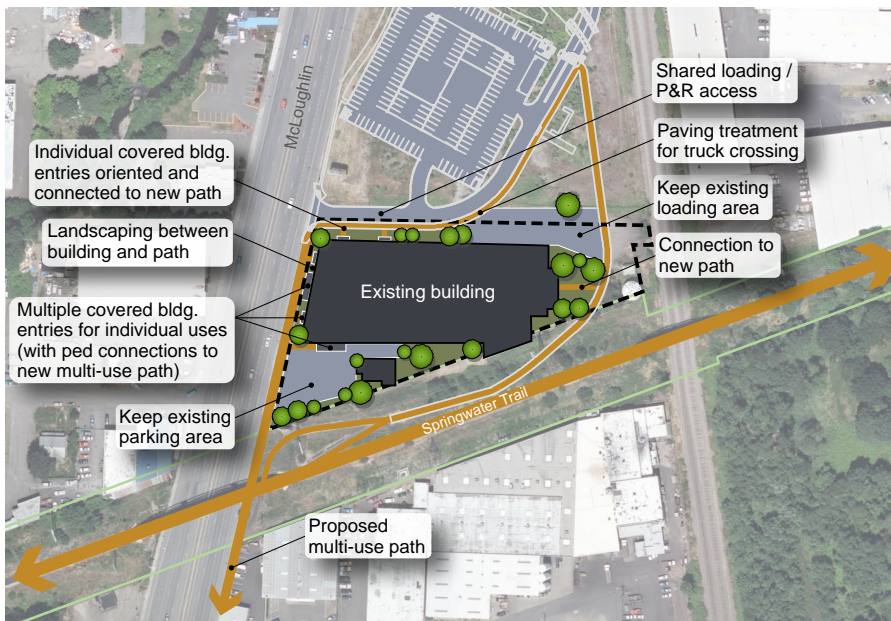
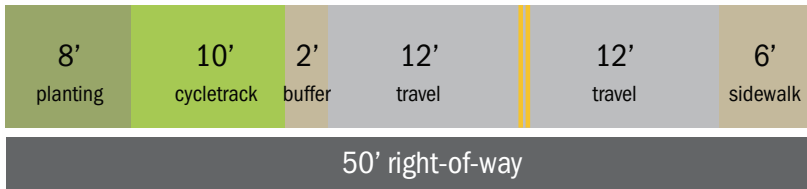


# Tacoma Station Area Plan

## Redevelopment Scenarios Report



DRAFT

Task 3.1  
September 6, 2012

City of Milwaukie

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# Section 1: Introduction

## Project Overview and Project Study Area Boundary

The Portland to Milwaukie Light Rail line is expected to open for service in 2015 and will include a station near the SE McLoughlin Blvd/Tacoma Street interchange, just north of the Milwaukie city limits. The Tacoma Station Area Plan (Plan) is being developed by the City of Milwaukie in coordination with others to examine opportunities for redevelopment and investment in the vicinity of the new light rail station.

The Project Study Area is bound by McLoughlin Boulevard (OR99E) on the west, the railroad on the east, the Tacoma Station on the north and Highway 224 on the south. The Project Study Area includes areas within the City of Portland; however, most recommendations in the final Plan will be limited to those areas within the City of Milwaukie. Plan development will occur from summer 2012 to June 2013 and will include participation from area property owners, tenants, interested community members and affected public agencies.

Overall goals for the project and future use of the Project Study Area include:

- Develop a proposed future land use scenario for the Project Study Area that promotes an active station area community, addresses barriers to redevelopment and establishes the area as a community destination.
- Develop a transportation plan for the Tacoma Station Area that provides multi-modal access to the Tacoma light rail station and enhanced connections within the Project Study Area.
- Develop an achievable plan that is acceptable to stakeholders and policy-makers.

In addition to these overall goals, a number of specific issues and objectives are addressed in this report, including:

- Improving access into and out of the study area and to the light rail station, particularly by bicycling and walking, including overcoming existing barriers to access.
- Improving local circulation for all modes of travel within the project area.
- Designing local streets and intersections in a way that will better serve all users, including freight operators, drivers, bicyclists and pedestrians.
- Addressing current and future parking needs within the area, including providing an adequate supply of on and off-street parking and managing parking in a way that meets this objective while also encouraging use of alternative modes of travel
- Designing future buildings and public facilities to make the area attractive for businesses, residents and visitors.

Two properties within the Project Study Area have been identified as Opportunity Sites A and B (shown in Figure 1) and are described on the following pages.

This report describes three potential scenarios for future use and development or redevelopment of the opportunity sites and other portions of the Project Study Area, including potential recommendations related to the following:

- Possible changes in land use which could translate into changes in zoning designations and/or application of an overlay zone
- Transportation improvements to improve access into and through the Project Study Area, particularly access to the future light rail station and connections from the Project Study Area to surrounding

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neighborhoods, including the Downtown, Ardenwald and Sellwood-Moreland areas

- Strategies related to future building and site design character, parking and other characteristics of the Project Study Area

## Opportunity Site A

Site A represents an opportunity due to its location and orientation adjacent to the light rail station and park and ride lot, as well as the character of the existing Pendleton building and willingness to consider alternative use of the site. Opportunity Site A is 2.32 acres and is located closest to the Tacoma Station, just below the City of Portland limits. The site is currently owned by Pendleton Woolen Mills and is used for a number of different activities, including office/administrative work, storage, retail sales and photography of clothing and other merchandise for catalogs and marketing. Pendleton is currently leasing some spaces within the one-story building to small complementary uses such as other textile sales uses. The owners are open to exploring possible new uses for the existing building, but also are interested in maintaining the existing structure/shell. They do not plan to sell or vacate the building in the near term.

## Opportunity Site B

Site B represents an opportunity because of the size of the site, relative proximity to the light rail station, current public ownership, and opportunity to transition to other future uses. Opportunity Site B consists of three separate parcels totaling 8.72 acres. The three parcels are owned by Oregon Department of Transportation (ODOT) and are currently used as an ODOT maintenance facility. Existing improvements on the site include two vacant office buildings, several storage sheds and a truck washing facility. The maintenance facility is in the process of being relocated, which will make this site available for redevelopment.

## Other Study Area Conditions

The entire Project Study Area is currently zoned Manufacturing (M) by the city. The M zone allows any combination of manufacturing, office and commercial uses as long as 25 percent of the total project involves an industrial use. Natural resource extraction and high-impact commercial uses (those uses which would result in significant amounts of traffic or noise) are allowed conditionally in the M zone. New residential construction, churches and schools are not permitted although other community and public facilities are allowed under certain conditions. All of the properties within the Project Study Area have been designated by the City as (Metro) *Title 4 Employment Lands*, but none of these properties are designated as *Title 4 Industrial Lands*. The *Employment Land* designation means that retail uses are limited to 5,000 square feet per building or 20,000 square feet for multiple retail uses. As part of this project, the city is considering amendments to the M zone that will help clarify existing requirements and improve enforceability of the chapter. Additional amendments may also be applied to the Project Study Area specifically to support and implement the Tacoma Station Area Plan.

Other key conditions, opportunities and constraints in the Project Study Area are summarized in Appendix A. More detailed information about conditions, opportunities and constraints in the area can be found in a related detailed report available on the City of Milwaukie's web site (<http://www.ci.milwaukie.or.us/planning/tacoma-station-area-plan-0>) and by request from city staff.

# Tacoma Station Area Plan Project Context Map

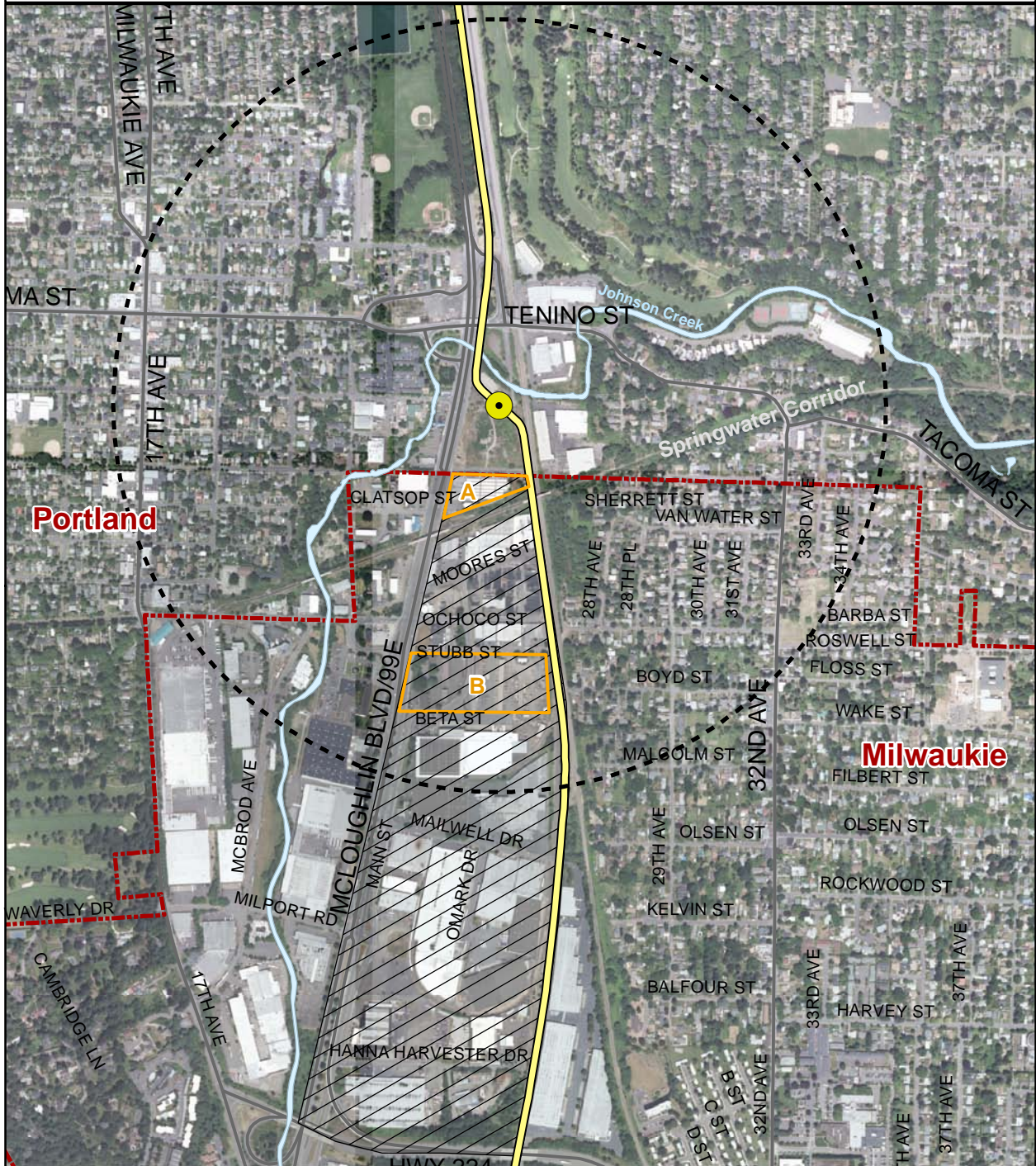
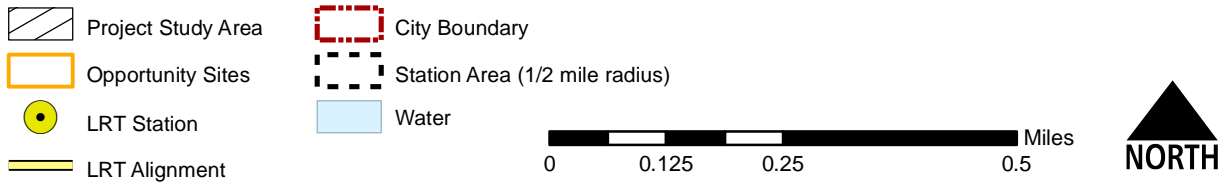


Figure 1. Project Study Area Map

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## Summary of Alternatives

The redevelopment scenarios described in this report include the following:

### 1. Baseball stadium or large civic/entertainment use.

This scenario assumes construction of a 2,000 seat baseball stadium or some other large civic or entertainment use on the site currently used by the Oregon Department of Transportation (Opportunity Site B). The City of Milwaukie has been pursuing acquisition of a minor league baseball team, with this site as the team's potential future home. This study has represented an opportunity to study how this area would be used and developed if a baseball stadium were located here. While efforts to bring a baseball team to Milwaukie for the 2013 season have not succeeded, the city remains interested in exploring the potential use of this site for a baseball stadium or a similar use as it continues to pursue such opportunities. This scenario also assumes a certain amount of redevelopment around this site to capitalize on and support redevelopment of the ODOT site.

### 2. Intensive, non-baseball use.

This scenario represents relatively intensive redevelopment of portions of the study area (primarily north of Mailwell Drive). It assumes a mix of commercial, office and retail use on the ODOT site and the properties to the north with a mix of residential and retail uses just south of the Springwater Corridor trail. This scenario assumes that this type of development could be accommodated with no additional highway transportation improvements over what is already planned, with the exception of ODOT-identified operational improvements at the Ochoco/McLoughlin and Milport/McLoughlin intersections.

### 3. Modest land use changes.

This scenario assumes only modest changes in land use and relatively minimal redevelopment. It generally assumes that the area will continue to function as a manufacturing and industrial area. However, it also assumes implementation of a variety of transportation improvements in the area, as well as reuse of the site owned by Pendleton Woolen Mills just north of the Springwater Corridor and south of the future light rail station.

These scenarios have been developed through a collaborative process with City staff, the consulting team assisting with the project, and members of the project technical and stakeholder advisory committees, Planning Commission and City Council. Those groups reviewed and suggested initial ideas for incorporation in the redevelopment scenarios. They will also review the resulting scenarios and suggest possible refinements to them.

SCENARIO	1 Baseball stadium or large civic/entertainment use	2 Intensive, non-baseball use	3 Modest land use changes
VISION	The area is anchored by a 2,000-seat baseball stadium, or some other large civic or entertainment use	The area becomes an employment-based TOD with higher-density redevelopment through new multi-story buildings	The area is mainly industrial and manufacturing, with an improved circulation network
OPPORTUNITY	SITE A	New commercial development including neighborhood retail uses, small brewery, flexible office/incubator space, small second floor offices	
	SITE B	Site accommodates both the new baseball stadium or civic/entertainment facility as well as new eating/drinking establishments	Majority of site redevelops as new creative office/flexible employment uses
TRANSPORTATION IMPROVEMENTS	NEW STREETS	<ul style="list-style-type: none"> <li>• Additional new connections to street network providing access to baseball stadium</li> <li>• Additional connections as redevelopment occurs</li> </ul>	<ul style="list-style-type: none"> <li>• New north-south connection on Omark Drive alignment</li> <li>• New east-west connection between Beta Street and Mailwell Drive</li> <li>• Additional connections as redevelopment occurs</li> </ul>
	TRAFFIC	<ul style="list-style-type: none"> <li>• Changes in design of multiple streets in study area</li> <li>• Truck signage and possible transportation improvements at Ochoco/McLoughlin intersection</li> <li>• Tacoma Street Interchange improvements: Planned safety improvements to on/off ramp</li> <li>• Possible local street connection to Harrison St. in eastern portions of study area</li> </ul>	
	BICYCLE/PEDESTRIAN	<p><b>Facility Improvements:</b> Beta St, Hanna Harvester Dr, Mailwell Ave, Main St, McLoughlin Blvd, Milport St, Ochoco St, Stubb St, Springwater Corridor to Park and Ride, Bike Share facility at Park and Ride</p> <p><b>New/Improved Connections:</b> McLoughlin to Stubb St, Olsen Street, Parallel to LRT (from Moores St), Springwater Corridor trail to study area, connection to Harrison St, 29th/Sherrett to Springwater Corridor</p>	

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# Section 2: Redevelopment Scenarios

## Elements Common to All Scenarios

### Local circulation, access and other transportation improvements

The following list describes circulation, access and other transportation improvements that are common to all three scenarios. The numbers correspond to the numbers shown on the scenario maps in Figures 8, 12, and 18. Improvements have been categorized by those that meet broader access, circulation or mobility needs for the Project Study Area (“big picture” projects), and those that represent more targeted, minor improvements (“additional recommendations.”) Street sections shown in figures 20-28 further illustrate several of the proposed transportation improvement recommendations described below.

### Big Picture Projects

- 1 Improvements to Main Street to fill gaps in bicycle/pedestrian facilities and enhance the connection to downtown Milwaukie.** Generally, Main Street south of Milport Road would have a sidewalk on the east side of the street, two travel lanes and a 10 foot wide cycle track for bicyclists traveling in both directions, with a jersey barrier continuing to separate Main Street from McLoughlin Boulevard. North of Milport, where more right-of-way is available, Main Street would have the same elements with slightly wider travel lanes and a landscaped strip separating Main Street from OR 99W. Figures 20-21 illustrate these proposed designs.
- 2 Bicycle/pedestrian connection from the eastern neighborhoods to the Project Study Area across the railroad tracks (underpass or overpass) at approximately Olsen Street.** Coming from the east, users would go from the proposed new crossing to the existing private at-grade crossing over the western set of railroad tracks at Mailwell. They could then access the light rail transit (LRT) station via existing and potential new local streets (Mailwell, Main, Moores and McLoughlin). This would also provide improved access to the downtown for residents, either via the proposed new connection described in #4 below or via Main Street to the south.
- 3 Possible bicycle/pedestrian connection parallel to LRT track.** This would provide a more direct connection to the light rail station from the eastern portion of the Project Study Area, creating a pathway on the west side of the LRT track south to Moores Street. However, it is likely that there would be challenges to creating this connection. While it is beyond the scope of this project to determine the feasibility of this connection, locating a trail directly adjacent to the LRT line would likely require concurrence from TriMet and adequate space to provide a safe, separated facility. This, in turn, may require enlarging the existing tunnel/opening under the Springwater Corridor, which could be very costly, given the relatively limited benefit of creating this new access just one block away from the existing connection along McLoughlin. Geotechnical and engineering analyses also would be needed to determine the feasibility of this project.
- 4 Formal local street or bicycle/pedestrian connection from Harrison Street through the parking lots of the business park east of the railroad tracks, crossing at the existing private rail crossing.** This would create connections to downtown via the existing under-crossing of Highway 224. That under-crossing connects to SE 26th Avenue which then connects to Harrison Street; no additional crossings of Highway 224 are proposed. An enhanced crosswalk across Harrison at this location, with a median refuge island, is proposed as well.



- 5 **Improved existing connection from the Springwater Corridor to the Pendleton site/station area.** This is the improved ramp connection that was included in the proposed LRT station and park and ride design. New ramps are proposed on each side of the slope that contains the Springwater Trail, with a long eastbound ramp on the north side of the slope, and a long westbound ramp on the south side. These new ramps would provide higher quality bike connections into the station area, without the switchbacks of the existing ramp, which are more difficult for cyclists to navigate.
- 6 **Stairs/improved connection from the Springwater Corridor to the LRT station (south side of Pendleton site as shown in Figure 2 below).** The City of Portland continues to pursue potential funding for this project element through a Transportation Enhancement grant.



Figure 2. Planned Improvements from Springwater Corridor to Light Rail Station

- 7 **Possible stairway/improved connection from the Springwater Corridor to McLoughlin from west.** This is a companion stairway to #6 noted above, and is shown in Figure 2.
- 8 **Pedestrian/bicycle safety/crossing improvements at Ochoco and Milport intersections with McLoughlin,** with specific design options to be identified at a later date.
- 10 **Planned safety improvements at the Tacoma interchange (on/off ramp improvements).** These are part of a planned ODOT re-striping project scheduled for summer of 2012 that will change lane configurations on southbound SE McLoughlin Boulevard near the Tacoma Street interchange. It will shift the start of the third southbound travel lane so it begins at the Tacoma Street on-ramp rather than at Nehalem Street, allowing a dedicated lane for drivers entering SE McLoughlin from the Tacoma Street ramp. The project will also add a raised pedestrian refuge island at the southbound Tacoma Street ramp.

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- 11 **Potential multi-use path along McLoughlin (east side) from the future TriMet Park & Ride to Beta Street.** This connection would travel from the south end of the future park and ride at the LRT station along the east side of McLoughlin, under the Springwater Corridor structure, and then join on-street facilities and/or a potential cycle track on Main Street at Beta Street.
  - 14 **Local street cross-section improvements to Stubb, Beta, Ochoco, Hanna Harvester, and Mailwell to demarcate pedestrian, bicycle, truck and auto circulation and parking areas,** improving safety while maintaining freight operations. Figures 23, 25, 26, and 27 illustrate these cross-sections.
  - 15 **Improved bicycle/pedestrian connections from and within the neighborhood to the west along Ochoco Street and Milport Road.** This could include adding sidewalks on one or both sides of these streets to fill gaps in the sidewalk system and possibly adding dedicated bicycle lanes if right-of-way is available.
  - 16 **Connection from the SE 29th Avenue bicycle route to Springwater Corridor.** Currently, 29th Avenue from Sherrett to Balfour is a designated “Shared Roadway Low Traffic” for bike travel.
  - 20 **Improvements to access at the Springwater Corridor are recommended to facilitate the connection from the west end of Sherrett Street to the trail.** This is related to item #16, and improvements include paving the existing gravel pathway that people currently use to access the trail, as well as possibly providing additional signage at Sherrett/29th to direct people to this connection and the trail.

### Additional Recommendations

- 9 **Truck signage improvements at the Ochoco intersection.** Additional signage and enhanced circulation and /or geometric improvements are recommended to improve truck operations in this location and improve queuing conditions along McLoughlin that can result if southbound truck traffic does not access Ochoco Street properly.
- 12 **Additional local street connections to improve connectivity in the Project Study Area.** If larger blocks in the southern portion of the area are redeveloped in the future, additional local street connections would be recommended or required to break up large blocks and improve local access and connectivity. Future block lengths associated with residential, commercial or office use are recommended to be 250-530 feet, consistent with existing city standards. Block sizes for industrial uses may be larger (e.g., 600-1,200 feet), given the need to accommodate larger industrial users and associated infrastructure (e.g., rail lines and spurs).
- 13 **Eliminate parking on southbound shoulder on Main Street.** Improvements to Main Street shown in Figures 20-21 would require removal of on-street parking in the shoulder area on the west side of the street. Parking in this area currently represents a barrier and potential hazard to cyclists traveling southbound. This parking would be replaced by providing on-street parking opportunities on local streets in the Project Study Area (see Figures 23, 25, 26 and 28) and possibly using all or a portion of the existing Park and Ride lot between Mailwell and Hanna Harvester for off-street parking for area workers and visitors in the future.
- 17 **Northbound (uphill) bike lane on the LRT station access road to Tacoma Street.** This improvement would enhance bicycle operations in the area. However, it may not be feasible, given that both planned egress lanes are needed in this location. Including an uphill bike lane would require a wider cross-section and/or reductions in the width of other elements of the street.

- 18 **Potential future Portland Bicycle Share station and car share spaces at LRT station.** Development of a Bicycle Share station has been discussed for the LRT station. TriMet also could work with local car share companies (e.g., Zipcar or Car2Go) to provide car share spots to encourage use of bicycle and car sharing among LRT station users and surrounding residents.
- 19 **Bicycle/pedestrian connection between McLoughlin and the west end of Stubb Street.** Currently, Stubb Street ends just east of McLoughlin Boulevard. A short pathway could be provided across the vacant area between the west end of Stubb and the proposed multi-use path along this section of McLoughlin. This would provide parallel routes on both Main and McLoughlin to the north to access the LRT station, further enhancing bicycle and pedestrian connectivity in the area. No crossing of McLoughlin is proposed at this location.

### Land use and Development Elements

All three scenarios include access, circulation and other transportation-related improvements within the area south of Mailwell. However, no changes in the basic land use pattern are recommended for this area in any of the scenarios. This recommendation is based on comments from property owners in this area who note that the area remains a viable industrial area where industrial uses are expected to continue operating through the planning horizon (20 years). In addition, given that this portion of the study area is more than a half-mile from the LRT station, impacts of the LRT station on redevelopment potential in this portion of the study area are expected to be limited.

Another common element is Opportunity Site A, which is identified as Commercial in all three scenarios. This is due to its close proximity to the Tacoma LRT station, park and ride lot and Springwater Corridor. The site was identified as the most viable location for commercial uses that will serve users of those nearby amenities.



Figure 3. A one-story warehouse in Central Eastside Portland has been converted to a wine storage and tasting business.



Figure 4. Warehouses along Water Avenue have been converted to ground floor retail and 2nd story office space suitable for small and non-traditional businesses.

In addition, each element assumes some type of modified use of the historic building on Opportunity Site B although the specific use and relationship to surrounding uses will vary by scenario. Other land use and development recommendations may include additional street trees or landscaping (see Figures 20 - 28 on pages 22-26), cohesive signage or similar treatments for other public improvements to create a unique sense of identity for the area.

### Description of Opportunity Site Redevelopments

The redevelopment scenarios provided for Opportunity Site A (which are consistent across all three scenarios) imagine the existing structure on the site renovated to accommodate commercial uses such as a small brewery, flexible office/incubator space, dining, coffee shop and café, convenience market, bicycle shop, and/or potentially 2nd story small offices (Figures 3 and 4 provide examples of existing employment buildings in the Portland area that have been renovated to accommodate such commercial uses). Redevelopment of this site also could incorporate improvements to the building façade (e.g., introduction of more windows) and to the parking area (e.g., inclusion of trees or other landscaping) Excellent pedestrian and bicycle connections from Opportunity Site A to and from Tacoma Station and the Springwater Corridor will help draw people into the redeveloped site.

### SITE A - All SCENARIOS: PENDLETON SITE “MARKETPLACE” CONCEPT

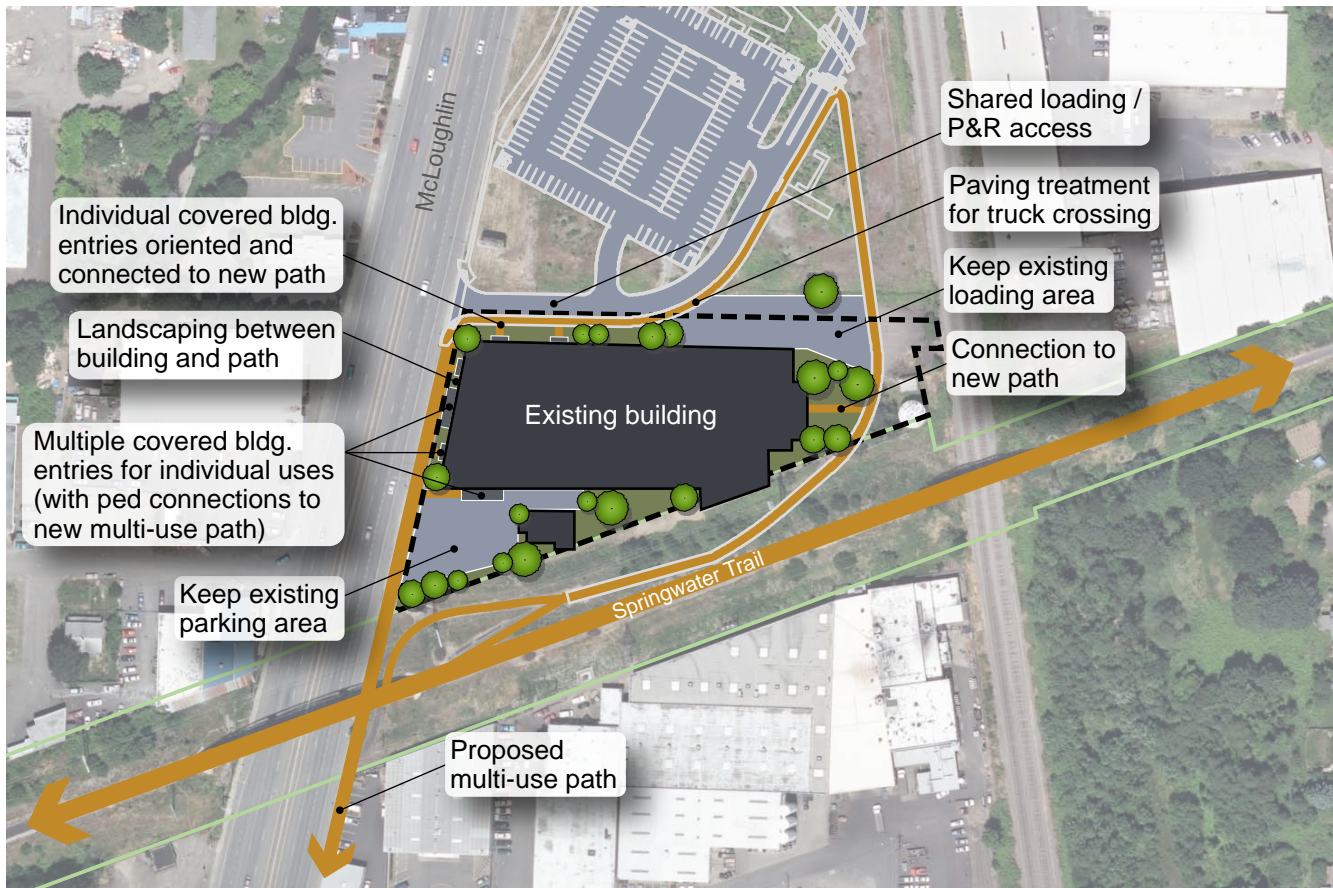


Figure 5. Conceptual Site Plan for Redevelopment of Opportunity Site A under all three scenarios

0 200 400 600 800 Feet  
1 inch = 200 feet (at 11x17 inch display)

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## Scenario 1 – Baseball stadium

### Local Circulation, Access and Other Transportation Improvements

In this scenario, the location of the baseball stadium between Stubb Street and Beta Street requires some reconfiguration of the local street network. The existing Main Street connection between Stubb and Beta is vacated under this scenario, and a new connection is created between the proposed parking structure and the railroad tracks.

### Land Use and Development Elements

The land use pattern in Scenario 1 is centered around a baseball stadium or other large civic/entertainment use, which would be located on Opportunity Site B between Stubb and Beta Streets. Commercial and retail uses that support and complement the civic/entertainment use would be located west and north of Opportunity Site B between Moores, Ochoco and Stubb Streets, taking advantage of the high visibility from McLoughlin Boulevard and proximity to the LRT station. The portion of land west of McLoughlin Boulevard and north of the Springwater Corridor could be developed with a mix of light industrial and office employment uses, again maximizing the proximity to light rail and the commercial/retail uses identified at Opportunity Site A. Land south of Opportunity Site B would continue to consist primarily of industrial uses.

Throughout the Portland region there are examples of how existing industrial/employment areas can successfully accommodate commercial uses that cater to local residents and employees while preserving the industrial character of the district. In particular, Portland’s Eastside Industrial District and the MAX Yellow Line’s Mississippi/Albina Station illustrate how the existing industrial character of the local building stock can be leveraged to create a unique sense of place for a burgeoning retail and entertainment destination while maintaining the integrity of the surrounding employment uses. Photographs throughout this document, such as Figures 6 and 7 below, provide some examples of recent developments in these two areas which might serve as a guide for the type and character of development envisioned for the Tacoma Station Area.

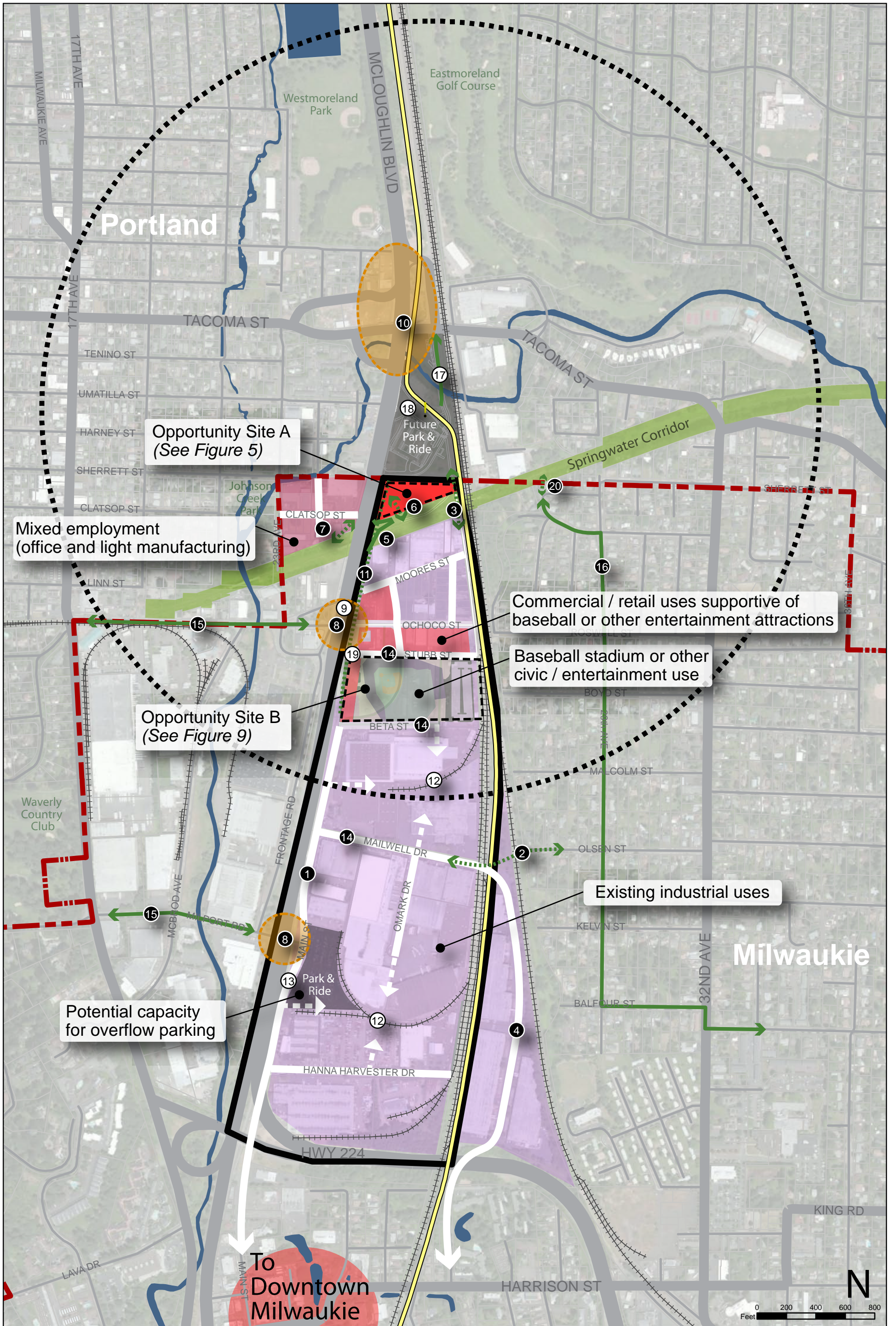
As illustrated by the examples shown in Figures 3, 4, 6, 7, and 10, Scenario 1 assumes that some of the existing warehouse and manufacturing buildings in the Project Study Area could eventually be renovated to accommodate retail/commercial uses such as bars, restaurants, retail outlets, and other entertainment-supportive uses that would enliven the district both during and after major sporting events as well as on non-event days. In particular, the historic ODOT building on the west end of Opportunity Site B could be repurposed as retail and dining space, taking advantage of the immediate proximity of the entertainment complex to its east.



Figure 6. New dining options as well as brewers, coffee roasters, and architectural salvage companies have opened near the Albina/Mississippi MAX station



Figure 7. Warehouses easily convert to more active light manufacturing facilities such as a brewpub and tasting room.



**Tacoma Station Area Plan**  
**SCENARIO 1: BASEBALL / ENTERTAINMENT**

**SERA** Figure 8.

- |   |   |  |
|---|---|--|
| <span style="display:inline-block; width:15px; height:15px; background-color:red; border:1px solid black;"></span> Commercial                       | <span style="display:inline-block; width:15px; height:15px; border:1px solid gray;"></span> Study Area Streets                  | <span style="display:inline-block; width:15px; height:15px; border:1px dashed black;"></span> Project Study Area             |
| <span style="display:inline-block; width:15px; height:15px; background-color:purple; border:1px solid black;"></span> Mixed Employment              | <span style="display:inline-block; width:15px; height:15px; border:1px dashed gray;"></span> New Street Connections             | <span style="display:inline-block; width:15px; height:15px; border:1px dashed black;"></span> Station Area (1/2 mile radius) |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightpurple; border:1px solid black;"></span> Existing Industrial Uses | <span style="display:inline-block; width:15px; height:15px; border-bottom:2px solid green;"></span> Bike / Ped Improvements     | <span style="display:inline-block; width:15px; height:15px; border-bottom:2px dashed red;"></span> City Boundary             |
|   | <span style="display:inline-block; width:15px; height:15px; border-bottom:2px dashed green;"></span> New Bike / Ped Connections | <span style="display:inline-block; width:15px; height:15px; border-bottom:2px solid yellow;"></span> LRT Station             |
|   | <span style="display:inline-block; width:15px; height:15px; border:1px dashed orange;"></span> Intersection Improvements        | <span style="display:inline-block; width:15px; height:15px; border-bottom:2px solid yellow;"></span> LRT Alignment           |

1 inch = 600 feet

## Redevelopment of Opportunity Site B

Scenario 1 assumes that the eastern portion of Opportunity Site B is redeveloped to accommodate a baseball stadium or other civic/entertainment use. The conceptual site plan provided below therefore focuses on the westernmost portion of the ODOT site, and assumes that the existing historic ODOT building is renovated to house new eating/drinking establishment(s) that would cater to event attendees on event days, and would serve as a retail destination to nearby residents on non-event days. This scenario assumes that a redevelopment of the structure would leverage the building's historic architectural character to create a unique sense of place for the new commercial establishment.

Key to the redevelopment of the building and the site will be providing clear pedestrian linkages to the plazas surrounding the baseball stadium, as well as to the proposed multi-use path along McLoughlin Blvd. The conceptual site plan assumes that the existing surface parking area will be used to help meet parking demand for the new commercial uses provided in the ODOT building. Like Opportunity Site A, however, it is important to note that any commercial redevelopment would likely require more parking stalls than can be provided for on the site. This scenario therefore assumes that the project would apply for a reduction in the minimum parking requirement, based on the site's proximity to transit. Parking may also be shared with the surface parking area provided for the baseball stadium on non-event days.

### SITE B - SCENARIO 1: BASEBALL / ENTERTAINMENT



Figure 9. Conceptual Site Plan for Redevelopment of Opportunity Site B under Scenario 1

0 200 400 600 800 Feet  
1 inch = 200 feet

## Scenario 2 – Alternative Intensive Redevelopment

### Local Circulation, Access and Other Transportation Improvements

This scenario provides the most connectivity within the Project Study Area. New north-south local street connections are recommended on the Omark Drive alignment and on the eastern edge of the Project Study Area, and a new east west connection is recommended between Beta Street and Mailwell Drive, serving the new mixed employment area. Additional street connectivity is recommended north of Moores Street as well, providing high quality multimodal access to new retail and residential areas.

### Land Use and Development Elements

Scenario 2 represents the most intensive mix of land uses, maximizing employment densities within the Station Area. Generally speaking, the higher-impact uses are located south of Beta Street, adjacent to the existing industrial uses. The area between Mailwell Drive and Beta Street is identified as mixed employment, including both office and light industrial uses. North of Beta Street is primarily office, with some commercial/retail uses located along McLoughlin Boulevard. This area of office and commercial uses will serve as a transitional buffer between the employment uses to the south and the mix of residential and retail uses to the north. This area would offer opportunities for housing, most likely two to three-story townhouses, flats or apartments. They could be developed as “live/work” spaces for people with home occupations or small businesses, with small-scale retail uses located on the ground floor. These uses are located south of the Springwater Corridor to capitalize on the multi-use trail and LRT station. The portion of this area directly adjacent to McLoughlin Boulevard would likely be primarily retail in nature. As with Scenario 1, land west of McLoughlin Boulevard and north of the Springwater Corridor is identified as a mix of light industrial and office employment. The area west of McLoughlin between Ochoco St. and the Springwater Corridor is proposed to be a mix of retail, commercial and residential use.

Scenario 2 envisions a district transition into a higher density mixed-employment district that leverages the proximity to transit. Like Scenario 1, Scenario 2 looks to local examples (Portland’s Eastside Industrial Area and Mississippi/Albina Station) to serve as precedents for how light industrial/manufacturing areas can provide a high degree of multi-modal connectivity as well as services that cater to the needs of local employees and nearby residents. While the land uses in the area are currently (and almost singularly) industrial in nature, Scenario 2 proposes that the district encourages a broader array of higher-density employment uses to enliven the district, including live-work, light manufacturing and fabrication, office-based employment uses, small incubator spaces, and flexible office/artist spaces. These mixed employment developments could occur both in 1-2 story renovated warehouse-style buildings (such as in Figures 3, 4, 7, and 10) and in new multi-story structures (such as in Figures 11 and 17). In addition to higher intensity employment, the district should ideally provide supporting commercial uses, similar in character to those proposed in Scenario 1.

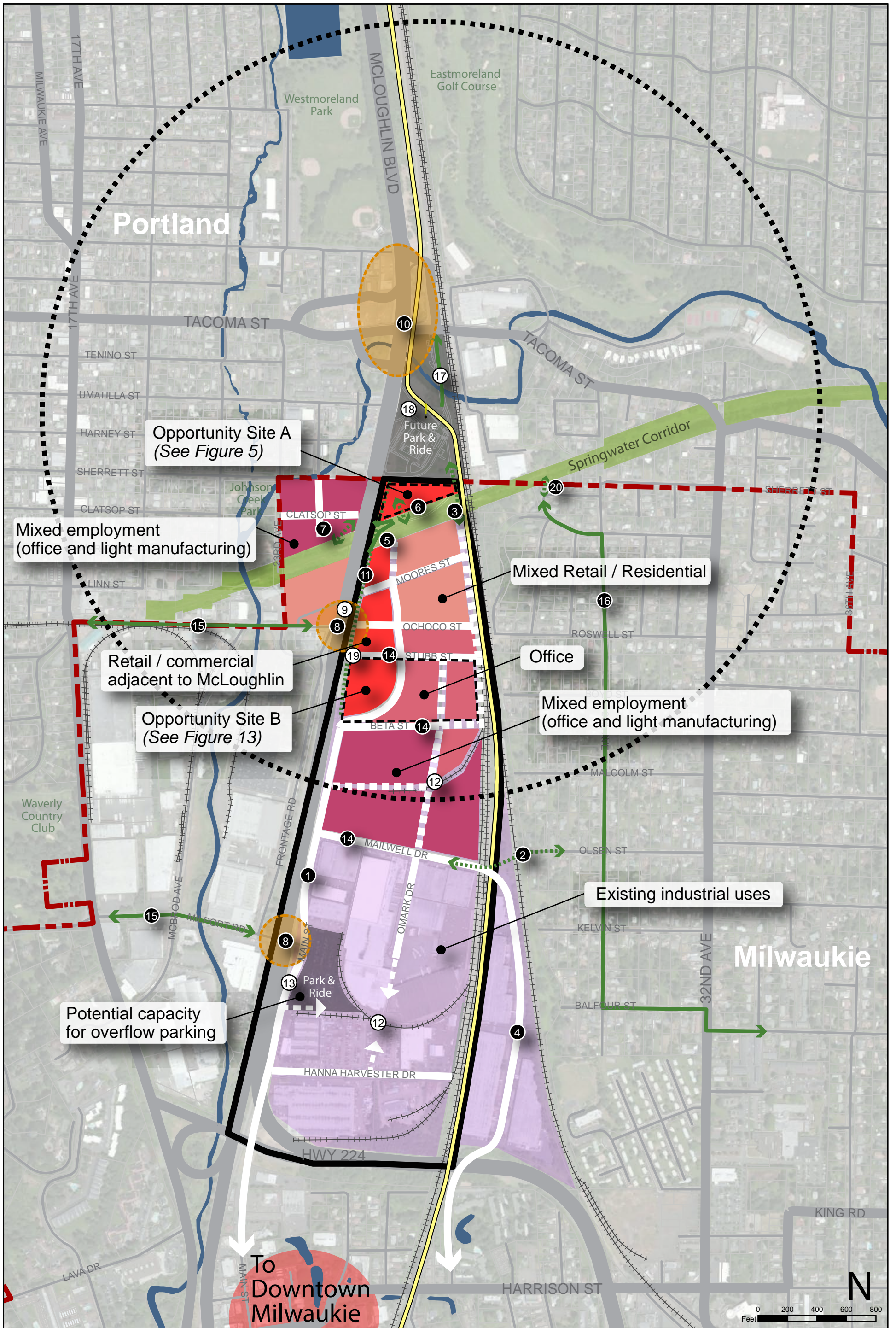


Figure 10. An industrial arts space now occupies a former warehouse and manufacturing site



Figure 11. A new active workspace incubator in the Central Eastside provides affordable office and artist locations





**Tacoma Station Area Plan**  
**SCENARIO 2: INTENSIVE EMPLOYMENT**

DRAFT - 8 AUG 2012

Figure 12.

- |   |  |  |
|---|--|--|
| <span style="display:inline-block; width:15px; height:15px; background-color:red; border:1px solid black;"></span> Commercial                       | <span style="display:inline-block; width:15px; border-bottom:1px solid gray;"></span> Study Area Streets                                     | <span style="display:inline-block; width:15px; height:15px; border:1px solid black;"></span> Project Study Area              |
| <span style="display:inline-block; width:15px; height:15px; background-color:orange; border:1px solid black;"></span> Mixed Retail / Residential    | <span style="display:inline-block; width:15px; height:15px; border:1px dashed gray;"></span> New Street Connections                          | <span style="display:inline-block; width:15px; height:15px; border:1px dashed black;"></span> Station Area (1/2 mile radius) |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightcoral; border:1px solid black;"></span> Office                    | <span style="display:inline-block; width:15px; height:15px; background-color:green; border:1px solid green;"></span> Bike / Ped Improvements | <span style="display:inline-block; width:15px; border-bottom:1px dashed red;"></span> City Boundary                          |
| <span style="display:inline-block; width:15px; height:15px; background-color:purple; border:1px solid black;"></span> Mixed Employment              | <span style="display:inline-block; width:15px; height:15px; border:1px dotted green;"></span> New Bike / Ped Connections                     | <span style="display:inline-block; width:15px; height:15px; border:1px solid yellow;"></span> LRT Station                    |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightpurple; border:1px solid black;"></span> Existing Industrial Uses | <span style="display:inline-block; width:15px; height:15px; border:1px dashed orange;"></span> Intersection Improvements                     | <span style="display:inline-block; width:15px; height:15px; border:1px solid yellow;"></span> LRT Alignment                  |

1 inch = 600 feet

## Redevelopment of Opportunity Site B

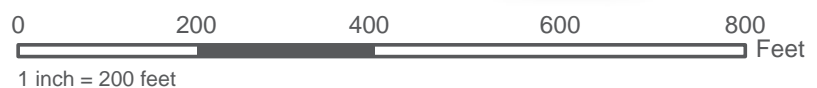
Scenario 2 assumes that the majority of the site is redeveloped to accommodate new creative office / flexible employment uses, thereby leveraging the nearby transit stop to create an employment-based TOD. New multi-story office / employment buildings (such as those shown in Figures 11 and 17) are shown on the two blocks east of Main St., and along McLoughlin Blvd at the southwestern-most portion of the site. As in Scenario 1, the conceptual site plan for Scenario 2 assumes that the existing historic ODOT building is repurposed to house an eating/drinking establishment(s) that serves the needs of local employees as well as nearby residents. Ideally, the redevelopment of the structure would leverage the building's historic architectural character to create a unique sense of place for the new commercial establishment. The site plan illustrates new pedestrian connections, linking the building to the proposed multi-use path along McLoughlin Blvd and to the surface parking area behind it.

Buildings on the easternmost blocks (east of Main St.) are situated to front Main Street and the new north-south connection between Stubb and Beta Streets. The site plan provides on-site surface parking for these new employment buildings at the rear of the buildings (please note that these site plans are conceptual, and that exact parking needs were not calculated as part of this exercise). The site plan also provides a large, shared parking area on the western-most block, east of Main St., a portion of the site currently occupied by a large parking lot and two small one-story structures. It is assumed that this surface parking area would provide parking for the new commercial uses in the historic ODOT building, as well as serve as overflow parking for the adjacent office / employment uses. A pedestrian path is shown mid-block east of Main St., connecting the shared parking area (as well as the new commercial uses in the historic ODOT building and the proposed office/employment building fronting McLoughlin) with the new buildings to the east.

### SITE B - SCENARIO 2: INTENSIVE DEVELOPMENT



Figure 13. Conceptual Site Plan for Redevelopment of Opportunity Site B under Scenario 2



## Scenario 3 – Circulation and Access Focus

### Local Circulation, Access and Other Transportation Improvements

Although this scenario provides fewer connectivity improvements than Scenario 2, it still adds all the elements listed earlier in this report, providing improved connectivity and access into and through the Project Study Area.

### Land use and Development Elements

Land use Scenario 3 represents the least intensive development pattern and focuses instead on access and circulation improvements. Generally, land uses in this scenario remain industrial, with the exception of some commercial uses identified at Opportunity Sites A and B. Appropriate commercial uses in Opportunity Site A would be those that support and complement the LRT station, park and ride, and Springwater Corridor. Commercial uses in Opportunity Site B would be those that provide amenities for employees in the industrial district and/or retail space associated with industrial activities. Another area of industrial employment is identified west of McLoughlin and north of Springwater Corridor, inside the Milwaukie city limits.

The character of new commercial developments depicted in Scenario 3 would be similar in nature to those described in Scenarios 1 and 2. In addition to the commercial redevelopment shown on all three scenarios for Opportunity Site A (see description of Opportunity Site Redevelopments on “Description of Opportunity Site Redevelopments” on page 12), the historic ODOT building on Opportunity Site B could be repurposed as a destination eating and drinking establishment, which would not only cater to local employees in the district, but could serve as a draw for surrounding residents.



Figure 14. A former auto service station on MLK Blvd. is now a hip taco joint.



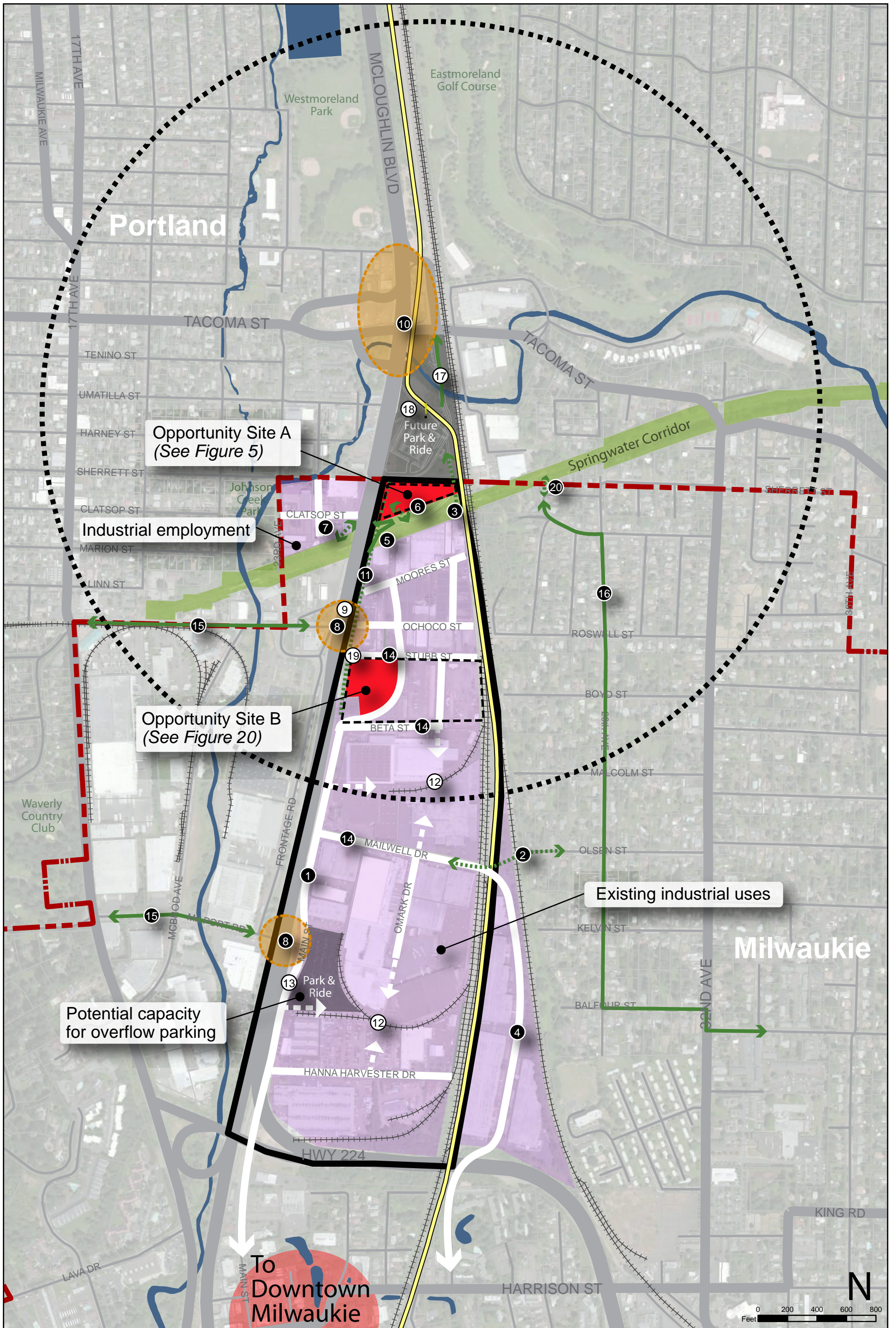
Figure 15. This DIY design/build workshop is housed in a converted warehouse space in the Central Eastside.



Figure 16. Bicycle boxes improve active transportation on many streets in the Central Eastside Industrial District. Similar transportation improvements could improve multi-modal access and circulation within the Study Area.



Figure 17. The River East building near the Hawthorne Bridge has been converted from a defunct warehouse into ground floor retail and office space for several major tenant, bringing over 300 employees to the area.



**Tacoma Station Area Plan**  
**SCENARIO 3: ACCESS / CIRCULATION IMPROVEMENTS**  
 DRAFT - 8 AUG 2012 Figure 18.

- |   |  |  |
|---|--|--|
| <span style="display:inline-block; width:15px; height:15px; background-color:red; border:1px solid black;"></span> Commercial                     | <span style="display:inline-block; width:15px; border-bottom:1px solid gray;"></span> Study Area Streets           | <span style="display:inline-block; width:15px; height:15px; border:1px solid black;"></span> Project Study Area              |
| <span style="display:inline-block; width:15px; height:15px; background-color:purple; border:1px solid black;"></span> Existing Industrial Uses    | <span style="display:inline-block; width:15px; border-bottom:1px dashed gray;"></span> New Street Connections      | <span style="display:inline-block; width:15px; height:15px; border:1px dashed black;"></span> Station Area (1/2 mile radius) |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightgreen; border:1px solid black;"></span> Bike / Ped Improvements | <span style="display:inline-block; width:15px; border-bottom:1px dotted green;"></span> New Bike / Ped Connections | <span style="display:inline-block; width:15px; border-bottom:1px dashed red;"></span> City Boundary                          |
| <span style="display:inline-block; width:15px; height:15px; background-color:orange; border:1px solid black;"></span> Intersection Improvements   | <span style="display:inline-block; width:15px; height:15px; background-color:yellow;"></span> LRT Station          | <span style="display:inline-block; width:15px; border-bottom:1px solid yellow;"></span> LRT Alignment                        |

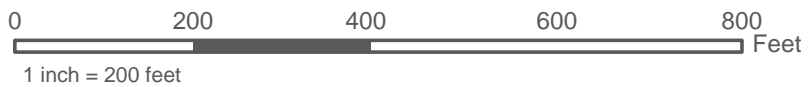
## Redevelopment of Opportunity Site B

The site plan for Opportunity Site B, Scenario 3 assumes that the historic ODOT building will be renovated to accommodate a new destination eating/drinking establishment, as described in Scenarios 1 and 2. It assumes that this new commercial development would be served by a surface parking area behind the building (where a large parking lot and two small structures currently reside). As in other scenarios, the site plan for Scenario 3 illustrates new pedestrian connections, linking the building to the proposed multi-use path along McLoughlin Blvd and to the surface parking area behind it. Given that Scenario 3 assumes that existing industrial uses in the Project Study Area largely remain “as-is,” the site plan for Opportunity Site B assumes that the existing structure and parking area at the southwestern corner of the site remain, and that only the historic building is redeveloped.

### SITE B - SCENARIO 3: ACCESS / CIRCULATION IMPROVEMENTS



Figure 19. Conceptual Site Plan for Redevelopment of Opportunity Site B under Scenario 3



## Design and Access Improvements by Street

The following cross-sections show proposed improvements to the Project Study Area by street, as indicated in the map shown in Figure 22.

### Main Street (north of Milport Road)

Right-of-way available on Main Street varies considerably, particularly north and south of Milport Road. North of Milport, about 50 feet of right-of-way is available east of the existing shoulder of McLoughlin Boulevard, which is not proposed to be narrowed. For this section of Main, significant changes are proposed, including removal of the existing jersey barrier and on-street parking. These would be replaced by a six-foot planting area with positive barrier (such as a cable), providing a more pleasant barrier between McLoughlin Boulevard and Main Street, and a ten-foot cycle track with two-foot buffer, allowing a complete high quality bicycle connection between Tacoma Station, downtown Milwaukie, and connections on Mailwell Drive. Two 12-foot vehicular travel lanes are included, as well as a sidewalk on the east side of the street, which may be buffered if additional right-of-way can be acquired. To accommodate truck turning, the cycle track should be mountable, and the intersection at Mailwell may need mountable curbs further accommodate large (WB-67) trucks.

Main Street North of Milport

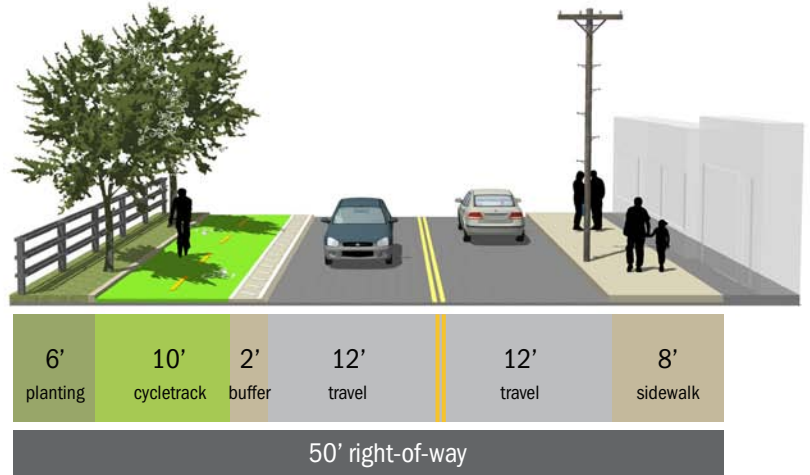


Figure 20: Proposed Conceptual Cross-Section for Main Street North of Milport

to

### Main Street (south of Milport Road)

Right-of-way on Main Street is more constrained south of Milport Road, with the typical cross section being between 40 and 46 feet. Therefore, the proposed cross section retains the jersey barrier and narrows all other elements of the roadway, with a 8 to 10 foot cycle track (with 2-foot buffer), an 11 to 12-foot southbound vehicular travel lane, and a five to eight-foot sidewalk. An additional four feet of right-of-way would allow replacement of the two-foot jersey barrier with a six-foot planting area. To accommodate truck turning, the cycle track should be mountable, and the intersection at Hanna Harvester may need mountable curbs to further accommodate large (WB-67) trucks.

Main Street South of Milport

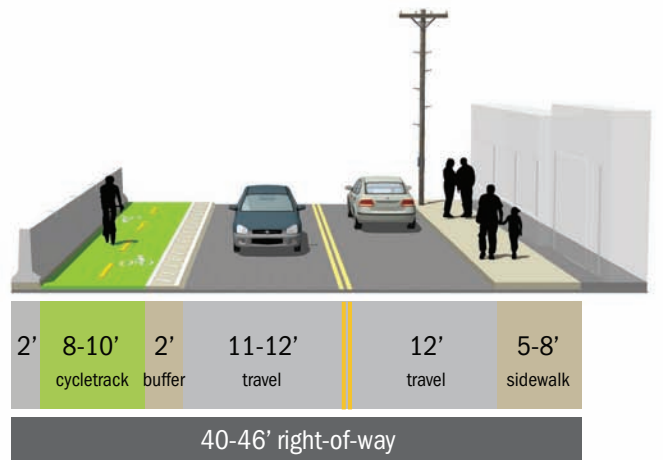
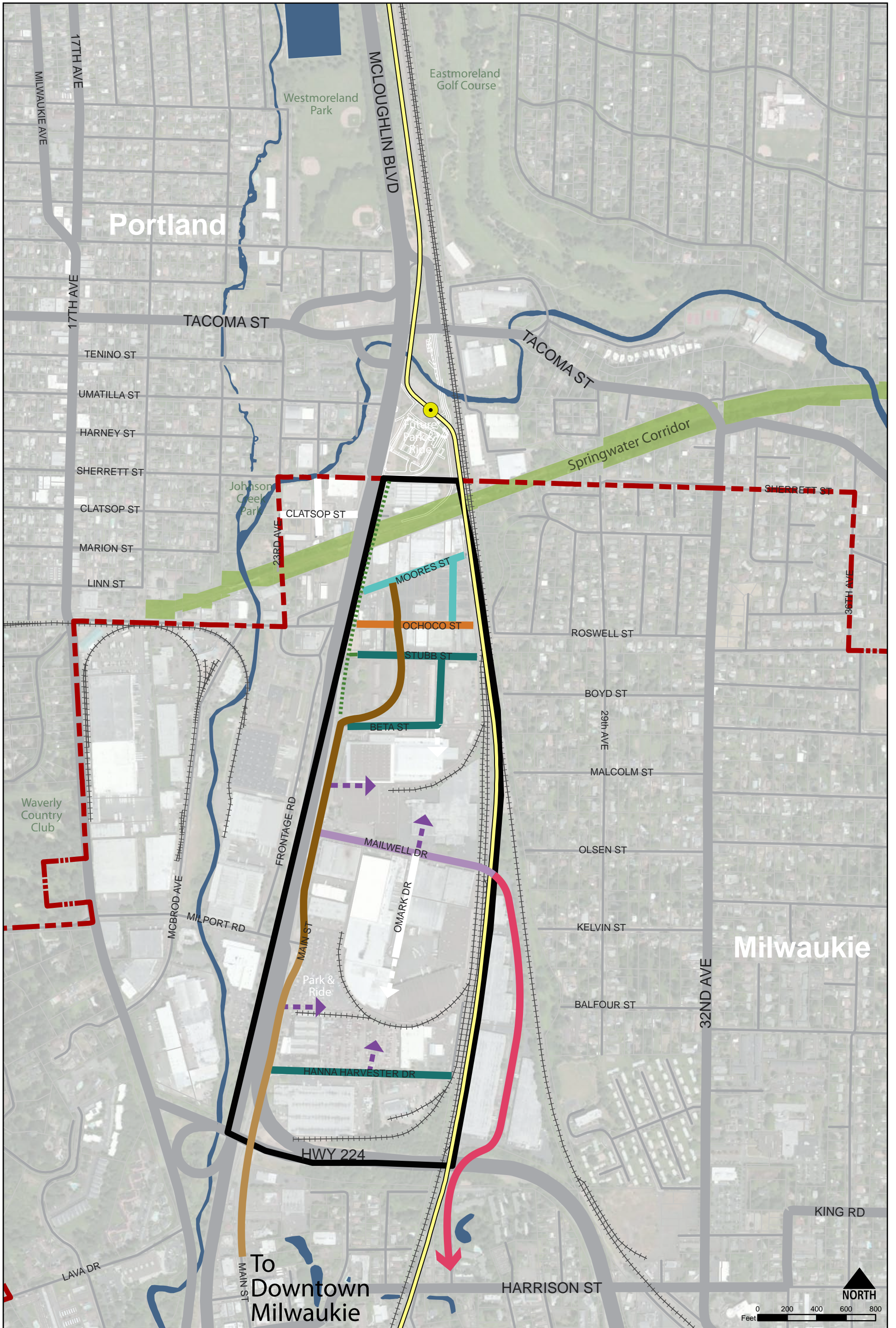


Figure 21: Proposed Conceptual Cross-Section for Main Street South of Milport



**Tacoma Station Area Plan**  
**STREET CROSS-SECTION LOCATION KEY**

- Project Study Area
- Station Area (1/2 mile radius)
- City Boundary
- LRT Station
- LRT Alignment
- Main Street (North of Milport)
- Main Street (South of Milport)
- Ochoco
- Local Streets (40-42' ROW)
- Local Streets (60' ROW)
- Mailwell
- General Industrial Streets
- Harrison Connection Multi-Use Path

**SERA** Figure 22.

1 inch = 600 feet

## Mailwell Drive

Mailwell Drive provides an important connection between proposed multimodal facilities on Main Street and two proposed facilities to the east: a new grade-separated bicycle/pedestrian connection to SE Olsen Street, and a new multi-use path connection south to Harrison Street at 26th Avenue. To complete a high quality bicycle/ pedestrian network, the Mailwell Drive cross section includes a 14-foot multi-use path on the north side of the street. In addition, it provides 40 feet of roadway to facilitate heavy vehicle turning movements, and can accommodate some parallel parking, as well as landscaped bulb-outs, where such turning movements are not a consideration. Note that 40 feet of roadway are needed to accommodate simultaneous left turns onto and right turns off of a street by large trucks (WB-67s).

Mailwell Drive

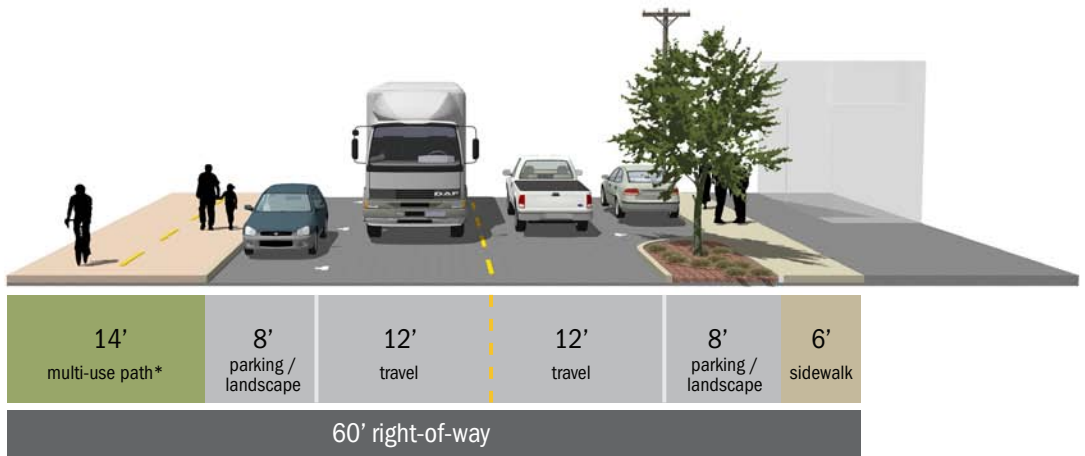


Figure 23. Proposed Conceptual Cross-Section for Mailwell Drive

\*Multi-use path connects Main and Harrison

## Harrison Connection Multi-Use Path

These two cross sections show how a multi-use path connection could be configured through the current industrial area between the railroad branches in the southeast part of the Project Study Area. Because industrial facilities on either side of the existing roadway include freight loading docks and head-in vehicle parking, placing a raised multi-use path in the center of the existing roadway was considered a viable way to provide visibility and comfort for path users. An alternative cross section that places the multi-use path to the east side of the two vehicle travel lanes is also provided. The path is intended to be mountable by heavy vehicles so there is no disruption to freight activity.

Harrison Connection Multi-Use Path

Harrison Connection Multi-Use Path

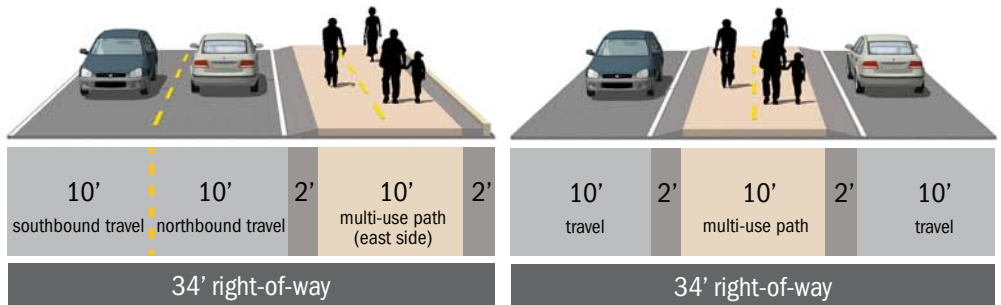


Figure 24. Two Configurations of a Proposed Conceptual Cross-Section for Harrison Connection Multi-Use Path



## Ochoco Street (west of Main Street)

This section of Ochoco retains the existing three vehicular travel lanes, as the westbound approach to the McLoughlin/Ochoco intersection requires a separate right turn lane to maintain operations. This accounts for 36 feet of the existing 54 feet of right-of-way, allowing three-foot landscaped buffers and six-foot sidewalks on each side.

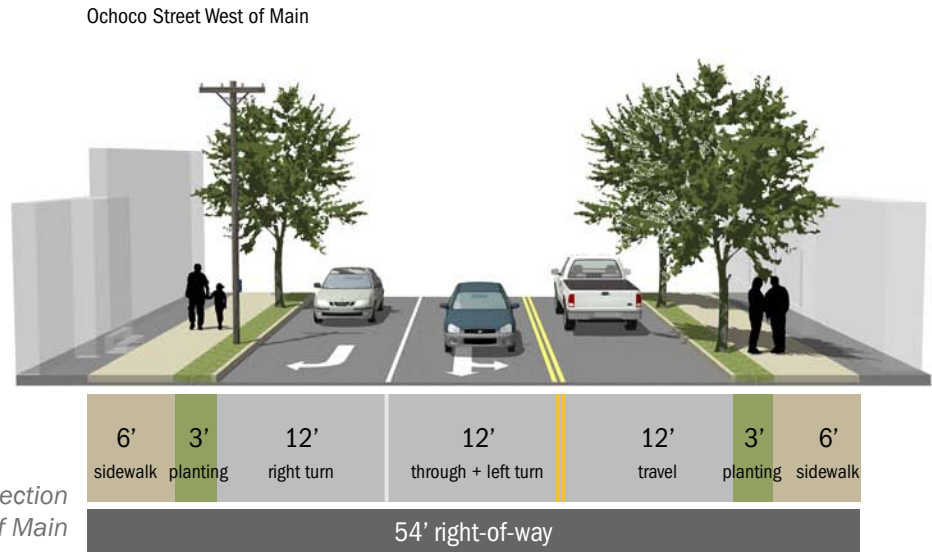


Figure 25. Proposed Conceptual Cross-Section for Ochoco Street West of Main

## Local Streets (60' Right of Way)

Based on the right-of-way width currently available on Hanna Harvester Drive, Stubb Street, and Beta Street, a 60-foot cross section was developed to provide for movement of heavy trucks within a 40-foot roadway, as well as improve the pedestrian environment. The cross section is intended to match the existing frontage on the north side of the street at the eastern end, which features a sidewalk and landscaped buffer totaling ten feet.

Local Streets - 60' Right-of-Way

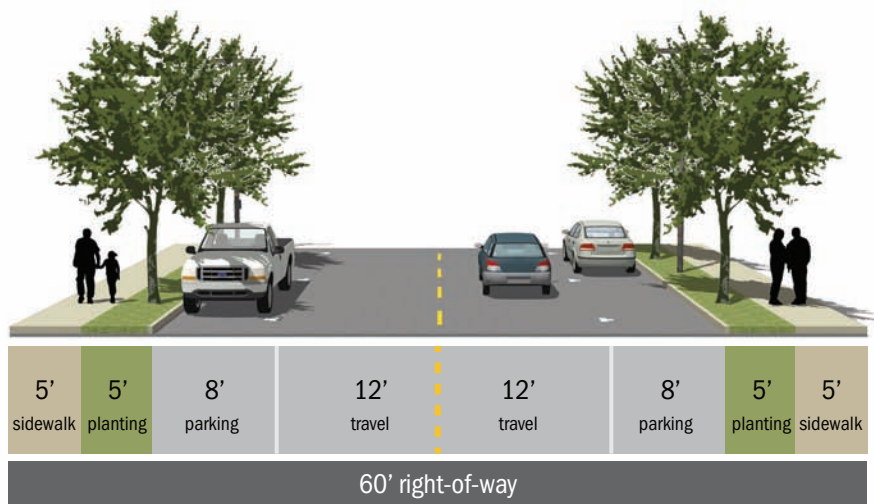


Figure 26. Proposed Conceptual Cross-Section for Local Streets with a 60' right of way

## Local Streets (40' Right of Way)

Portions of Moores Street and 25th Avenue in the study area have about 40 feet of right-of-way, providing enough space for two eleven-foot travel lanes with landscaped buffers and sidewalks on each side, with no parallel parking. Because these streets are expected to retain their Local classification, no separate bike facilities are provided.

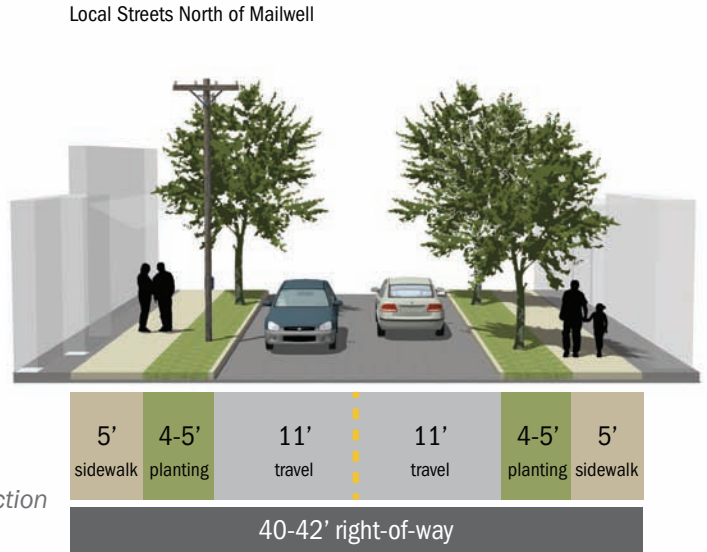


Figure 27. Proposed Conceptual Cross-Section for Local Streets with a 40' right of way

## General Industrial

This cross section is included to illustrate the minimum elements needed for an industrial access street (other than Mailwell Drive or Hanna Harvester Drive) in the area: 40 feet of roadway, and five-foot sidewalks with five feet of landscaping on each side.

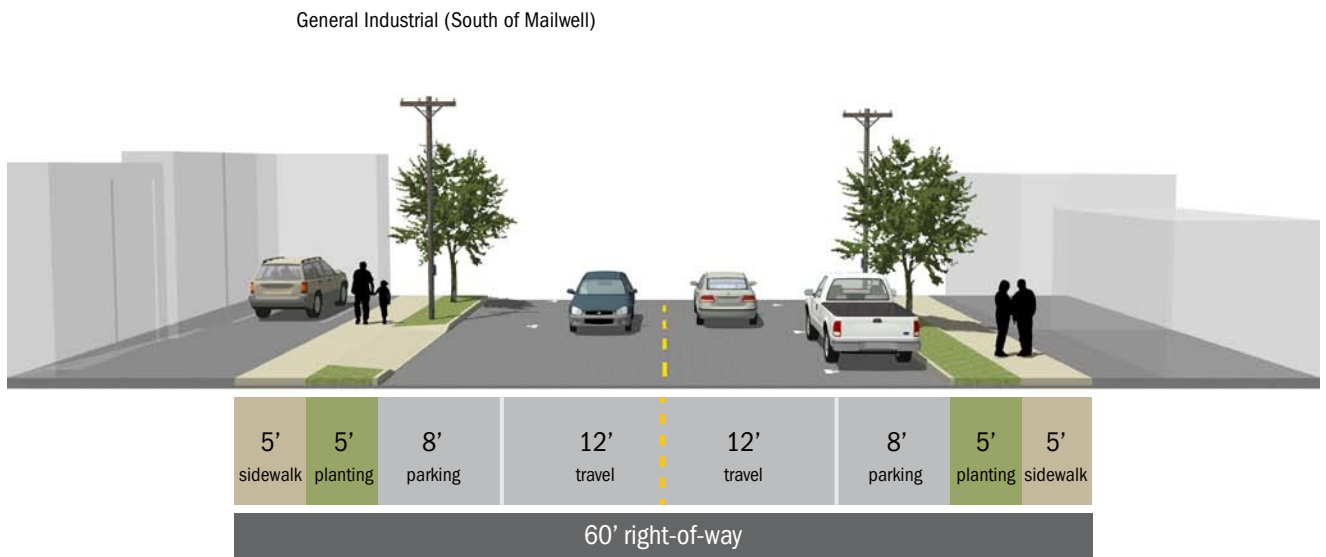
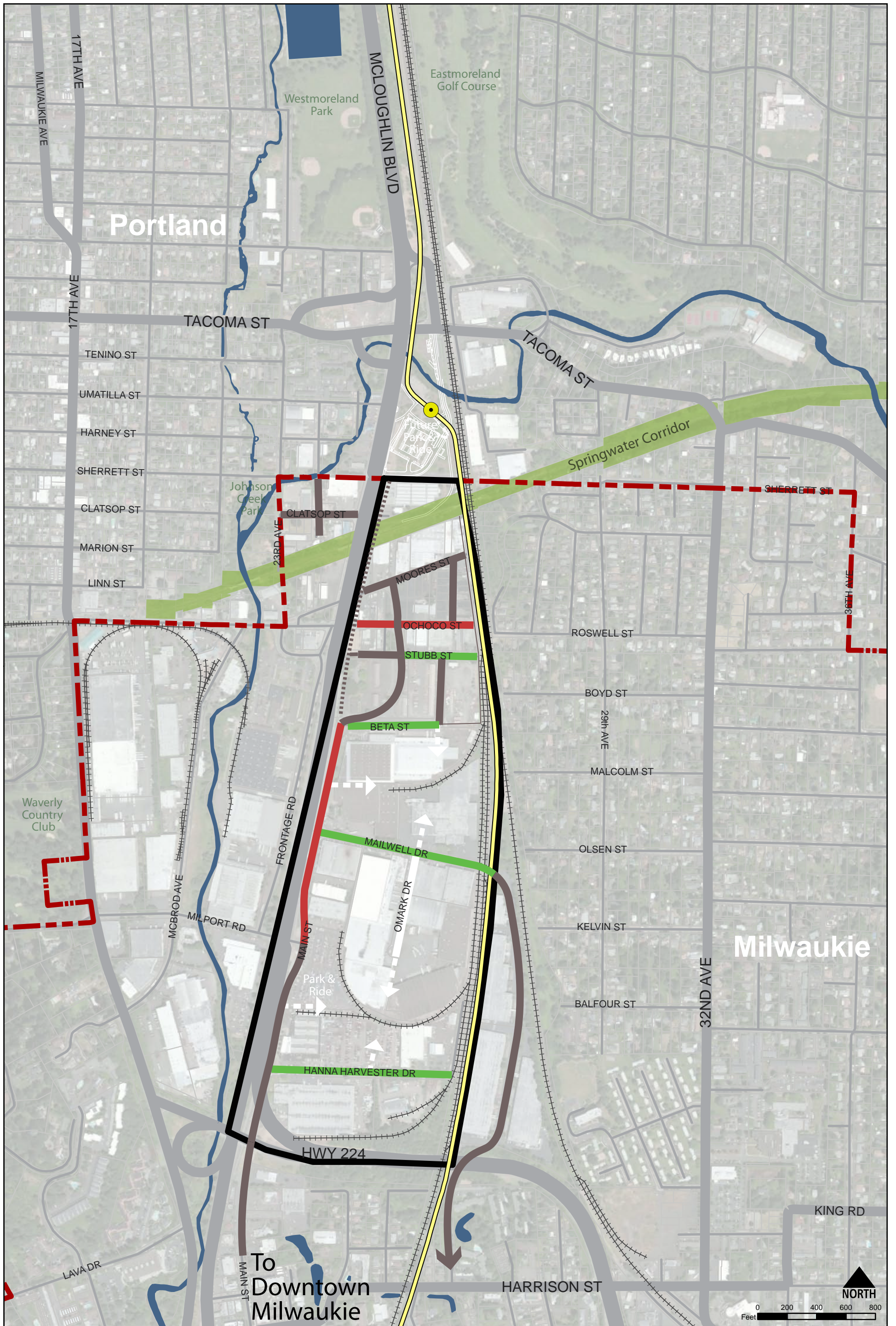


Figure 28: Proposed Conceptual Cross-Section for General Industrial (South of Mailwell)

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## Parking Supply and Management

Figure 29 indicates streets where on-street parking is proposed to be removed (portions of the west side of Main Street) or added in a more formalized, delineated way (multiple local streets in the study area). The project team has not evaluated the exact impact of these recommendations on the supply of on-street parking in the area but an initial approximate analysis indicates that more parking would be added than lost. In addition, it is recommended that some portion of the existing TriMet park and ride area could be used as parking for local businesses in the future to further address parking impacts. As part of subsequent phases of this project, more detailed recommendations related to on and off-street parking and strategies for managing parking in the future will be provided.



**Tacoma Station Area Plan**  
**NET PARKING GAIN/LOSS ESTIMATES**

- Project Study Area
- Station Area (1/2 mile radius)
- City Boundary
- LRT Station
- LRT Alignment
- On-Street Parking Added
- On-Street Parking Removed
- On-Street Parking No Change

1 inch = 600 feet

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## Section 3: Preliminary Findings and Observations

The three scenarios described in this report will be evaluated in the next phase of this project in terms of their consistency with the project's Goals and Objectives, as well as their impact on the surrounding transportation system. However, several issues have been assessed in the process of developing the scenarios and preparing this report, including the following:

- Preliminary recommendation of a “Station Community Boundary” which will help enable the area to be eligible for regional investments to help implement a preferred redevelopment scenario.
- Possible designation of a “Multi-modal Mixed Use Area” (MMA) for a portion of the Study Area. This designation may be recommended as a way to help achieve proposed land use and development recommendations in the area.
- Preliminary transportation analysis to assess approximately how many auto trips may be generated by the different scenarios.
- Initial observations about the market feasibility and other development issues associated with the three redevelopment scenarios.

Following is a brief summary of observations related to each of these topics. As noted above, these and other issues will be evaluated in more detail in the next project task.

### Proposed Station Community Boundary

Per Title 6 of Metro's Urban Growth Management Functional Plan, a city must take certain actions in order to be eligible for regional investment in a Station Community. Those actions include establishing a boundary for the Station Community that is consistent with Metro's land use final order for the light rail project. The final order identified the location of the light rail alignment, the Tacoma station and the adjacent park and ride. However, it did not specify or provide additional direction for defining the Station Community boundary. Station Communities typically have a mix of uses that is intended to contribute to an active, pedestrian-friendly environment that is transit supportive. An appropriate mix of uses includes commercial uses such as grocery stores and restaurants; institutional uses such as schools, hospitals and medical offices; civic uses including government offices, parks and libraries; and a mix of housing types. In Station Communities established in an industrial area, industrial employment uses are also considered appropriate.

In general terms, the Station Community boundary will consist of land within approximately a one-quarter mile radius of the Tacoma LRT station, similar to Station Communities in other parts of the region. See Figure 30 for more detail. For the proposed boundary, the southern end of the Station Community would be Beta Street in order to include Opportunity Site B. The western edge of the boundary would follow 21st Avenue north across Tacoma Street to Nehalem Street, jog east and potentially encompass Westmoreland Park. The eastern edge would be defined by approximately SE 29th Avenue and would taper west until it meets Beta Street at the southern end. This boundary includes a mix of uses appropriate for a Station Community, including parks; future commercial, retail and possible civic/entertainment uses on Opportunity Sites A and B; a mix of housing densities in Milwaukie and Portland; and some existing and future industrial employment uses.

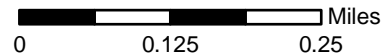
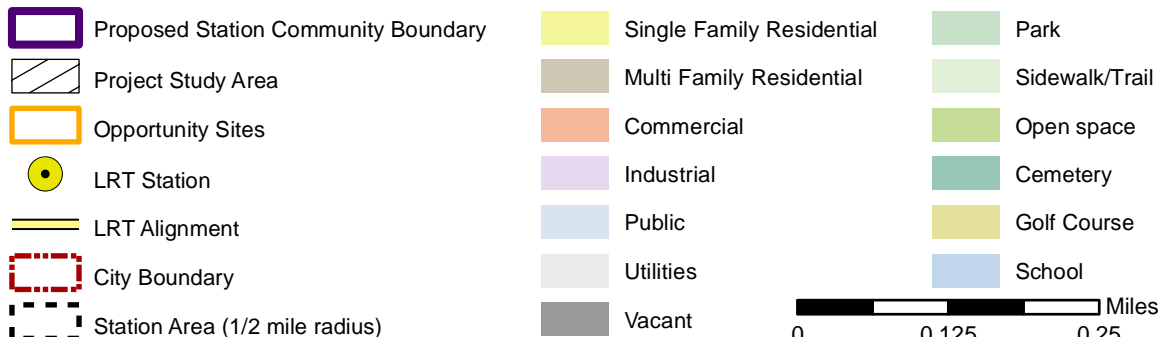
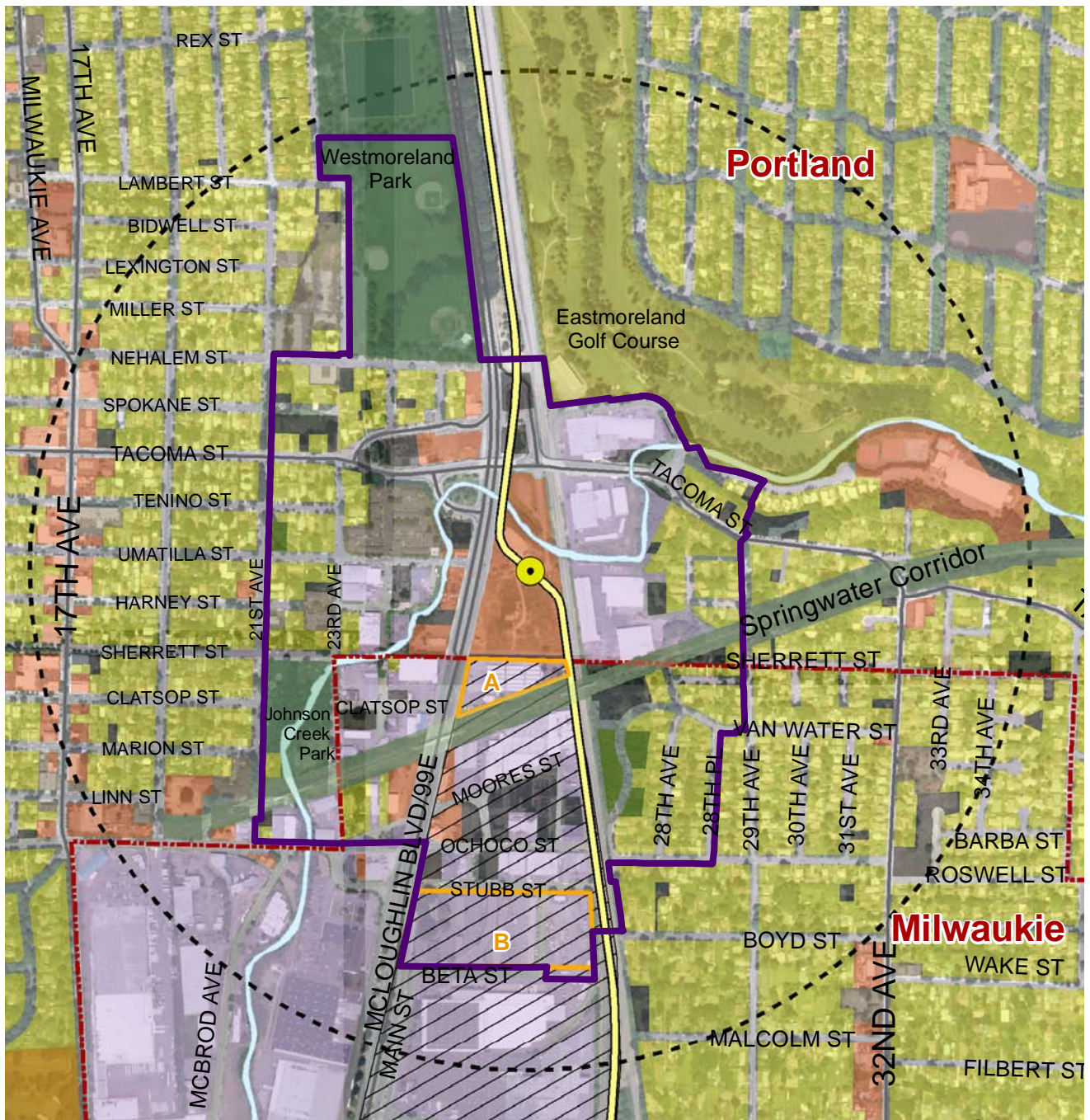


Figure 30: Proposed Station Area Community Boundary

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## Multi-modal Mixed Use Area Recommendation

As part of the Tacoma Station Area Planning process or subsequent implementation actions, the City of Milwaukie may pursue adoption of a “multi-modal mixed use area” (MMA) designation for a portion of the Project Study Area. The regulatory provisions for an MMA are intended to encourage well-defined concentrations of activity to reinforce or create walkable places. In MMAs, a higher value is placed on walking, biking and transit movements (or trips) over vehicular movement. Rather than evaluating plan amendments for their impact on motor vehicle trips and capacity, the MMA designation exempts plan amendments from mobility standards and applies a set of measures to help ensure diverse land uses with an urban character.

To be eligible for inclusion in an MMA, the following features must be present or allowed by planning and zoning provisions:

- Medium to high density residential development (12 units per acre or more)
- Offices or office buildings
- Retail stores and services
- Restaurants
- Public open space or private open space available for public use
- Civic or cultural uses

In addition, if an MMA is established, the following features must be required by the city as a part of future development within the area:

- A core commercial area where multi-story buildings are permitted
- Buildings and building entrances oriented to the street
- Street connections and crossings that make the center safe and conveniently accessible from adjacent areas
- A network of streets, accessways and driveways that make it attractive and highly convenient for walking
- One or more transit stops
- Limited low-intensity or land extensive uses, such as most industrial uses, auto sales and services and drive-throughs
- Regulations that do not require provision of off-street parking or that require lower levels of off-street parking than in other areas and allow flexibility to meet parking needs

Table 1 summarizes whether the area currently meets eligibility requirements and/or whether the study area would meet these conditions and implementing requirements under the different redevelopment scenarios described in this report.

The Tacoma Station Area Plan will continue explore MMA designation to determine whether this designation fits with the vision for the area. The consultant team will document whether the area is planned to have the required characteristics of an MMA, and make recommendations on any plan or code amendments needed to meet the characteristics in a subsequent phase of this project. One of the biggest challenges will be to create street connections and crossings that make it safe and convenient to access the station area from adjacent areas. The existing highway, railroad line and bluff make this difficult to achieve. Achieving the required mix of land uses called for in an MMA also may be a challenge from a development market perspective.

Table 1. Multi-modal Mixed Use Area Eligibility Requirements and Required Provisions

Eligibility Requirements and Required Provisions	Present (P) or Currently Allowed (A)	Consistency with Scenarios		
		Scenario 1	Scenario 2	Scenario 3
<b>Eligibility Requirements</b>				
Medium to high density residential development (12 units per acre or more)	No	No	Yes	No
Offices or office buildings	Yes (A/P)	Yes	Yes	Yes
Retail stores and services <sup>1</sup>	Yes (A)	Yes	Yes	Yes
Restaurants <sup>1</sup>	Yes (A)	Yes	Yes	Yes
Public open space or private open space available for public use	Yes (A)	Yes	Yes	Yes
Civic or cultural uses	Yes (A)	Yes	Yes	Yes
<b>Required Provisions</b>				
A core commercial area where multi-story buildings are permitted	No	No	Yes	No
Buildings and building entrances oriented to the street	Partial Yes	Yes	Yes	TBD
Street connections and crossings that make the center safe and conveniently accessible from adjacent areas	No	Maybe <sup>2</sup>	Maybe <sup>2</sup>	Maybe <sup>2</sup>
A network of streets, accessways and driveways that make it attractive and highly convenient for walking	No	Yes	Yes	Yes
One or more transit stops	Yes	Yes	Yes	Yes
Limited low-intensity or land extensive uses, such as most industrial uses, auto sales and services and drive-throughs	No	Maybe <sup>2</sup>	Maybe <sup>2</sup>	No
Land use regulations do not require provision for off-street parking or require lower levels of off-street parking than in other areas and allow flexibility to meet parking needs	No	NA <sup>3</sup>	NA <sup>3</sup>	NA <sup>3</sup>
Adopted MMA boundary	No	NA <sup>3</sup>	NA <sup>3</sup>	NA <sup>3</sup>

Notes:

<sup>1</sup> Retail stores, services and restaurants are currently allowed in the City's M zone as secondary uses and would be expected to continue to be allowed under all three redevelopment scenarios.

<sup>2</sup> These requirements include language that is subject to interpretation and/or will require further analysis as part of subsequent project tasks.

<sup>3</sup> These issues have not yet been evaluated but will be addressed in subsequent tasks.



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## Draft Recommendation on Multi-Modal Mixed Use Area

Given the criteria and requirements for an MMA, one may or may not be recommended for this area, depending on the results of transportation analysis of the different redevelopment scenarios under consideration, the mix of land uses proposed for each scenario and the city's desire to undertake required implementation strategies. At this point in the process, the only scenario that appears to meet the required mix of land uses for an MMA would be Scenario 2. The other two scenarios do not assume development of residential uses within the Project Study Area and residential uses adjacent to the Project Study Area are not dense enough to meet MMA requirements. If an MMA were to be recommended, it likely would be applied only to the Project Study Area for this project or a portion of it, rather than to the larger Station Community Area described in the previous section of this report. This is based on the following reasons:

- Land use designations are not expected to change outside the Project Study Area as part of this project, given the scope of this effort.
- Adjacent areas include a substantial amount of low to moderate density residential uses that would not meet minimum density requirements for an MMA.
- Including areas to the north of the Project Study Area in the MMA would require coordination with and approval by the City of Portland, adding another layer of needed coordination but with little added benefit from a land use or traffic analysis perspective.

Preliminary transportation analysis (described in the following section of the Report) indicates that all of the proposed redevelopment scenarios could generate additional trips under worst case conditions and could potentially degrade the performance of nearby intersections. This assumes that transportation analysis for the Project Study Area can incorporate a 30% trip reduction associated with regional requirements for transit station areas. This would be dependent on establishing a station community boundary and related implementation strategies as described in the previous section of this report. The preliminary traffic analysis identifies several possible solutions to addressing the intersection deficiencies that would not require expanding capacity on McLoughlin Boulevard. In addition, changes to the city's zoning requirements in this area also could reduce anticipated future traffic levels as noted in the following subsection. These ideas will be explored in more detail in the next phase of the project. Until that work is completed, a recommendation as to whether or not to establish an MMA in this area is premature.

The Portland-Milwaukie light rail line will help reduce congestion in the McLoughlin corridor. Of particular concern is the Tacoma and McLoughlin Boulevard (OR99E) interchange and the McLoughlin Boulevard (OR 99E) and Harrison Street intersection which are near currently near capacity during the PM peak hour. If the selected redevelopment scenario creates additional traffic to these two locations (beyond what is forecasted) improvements (mitigation) will be necessary. In the case of a MMA, the mitigation takes the form of establishment of the MMA and incorporation of the required MMA provisions described above.

## Potential Impacts to Transportation Facilities and Capacity

Each of the three land use scenarios will have somewhat different impacts on the surrounding transportation system, based on the differing trip generation characteristics of the land uses proposed in each scenario. Additional trips are likely to further degrade traffic operations at locations that already fail to meet jurisdictional standards in 2030, such as

- SE Tacoma Street/SE McLoughlin Boulevard northbound ramp intersection
- SE McLoughlin Boulevard/SE Harrison Street

While traffic operations will be assessed in a later phase of this project, a preliminary trip generation analysis conducted as part of this task provides an early indication of whether future operations are likely to be impacted, and how large the increase in traffic due to change in use might be.

Table 2 shows estimated leasable square feet assumed, by land use, for the reasonable worst-case trip generation of existing zoning and the three redevelopment scenarios. Note that square footage assumed for the existing zoning is higher than that reported in the earlier Transportation Conditions, Opportunities, and Constraints memo because it is now assumed that the Historic Resource site is eligible for uses allowed under the M zone. Use of this site under any scenario would need to be in accordance with City of Milwaukie code provisions regarding Historic Resources.

Table 2. Estimated Leasable Square Feet by Land Use

Land Use	Existing <sup>1</sup>	Scenario 1	Scenario 2	Scenario 3
Industrial	262.3	221.1	183.4	249.9
Office	708.1	596.8	495.3	674.6
Retail	78.6	66.3	55.0	75.0
Station Area Office	-	63.9	459.0	54.5
Station Area Retail	-	42.6	46.4	36.3
Station Area Residential <sup>2</sup>	-	-	148.0	-
Baseball	-	121.2	-	-
TOTAL	1,049.0	1,111.9	1,239.1	1,090.3

<sup>1</sup> "Existing" represents reasonable worst-case trip generation estimates

<sup>2</sup> Residential shown in dwelling units

The following ITE codes were used for estimating reasonable worst-case trip generation for each of the land uses. Trip rates reflect the p.m. peak hour of adjacent street traffic, including General Office, for which the peak hour of the trip generator coincides with the peak hour of adjacent street traffic.

- **Industrial.** ITE Code 110, Light Industrial, 0.97 p.m. peak hour trips per 1,000 square feet (KSF)
- **Office (including Station Area).** ITE Code 710, General Office, 1.49 p.m. peak hour trips per KSF
- **Retail.** Split between two uses. ITE Code 932, Sit-Down Restaurant, 11.15 p.m. peak hour trips per KSF; ITE Code 492, Health/Fitness Club, 3.53 p.m. peak hour trips per KSF
- **Station Area Retail.** ITE Code 814, Specialty Retail, 2.71 p.m. peak hour trips per KSF
- **Station Area Residential.** ITE code 221, Low-Rise Apartment, 0.58 p.m. peak hour trips per dwelling unit

- **Baseball.** No ITE use was included so it was assumed that, for a sell-out crowd of 2,000 at an evening game, there would be one vehicle trip per three persons, and 25% of the attendees would arrive during the p.m. peak hour.

The General Office (710) use meets the ITE guidelines for using the given fitted curve equation rather than specific trip generation rates. All other land uses relied on rates per 1,000 square feet or dwelling unit. For the Sit-Down Restaurant (932) and Specialty Retail (814) use, it is appropriate to apply a reduction for “pass-by” trips (trips attracting motorists who are already on the street). This reduction applied for code 932 is 43%, and for code 814 it is 34%.

Additionally, a reduction due to internal trips was calculated due to the mix of uses provided north of Beta Street in Scenarios 1 and 2. This resulted in a reduction of four trips from Scenario 1, and a reduction of 27 trips from Scenario 2. Finally, a 30% reduction from ITE rates for trips generated north of Beta Street was included for these two scenarios, given certain conditions in Metro’s Urban Growth Management Functional Plan being met for Station Areas. This resulted in an additional reduction of 66 trips from Scenario 1 and 116 from Scenario 2, respectively. Final trip generation totals are shown in Table 3, below.

Table 3. Trip Generation Estimates

ITE Land Use	Existing <sup>1</sup>	Scenario 1	Scenario 2	Scenario 3
Light Industrial (110)	254	214	178	242
General Office (710)	877	747	634	834
Sit-Down Restaurant (932)	250	211	175	238
Health/Fitness Club (492)	139	117	97	132
Station Area General Office (710)		104	518	140
Station Area Specialty Retail (814)		52	50	65
Low-Rise Apartment (221)		0	51	0
Baseball (non-ITE)		117	0	0
TOTAL	1,520	1,562	1,703	1,652

<sup>1</sup>“Existing” represents reasonable worst-case trip generation estimates

While assignment of these vehicle trips to the surrounding transportation network is not part of this phase of study (but will be done in a subsequent phase), it can be assumed that at least a small portion of any increase in trips may impact the Tacoma Street interchange (for trips approaching the Project Study Area from the Sellwood Bridge or Johnson Creek Boulevard, for example) and the McLoughlin/Harrison intersection. The following potential mitigations have been identified by ODOT staff as part of a related analysis conducted as part of this project.

- **Tacoma Street Interchange:**
  - » Modify the OR99E / SE Tacoma Street interchange, which would include altering retaining walls and structures;
  - » Add lane capacity to the Johnson Creek Boulevard / SE 32nd Avenue intersection, which could involve widening a structure or acquiring right-of-way; or
  - » Separation of the exit ramp queue from the mainline of the highway by a raised barrier (similar to the OR99E / SE Holgate Street intersection), which needs more exploration on whether this barrier separation could be a potential option.

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- **McLoughlin/Harrison Intersection**

- » An extra lane added to the west leg of the intersection would require modification to a retaining wall next to a creek. An extra lane on either the east or south legs would require acquisition of right-of-way. A right-turn lane is not warranted for the southbound approach due to low traffic volumes.

Further coordination with ODOT will be needed if changes in trip generation trigger the need for improvements.

As part of future analysis, changes in land use west of McLoughlin Boulevard, south of the Springwater Corridor, and west of McBrod Avenue may be included as well. However, for the purposes of comparing redevelopment scenarios, this analysis assumed that the area west of McLoughlin that is being considered as part of this project is small enough that significant impacts to traffic analysis findings are not likely.

Another option for addressing the potential increase in trips would be to consider amendments to zoning provisions associated with the city's Manufacturing District (M zone). This district currently allows for a relatively high percentage of non-industrial development in this zone (e.g. up to 75% combined office and commercial/retail uses). This zone potentially could be amended to reduce the allowable amount of office and commercial/retail uses, while still providing flexibility for property owners in this area. Given that industrial uses generate fewer trips on average and have lower average floor area ratios, this would reduce the potential number of trips associated with future development in portions of the area that continue to have the M zone designation. Changes to the M zone could be applied throughout the City or just to this area through use of an overlay district.

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## Market Feasibility Observations and Issues

### Market Assessment of the Project Study Area

This section discusses some of the market-based considerations impacting the type of redevelopment envisioned in the three Station Area Scenarios. The Project Study Area faces both opportunities and challenges for long-term redevelopment due to its location, access and configuration.

#### Advantages

- Location on high-traffic highway corridor
- History of established and successful employment uses
- Heavy rail access
- Future light rail station
- Springwater Trail access and visibility
- Proximity to Downtown Milwaukie
- Potential future entertainment use
- Perceived Clackamas County tax benefits

#### Challenges

- Constrained access
- Light rail station not centrally located to most of study area
- Highway (on west) and rail line (on east) are barriers
- Most parcels under viable existing use
- Industrial is a traditionally low-density use
- Fractured ownership

### Conditions for Industrial Use

The study area is currently under mostly industrial use, in keeping with its industrial zoning. A range of manufacturing, transportation, storage and other business types are located in the area. Few vacant parcels remain and many of the existing users are fairly intensive for industrial users, with higher than typical site coverage.

A 2011 highest and best use study completed for a property in the area by Kidder Mathews concluded that of the major land use categories, industrial use remains the strongest land use candidate in the area. The report finds some cost and tax advantages for industrial users in the area, as well as good access to transportation routes and employee housing. Access to port facilities is poor.

The area should remain attractive for light and heavy industrial users. Over time, these uses may not be the best fit with a mixed-use station area environment. Due to external noise, dust and smells industrial users may be incompatible with other uses.

However, industrial land is also among the least expensive land, and as new zoning and market forces make other uses possible, it raises the land's value under these new uses. Rising land values create economic pressure over time for industrial lands to transition, to the benefit of the current land owners. This process can be gradual or quick depending on the changing desirability of the area for other uses.

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## Conditions for Office Use

The area is suitable for office and similar employment space such as “flex” space, which can be a hybrid office and light manufacturing environment. These uses tend to be more intensive employers than industrial, and also can allow greater building density than the typically one-story industrial space. Office uses bring greater parking requirements, which must be accommodated on site.

While office uses need good access, they typically do not need the high visibility that retail tenants prefer, and can therefore be located near the arterials, but not directly on the arterials. Office is often used to buffer residential areas from industry or intense retail activity.

Currently, the office market environment in the Metro area is soft reflecting the recent recession and slow recovery. Only central Portland is near a healthy vacancy rate. Outer markets face higher vacancy which weakens rents and makes new office development less likely. The return of new office development will hinge on overall rising employment, and is likely to spread from central Portland outward.

A strong office development cycle is not projected for at least three years and most likely longer. However, given the long-term horizon of the station area planning effort, office remains a viable future use in the study area. It serves as a good transitional use between industrial uses and other uses.

## Conditions for Retail Commercial Use

Retailers prefer high-traffic locations with good visibility and access for customers. The study area is conducive to a customer-base which is primarily auto-oriented, perhaps with pedestrians and cyclists forming an important secondary target market. The light rail station and the potential of more intensive development in the study area in the future will help retail in the area, but is unlikely to support a large retail presence in and of itself.

Out of the recent recession, retail conditions are stable to firm. Consumer confidence is still weak and a true resurgence in spending will be dependent on strong employment growth. However, retailers will generally continue to seek good locations despite downturns.

The study area features good visibility and high traffic along SE McLoughlin Blvd., which is attractive to retailers. But access remains an issue as the ability to turn on or off this major thoroughfare is quite limited. Parcels around the intersection of McLoughlin and Ochoco Street are the strongest retail locations due to access. SE Moores Street also provides right-in/right-out access which might facilitate retail use to the north. In general, the interior of this study area (i.e. not on McLoughlin or Main) would likely prove a difficult retail location for any small business.

Opportunity Site A, south of the station area and on the Springwater Trail, may provide a good location for more creative and unique commercial presence. A Pendleton store, combined with other shops, dining, and/or other attractions could form a destination retail location, where customers are willing to travel and overcome some inconveniences to access.

Similarly Opportunity Site B, if it were to become the location of a baseball stadium or similar entertainment use, could attract some complimentary and supportive retail uses to the adjacent areas. The success of retail use in the area would depend on the level of activity at the entertainment facility, including user traffic and number of days per week. Supportive retail uses would still want good access and visibility, especially for those times when the entertainment facility was not in use.

## Conditions for Residential Use

The housing bubble in the middle of the last decade eventually led to increased development and speculation in most real estate categories. The following bust and recession was thus accompanied by a significant

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slowdown in development in general, and housing in particular, as real estate was falling in value and financing for new projects became scarce.

Five years after the peak of the housing market, home prices seem to be stabilizing and perhaps resuming modest growth in 2012. Interest in development of for-sale housing is slowly returning. Interest in rental apartment development has rebounded strongly, as demand is growing, but production of new units has been modest for over a decade. The Portland area currently has one of the tightest rental markets in the country, with average vacancy below 4%, and rents climbing swiftly since 2010. Despite ups and downs, housing development is ultimately a function of continuing population growth in the Metro area, and therefore demand will always persist over the long term.

The subject site may be a challenging location for conventional residential uses. This is because it faces physical barriers to established residential neighborhoods and their amenities, such as parks and schools. Despite having residential neighborhoods within a quarter mile to the east and west, these are separated by rail lines and McLoughlin Blvd. respectively.

On the positive side, the light rail station and Springwater Trail are good amenities for residential uses in the area. Good design and a critical mass of units, sufficient to create a sense of community, could help an attached or multi-family housing development succeed in this area. Location near the light rail station, and some buffer from industrial uses would likely be optimal.

## Market Considerations for the Three Scenarios

This section discusses some market-based factors which may impact the three scenarios under consideration. For the most part it focuses on the land use aspects and does not address the proposed transportation improvements which are common to the three scenarios. In general, the proposed transportation improvements would all be considered beneficial to redevelopment as they improve and increase access.

### Scenario 1: Baseball/Entertainment

This scenario envisions redevelopment of Opportunity Sites A and B with some additional retail commercial development near Site B. The defining feature of this scenario is the use of Site B for a minor-league baseball stadium and/or other entertainment venue. The city has done various studies on the prospects and impacts of a baseball stadium at the site.

The scale of the project may impact infrastructure in the area, as it would represent a substantial increase in the intensity of use. The project is likely to provide additional support for local commercial establishments that can capitalize on the influx of attendees at events. This type of facility would be considered an “episodic event” facility, in that it includes traffic surges and related congestion, followed by slowing activity during events and when no events are scheduled. The episodic nature of activity can have a negative impact on the viability of commercial enterprises which might locate around it.

In general, supportive retail and commercial uses will still prefer visibility and access from McLoughlin to attract customers when no events are taking place. Such users around an entertainment venue often include dining and drinking establishments, and perhaps secondary entertainment options such as an arcade, batting cages or miniature golf.

It is possible that some small intermittent enterprises would operate mostly at the time of events, and otherwise be closed. These types of enterprises would need access to inexpensive rent or space, for instance a food cart or other small and/or temporary structure.

The additional retail commercial land uses as depicted in Scenario 1 are well-located to be the most viable retail redevelopment in support of an entertainment destination. Those parcels at the McLoughlin and Ochoco

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intersection are likely in the strongest retail location. Those parcels further east on Ochoco would be more dependent on the success of the entertainment venue to make the area a regular, high traffic destination.

### **Scenario 2: Intensive Employment**

This scenario envisions more intensive redevelopment from Mailwell Drive north, while the southern half of the study area remains largely unchanged. The scenario envisions large-scale redevelopment over time to new land uses, including a mixture of office and light manufacturing north of Mailwell Dr., transitioning to office uses north of Beta Street and a mix of residential and employment uses, including perhaps live/work units, to the north of Ochoco Street. The frontage on McLoughlin from Site B to Moores Street would have a retail designation.

This Scenario represents the greatest change to the area, and if successful would likely take place over a long-term horizon, potentially twenty or more years. Some parcels could redevelop much faster than this however. Property owner disposition will play a large role in sequencing and pattern of redevelopment in the area.

The concentration of office and flex space will be dependent on renewed job growth in the region. In order for new development to take place, employment must regain pre-recession levels, absorb the current vacant space, and eventually generate demand for new employment areas. Based on its most recent analysis, the Oregon Employment Department projects that Clackamas County may attain its pre-recession employment peak by 2016. However, since that projection was made, employment growth has been somewhat more anemic than estimated.

Over the long term planning period, a return to job growth is a safe assumption. A switch to zoning which allows a mix of employment uses from industrial to office can allow transition over time. Compatibility of new uses with legacy uses may remain an issue during the transition.

The amount and location of retail use envisioned here is modest. Residential uses north of Ochoco Street and south of the Springwater Trail may face the greatest market challenges, as there are no established residential uses in the study area, and access remains an issue. However, the light rail station and trail can be strong amenities to residential units here. An innovative design, perhaps emphasizing live/work, artist or loft space could take advantage of the industrial character of the area and create a distinctive identity for housing here.

Overall, Scenario 2 presents the boldest plan for the study area to transition into a station area. The market is not ready to produce this level of redevelopment immediately, but time combined with policy accommodation and perhaps redevelopment incentives may help achieve these results in the coming years.

### **Scenario 3: Access/Circulation Improvements**

This scenario envisions the smallest changes in terms of land use and redevelopment. It includes reuse of Opportunity Site A and the western part of Site B. Most of the study area remains under industrial use, the large majority of which is already established. This scenario focuses on the access and circulation improvements to aid access and use of the light rail station.

Redevelopment of Sites A and B rely on finding the right combination of users to create destination retail. Destination retail is retail, dining, entertainment or other commercial use which customers seek out and are willing to overcome access or other inconveniences in order to reach. Site A has a current owner/user willing to take advantage of the location between the light rail station and the Springwater Trail to create a destination. The owner is a popular regional brand with its own retail draw. Complimentary retailers and dining/drinking establishments may be a good fit on this site.

Site B features a historic building with reuse potential. The building features strong character for a dining establishment, and perhaps other uses. Renovation of the structure is likely to be expensive and public



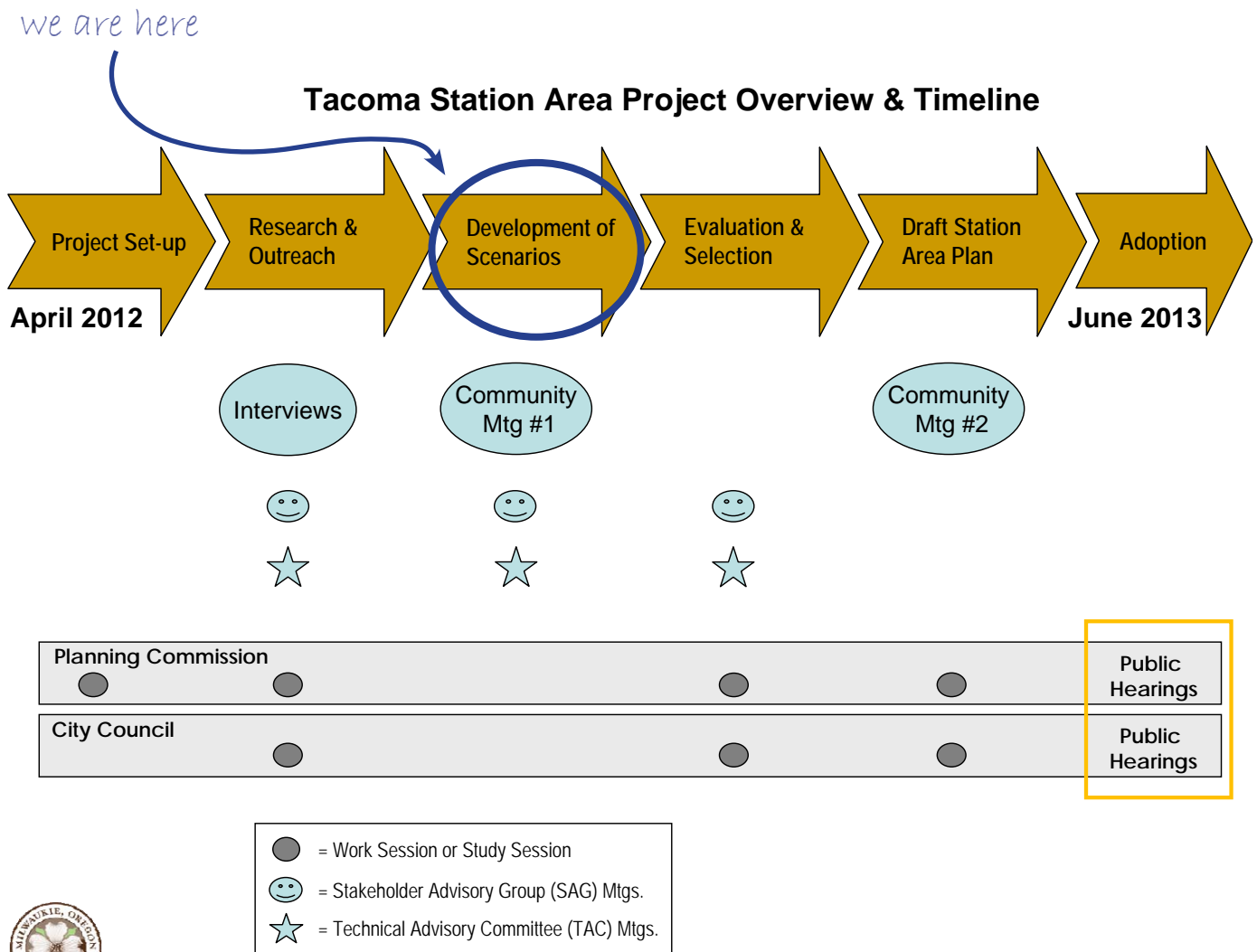
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recruitment and incentives might be necessary to attract the right user. In addition, the site faces less than optimal access and surrounding industrial uses. The reuse of this site would likely be aided by additional retail users at the intersection of McLoughlin and Ochoco to the north.

The access and circulation improvements envisioned in all three scenarios are likely to be a net positive for redevelopment in the area. Access and visibility are important to most users, and safe connections to the light rail station will be important in making sure the employees, customers and perhaps residents in the study area take full advantage of this amenity, and that the benefits of the station is reflected in property values.

# Section 4: Next Steps

This document represents a preliminary draft of this report. It will be reviewed by the Project Management team and subsequently refined prior to review by members of the project Technical Advisory Committee and Stakeholder Advisory Group, as well as members of the public at a Community Meeting. The Report will be further refined based on the outcomes of those meetings. After that, the revised redevelopment scenarios will be evaluated in more detail, including through feedback from an “expert review panel” that will include area property owners, local developers and others. Based on that review and analysis, a preferred redevelopment scenario will be recommended. It will undergo further review and refinement as part of preparation of a Tacoma Station Area Plan and implementing Comprehensive Plan and Development Code amendments. Those documents will be further reviewed and refined by members of the project advisory committees, Milwaukie citizens and the City’s Planning Commission and Council prior to and as part of a city adoption process, scheduled for completion by June 30, 2013.





## **Appendix A:**

# **Detailed Opportunities and Constraints**

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## Opportunities and Constraints

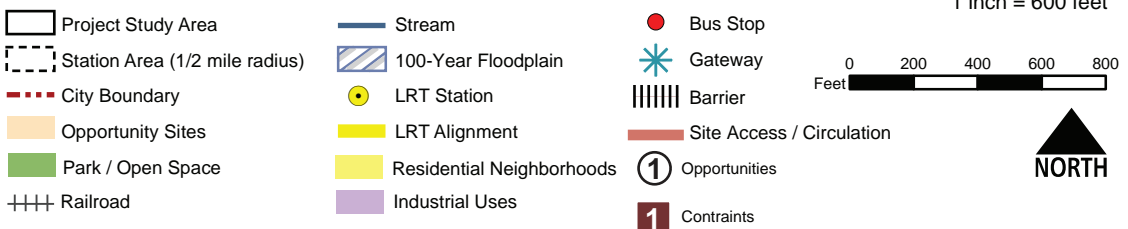
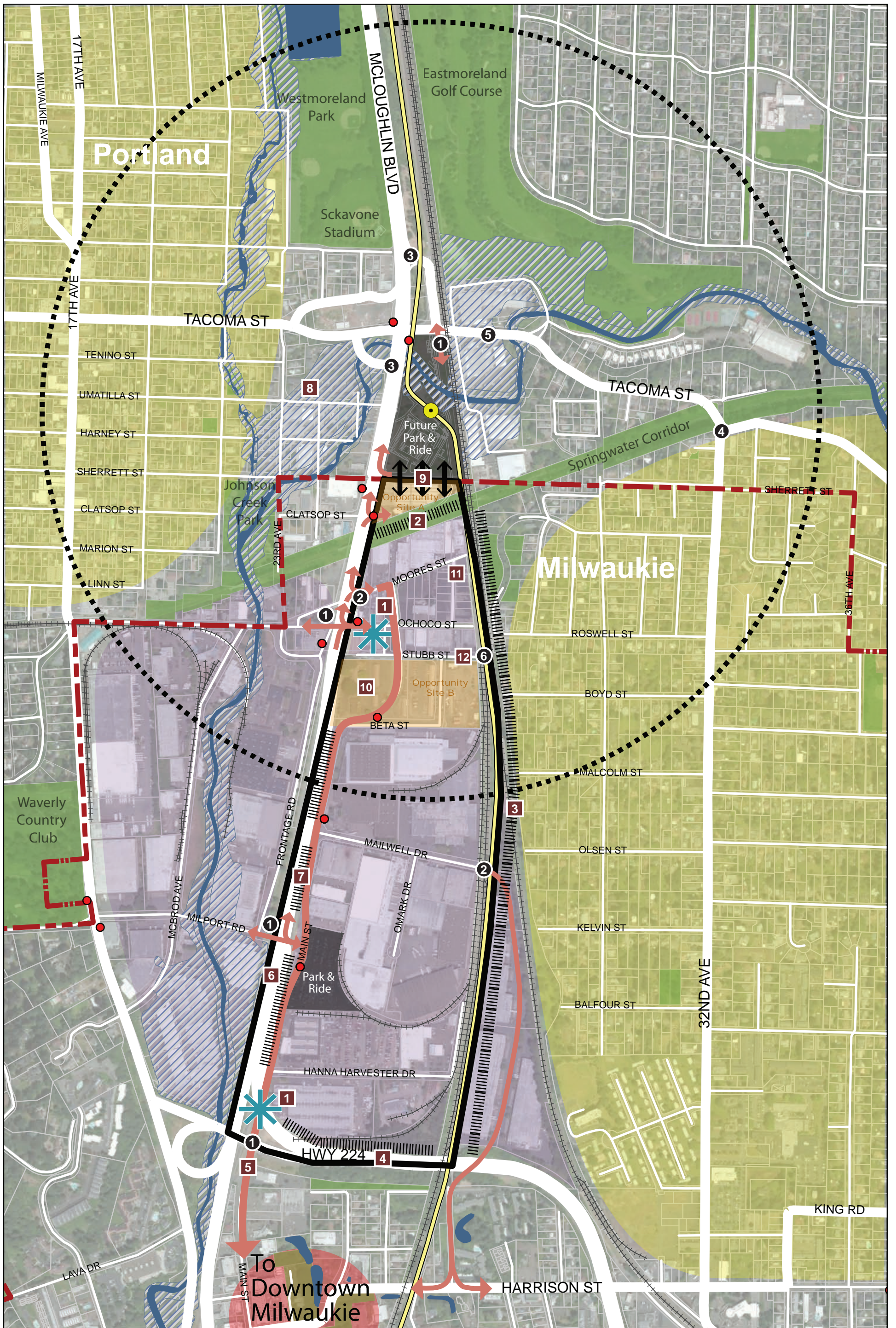
The numbered items below correspond to the map shown in Figure A-1.

### Transportation and Access

- 1 Existing/future primary vehicular access into the study area (access at Milport Rd. provides access for eastbound traffic on Milport Rd. only).
- 2 Secondary vehicular access into the study area (right-in / right-out access only at Moores St.).
- 3 Crash safety issues (future ODOT projects expected to help address).
- 4 Unsignalized intersection at SE Johnson Creek and SE 32nd Ave. currently operates at LOS F during AM and PM peak hour and available queuing storage is exceeded.
- 5 Potential congestion impacts from future park and ride.
- 6 Active Union Pacific freight rail line an opportunity for industrial users, and a constraint in terms of creating a physical barrier along the eastern edge of the study area.

### Physical Conditions and Land Use

- 1 Opportunity to create “gateways” at key entrances to study area.
- 2 Springwater Corridor trail creates a physical barrier between the northern and southern portions of the study area.
- 3 Railroad tracks along eastern edge of the study area and the lack of connections isolates the study area from the adjacent single-family neighborhood.
- 4 Highway 224 creates a physical barrier between the study area and the Downtown.
- 5 Main Street provides an opportunity to link the study area to the Downtown; opportunity to create a “gateway” experience at the entrance to the study area.
- 6 SE McLoughlin creates a physical barrier between the study area and the industrial areas west of McLoughlin. Only crossing opportunities at the signalized intersections of Milport, Ochoco, and Tacoma.
- 7 Jersey barriers separate Main Street from McLoughlin. Opportunity to provide aesthetic enhancements along this edge of the study area.
- 8 Existing higher density housing may help provide ridership for park and ride facilities. Some inquiries about developing more housing in this area, though redevelopment will be limited due to floodplain issues.
- 9 Opportunity Site A has opportunity to directly relate to the new park and ride facility.
- 10 Opportunity Site B has opportunity to take advantage of high visibility along SE McLoughlin.
- 11 Existing lot pattern in some parts of study area is from an old town site (residential lots) that no longer exists requiring use of multiple small parcels for some industrial users.
- 12 Existing local street system is not well defined. Some buildings are built right up to street right of way, and some have materials/inventory stored up to street right of way.



# Tacoma Station Area Plan Opportunities and Constraints

Figure A-1

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## Opportunities and Constraints Related to Bicycle and Pedestrian Access

The numbered items below correspond to the map shown in Figure A-2.

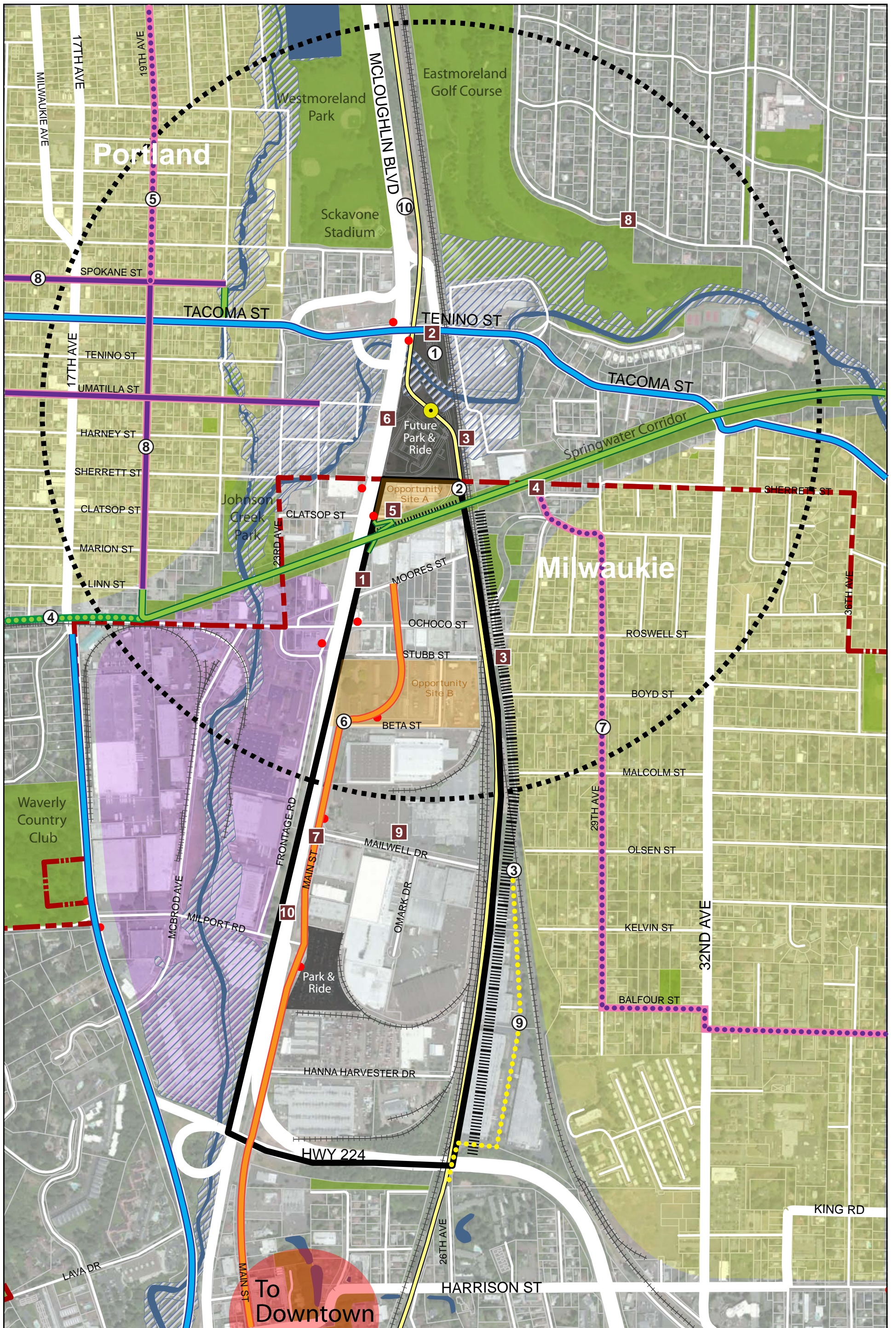
### Opportunities

- 1 Potential to provide bicycle and pedestrian access along existing roadway leading to station area.
- 2 Potential to provide pedestrian access, via a stairwell, from the Springwater Corridor to the station area.
- 3 Existing rail grade may allow for an under passage connecting the neighborhood east of the Union Pacific Railroad tracks to Mailwell Dr.
- 4 The existing informal gravel connection between 28th/Sherrett and the Springwater Trail corridor should be improved.
- 5 Planned 19th Ave Neighborhood Greenway\* will improve bike access from neighborhoods NW of the project area. This is part of a larger network of Neighborhood Greenways, as shown in Figure A-2.
- 6 Potential for improving the Main Street bike route to include bike lanes complete with bike lane pavement markings and appropriate striping.
- 7 The planned and funded 29th Ave Bicycle Boulevard\* from Van Water Street will provide access from Milwaukie neighborhoods to the Springwater Corridor.
- 8 The existing Spokane Street, Umatilla Street and 19th Ave Neighborhood Greenways provide good access from Sellwood neighborhoods to the Springwater Corridor and Tacoma Street.
- 9 Existing Private Road access could provide a “low stress” route between downtown Milwaukie and Mailwell Dr.
- 10 Proposed multi-use trail along McLoughlin Blvd (east side) from future TriMet Park & Ride to Beta Street (Portland Bicycle Plan for 2030).

### Constraints

- 1 The connection along the existing sidewalk between the Main Street Bike Route and LRT station site is narrow and uncomfortable as a shared use path.
- 2 Intersections at Tacoma Street and Tenino Street are not currently designed to accommodate N/S bicycle access.
- 3 Existing railroad tracks form a hard barrier between neighborhoods located east of the Union Pacific Railroad tracks and the station area.
- 4 Poorly defined connection between the Springwater Corridor and the future 29th Ave Bicycle Boulevard.
- 5 Existing trail alignment from Springwater Corridor north to McLoughlin Blvd requires hairpin turns. This is not comfortable for many bicyclists.
- 6 McLoughlin Blvd forms a hard barrier between western neighborhoods and the station area. Limited crossing opportunities require out-of-direction travel for bicyclists and pedestrians.
- 7 Parked cars in the existing roadway shoulders where currently permitted between approximately Beta and Hanna Harvester Streets require bicyclists to use the travel lane.
- 8 Difficult bicycle/pedestrian connection between Eastmoreland neighborhood and the station area due to barriers presented by golf course, Johnson Creek, and interchange.
- 9 Potential for bike, pedestrian and freight conflicts on industrial blocks.
- 10 No existing formalized bicycle facilities, such as bike lanes, on McLoughlin Blvd/Hwy 99.

*\*Note: The terms Bicycle Boulevard and Neighborhood Greenway are synonymous*



# Tacoma Station Area Plan

## Opportunities and Constraints Related to Bicycle and Pedestrian Access

1 inch = 600 feet

Project Study Area	LRT Station	Existing Bike Lane
Station Area (1/2 mile radius)	LRT Alignment	Existing Neighborhood Greenway*
City Boundary	Railroad	Planned Neighborhood Greenway*
Opportunity Sites	Bus Stop	Existing Multi-Use Trail
Stream	Park / Open Space	Planned Multi-Use Trail
100-Year Floodplain	Bicycle/Pedestrian Opportunities	Existing Signed Bike Route
	Bicycle/Pedestrian Constraints	Private Road Connection

\*The terms Bicycle Boulevard and Neighborhood Greenway are synonymous

Figure A-2.