uses

In addition to the standards in the base M-TSA Zone, nonmanufacturing uses shall comply with the standards below.

1. Density

The density standards below apply to developments that include residential uses.

a. Minimum Density

There is no minimum residential density standard.

b. Maximum Density

The maximum residential density is 32.0 dwelling units per acre.

2. Floor Area Ratio

Minimum of 0.5:1 and maximum of 3:1.

3. Building Height

Minimum of 25 ft and maximum of 65 ft.

4. Minimum Setbacks

a. Front

(1) Buildings that are 2 stories or less than 25 ft high with a front setback along Main St have no minimum setback requirement.

(2) Buildings that are more than 2 stories and at least 25 ft high with a front setback along Main St have a minimum 5-ft setback.

(3) Front yard setbacks along any other street have a minimum 10-ft setback.

b. Side and rear

(1) Side and rear lot lines abutting a residential zone have a minimum 10-ft setback.

(2) Side and rear lot lines not abutting a residential zone have no required setback.

5. Parking Location

No surface parking shall be located within a front setback. No loading area shall be located between the front of a building and a front lot line, regardless of required setbacks.

6. Signage

~~At least 1 pedestrian-oriented sign shall be provided along the building façade that faces the street. Pedestrian-oriented signs may be attached to the building, an awning, a kiosk, hanging, or otherwise so long as they are displayed no higher than 10 ft above the sidewalk and face the street. All signs must comply with Title 14 Signs.~~

~~7. Stand-Alone Multifamily Residential Development~~

~~Stand-alone multifamily residential development shall comply with Subsection 19.505.3 Multifamily Housing. In addition, the ground floor of stand-alone multifamily buildings shall be constructed to meet building code standards for a retail use. This will facilitate efficient conversion of the ground-floor space from residential to retail in the future.~~

~~F. Design Standards for All New Construction and Major Exterior Alterations~~

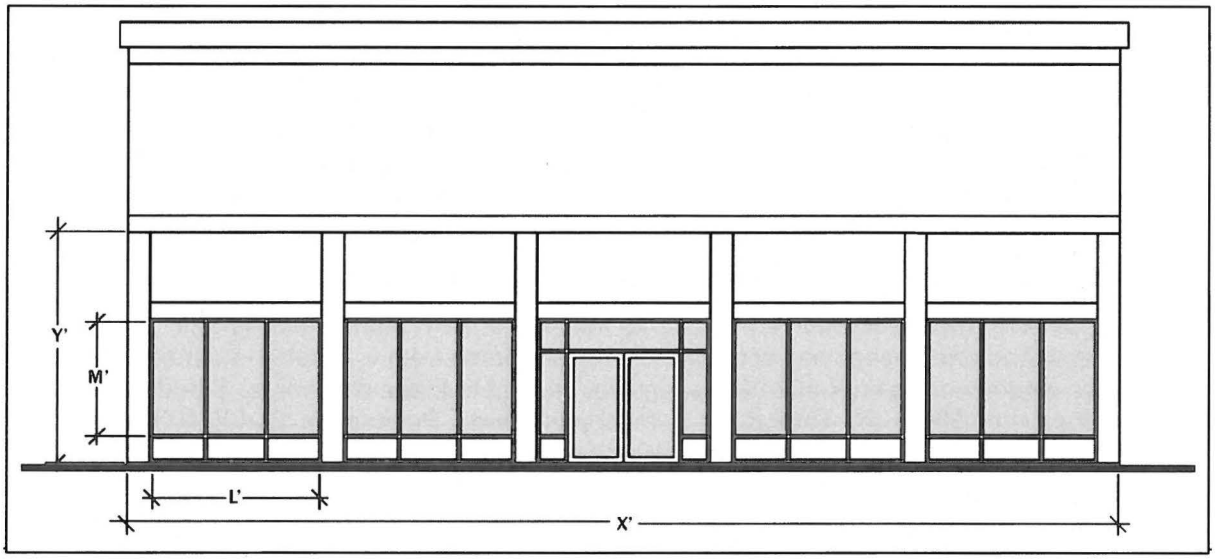
~~In addition to the standards in the base M-TSA Zone, both manufacturing and nonmanufacturing uses shall comply with the standards below. Exterior maintenance and repair, and minor exterior alterations, are not subject to these standards. Stand-alone multifamily buildings are not subject to these standards. Subsection 19.406.5.G below defines exterior maintenance and repair and major/minor exterior alterations.~~

~~1. Ground-Floor Windows and Doors~~

~~Long expanses of blank walls facing the street or other public area have negative impacts on the streetscape and the pedestrian environment. To minimize these effects, the standards of this section are intended to enhance street safety and provide a comfortable walking environment by providing ground-level features of interest to pedestrians. All exterior walls facing the street or sidewalk must meet the following standards:~~

~~a. 50% of the ground-floor street wall area must consist of openings; i.e., windows or glazed doors. The ground-floor street wall area is defined as the area up to the finished ceiling height of the space fronting the street or 15 ft above finished grade, whichever is less. See Figure 19.406.5.F.1.a. Window coverage is defined as the total ground-floor window area divided by the total ground-floor street wall area.~~

~~Figure 19.406.6.F.1.a~~
~~Ground-Floor Windows and Doors~~



~~Area Calculation for Ground-Floor Windows and Doors:~~
~~Single window area = L x M~~
~~Total window area (TWA) = (L x M) x (number of window bays, including transparent doors)~~
~~Total ground-floor street wall area = X x Y~~

~~b. Ground-floor windows shall be distributed along the wall area such that there are no lengths of windowless wall greater than 20 ft.~~

~~c. Clear glazing is required for ground-floor windows. Nontransparent, reflective, or opaque glazing are not permitted.~~

~~d. Ground-floor windows shall allow views into storefronts, working areas, or lobbies. No more than 50% of the window area may be covered by interior furnishings including but not limited to curtains, shades, signs, or shelves. Signs are limited to a maximum coverage of 20% of the window area.~~

~~2. Windows~~

~~The following standards are applicable to building windows facing streets, courtyards, and/or public squares.~~

~~a. Windows shall be "punched" openings recessed a minimum of 2 in from the wall surface.~~

~~b. Window height shall be equal to or greater than window width.~~

~~c. The following windows are prohibited.~~

~~(1) Reflective, tinted, or opaque glazing.~~

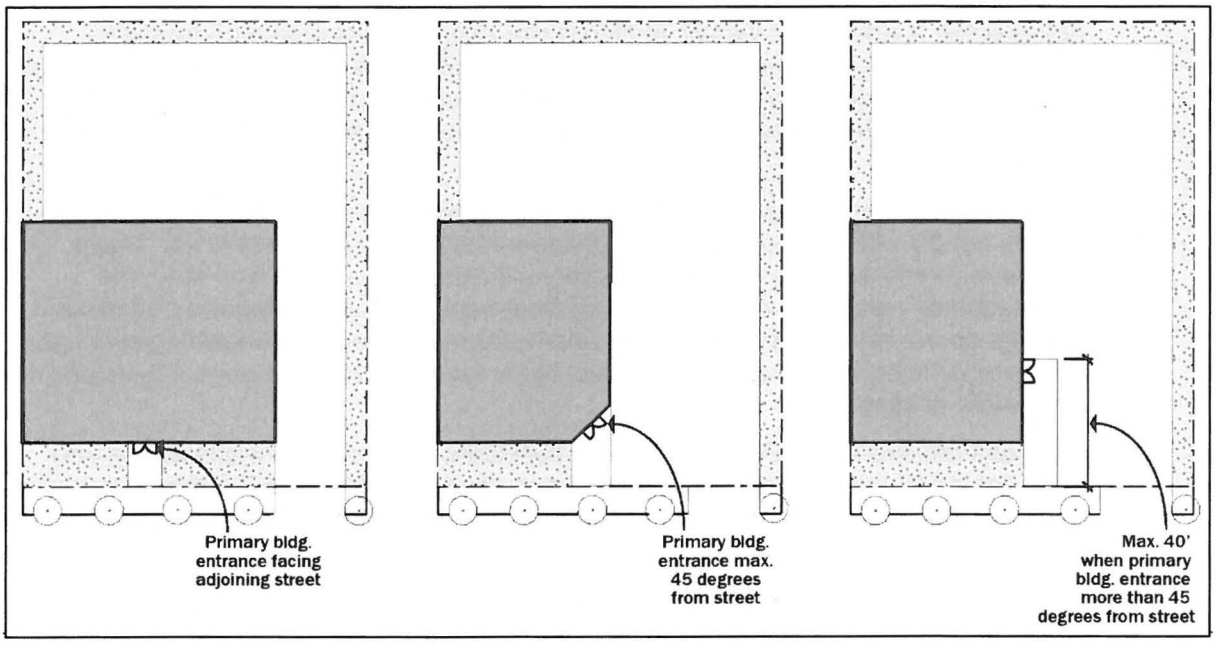
~~(2) Simulated divisions (internal or applied synthetic materials).~~

~~(3) Exposed, unpainted metal frame windows.~~

~~3. Building Orientation~~

~~All buildings shall have at least one primary building entrance (e.g., dwelling entrance, customer entrance, tenant entrance, lobby entrance, or breezeway/courtyard entrance) facing an adjoining street (i.e., within 45 degrees of the street property line). If the building entrance is turned more than 45 degrees from the street (e.g., front door is on a side wall), the primary entrance shall not be more than 40 ft from a street sidewalk, except to provide pedestrian amenities. In all cases, a walkway shall connect the primary entrance to the sidewalk. See Figure 19.406.5.F.3 for illustration.~~

~~Figure 19.406.5.F.3~~
~~Building Entrances~~



~~4. Weather Protection~~

~~All building entrances shall include an awning, canopy, recess, or some other form of shelter to provide weather protection and shade for users.~~

~~5. Design Standards for Walls~~

~~The following standards are applicable to the exterior walls of buildings facing streets, courtyards, and/or public squares.~~

~~a. Exterior wall-mounted mechanical equipment is prohibited.~~

~~b. The following wall materials are prohibited at the street level of the building.~~

~~(1) EIFS or other synthetic stucco panels.~~

~~(2) Splitface or other masonry block.~~

~~(3) Plywood paneling.~~

~~(4) Brick with dimensions larger than 4 x 8 x 2 in.~~

~~(5) Vinyl or metal cladding.~~

(6) Composite wood fiberboard or composite cement-based siding.

6. Design Standards for Roofs

The following standards are applicable to building roofs.

a. Flat roofs shall include a cornice with no less than 6 in depth (relief) and a height of no less than 12 in.

b. Mansard or decorative roofs on buildings less than 3 stories are prohibited.

G. Definitions for Applicability of Design Standards

1. Exterior maintenance and repair includes refurbishing, painting, and weatherproofing of deteriorated materials, as well as in-kind restoration or replacement of damaged materials. Exterior maintenance and repair does not include replacement of materials due to obsolescence or when associated with minor or major exterior renovation, as defined below. Exterior maintenance and repair does not include the placement of signs.

2. Minor exterior alterations include the exterior alterations of any portion of a structure that do not fall within the definitions of "exterior maintenance and repair" or "major exterior alterations." Minor exterior alterations include, but are not limited to, the application or installation of finish building treatments, including windows and other glazing, doors, lintels, copings, vertical and horizontal projections (including awnings), and exterior sheathing and wall materials. Minor exterior alteration does not include the placement of signs.

3. Additions not exceeding 250 sq ft may be considered minor exterior alterations only when the additional floor area is designed and used for utility, HVAC, other mechanical equipment, ADA upgrades, or egress required by applicable fire safety or building codes.

4. Major exterior alterations include any of the following:

a. Alterations that do not fall within the definitions of "exterior maintenance and repair" or "minor exterior alterations."

b. Demolition or replacement of more than 25% of the surface area of any exterior wall or roof.

c. Floor area additions that exceed 250 sq ft or do not meet the limited purposes as defined under the minor exterior alteration (ADA upgrades, etc.).

5. The design standards in Subsection 19.406.5.F above are applicable to major exterior alterations as follows:

a. Major exterior alterations involving a wall(s) shall comply with the design standards for walls and the design standards for windows for that wall(s).

b. Major exterior alterations involving a roof shall comply with the design standards for roofs.

19.406.6 Subarea 2: West of McLoughlin

A. Subarea Boundary

Subarea 2 is located north of Ochoco St, surrounding the Springwater Corridor west of McLoughlin Blvd, as shown on the Zoning Map.

~~B. Subarea Characteristics~~

~~This subarea is intended to develop with a mix of employment and residential uses, including live/work units that can be compatible with surrounding manufacturing uses.~~

~~C. Permitted Uses~~

~~Permitted uses in Subarea 2 are the same as those permitted in the base M-TSA Zone, with the following exceptions:~~

~~1. Professional service and office uses are permitted in a stand-alone building with no size limitations (they do not need to be accessory to a manufacturing use).~~

~~2. Multifamily residential is permitted outright in a stand-alone building or in stories above a ground-floor commercial or office use.~~

~~3. Rowhouse development is permitted and can include live/work style units with groundfloor work space or commercial space.~~

~~D. Limited and Prohibited Uses~~

~~The following uses are not allowed or are allowed with limitations.~~

~~1. Retail uses are permitted in a stand-alone building (they do not need to be accessory to a manufacturing use). Retail uses shall not exceed 20,000 sq ft per building or development project.~~

~~2. Warehousing and storage uses, as defined in Subsection 19.312.2.D, are allowed only as accessory or secondary uses to a permitted use. Stand-alone warehouse and storage uses are prohibited.~~

~~3. Only those manufacturing uses that comply with the off-site impact standards in Subsection 19.406.3.B are allowed.~~

~~E. Conditional Use~~

~~A retail use of up to 30,000 sq ft may be permitted subject to conditional use approval, per Section 19.905.~~

~~F. Development and Design Standards~~

~~In addition to the standards in the base M-TSA Zone, the development and design standards for Subarea 1 in Subsections 19.406.5.E-G also apply to Subarea 2, with the following addition: Rowhouse development in Subarea 2 shall comply with Subsection 19.505.5 Rowhouses.~~

~~**19.406.7 Subarea 3: Mixed Employment**~~

~~A. Subarea Boundary~~

~~Subarea 3 is located between Beta St and Springwater Corridor, east of McLoughlin Blvd, as shown on the Zoning Map.~~

~~B. Subarea Characteristics~~

~~Subarea 3 is intended to develop as a relatively intense mixed employment district including office, light manufacturing, research and development, and other general employment uses, along with supporting retail/commercial uses. Subarea 3 is also appropriate for larger-scale civic or institutional uses.~~

~~C. Permitted Uses~~

~~Permitted uses in Subarea 3 are the same as those permitted in the base M-TSA Zone, with the following exceptions:~~

~~1. Professional service uses are permitted in a stand-alone building with no size limitations (they do not need to be accessory to a manufacturing use).~~

~~2. Multifamily residential is permitted outright in a stand-alone building or in stories above a ground-floor commercial or office use. Deed restrictions will apply to multifamily development in order to reduce potential conflicts between residential uses and surrounding manufacturing uses.~~

~~D. Limited and Prohibited Uses~~

~~The following uses are not allowed or are allowed with limitations.~~

~~1. Retail uses are permitted in a stand-alone building (they do not need to be accessory to a manufacturing use). Retail uses shall not exceed 20,000 sq ft per building or development project. Development standards for manufacturing uses will be the standards of the base zone plus additional standards similar to those in the Business Industrial Zone Subsection 19.310.6.~~

~~2. Warehousing and storage uses, as defined in Subsection 19.312.2.D, are allowed only as accessory or secondary uses to a permitted use. Stand-alone warehouse and storage uses are prohibited.~~

~~3. Only those manufacturing uses that comply with the off-site impact standards in Subsection 19.406.3.B are allowed.~~

~~E. Conditional Uses~~

~~1. Recreation and entertainment uses are allowed in Subarea 3 subject to conditional use approval, per Section 19.905. In permitting this use, the Planning Commission shall evaluate the following approval criteria:~~

~~a. The recreation and entertainment use is not inconsistent with the land use and urban design recommendations for Subarea 3 as described in the Tacoma Station Area Plan.~~

~~b. The recreation and entertainment use would establish a facility that is of benefit to the Milwaukie community and that is unique enough to attract visitors and users from elsewhere in the region.~~

~~c. The layout of the site and its structures feature high-quality design and materials. The site shall be designed in a manner that encourages transit use through location of building entrances, building orientation, and connections to public rights-of-way that connect to the Tacoma Light Rail Station.~~

~~2. A retail use of up to 30,000 sq ft may be permitted subject to conditional use approval, per Section 19.905.~~

~~F. Development and Design Standards~~

~~In addition to the standards in the base M-TSA Zone, the development and design standards for Subarea 1 in Subsections 19.406.5.E-G also apply to Subarea 3, with the following addition: All development with frontage along Main St shall have a 10-ft front setback.~~

~~**19.406.8 Subarea 4: Manufacturing**~~

~~A. Subarea Boundary~~

~~Subarea 4 is located south of Beta St and north of Highway 224, as shown on the Zoning Map.~~

~~B. Subarea Characteristics~~

~~This subarea is intended to continue to develop as a manufacturing district with some flexibility for nonmanufacturing uses to occur at higher levels than would be allowed in the base M-TSA Zone.~~

~~C. Permitted Uses~~

~~Permitted uses in Subarea 4 are the same as those permitted in the base M-TSA Zone, with the following exceptions: Retail commercial and professional service uses may be permitted in a stand-alone building (they do not need to be accessory to a manufacturing use). The size limitations of the base M-TSA Zone Subsections 19.312.6.C.1-2 still apply.~~

~~D. Limited and Prohibited Uses~~

~~The following uses are not allowed or are allowed with limitations: Warehousing and storage uses, as defined in Subsection 19.312.2.D, are allowed only as accessory or secondary uses to a permitted use. Stand-alone warehouse and storage uses are prohibited.~~

~~E. Parking Requirements~~

~~In Subarea 4, the following parking requirements apply and supersede any conflicting requirements found in Table 19.605.1 or other sections of the code.~~

~~1. General Office Uses~~

~~a. Minimum number of parking spaces: 2 per 1,000 sq ft of gross floor area~~

~~b. Maximum number of parking spaces: 4.1 per 1,000 sq ft of gross floor area~~

~~2. Retail Commercial Uses~~

~~a. Minimum number of parking spaces: 2 per 1,000 sq ft of gross floor area~~

~~b. Maximum number of parking spaces: 6.2 per 1,000 sq ft of gross floor area~~

~~3. Manufacturing Uses~~

~~a. Minimum number of parking spaces: 1 per 1,000 sq ft of gross floor area~~

~~b. Maximum number of parking spaces: none~~

~~4. The minimum and maximum parking requirements in Subsection 19.406.8.E may be modified consistent with Section 19.605.2 Quantity Modifications and Required Parking Determinations.~~

~~F. Development and Design Standards~~

~~In addition to the development standards in the base M-TSA Zone, the design standards in Subsections 19.406.5.F-G also apply to developments that have frontage on Main St in Subarea 4, with the following exceptions:~~

~~1. All development with frontage along Main St shall have a 10-ft front setback.~~

~~2. The ground-floor window coverage requirement in Subsection 19.406.5.F.1.a is reduced to 30% in this subarea.~~

Updates for Section References and Housekeeping Only

Sign Ordinance

14.16.050 MANUFACTURING ZONE

No sign shall be installed or maintained in an M, BI, NME, or MUTSA ~~M-TSA~~ Zone, except as allowed under Section 14.12.010 Exempted Signs, or as otherwise noted in Table 14.16.050.

Table 14.16.050
Standards for Signs in Manufacturing Zones M, BI, NME, or MUTSA ~~M-TSA~~

Sign Type	Area	Height	Location	Number	Illumination[1]

Zoning Ordinance

19.107.1 Zone Classifications

For the purposes of this title, the following base zones and overlay zones are established in the City per Table 19.107.1:

Table 19.107.1
Classification of Zones

Zone Description	Abbreviated Description
Base Zones	
Residential	R-10
Residential	R-7
Residential	R-5
Residential	R-3
Residential	R-2.5
Residential	R-2
Residential	R-1
Residential-Business Office	R-1-B
Downtown Mixed Use	DMU
Open Space	OS
Neighborhood Commercial	C-N
Limited Commercial	C-L
General Commercial	C-G
Community Shopping Commercial	C-CS
Manufacturing	M
Business Industrial	BI
Planned Development	PD
~~Tacoma Station Area Manufacturing~~	~~M-TSA~~
Tacoma Station Area Mixed Use	MUTSA
North Milwaukie Employment	NME
General Mixed Use	GMU

Neighborhood Mixed Use	NMU
Overlay Zones	
Willamette Greenway	WG
Historic Preservation	HP
Flex Space	FS
Aircraft Landing Facility	L-F
~~Tacoma Station Area~~	~~TSA~~

19.505 BUILDING DESIGN STANDARDS

19.505.6 Live/Work Units

C. Use Standards

1. Any nonresidential use allowed in the base zone within which a live/work unit is legally located may be conducted on the premises of that live/work unit.
2. At least one of the employees of the commercial portion of the live/work unit must reside in the unit.
3. If the live/work unit is multistory, t~~T~~he ground floor of a live/work unit can be used for either commercial or residential purposes. When the ground floor is being used as part of the dwelling, the provisions of Subsection 19.508.4.E.5.e are not applicable.
4. A live/work unit is allowed instead of, or in addition to, a home occupation as defined by Section 19.201.

D. Development Standards

In addition to the standards of the base zone, live/work units shall comply with all of the following standards.

1. The nonresidential portion of the unit shall occupy at least 25% of the gross floor area.
2. If the live/work unit is multistory, t~~T~~he nonresidential portion of the building shall be located on the ground floor and the residential unit shall be located on the upper floors or to the rear of the nonresidential portion. Live/work units may be single-floor units, in which case a separation between the residential and nonresidential uses is not required.
3. Employees shall be limited to occupants of the residential portion of the building plus up to 5 persons not residing in the residential portion.

~~E. Design Standards~~

~~1. Live/work units are subject to the design standards of Subsection 19.508.~~

~~2. The transitional entry standards of Subsection 19.505.5.C.2 do not apply to live/work units.~~

19.509.3 Marijuana Production Limitations

The following limitations apply to marijuana production in the M-Manufacturing, NME-North Milwaukie Employment, and MUTSA-Tacoma Station Area Mixed Use ~~M-TSA Tacoma Station Area Manufacturing~~ zones:

A. Within a building utilized for production, multiple producers may operate but no single producer shall operate in a manner where the mature marijuana plant grow canopy associated with that producer's operation exceeds 10,000 sq ft.

B. A marijuana producer shall not be located in a building that is within 1,500 ft of another building that is utilized for marijuana production.

19.904.11 Standards for Wireless Communication Facilities

Table 19.904.11.C
Wireless Communication Facilities—Type and Review Process

Towers		WCFs Not Involving New Tower		
Zones	New Monopole Tower 100 Ft	Building Rooftop or Wall Mounted Antenna	Water Towers, Existing Towers, and Other Stealth Designs	On Existing Utility Pole in Row with or w/out Extensions
BI	III	P/II	P/II	P/II
M	III	P/II	P/II	P/II
MUTSA ~~M-TSA~~	III	P/II	P/II	P/II
NME	III	P/II	P/II	P/II

19.904.11.F.2

2. Height: maximum heights. Also see Table 19.904.11.C.

   a. Height Restrictions

      The maximum height limitation of the monopole tower and antennas shall not exceed the following:

      (1) BI, M, NME, and MUTSA ~~M-TSA~~ Zones: 100 ft.

Clean Amendments

Zoning Ordinance

CHAPTER 19.300 BASE ZONES

19.312 NORTH MILWAUKIE INNOVATION AREA

19.312.1 Purpose

A. The Tacoma Station Area Mixed Use Zone (MUTSA) is intended to support the goals and policies of the North Milwaukie Innovation Area (NMIA) Plan. The MUTSA district is intended to take advantage of its unique location near the Tacoma light rail station and provide opportunities for a wide range of uses. The primary uses in this zone include housing, limited commercial and service-related office use, high intensity office employment, and light industrial uses including uses involved in production, manufacturing and processing, of goods. The intent of light industrial uses in the MUTSA is to provide an area to serve a wide variety of manufacturing and other industrial activities with controlled external impacts. These types of industries are often involved in the secondary processing of materials into components, the assembly of components into finished products, food and beverage processing, warehousing, and wholesaling. The external impact from these uses is generally less than heavy industrial uses and activities are generally located indoors.

B. The North Milwaukie Employment Zone (NME) Zone is intended to support the goals and policies of the NMIA Plan and retain the area as a viable industrial and employment zone. The primary uses in the zone are intended to be uses involved in production, manufacturing, processing, and transportation of goods, as well as uses providing opportunities for higher intensity employment such as production-related office, laboratories, and research and development uses. Limited specific uses not involving the production and transportation of goods, which are appropriate for industrial areas due to their use characteristics, are also allowed. Service-related office and commercial uses are intended to be incidental uses that are minor in relation to the industrial uses on a site and should be subordinate and accessory to the industrial uses in the zone.

19.312.2 Uses

A. Permitted Uses

Uses allowed outright in the NMIA zones are listed in Table 19.312.2 with a "P." These uses are allowed if they comply with the development and design standards and other regulations of this title.

B. Community Service Uses

Uses listed in Table 19.312.2 as "CSU" are permitted only as community service uses in conformance with Section 19.904.

C. Conditional Uses

Uses listed in Table 19.312.2 as "CU" are permitted only as conditional uses in conformance with Section 19.905.

D. Nonconforming Uses, Structures, and Development

Existing structures and uses that do not meet the standards for the NMIA zones may continue in existence. Alteration or expansion of a nonconforming use, structure, or development that brings the use, structure, or development closer to compliance may be allowed through development review pursuant to Section 19.906. Alteration or expansion of a nonconforming use or structure that does not bring the use or structure closer to compliance may be allowed through a Type III variance pursuant to Section 19.911. Except where otherwise stated in this section, the provisions of Chapter 19.800 Nonconforming Uses and Development apply.

E. Prohibited Uses

Uses not listed in Table 19.312.2, and not considered accessory or similar pursuant to Subsections 19.312.2.F and G below, are prohibited. Uses listed with an "N" in Table 19.312.2 are also prohibited.

F. Limited Uses

Uses listed in Table 19.312.2 as "L" are permitted only as limited uses in conformance with Section 19.312.4.

G. Accessory Uses

Uses that are accessory to a primary use are allowed if they comply with all development standards.

H. Similar Uses

The Planning Director, through a Type I review, may determine that a use that is not listed is considered similar to an example use listed in Table 19.312.2. The unlisted use shall be subject to the standards applicable to the similar example use.

Table 19.312.2
Uses Allowed in the North Milwaukie Innovation Area

Uses and Use Categories	NME	MUTSA	Standards/Additional Provisions
Residential[1]			
Multifamily	N	P	**Subsection 19.312.6** Detailed Development Standards **Subsection 19.505.3** Multifamily Housing
Mixed use residential	N	P	**Subsection 19.312.6** Detailed Development Standards
Live/work units	N	P	**Subsection 19.312.6** Detailed Development Standards **Subsection 19.505.6** Live/Work Units
Commercial			
Office 1. Production-related office uses are characterized by activities that, while conducted in an office-like setting, involve less face-to-face customer contact and do not tend to generate foot traffic. Their operations are less service-oriented than traditional office uses and focus on the development, testing,	P	P	

Table 19.312.2 Uses Allowed in the North Milwaukie Innovation Area			
Uses and Use Categories	**NME**	**MUTSA**	**Standards/Additional Provisions**
research, production, processing, packaging, or assembly of goods and products. Examples include: corporate headquarters, architects, engineers, financial services or accounting firm headquarters, call offices/call centers; software and internet content development and publishing; telecommunication service providers; data processing; television, video, radio, and internet studios and broadcasting; scientific and technical services; government and utility research offices; call centers, marijuana testing and research facilities, and medical and dental labs or research/bioscience facility.			
2. Service-Related Office Traditional service-related office uses are characterized by activities that generally focus on direct in-person, customer-focused services including government, professional, medical, or financial services. These office uses generally involve a high level of face-to-face customer contact and are typically expected to generate foot traffic. Examples include: professional services such as lawyers; financial businesses such as lenders, retail brokerage houses, bank branches, or real estate agents; sales offices; government offices and public utility offices; counseling offices; and medical and dental clinics.	L	L	**Subsection 19.312.4.A** Standards for Limited Uses
Drinking establishments Drinking establishments primarily involve the sale of alcoholic beverages for on-site consumption. Examples include taverns, bars, or cocktail lounges.	L	L/CU	**Subsection 19.312.4.A** Standards for Limited Uses
Eating establishments Eating establishments primarily involve the sale of prepared food and beverages for on-site consumption or takeout. Eating establishments may include incidental sales of alcoholic beverages.	L	L/CU	**Subsection 19.312.4.A** Standards for Limited Uses

Table 19.312.2 Uses Allowed in the North Milwaukie Innovation Area			
Uses and Use Categories	**NME**	**MUTSA**	**Standards/Additional Provisions**
Examples include restaurants, delicatessens, retail bakeries, coffee shops, concession stands, and espresso bars.			
Retail-oriented sales Sales-oriented retail firms are involved in the sale, leasing, and rental of new or used products to the general public. Examples include stores selling, leasing, or renting consumer, home, and business goods including art, art supplies, bicycles, clothing, dry goods, electronics, fabric, gifts, groceries, hardware, household products, jewelry, pets and pet products, pharmaceuticals, plants, printed materials, stationery, and printed and electronic media.	L	L	**Subsection 19.312.4.A** Standards for Limited Uses
Personal service Personal service firms are involved in providing consumer services. Examples include hair, tanning, and spa services; pet grooming; photo and laundry drop-off; dry cleaners; and quick printing.	L	L	**Subsection 19.312.4.A** Standards for Limited Uses
Day care. Day care is the provision of regular childcare, with or without compensation, to 4 or more children by a person or person(s) who are not the child's parent, guardian, or person acting in place of the parent, in a facility meeting all State requirements. Examples include nursery schools, before- and after-school care facilities, and child development centers.	L	L	**Subsection 19.312.4.B.2** Standards for Limited Uses
Hotel/motel	N	CU	**Subsection 19.905** Conditional Uses
Adult entertainment businesses[2]	N	CU	**Subsection 19.905** Conditional Uses
Industrial, Manufacturing and Production			
Manufacturing and production. This category comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products, including the assembly of component parts.	P	L	**Subsection 19.312.4.B.1** Standards for Limited Uses

Table 19.312.2 Uses Allowed in the North Milwaukie Innovation Area			
Uses and Use Categories	**NME**	**MUTSA**	**Standards/Additional Provisions**
Examples include: alternative energy development; biosciences; food and beverage processing; software and electronics production; printing; fabrication of metal products; products made from manufactured glass; products made from rubber, plastic, or resin; converted paper and cardboard products; and microchip fabrication. Manufacturing may also include high-tech and research and development companies.			
Construction: Contractors and Related Businesses This category comprises businesses whose primary activity is performing specific building or other construction-related work, on- or off-site. Examples include: residential and nonresidential building construction; utility/civil engineering construction; specialty trade contractors; and moving companies.	P	P	
Wholesale Trade, Warehousing, Distribution This category comprises establishments engaged in selling and/or distributing merchandise to retailers; to industrial, commercial, or professional business users; or to other wholesalers, generally without transformation, and rendering services incidental to the sale of merchandise. Wholesalers sell or distribute merchandise exclusively to other businesses, not the general public, and normally operate from a warehouse or office and are not intended for walk-in traffic. Examples include: operating warehousing and storage facilities for general merchandise, refrigerated goods, and other products and materials that have been manufactured and are generally being stored in anticipation of delivery to final customer. Includes fleet parking. Ministorage facilities (generally used by many individual customers to store	P	P	

Table 19.312.2 Uses Allowed in the North Milwaukie Innovation Area			
Uses and Use Categories	**NME**	**MUTSA**	**Standards/Additional Provisions**
personal property) are not considered industrial warehousing and storage and are not permitted.			
Repair and Service This category comprises firms involved in repair and servicing of industrial, business, or consumer electronic equipment, machinery, and related equipment, products, or by-products. Few customers come to the site, particularly not general public daily customers. Auto service and repair shops for personal vehicles are not included in this category and are not permitted. Examples include: welding shops; machine shops; tool, electric motor, and industrial instrument repair; sales, repair, or storage of heavy machinery, metal, and building materials; heavy truck servicing and repair; tire retreading or recapping; exterminators, including chemical mixing or storage and fleet storage and maintenance; janitorial and building maintenance services that include storage of materials and fleet storage and maintenance; fuel oil distributors; solid fuel yards; and large-scale laundry, dry-cleaning, and carpet cleaning plants.	P	L	**Subsection 19.312.4.B.1** Standards for Limited Uses
Trade Schools and Training Facilities[3] This category comprises establishments whose primary purpose is to provide training for industrial needs and job-specific certification. Examples include: electronic equipment repair training; truck-driving school; welding school; training for repair of industrial machinery; job skills training classrooms; and other industrial/employment skills training.	P	P	
Creative Space Industrial/manufacturing space specifically for artist-type uses. Examples include: artist manufacturing studios (welding, pottery, ceramics, painting, glass, etc.); sound stage and/or	P	P	

Table 19.312.2 Uses Allowed in the North Milwaukie Innovation Area			
Uses and Use Categories	**NME**	**MUTSA**	**Standards/Additional Provisions**
film production; set design and production; music studio/production.			
Waste Management[4] This category comprises businesses that provide garbage and recycling hauling, including fleet parking and maintenance. Storage of waste or recycling materials collected by a waste management business for any period of time is not permitted.	CU/P	N	
Community Service Use			
Only the following community service uses are included in this district:			**Section 19.904** Community Service Uses
1. Institutions			
a. Government offices	P	P	
b. Public transit facilities or passenger terminal	CSU	CSU	
c. Schools (public or private)	CSU	CSU	See Trade Schools and Training Facilities
d. Recreation facilities (public or private)	CSU	CSU	
e. Parks and open space	P	P	
f. Transitional or correctional facilities (public or private)	CSU	CSU	
g. Hospitals	CSU	CSU	
2. Infrastructure			
a. Utilities (water, sewer, and storm sewer facilities including but not limited to sewage pumping stations, water wells, pump stations, sewer mining)	P	P	
b. Communication facilities (includes WCF)	P	P	
c. Electrical power substations; solar facilities	P	P	
Marijuana Businesses			
1. Marijuana retailers subject to the standards of Subsections 19.312.4 and 19.509.1.	N	CU	**Subsection 19.509.2** Security and Odor Control for Certain Marijuana Businesses **Subsection 19.312.4.A.5** Standards for Limited Uses
2. Marijuana processing, testing, research, and warehousing subject to the standards of Subsection 19.509.2.	P	P	**Subsection 19.509.2** Security and Odor Control for Certain Marijuana Businesses

Table 19.312.2 Uses Allowed in the North Milwaukie Innovation Area			
Uses and Use Categories	**NME**	**MUTSA**	**Standards/Additional Provisions**
3. Marijuana production subject to the conditional use process and the standards of Subsections 19.509.2 and 19.509.3.	CU	CU	**Subsection 19.509.2** Security and Odor Control for Certain Marijuana Businesses **Subsection 19.509.3** Marijuana Production Limitations **Section 19.905** Conditional Uses

P = Permitted.

N = Not permitted.

L = Limited

CSU = Permitted with community service use approval subject to provisions of Section 19.904. Type III review required to establish a new CSU or for major modification of an existing CSU. Type I review required for a minor modification of an existing CSU.

CU = Permitted with conditional use approval subject to the provisions of Section 19.905. Type III review required to establish a new CU or for major modification of an existing CU. Type I review required for a minor modification of an existing CU.

1. Multifamily residential is permitted outright in a stand-alone building or in stories above a ground-floor commercial or office use. Deed restrictions will apply to residential development in order to reduce potential conflicts between residential uses and surrounding manufacturing uses, which will serve as actual and constructive notice to potential purchasers and tenants of the owner's property that the residential use is located within a zone that permits and encourages industrial uses.
2. When considering an adult entertainment business, the following criteria shall be used:
   a. The proposed location of an adult entertainment business shall not be within 500 ft of an existing or previously approved adult entertainment business or within 500 ft of either a public park, a church, a day-care center, a primary, elementary, junior high, or high school, or any residentially zoned property.
   b. Distances shall be measured in a straight line, without regard to intervening structures, between the closest structural wall of the adult entertainment business and either the closest property line of the applicable property or the closest structural wall of any preexisting or previously approved adult entertainment business.
3. All activities related to trade schools must be conducted inside an enclosed building.
4. Waste Management uses in existence prior to December 31, 2017 are Permitted; uses proposed after that date are permitted as a Conditional Use.

19.312.3 Specific Prohibited Uses

Any use which has a primary function of storing or manufacturing explosive materials or other hazardous material as defined by the Oregon Fire Code, Chapter 27.

19.312.4 Standards for Limited Uses

The following standards apply to those uses listed as limited (L) in Table 19.312.2.

A. Retail, Service-Related Office, Eating and Drinking Establishments, and Personal Service Uses

To ensure that these uses are limited in size and scale and do not dominate land intended for manufacturing and higher intensity employment uses, the following standards apply. See Figure 19.312.4.A for an illustration of the size limitations.

1. In the NME, the total gross leasable square footage of an individual retail, service-related office, eating and drinking establishment, and personal service use shall not exceed 5,000 sq ft or 40% of the floor area of an individual building, whichever is less. The total cumulative gross leasable square footage of these uses in a development project shall not exceed 20,000 sq ft or 40% of the floor area. In the NME, retail, service-related office, eating and drinking establishments, and personal service uses

are not permitted in a stand-alone building. They must be included within a building whose primary purpose is for an allowed industrial, manufacturing and production, or production-office use. The retail, service-related office, eating and drinking establishment, and personal service use is not required to be related to the primary manufacturing use. Nonconforming retail textile sales uses in existence at the time of adoption of this code provision may be replaced but shall not be more out of conformance with the land use or development regulations than the original use or development.

2. Food carts or a food cart pod are permitted. A food cart pod is limited to 5,000 sq ft or 40% of the floor area of the building on site and must be included on a site with an allowed industrial, manufacturing and production, or production-office use.
3. In the MUTSA, retail, service-related office, eating and drinking establishments, and personal service uses are permitted in a stand-alone building, or within a building with another permitted use, but shall not exceed a cumulative total of 20,000 gross sq ft per building or property.
4. In the MUTSA, eating and drinking establishments that exceed the above standards are subject to a conditional use review pursuant to Section 19.905.
5. Marijuana retail uses shall have a gross square footage of no more than 5,000 sq ft and are subject to a conditional use review pursuant to Section 19.905.

B. Other Uses

1. In the MUTSA, the following uses, or similar, are not permitted: sales, repair, or storage of heavy machinery; heavy truck servicing and repair; tire retreading or recapping; fleet storage and maintenance; fuel oil distributors; solid fuel yards; and manufacturing or production of: chemicals, synthetic rubber, pesticides, fertilizers, paints, adhesives, explosives, plastics, tires, cement, concrete, steel, ferroalloy, aluminum, nonferrous metal, and ammunition.
2. Day care uses must be part of a larger building and shall not be permitted in standalone buildings.

Figure 19.312.4.A
Size Limitations for Retail, Service Office, Eating and Drinking Establishments, and Personal Service Uses (Illustrative Example)

19.312.5 Development Standards

These development standards are intended to ensure that new development is appropriate in terms of building mass and scale, how the building addresses the street, and where buildings are located on a site.

Table 19.312.5 summarizes some of the development standards that apply in the NMIA. Development standards are presented in detail in Subsection 19.312.6.

Table 19.312.5
North Milwaukie Innovation Area —Summary of Development Standards

Standard	NME	MUTSA	Standards/ Additional Provisions
A. Lot Standards			
1. Minimum lot size (sq ft)	None	None	
2. Minimum street frontage (ft)	None	None	
B. Development Standards			
1. Floor area ratio (min/max)	0.5:1/3:1	0.5:1/3:1	
2. Building height (ft)			
a. Minimum	25	25	

b. Maximum (Height bonus available)	45-90	45-90	**Subsection 19.312.6.A** Building height bonus **Subsection 19.510** Green Building Standards
3. Setbacks (ft)			**Subsection 19.501.2** Yard Exceptions
a. Minimum front yard setback	None	None	
b. Maximum front yard setback	10-30[1]	10-30[1]	
c. Side and rear setbacks	None[2]	None[2]	
4. Maximum lot coverage	85%	85%	
5. Minimum Landscaping	15%	15%	**Subsection 19.312.6.G** Landscaping
6. Flexible ground-floor space	Yes, where applicable	Yes, where applicable	**Subsection 19.312.7.B.7** Flexible ground-floor space
7. Off-street parking required	Yes	Yes	**Subsection 19.312.6.C** Loading and Unloading Areas **Subsection 19.312.7.C** Parking, Loading and Unloading Areas **Chapter 19.600** Off-Street Parking and Loading
8. Frontage occupancy	50%	50%	**Subsection 19.312.7.8** Frontage occupancy
C. Other Standards			
1. Residential density requirements (dwelling units per acre)			**Subsection 19.202.4** Density Calculations
a. Stand-alone residential			
(1) Minimum	N/A	None	
(2) Maximum	N/A	None	
b. Mixed-use buildings	N/A	None	
2. Signs	Yes	Yes	**Subsection 14.16.050** Commercial Zone **Subsection 19.312.6.F** Signage for Non-manufacturing Uses
3. Design Standards	Yes	Yes	**Subsection 19.312.7.A** Design Standards for All New Construction and Major Exterior Alterations

1. Properties in the MUTSA have a maximum front yard setback of 10 ft. Properties on key streets in the NME have a maximum front yard setback of 30 ft. Refer to 19.312.7 for key streets.
2. Side and rear lot lines abutting a residential zone have a minimum 10-ft setback. Side and rear lot lines not abutting a residential zone have no required setback.

19.312.6 Detailed Development Standards

The following detailed development standards describe additional allowances, restrictions, and exemptions related to the development standards of Table 19.312.5.

The following development standards apply to all uses in the NMIA.

A. Height Bonuses

To incentivize the provision of additional public amenities or benefits beyond those required by the baseline standards, height bonuses are available for buildings that help meet sustainability goals.

Project proposals that receive green building approvals and certification as identified in Section 19.510 are permitted a total of 45 ft of additional height above the 45-ft base height maximum.

B. Screening of Outdoor Uses

Outdoor uses shall be screened as follows:

1. All outdoor storage areas shall be screened from adjacent properties by a 6-ft-high sight-obscuring fence or wall or by the use of vegetation. Vegetation used to screen outdoor storage areas shall be of such species, number, and spacing to provide the required screening within 1 year after planting.
2. All screened or walled outdoor use and storage areas which abut a public street shall be set back a minimum of 25 ft from the property line(s). Within that setback area, trees and evergreen shrubs shall be planted. The plants shall be of such a variety and arranged to allow only minimum gaps between foliage of mature trees and plants within 4 years of planting.
3. All plantings used to screen outdoor uses shall be maintained on an ongoing basis and shall be replaced if vegetation is diseased, dying, or dead.

C. Loading and Unloading Areas

In the NMIA, no loading or unloading facilities shall be located adjacent to lands designated for residential uses, or residential community services, if there are alternative locations of adequate size on the subject site.

D. External Effects

1. The potential external effects of industrial, manufacturing, and production uses shall be minimized in the NME as follows:
    a. Except for exterior lighting, operations producing heat or glare shall be conducted entirely within an enclosed building.
    b. Potential nuisances such as noise, odor, electrical disturbances, and other public health nuisances are subject to MMC Title 8 Health and Safety.
    c. Roof-mounted mechanical equipment, such as ventilators and ducts, for buildings located adjacent to residential districts, arterial streets, or transit streets, shall be contained within a completely enclosed structure that may include louvers, latticework, or other similar features. This screening requirement does not apply to roof-mounted solar energy systems or wind energy systems.
2. In order to ensure greater compatibility between industrial, manufacturing, and production uses and other uses in the Tacoma station area, the following off-site impact standards apply in the MUTSA:
    a. Applicability

    The off-site impact standards in this section apply to all new machinery, equipment, and facilities associated with manufacturing uses. Machinery, equipment, or facilities that were at the site and in compliance with existing

regulations as of August 1, 2013, the effective date of Ordinance #2071, are not subject to these off-site impact standards.

b. Noise

The City's noise control standards and requirements in Chapter 8.08 apply.

c. Vibration

Continuous, frequent, or repetitive vibrations that exceed 0.002g peak are prohibited. Generally, this means that a person of normal sensitivities should not be able to feel any vibrations.

(1) Temporary vibrations from construction activities or vehicles leaving the site are exempt.

(2) Vibrations lasting less than 5 minutes per day are exempt.

(3) Seismic or electronic measuring equipment may be used when there are doubts about the level of vibrations.

d. Odor

Continuous, frequent, or repetitive odors are prohibited. The odor threshold is the point at which an odor may just be detected. An odor detected for less than 15 minutes per day is exempt.

e. Illumination

Machinery, equipment, and facilities may not directly or indirectly cause illumination on other properties in excess of 0.5 footcandles of light.

f. Measurements

Measurements for compliance with these standards may be made from the property line or within the property of the affected site. Measurements may be made at ground level or at habitable levels of buildings.

g. Documentation

An applicant must provide documentation certified by a registered engineer or architect, as appropriate, to ensure that the proposed activity can achieve compliance with these standards.

E. Additional Standards

When new residential development is proposed adjacent to existing industrial, manufacturing, and production uses, visual screening, which may include walls, fences, horizontal separation or plantings, shall be provided for those areas adjacent to loading docks, truck or other delivery vehicle ingress or egress areas, dumpsters or other recycling vessels, and outdoor storage areas.

Chapter 19.500 Supplementary Development Regulations contains additional standards that may apply.

F. Signage for Non-manufacturing Uses

In addition to signage permitted in Title 14 Signs, 1 pedestrian-oriented sign per business may be provided along the building façade that faces the street. Pedestrian-oriented signs may be attached to the building, an awning, a kiosk, hanging, projecting, or otherwise so

long as they are displayed no higher than 10 ft above the sidewalk and face the street and have a maximum area of 4 sq ft per sign face. All signs must comply with Title 14 Signs.

G. Landscaping

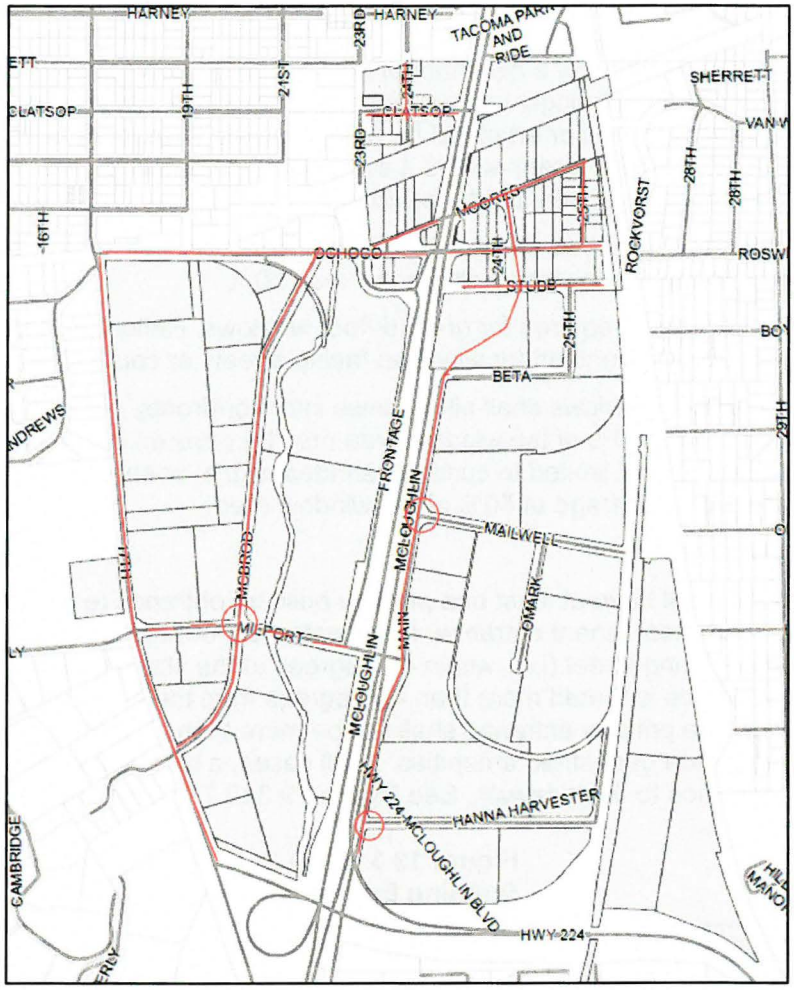
A minimum of 15% landscaping of the site is required. The required landscape area shall comply with the following:

1. Permitted landscape materials include trees, shrubs, ground cover plants, non-plant ground covers, and outdoor hardscape features.
2. No more than 20% of the required landscape area shall be covered in mulch or barkdust. Mulch or barkdust under the canopy of trees or shrubs is excluded from this limit.
3. Trees shall have a minimum 2-in caliper at time of planting, measured at 4 ft above grade.
4. Shrubs shall be planted from 5-gallon containers or larger.
5. All plantings shall be maintained on an ongoing basis and shall be replaced if vegetation is diseased, dying, or dead.
6. A green roof and/or green/living wall may be used as a substitute for this landscaping requirement.

19.312.7 Development Standards for All Uses in the MUTSA and on NME Key Streets

The following development standards apply to all uses in the MUTSA Zone and in the NME Zone on properties located on the following key streets and key corners: McBrod Ave, Main St, 17th Ave, and Ochoco St (see Figure 312.7.1).

Figure 19.312.7.1
Key Streets



A. Design Standards for All New Construction and Major Exterior Alterations

The design standards contained in this section are intended to encourage building design and construction with durable, high-quality materials. The design standards in this section generally apply to the street-facing façades of new, and major alterations to, commercial, institutional, manufacturing, and mixed-use buildings. Exterior maintenance and repair and minor exterior alterations are not subject to these standards. Subsection 19.312.7.B below defines exterior maintenance and repair and major/minor exterior and interior alterations.

1. Ground-Floor and Street-facing Windows and Doors

Long expanses of blank walls facing the street or other public area have negative impacts on the streetscape and the pedestrian environment.

The ground-floor street wall area is defined as the area up to the finished ceiling height of the space fronting the street or 15 ft above finished grade, whichever is less.

a. For nonresidential and mixed-use buildings:

(1) A minimum of 30% of the ground-floor street wall area must consist of openings; i.e., windows or glazed doors; or

(2) A combination of a minimum of 20% of the ground-floor street wall area must consist of openings; i.e., windows or glazed doors in addition to a living wall/green wall or art mural for the remaining area to equal the minimum 30%. A living wall or green wall is a self-sufficient vertical garden that is attached to the exterior or interior of a building.

b. Ground-floor windows shall be distributed along the wall area such that there are no lengths of windowless wall greater than 20 ft.

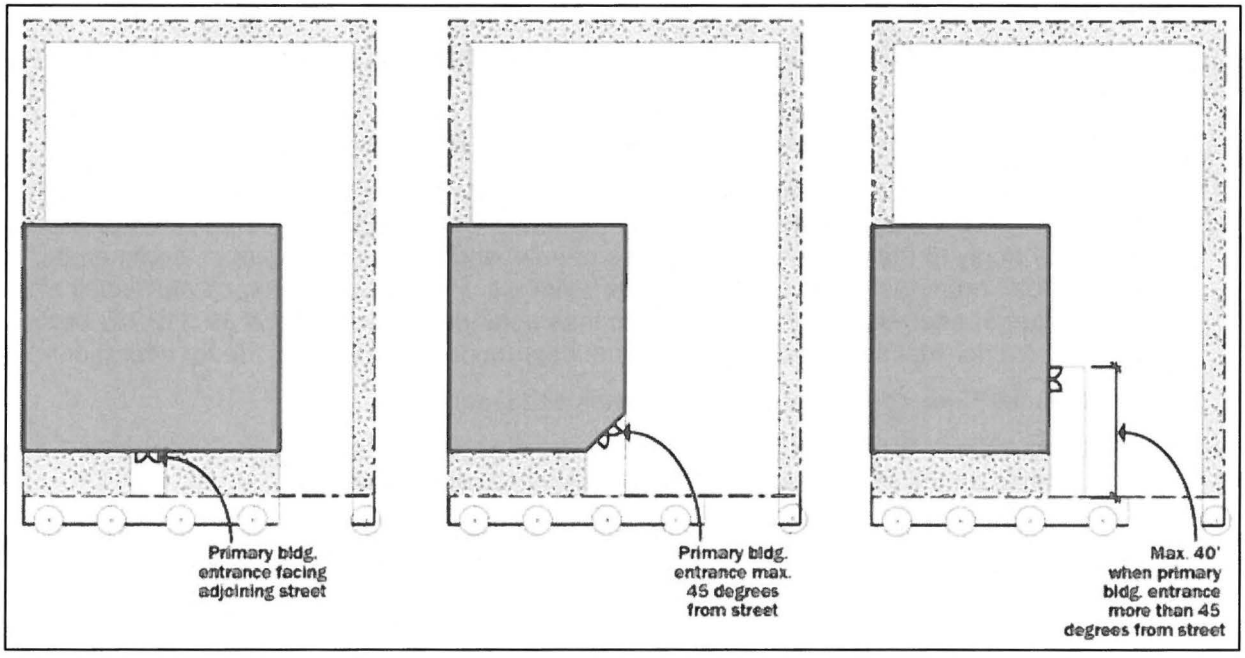
c. Clear glazing is required for ground-floor windows. Reflective, tinted, or opaque glazing is not permitted for windows facing streets or courtyards.

d. Ground-floor windows shall allow views into storefronts, working areas, or lobbies. No more than 50% of the window area may be covered by interior furnishings including but not limited to curtains, shades, signs, or shelves. Signs are limited to a maximum coverage of 50% of the window area.

2. Building Orientation

All buildings shall have at least one primary building entrance (e.g., dwelling entrance, customer entrance, tenant entrance, lobby entrance, or breezeway/courtyard entrance) facing an adjoining street (i.e., within 45 degrees of the street property line). If the building entrance is turned more than 45 degrees from the street (e.g., front door is on a side wall), the primary entrance shall not be more than 40 ft from a street sidewalk, except to provide pedestrian amenities. In all cases, a walkway shall connect the primary entrance to the sidewalk. See Figure 19.312.7.A.2 for illustration.

Figure 19.312.7.A.2
Building Entrances



3. Weather Protection

   All building entrances shall include an awning, canopy, recess, or some other form of shelter to provide weather protection and shade for users.

4. Design Standards for Walls

   The following standards are applicable to the exterior walls of buildings facing streets, courtyards, and/or public squares.

   a. Exterior wall-mounted mechanical equipment is prohibited.

   b. The following standards are applicable to the exterior walls of new buildings facing streets, courtyards, and/or public squares. Table 19.312.6.I.4 specifies the primary, secondary, and prohibited material types referenced in this standard.

      (1) Buildings shall utilize primary materials for at least 60% of the applicable building façades.

      (2) Secondary materials are permitted on no greater than 40% of each applicable building façade.

      (3) Accent materials are permitted on no greater than 10% of each applicable building façade as trims or accents (e.g. flashing, projecting features, ornamentation, etc.)

      (4) Buildings shall not utilize materials listed as (N) prohibited material.

      (5) For existing development, façade modifications that affect more than 50% of the façade shall comply with standards in this subsection. The Planning Director may waive this requirement if application of the standards would create an incongruous appearance of existing and new materials.

Table 19.312.7.B.4 Commercial Exterior Building Materials	
Material Type	**Nonresidential and Mixed-Use**
Brick	P
Stone/masonry	P
Stucco, when installed over concrete	P
Glass (transparent, spandrel)	P
Concrete (poured in place or precast)	P
Finished wood, wood veneers, and wood siding	P
Finished metal panels—such as anodized aluminum, stainless steel, or copper—featuring polished, brushed, or patina finish	S
Concrete blocks with integral color (ground, polished, or split-face finish)	S
Fiber-reinforced cement siding and panels	S
Ceramic tile	S
Concrete blocks with integral color (glazed finish)	A
Standing seam and corrugated metal	A
Glass block	A
Vegetated wall panels or trellises	A
Vinyl siding	N
Exterior insulation finishing system (EIFS)	N
Plywood paneling	N

P = Primary material
S = Secondary material
A = Accent material
N = Prohibited material

5. Design Standards for Roofs

   The following standards are applicable to building roofs.

   a. Flat roofs shall include a cornice with no less than 6 in depth (relief) and a height of no less than 12 in.

   b. Mansard or decorative roofs on buildings less than 3 stories are prohibited.

6. Flexible ground-floor space

   For newly constructed non-residential and mixed-use buildings, a minimum of 75% of the ground-floor space in a new building must meet the following requirements.

   a. The ground-floor height must be at least 14 ft, as measured from the finished floor to the ceiling, or from the finished floor to the bottom of the structure above (as in a multistory building). The bottom of the structure above is the lowest portion of the structure and includes supporting beams, and any heating, ventilation and/or fire suppression sprinkler systems.

   b. The interior floor area adjacent to the key street must be at least 20 ft deep, as measured from the inside building wall or windows facing the key street.

7. Frontage Occupancy Requirements

   For block faces on key streets, 50% of the site frontage must be occupied by a building or buildings. If the development site has frontage on more than 1 street, the frontage occupancy requirement must be met on 1 street only.

B. Applicability of Design Standards

Pre-existing buildings that do not meet the site or building design standards may continue and be modified subject to the standards below. Applicable standards only apply to the proposed modification and not to the nonmodified portion of the existing building unless the modification is a major exterior or interior alteration as defined below.

1. The design standards in Subsection 19.312.7.A above are applicable to major exterior and interior alterations as follows:
   a. Major exterior alterations involving a wall(s) shall comply with the design standards for walls and the design standards for windows for that wall(s). A wall is considered the entire wall plane if the change in wall plane is less than 24 in.
   b. Major exterior alterations involving a roof shall comply with the design standards for roofs.
   c. Major interior alterations require compliance with 19.312.7.A for applicable frontages.
2. Major exterior alterations include any of the following:
   a. Alterations that do not fall within the definitions of "exterior maintenance and repair" or "minor exterior alterations."
   b. Demolition or replacement of more than 50% of the surface area of any exterior wall or roof. A wall is considered the entire wall plane if the change in wall plane is less than 24 in.
   c. In the MUTSA, floor area additions that exceed 50% of the existing floor area or demolition or replacement of 50% or more of the existing floor area.
   d. In the NME, floor area additions that exceed 75% of the existing floor area or demolition or replacement of 50% or more of the existing floor area.
3. Major interior alterations include any of the following:
   a. In the MUTSA, interior floor area additions that exceed 50% of the existing floor area.
   b. In the NME, interior floor area additions that exceed 75% of the existing floor area.
4. Exterior maintenance and repair includes refurbishing, painting, and weatherproofing of deteriorated materials, as well as in-kind restoration or replacement of damaged materials. Exterior maintenance and repair does not include replacement of materials due to obsolescence or when associated with minor or major exterior renovation, as defined below. Exterior maintenance and repair does not include the placement of signs.
5. Minor exterior alterations include the exterior alterations of any portion of a structure that do not fall within the definitions of "exterior maintenance and repair" or "major exterior alterations." Minor exterior alterations include, but are not limited to, the application or installation of finish building treatments, including windows and other glazing, doors, lintels, copings, vertical and horizontal projections (including awnings), and exterior sheathing and wall materials. Minor exterior alteration does not include the placement of signs.

6. Additions may be considered minor exterior alterations only when the additional floor area is designed and used solely for utility, HVAC, other mechanical equipment, ADA upgrades, or egress required by applicable fire safety or building codes.

C. Parking, Loading, and Unloading Areas

In the MUTSA and on NME key streets, parking, loading, and unloading areas shall be located as follows:

1. Parking areas shall not be located in more than 50% of the front yard.
2. No loading or unloading facilities shall be located adjacent to lands designated for residential uses, or residential community services, if there are alternative locations of adequate size on the subject site. No loading area shall be located between the front of a building and a front lot line, regardless of required setbacks.

19.510 Green Building Standards

Green building is the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's life cycle from siting to design, construction, operation, maintenance, renovation, and deconstruction. For the purposes of height bonuses and/or meeting the local criteria for the Milwaukie Vertical Housing Development Zone, a green building shall be defined as a building that receives certification (any level) under an ANSI-approved green building rating system (e.g., LEED, Earth Advantage, or Green Globes certified).

Height bonus eligibility shall be verified at the time of building permit submittal and shall be contingent upon submittal of green building certification. The height bonus may be binding under a development agreement and height bonus awards may be revoked, and/or other permits or approvals may be withheld, if the project fails to achieve certification.

Updates for Section References and Housekeeping Only

Sign Ordinance

14.16.050 MANUFACTURING ZONE

No sign shall be installed or maintained in an M, BI, NME, or MUTSA Zone, except as allowed under Section 14.12.010 Exempted Signs, or as otherwise noted in Table 14.16.050.

Table 14.16.050 Standards for Signs in Manufacturing Zones M, BI, NME, or MUTSA					
Sign Type	**Area**	**Height**	**Location**	**Number**	**Illumination[1]**

Zoning Ordinance

19.107.1 Zone Classifications

For the purposes of this title, the following base zones and overlay zones are established in the City per Table 19.107.1:

Table 19.107.1 Classification of Zones	
Zone Description	Abbreviated Description
Base Zones	
Residential	R-10
Residential	R-7
Residential	R-5
Residential	R-3
Residential	R-2.5
Residential	R-2
Residential	R-1
Residential-Business Office	R-1-B
Downtown Mixed Use	DMU
Open Space	OS
Neighborhood Commercial	C-N
Limited Commercial	C-L
General Commercial	C-G
Community Shopping Commercial	C-CS
Manufacturing	M
Business Industrial	BI
Planned Development	PD
Tacoma Station Area Mixed Use	MUTSA
North Milwaukie Employment	NME
General Mixed Use	GMU
Neighborhood Mixed Use	NMU

Overlay Zones	
Willamette Greenway	WG
Historic Preservation	HP
Flex Space	FS
Aircraft Landing Facility	L-F

19.505 BUILDING DESIGN STANDARDS

19.505.6 Live/Work Units

C. Use Standards

1. Any nonresidential use allowed in the base zone within which a live/work unit is legally located may be conducted on the premises of that live/work unit.
2. At least one of the employees of the commercial portion of the live/work unit must reside in the unit.
3. If the live/work unit is multistory, the ground floor of a live/work unit can be used for either commercial or residential purposes. When the ground floor is being used as part of the dwelling, the provisions of Subsection 19.508.4.E.5.e are not applicable.
4. A live/work unit is allowed instead of, or in addition to, a home occupation as defined by Section 19.201.

D. Development Standards

In addition to the standards of the base zone, live/work units shall comply with all of the following standards.

1. The nonresidential portion of the unit shall occupy at least 25% of the gross floor area.
2. If the live/work unit is multistory, the nonresidential portion of the building shall be located on the ground floor and the residential unit shall be located on the upper floors or to the rear of the nonresidential portion. Live/work units may be single-floor units, in which case a separation between the residential and nonresidential uses is not required.
3. Employees shall be limited to occupants of the residential portion of the building plus up to 5 persons not residing in the residential portion.

19.509.3 Marijuana Production Limitations

The following limitations apply to marijuana production in the M-Manufacturing, NME-North Milwaukie Employment, and MUTSA-Tacoma Station Area Mixed Use zones:

A. Within a building utilized for production, multiple producers may operate but no single producer shall operate in a manner where the mature marijuana plant grow canopy associated with that producer's operation exceeds 10,000 sq ft.

B. A marijuana producer shall not be located in a building that is within 1,500 ft of another building that is utilized for marijuana production.

19.904.11 Standards for Wireless Communication Facilities

Table 19.904.11.C Wireless Communication Facilities—Type and Review Process				
Towers		WCFs Not Involving New Tower		
Zones	New Monopole Tower 100 Ft	Building Rooftop or Wall Mounted Antenna	Water Towers, Existing Towers, and Other Stealth Designs	On Existing Utility Pole in Row with or w/out Extensions
BI	III	P/II	P/II	P/II
M	III	P/II	P/II	P/II
MUTSA	III	P/II	P/II	P/II
NME	III	P/II	P/II	P/II

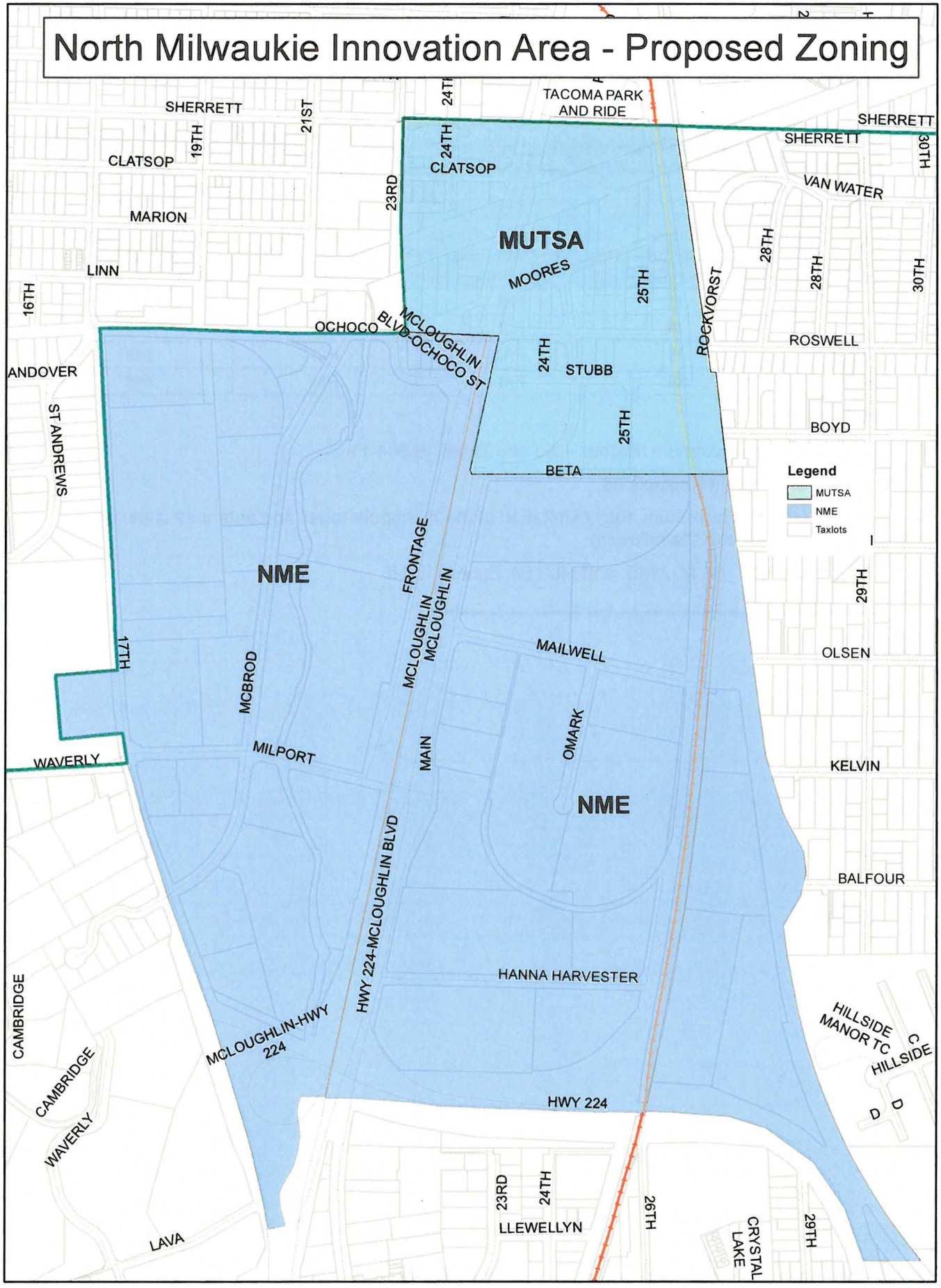
19.904.11.F.2

2. Height: maximum heights. Also see Table 19.904.11.C.

   a. Height Restrictions

      The maximum height limitation of the monopole tower and antennas shall not exceed the following:

      (1) BI, M, NME, and MUTSA Zones: 100 ft.


North Milwaukie Innovation Area - Proposed Zoning
SHERRETT
21ST
19TH
24TH
TACOMA PARK AND RIDE
SHERRETT
SHERRETT
30TH
CLATSOP
CLATSOP
23RD
VAN WATER
MARION
MUTSA
MOORES
28TH
28TH
30TH
LINN
25TH
ROCKVORST
16TH
OCHOCO
MCLOUGHLIN BLVD-OCHOCO ST
ROSWELL
24TH
STUBB
ANDOVER
25TH
BOYD
ST ANDREWS
BETA
Legend
MUTSA
NME
Taxlots
NME
FRONTAGE
MCLOUGHLIN
MCLOUGHLIN
29TH
17TH
MAILWELL
OLSEN
MCBROD
OMARK
WAVERLY
MILPORT
MAIN
KELVIN
NME
BALFOUR
HWY 224-MCLOUGHLIN BLVD
HANNA HARVESTER
CAMBRIDGE
HILLSIDE MANOR TC
HILLSIDE
MCLOUGHLIN-HWY 224
CAMBRIDGE
HWY 224
WAVERLY
23RD
24TH
26TH
29TH
LLEWELLYN
CRYSTAL LAKE
LAVA