NMIA PLAN



NORTH Milwaukie Innovation Area Plan

CITY OF MILWAUKIE

Adopted by City Council on July 18, 2017.

Revised Draft: August 2018

North Milwaukie Innovation Area Plan

Table of Contents

ACKNOWLEDGMENTS

MILWAUKIE CITY COUNCIL

Mayor Mark Gamba
Councilor Shane Abma
Councilor Lisa Batey
Councilor Angel Falconer
Councilor Wilda Parks

MILWAUKIE PLANNING COMMISSION

Adam Argo
John Burns
Sherry Grau
Greg Hemer
Scott Jones
Kim Travis

CITY OF MILWAUKIE STAFF

Ann Ober, City Manager
Alma Flores, Community Development Director
Dennis Egner, Planning Director
Charles Eaton, Engineering Director
Vera Kolias, Associate Planner
Amy Koski, Economic Development Coordinator/Project Manager

PROJECT ADVISORY GROUP

Councilor Wilda Parks, City of Milwaukie City Council
Commissioner Adam Argo, City of Milwaukie Planning Commission
Commissioner Jim Bernard, Clackamas County Board of Commissioners
Councilor Carlotta Colette, Metro
Gary Barth, Clackamas County Business & Community Services
Bobby Lee, Governor's Regional Solutions Team
Matt Miller, Greater Portland Inc.
Mitchell Gee/Bryan Guiney, Business Oregon
Greg Chaimov, Clackamas Community College Board of Education
Greg Carlston, Alpine Food Distributing, Inc.
Peter Stark, Consultant for Howard Dietrich
Rick Anderson, Anderson Die & Manufacturing
Ted Miller, Oregon Department of Transportation
Bill Schuette, Oregon Liquor Control Commission
Dave Unsworth, TriMet
Bob Clark, Ardenwald Neighborhood District Association
Denise Emmerling-Baker, Milwaukie Historic Neighborhood District
Dan Canfield, Alpha Stone Works
Daniel Newberry, Johnson Creek Watershed Council

TECHNICAL ADVISORY GROUP

Charles Eaton, City of Milwaukie Engineering Department
Gary Parkin, City of Milwaukie Public Works Department
Haley Fish, City of Milwaukie Finance Department
Karen Buehrig, Clackamas County Transportation
Chuck Robbins, Clackamas County Community Development
Rebecca Hamilton, Metro
Gail Curtis/Jon Makler, Oregon Department of Transportation
Kerry Ayres Palanuk/Grant O'Connell, TriMet
Gil Wistar/Cheryl Grabham, Oregon Department of Environmental Quality
Jennifer Donnelly, Oregon Department of Land Conservation & Development
Troy Gagliano, Portland General Electric
Tonia Burns, North Clackamas Parks & Recreation District
Karen Homolac, Business Oregon Brownfields Program
Steve Kountz, City of Portland

CLACKAMAS COUNTY STAFF

Gary Barth
Catherine Grubowski-Johnson
John Southgate

METRO STAFF

Lisa Miles
Rebecca Hamilton

CONSULTANTS

MIG
- Alex Dupey, Project Manager
- Jonathan Pheanis
- Rachel Edmonds
- Edward SanFilippo

ECONorthwest
- Lorelei Juntunen
- Ian Carlton
- Matthew Craigie

DKS Associates
- Ray Delahanty
- Chris Maciesjewski, PE

Puttman Infrastructure
- Thomas Puttman

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.

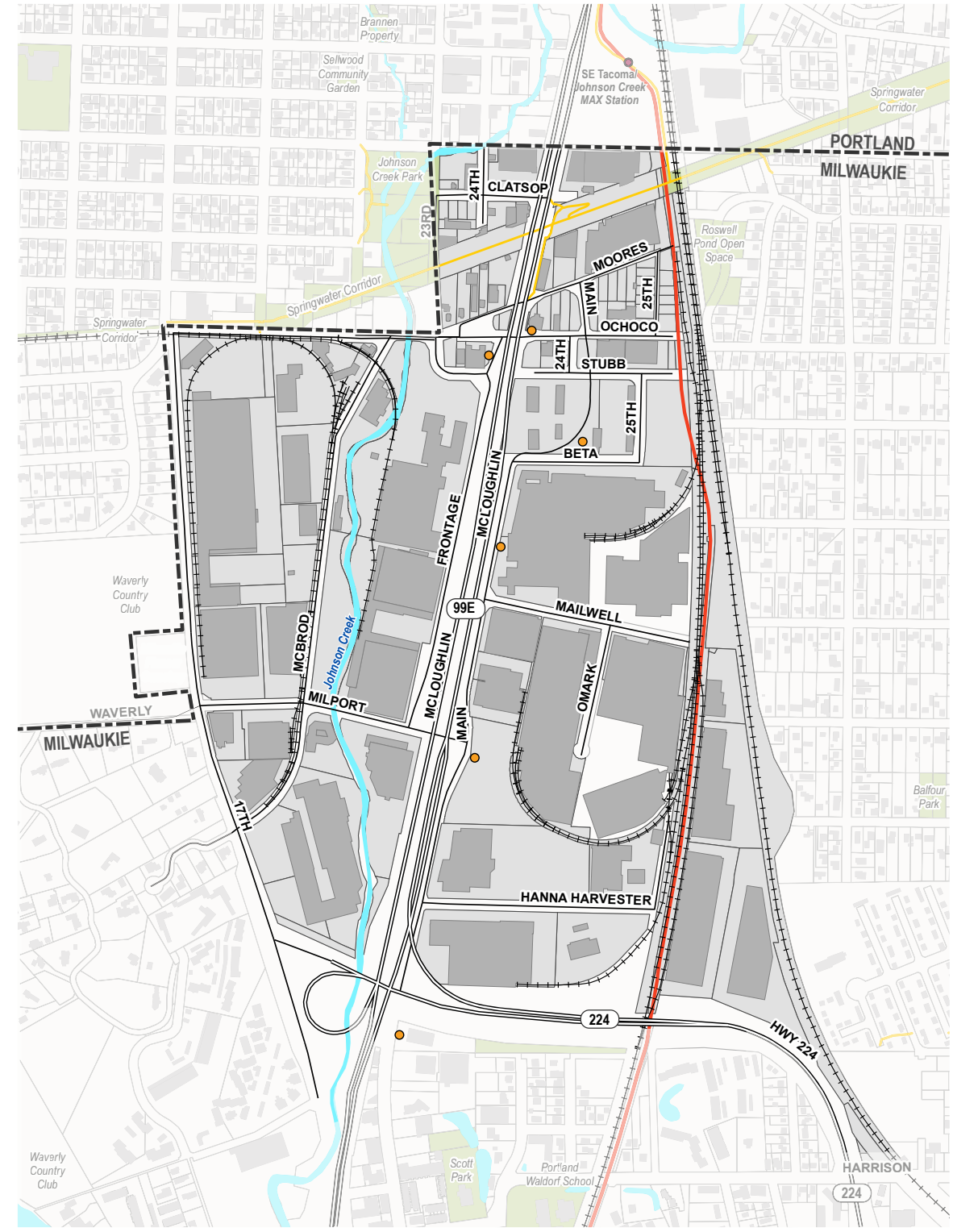
PROJECT AREA

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



CITY OF MILWAUKIE

North Milwaukie Innovation Area Plan

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.

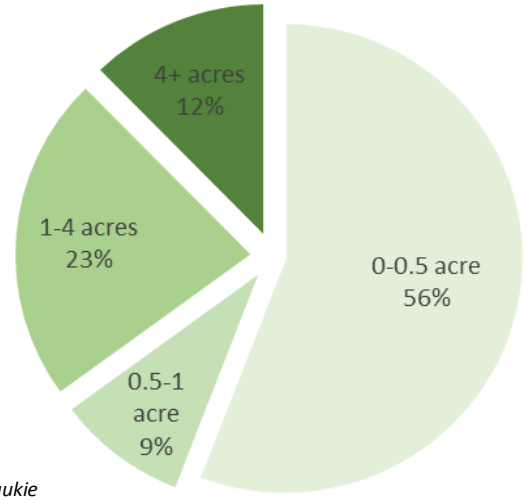
Other buildings reflect different eras and types of development. Of the 54 buildings in the project area, nine were built between 1918–1949, 29 were built from 1950–1969 and the remaining 16 were built from 1970–1982. No buildings have been constructed since the 1990s although some buildings are transitioning 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



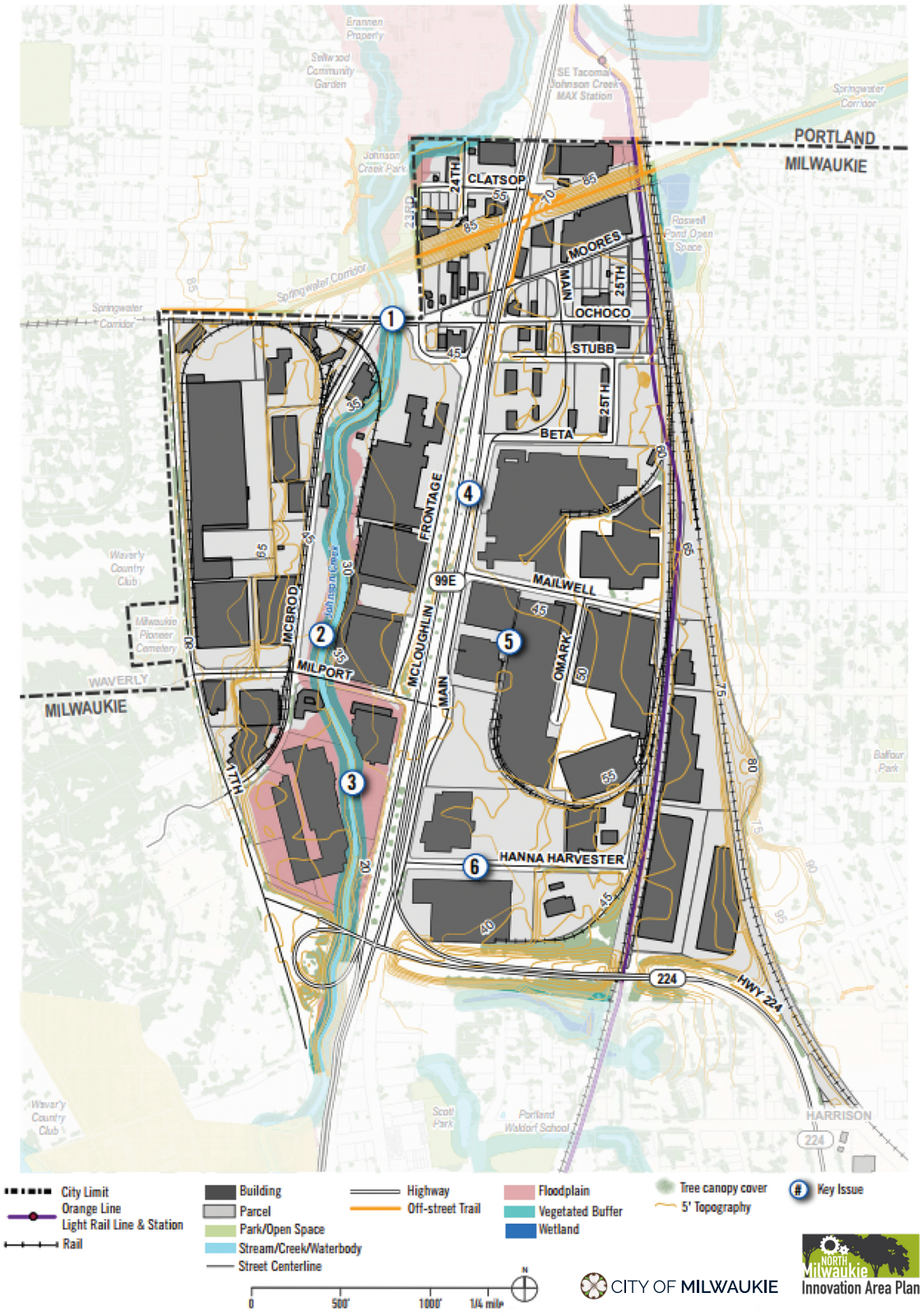
Source: City of Milwaukie

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



Page intentionally left blank.

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.

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

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

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.

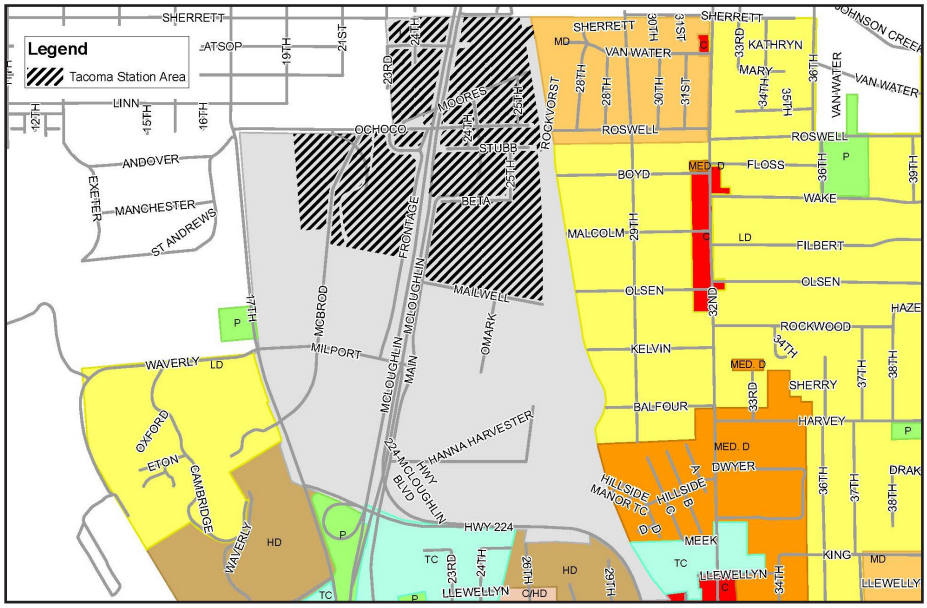
Objective 5.1. Continue to engage businesses and employees in the NMIA and the Milwaukie community in a conversation about the NMIA and its role as an employment and mixed-use district.

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.

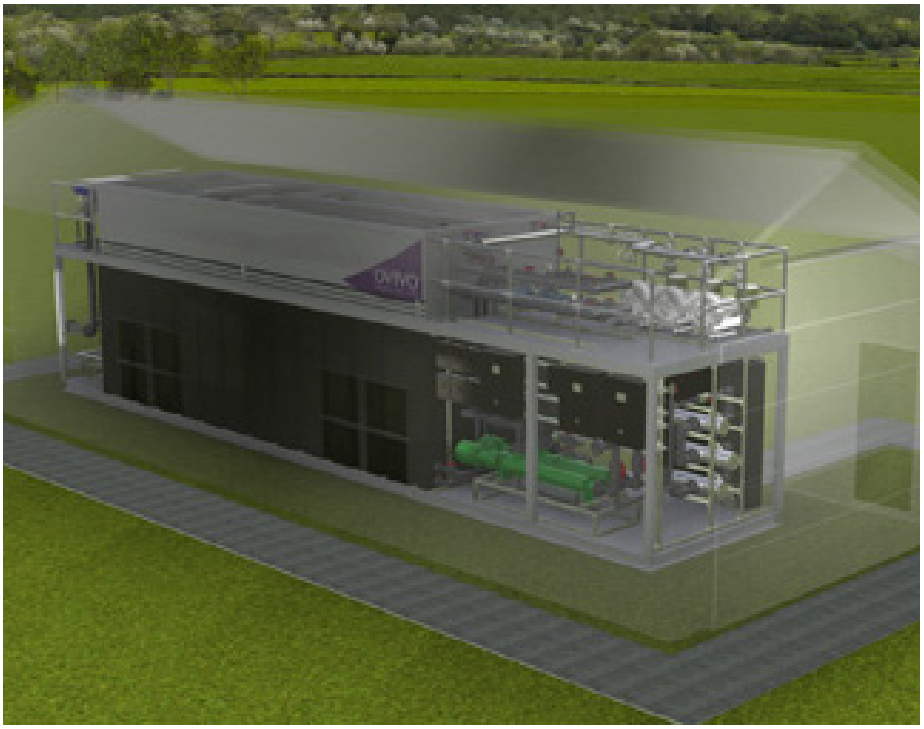
The ecodistrict framework for the NMIA is an incremental approach and different than ecodistricts developed on a greenfield (see **Chapter 6: Infrastructure**). Ecodistrict implementation must work with existing infrastructure and strategies need to encourage a transition over time. Creating an ecodistrict, 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:

- Integrating Natural Resources
- Addressing Infrastructure Needs
- Making Transportation Work for Everyone
- Creating a NMIA Brand
- Putting It All Together

*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).

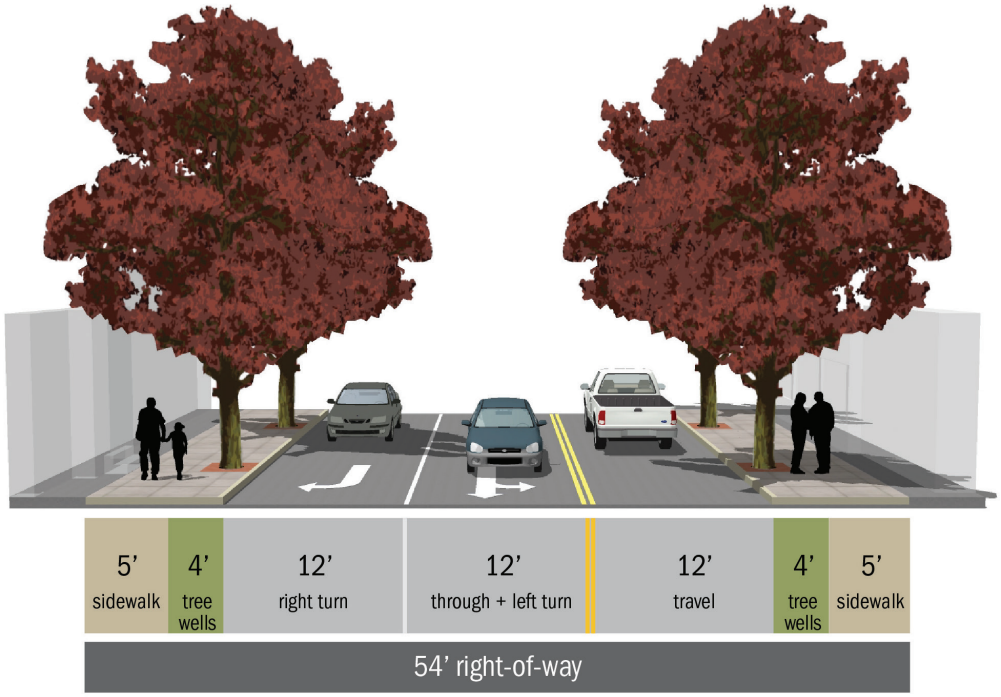


FIGURE 7: CONCEPTUAL CROSS-SECTION FOR OCHOCO ST - EAST OF MAIN ST WITHIN EXISTING RIGHT-OF-WAY (LOOKING EAST)

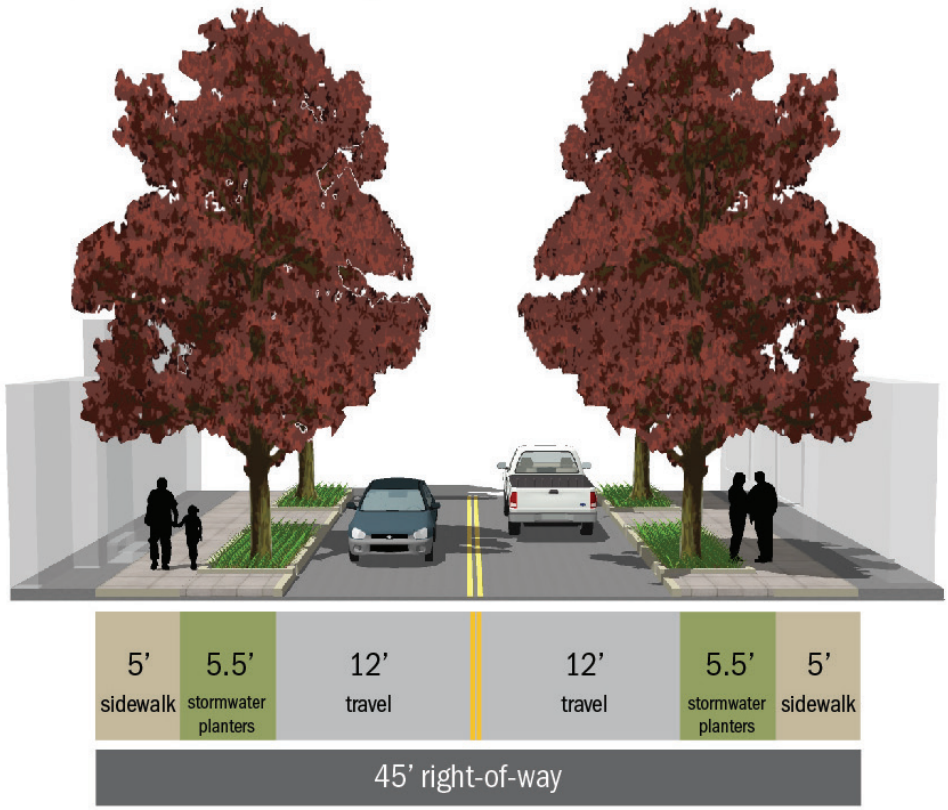


FIGURE 8: INDIRECT LEFT PEDESTRIAN ENHANCEMENTS CONCEPTUAL DESIGN

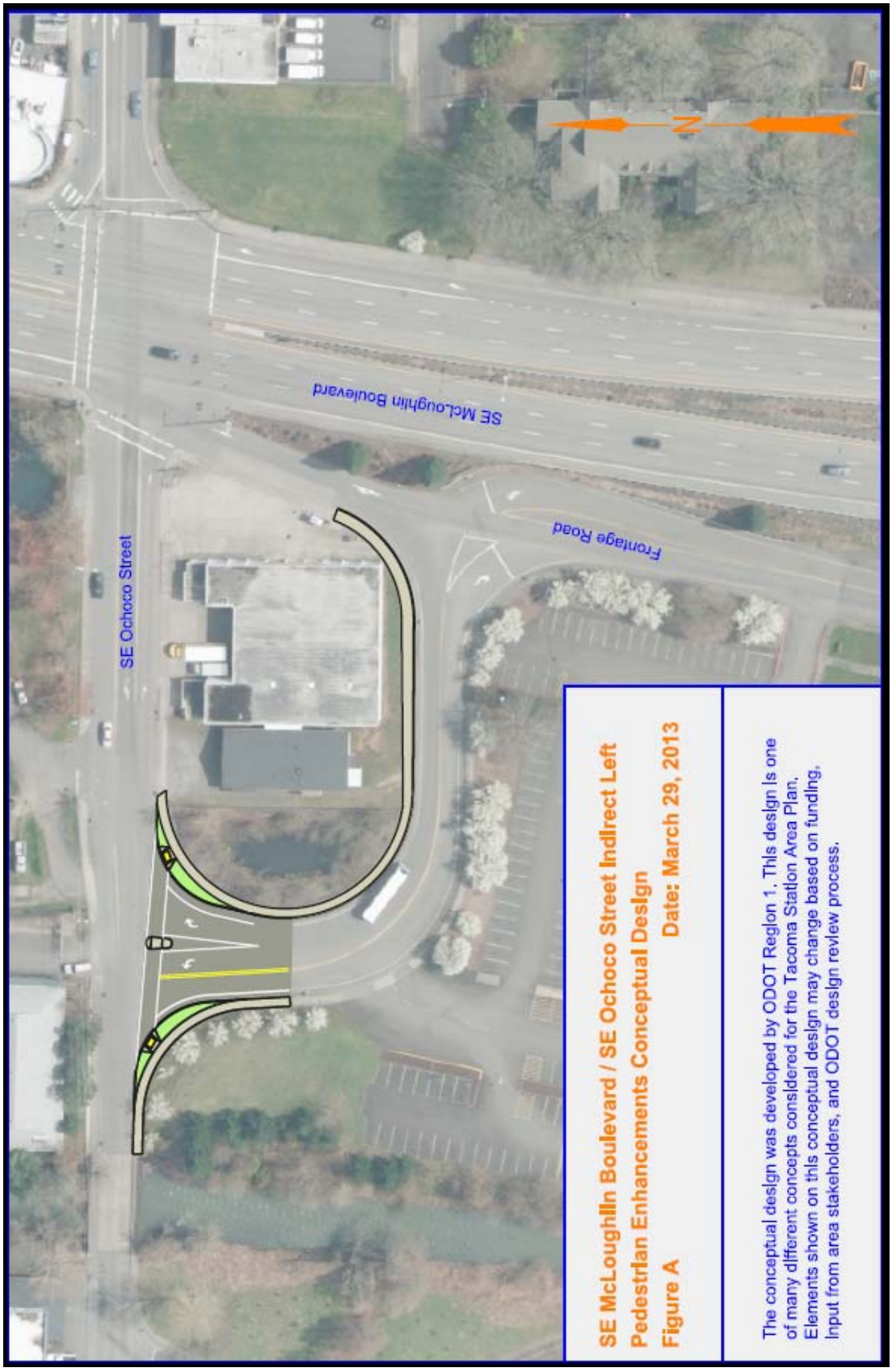
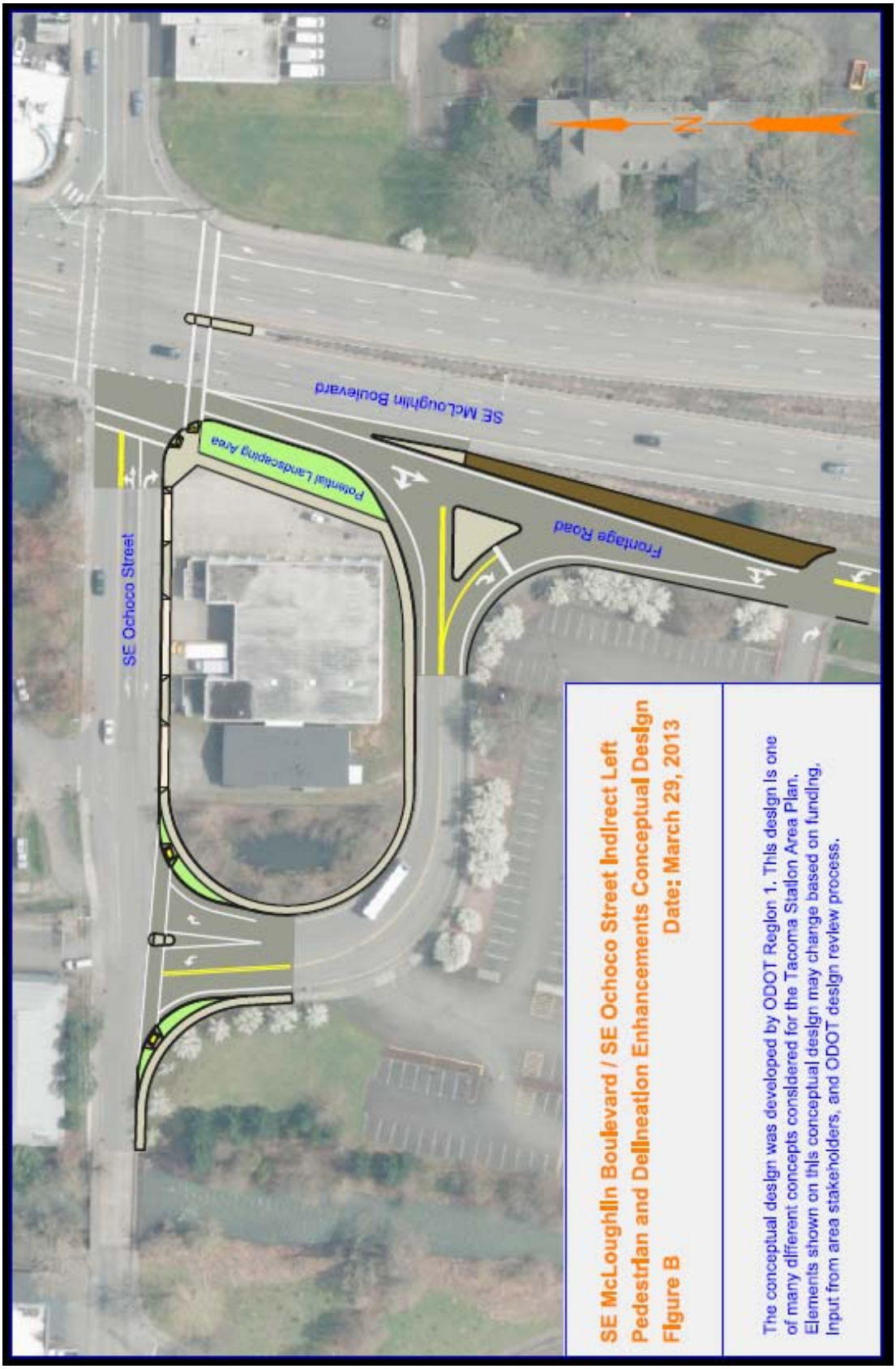


FIGURE 9: INDIRECT LEFT PEDESTRIAN AND DELINEATION ENHANCEMENTS CONCEPTUAL DESIGN



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)

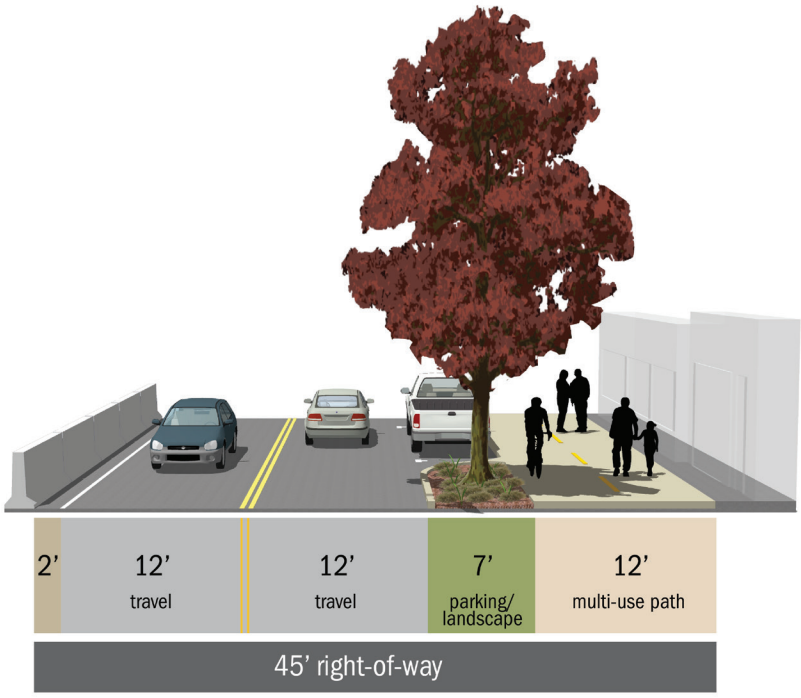


FIGURE 11: CONCEPTUAL CROSS-SECTION FOR MAIN ST - NORTH OF BETA ST WITHIN EXISTING RIGHT-OF-WAY (LOOKING NORTH)

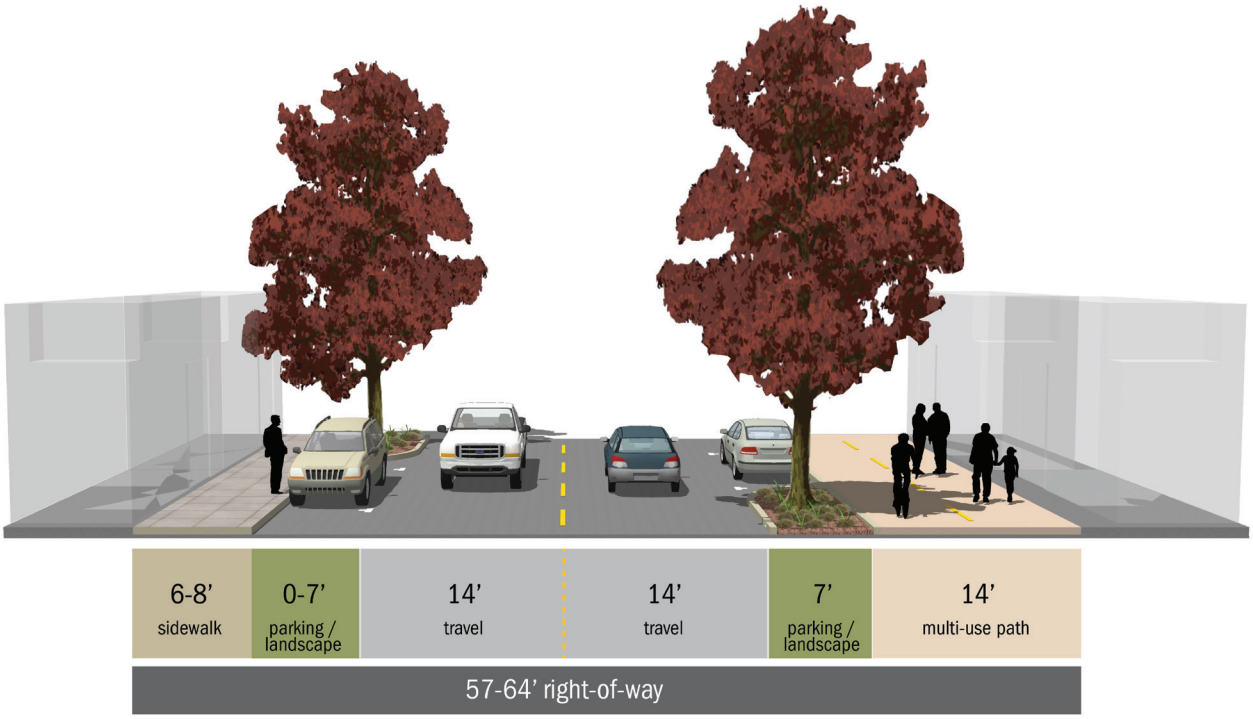


FIGURE 12: CONCEPTUAL DESIGNS FOR MAIN ST EXISTING AND PROPOSED ALIGNMENT

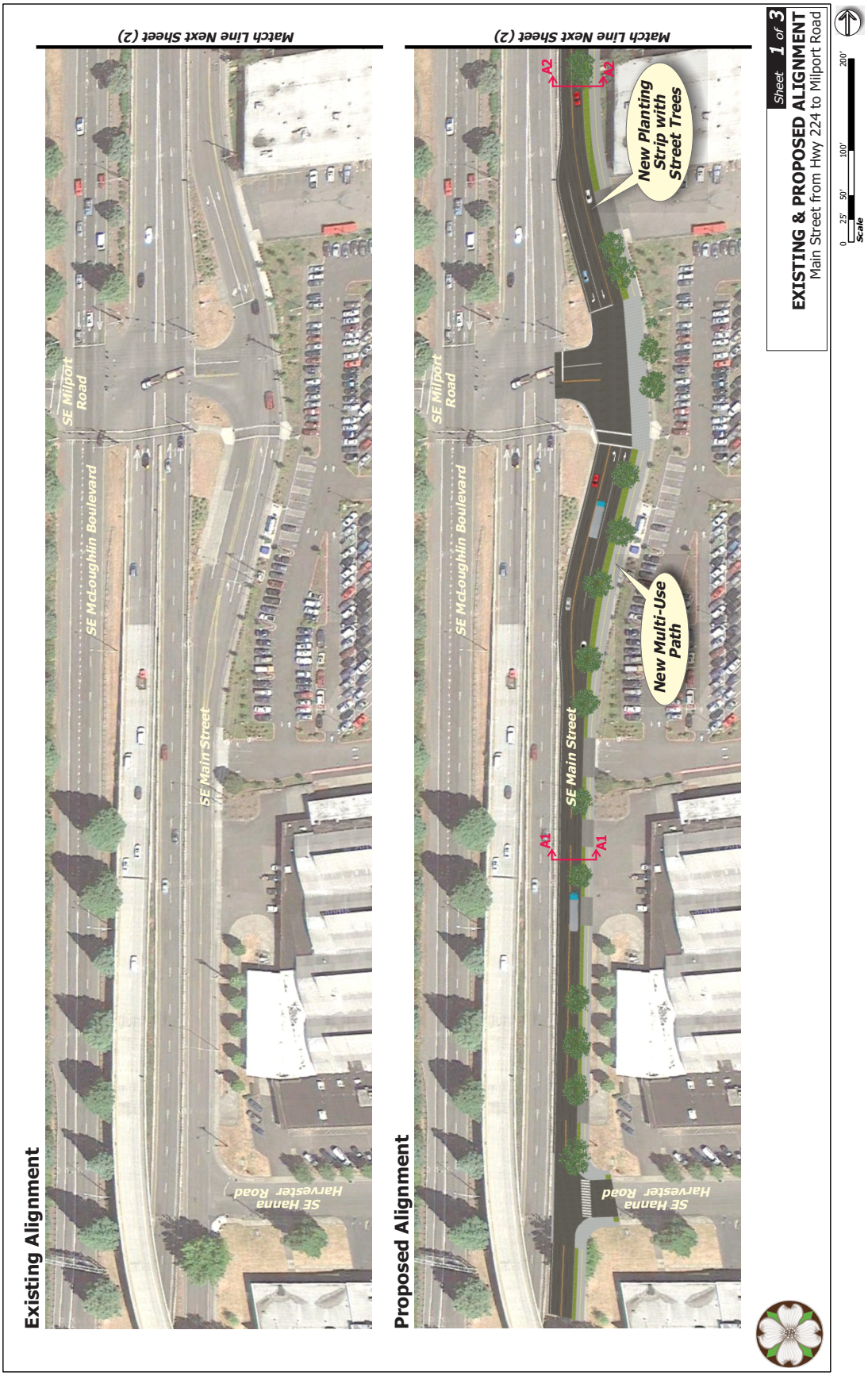


FIGURE 13: CONCEPTUAL DESIGNS FOR MAIN ST EXISTING AND PROPOSED ALIGNMENT

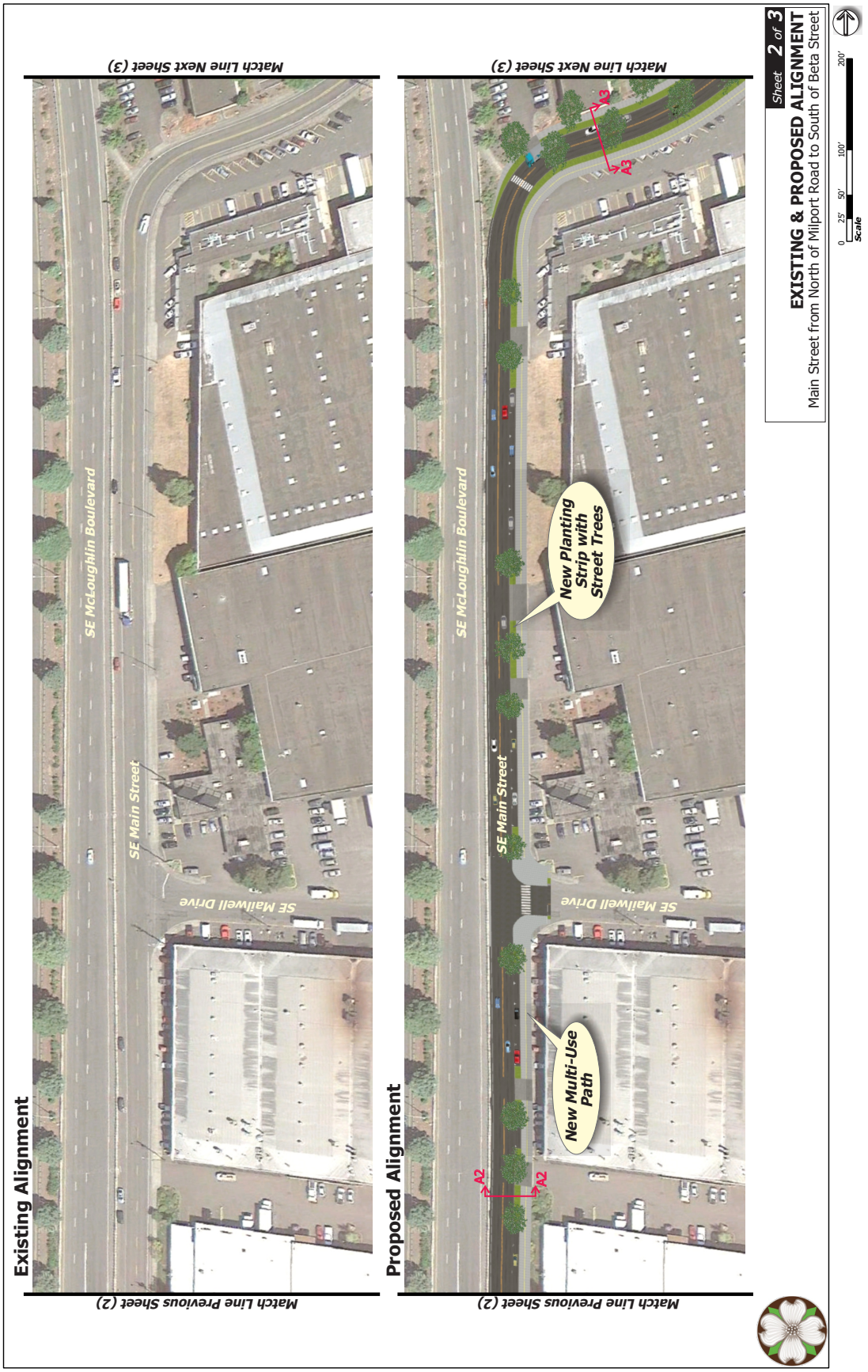
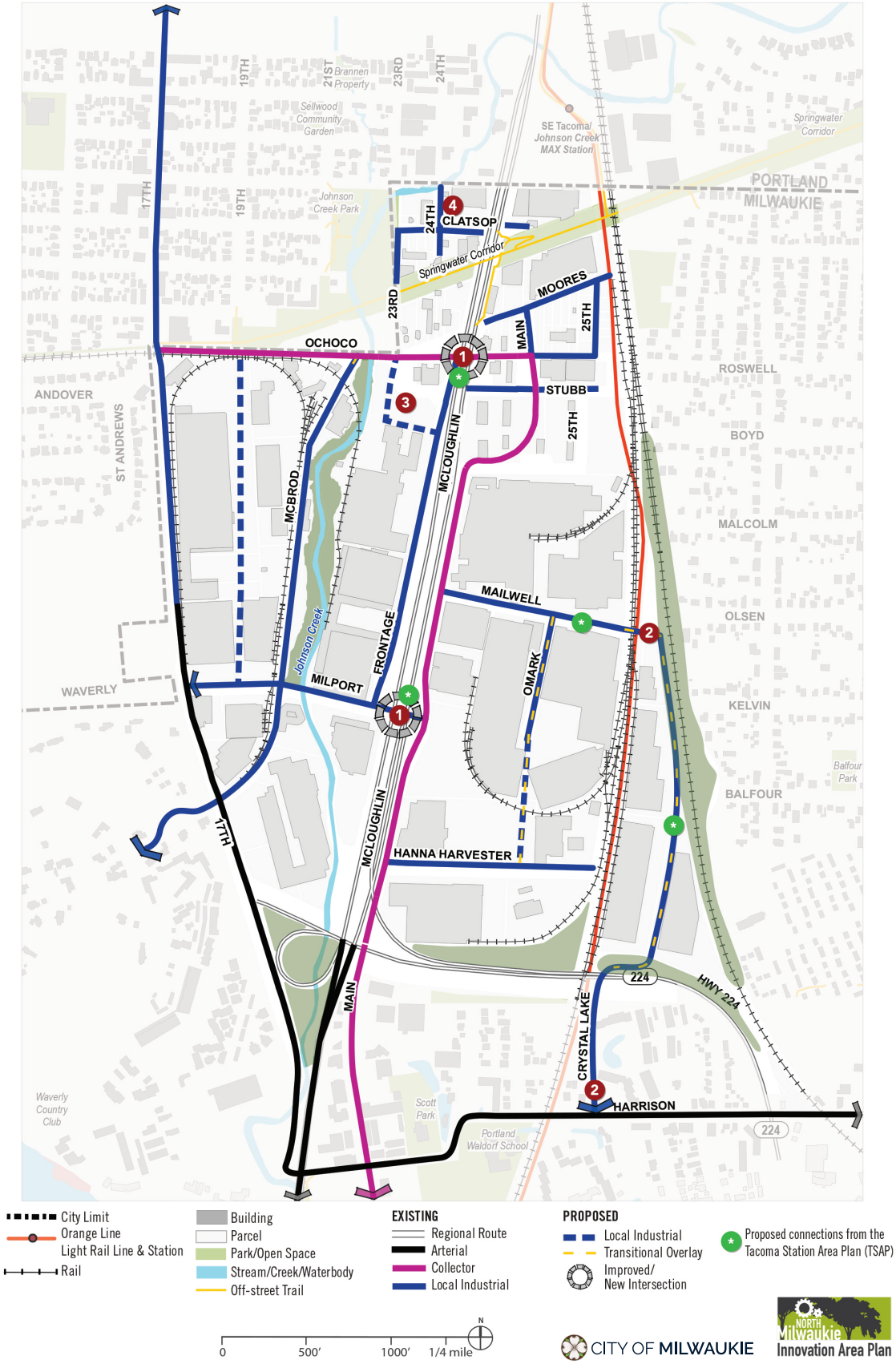


FIGURE 14: CONCEPTUAL DESIGNS FOR MAIN ST EXISTING AND PROPOSED ALIGNMENT

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.

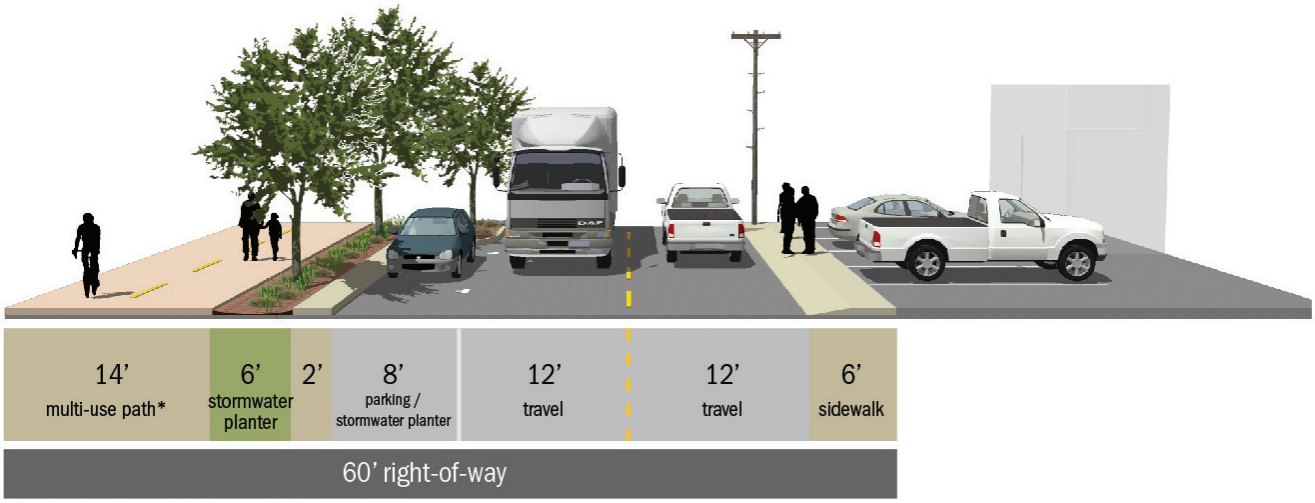
Local Industrial Streets

- **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 restrict 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)

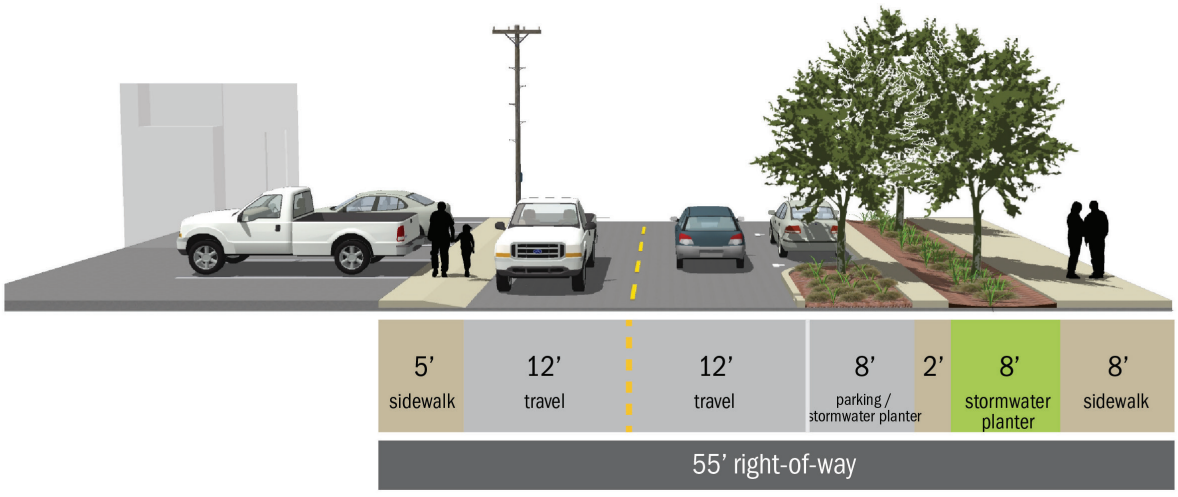


FIGURE 18: INTERIM IMPROVEMENTS ON MCBROD AVE (TRANSITIONAL STREET)

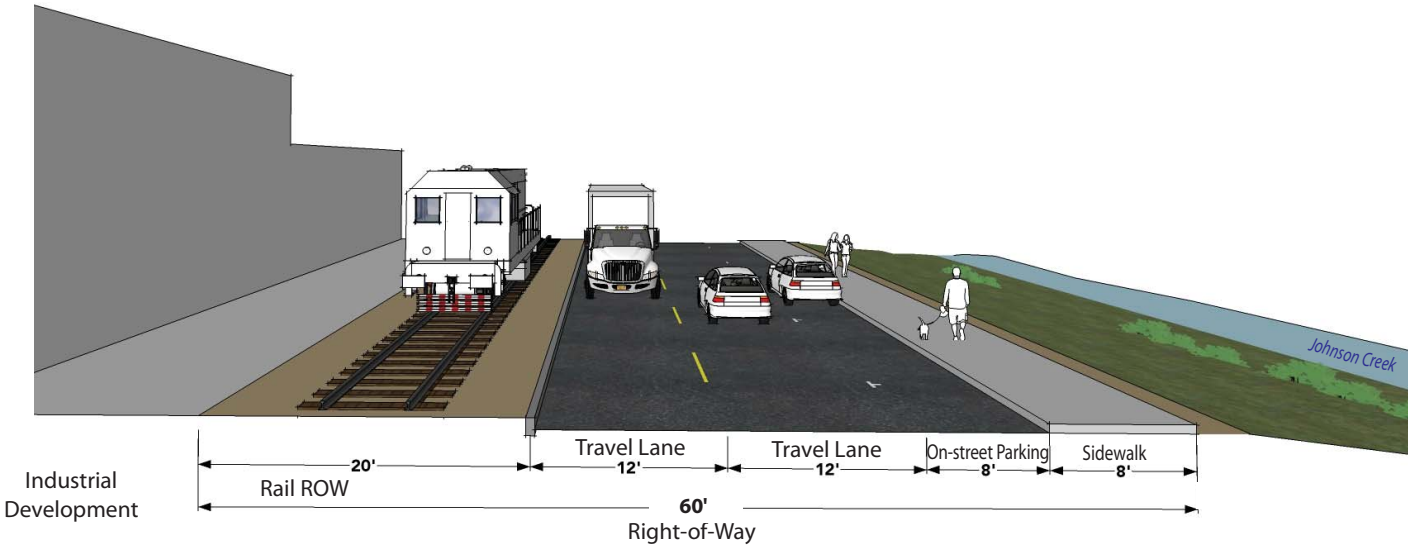
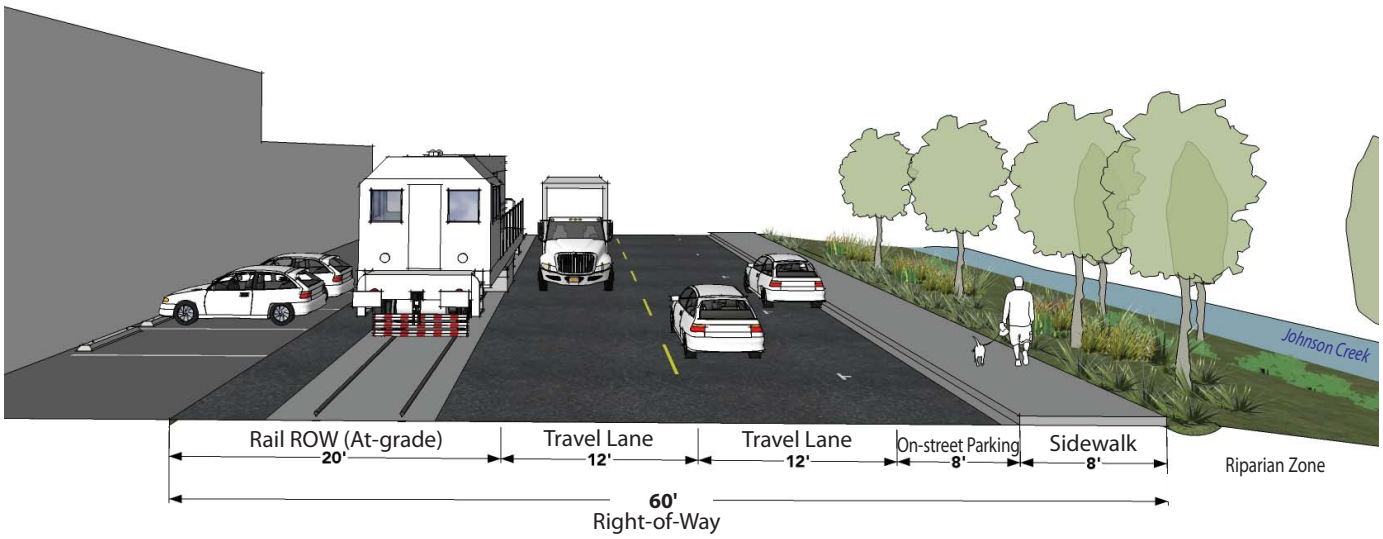


FIGURE 19: FULL BUILD-OUT OF MCBROD AVE



- **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

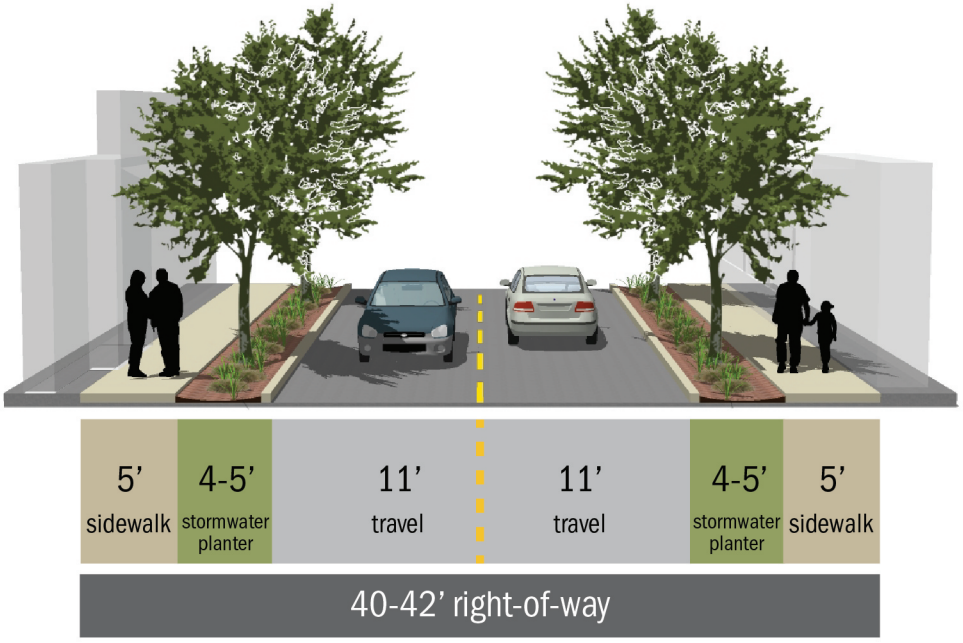
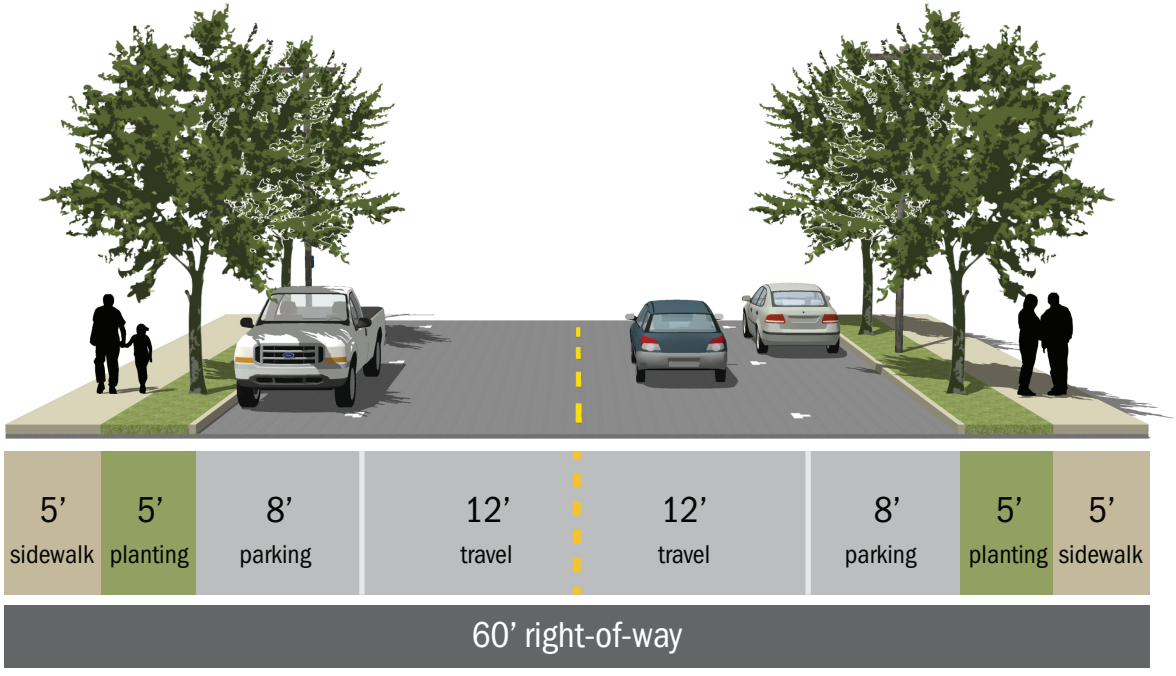


FIGURE 21: PROPOSED CONCEPTUAL CROSS-SECTION FOR LOCAL STREETS WITH A 60' RIGHT-OF-WAY



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

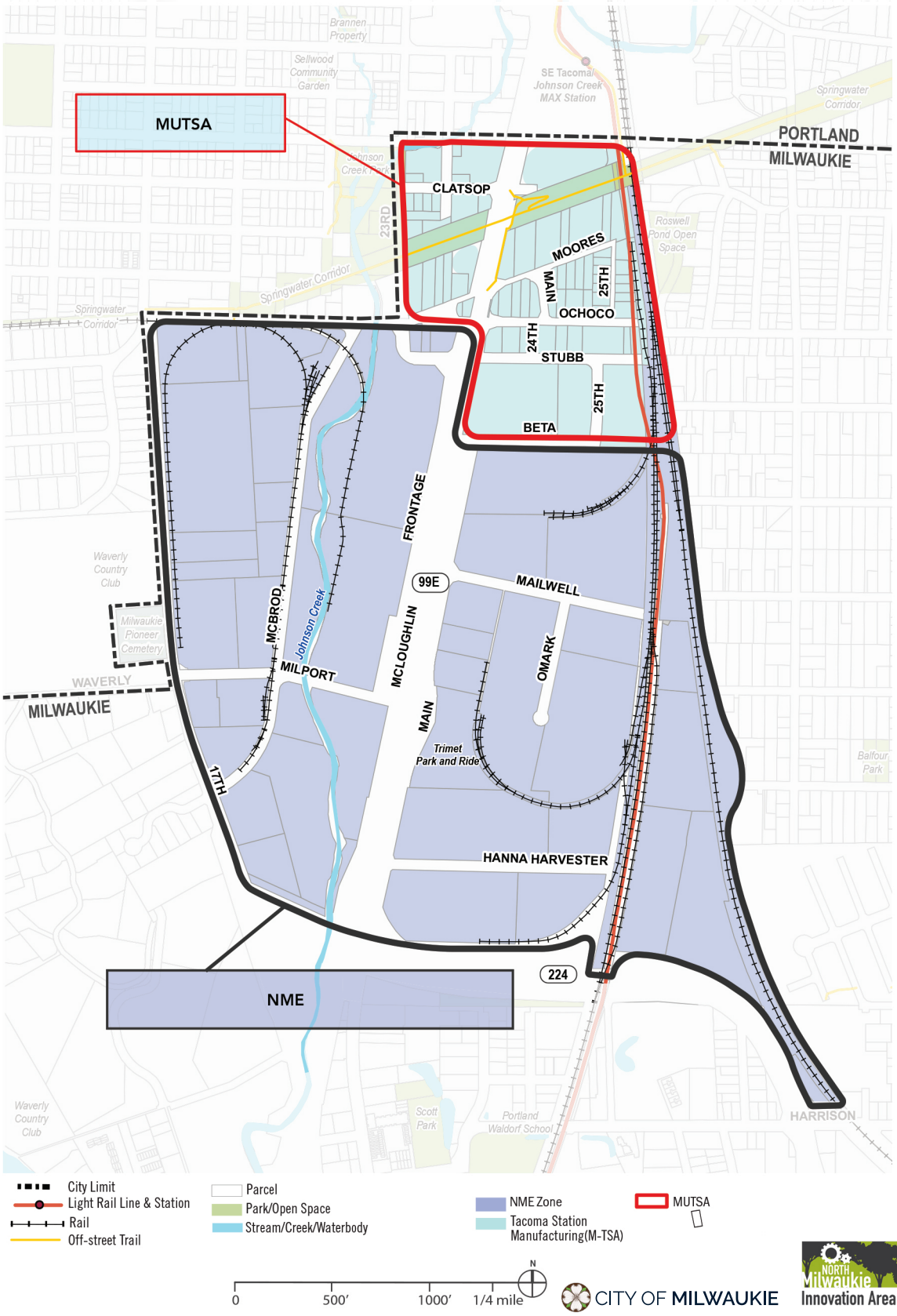


FIGURE 29: ODOT SITE EXISTING AND CONCEPTUAL

FIGURE 30: MCBROD AVE NORTH EXISTING AND CONCEPTUAL

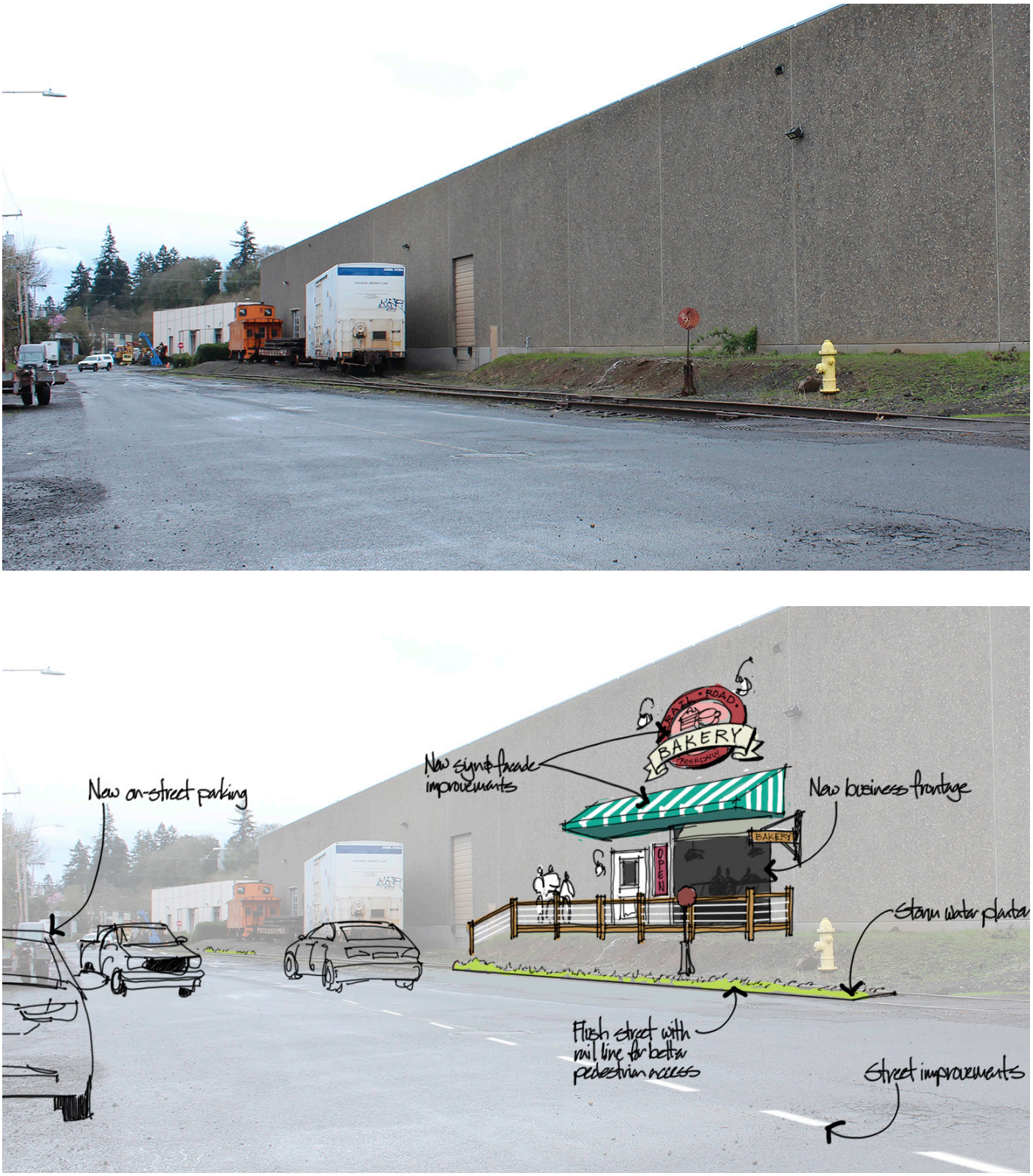


FIGURE 31: MCBROD AVE SOUTH EXISTING AND CONCEPTUAL

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:

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.

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.

In this chapter:

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

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


HARDER


Johnson
Water


USF Reddaway