

# PDC

## PORTLAND DEVELOPMENT COMMISSION

**DATE:** April 14, 2010  
**TO:** Board of Commissioners  
**FROM:** Bruce A. Warner, Executive Director  
**SUBJECT:** Report Number 10-35  
Portland-Milwaukie Light Rail Conceptual Design Report Briefing

### EXECUTIVE SUMMARY

#### BOARD ACTION REQUESTED

None – information only.

#### SUMMARY

The purpose of this report is to provide a briefing to the Portland Development Commission (PDC) Board of Commissioners (Board) on the TriMet Portland-Milwaukie Light Rail (PMLR) Conceptual Design Report (CDR) and key issues prior to TriMet entering into final design work this October. A copy of the CDR is included as Attachment A.

As part of the Portland City Council's adoption of a locally preferred alternative for the project, Council required TriMet to prepare the CDR in collaboration with the Portland Office of Transportation (PBOT), and for it to be reviewed by the Portland Design Commission, Planning Commission, PDC Board, and City Council prior to completion of the preliminary engineering phase of the project. The CDR provides the following primary purposes:

- Present the current conceptual design of project elements such as major structures, stations, pedestrian and bike connections, and terminus points, and provide an overview of the urban design vision, public process, and key outstanding issues.
- Further engage the public in discussions about the project's current design and issues yet to be resolved.
- Guide policymakers and technical staff through the final design phase of the project.
- Identify future projects, development opportunities, and processes that influence the final design of the project.

PDC staff has been working closely with TriMet and the City, as the PMLR alignment travels through the South Park Blocks (SPB), North Macadam (N Mac), and Central Eastside (CES) Urban Renewal Areas (URAs), with two (2) light rail stations in N Mac and one (1) station in the CES. Alignment and stations are shown in the map on Attachment B. The new multi-model Willamette River bridge for light rail, streetcar, bicyclists, and pedestrians will connect N Mac and CES. In addition, the CDR highlights key impacts and issues for further discussion and resolution in both URAs:

- An elevated structure that crosses over SW Harbor Drive through potential future development sites and near PDC owned RiverPlace parcels;

- West side connectivity including bridge to greenway connections in N Mac (North District) and in coordination with reconstruction of SW Moody Avenue;
- East side connectivity including greenway connections and the realignment of SE Water Avenue; and
- The Clinton Station area, including pedestrian/bicycle connectivity to the river and downtown, and future redevelopment opportunities.

PMLR estimated project cost is \$1,417.6 million. On February 24, 2010, by Ordinance No. 183554, City Council authorized a City Intergovernmental Grant Agreement (IGA) with TriMet for City of Portland local match financial contributions of \$30 million to help fund the PMLR final design and construction. This commitment included \$10 million of tax increment financing (TIF), which is in the N Mac URA requested budget for FY 2012-2013 (included as Attachment C). On April 28, 2010, Board action will be requested to approve a PDC IGA with PBOT to provide the \$10 million TIF funding as part of the City of Portland's local match.

## BACKGROUND

Now known as the Portland-Milwaukie Light Rail Project (PMLR), the South Corridor light rail connection from Portland to Milwaukie has been in Metro's regional plan since the early 1980's. Light rail project development started in the early 1990s and was examined as part of the South/North Transit Corridor Project that evaluated light rail alignment options from Clackamas Town Center to Milwaukie to Portland to Vancouver. In 1998, this effort resulted in a recommended alignment, known as the Locally Preferred Alternative (LPA), adopted by Metro, TriMet, and local jurisdictions, including the City of Portland. The LPA was amended in 2003.

In July 2008, the current LPA alignment was adopted. The alignment consists of a new 7.3-mile light rail line and ten (10) stations along the line in Portland, Milwaukie, and Clackamas County, and up to 1,400 Park & Ride spaces, and will carry an estimated 27,400 daily trips by 2030. The PMLR alignment travels through the SPB, N Mac, and CES URAs, with light rail stations at SW Lincoln/SW 4<sup>th</sup> Avenue; South Waterfront/SW Moody Avenue (adjacent to the proposed Life Sciences Center, a partner project of Oregon Health & Science University (OHSU), Portland State University (PSU), and Oregon State University); and at Oregon Museum of Science & Industry (OMSI)/SE Water Avenue.

The City of Portland and PDC's recently adopted *Economic Development Strategy: A Five-Year Plan for Promoting Job Growth and Economic Growth* (Strategy) calls for direct investment necessary to grow employment in the city by 10,000 jobs over the next five years and establishes a set of priorities to guide the city's job creation work. The PMLR project is a key element to meeting the transportation needs required to support the planned economic growth for Portland and the region.

The PMLR project directly supports the growth of Portland's Innovation Quadrant (IQ), a physical manifestation of the Strategy, by enhancing the connections and collaboration between higher-education institutions, workforce development providers, and private sector partners. The IQ, as shown in Attachment D, connects across the Willamette River via the PMLR services and bridge, and includes PSU, OHSU, OMSI, and Portland Community College (PCC). PSU, OHSU, and PCC are the three largest higher education providers for the region. Their collaboration with one another and with the private sector represents the economic engine that drives the IQ. Together, the IQ area is projected to grow by approximately 30,000 jobs and

11,000 households over the next 25 years. This major investment in the PMLR infrastructure leverages the growth of existing thriving businesses and supports this future development.

### **Key Issues**

Based on staff's work with TriMet in preparation of the CDR, the following are key development and economic development issues in N Mac and CES needing further discussion and resolution prior to completion of the final design phase:

- **Harbor Drive structure (N Mac)** – This elevated structure will allow light rail to cross at grade at SW Lincoln and Naito, span over SW Harbor Drive, and proceed under the I-5/I-405 ramps and into the South Waterfront district traveling along the west edge of SW Moody Avenue. Between downtown (SW Naito) and RiverPlace, the light rail will pass over six acres of vacant land identified to have significant redevelopment potential. These properties have been studied by PDC in the June 2006 Harbor/Naito Concept Plan. PDC staff continues to work closely with TriMet and the City to ensure that the development parcels retain their maximum development capacity and access/connections for pedestrians, bicyclists, and vehicles.
- **West Side Connectivity (N Mac)** – The new PMLR Willamette River bridgehead will connect at the west side to the South Waterfront North District area, which includes the OHSU/Schnitzer campus and the Zidell property. There are two key infrastructure improvements requiring connection to the PMLR: greenway connections (with consideration of redevelopment of adjacent properties) and the reconstruction of SW Moody Avenue. In February, the federal TIGER (Transportation Investment Generating Economic Recovery) grant of \$23.2 million was awarded to the City to reconstruct SW Moody Avenue roadway and streetcar facilities and to help connect right of way, streetcar line connections, and the PMLR. However, PDC staff continues to work closely with TriMet, City partners, and adjacent property owners to find solutions for integrating greenway connections and improvements as part of the PMLR.
- **East Side Connectivity (CES)** – The new PMLR Willamette River bridgehead will connect at the east side between OMSI and the Portland Opera properties. Similar to the west side, the east side PMLR design and funding assumptions involve finding a solution for two connected infrastructure improvements – 1) greenway connections to the Eastbank Esplanade and Springwater Corridor (with consideration of adjacent private redevelopment) and 2) the construction of a new SE Water Avenue. The realignment of SE Water is necessary to facilitate streetcar/light rail/right of way connectivity and to offer safer, more direct freight access to and egress from the industrial district. The new SE Water project was included in the TIGER grant application, but did not receive federal funding. PDC continues to work with TriMet, the City, and adjacent property owners to find funding and solutions for these needed infrastructure improvements.
- **Clinton Station Area (CES)** – The Clinton Station is located just outside the CES URA boundary east of SE 12th Avenue, parallel to SE Gideon Street. The area immediately surrounding this station is largely a continuation of the Central Eastside Industrial District, comprised of industrial and commercial uses. This station provides much needed public transportation to this employment district. Clinton Station also abuts two residential neighborhoods which will require a focus on pedestrian/bicycle connectivity to and through the CES to the river and downtown. PDC staff is working closely with TriMet and the Bureau of Planning and Sustainability to ensure that station area planning provides

direction for redeveloping this area to provide access and connectivity and build capacity for job growth.

**Project Schedule and Next Steps**

Approval to begin Preliminary Engineering Phase	March 2009
City Council Authorization of City of Portland Financial Contribution	February 28, 2010
Preliminary Engineering Completed (Conceptual Design Report issued)	March 2010
Planning Commission and Design Commission CDR briefings	March – April 2010
PDC Board CDR briefing	April 14, 2010
PDC Board requested action – PDC/PBOT IGA	April 28, 2010
City Council Hearing – CDR review and request approval of PDC/PBOT IGA	May 12, 2010
Final Design	Oct. 2010 – Jan. 2012
Full Funding Grant Agreement Executed	June 2012
Construction	2011 - 2015
Service begins	September 2015

**ATTACHMENTS:**

- A. PMLR Concept Design Report Executive Summary and Introduction
- B. PMLR Alignment Map with Stations
- C. North Macadam URA Requested Budget FY 2010-2011 and Forecast Years
- D. Innovative Quadrant Map

**PMLR Concept Design Report**  
 Executive Summary

**EXECUTIVE SUMMARY**

**Project Summary**

A regional effort to extend light rail service from downtown Portland to downtown Milwaukie and North Clackamas County is currently underway. Expanding transit options is essential to the livability and economic vitality of the region, which is expected to see significant growth during the next two decades—one million new residents in the region and nearly 100,000 new jobs within the project corridor are expected by 2030. The Portland-Milwaukie Light Rail (PMLR) project is a vital transportation element in the region's strategy to manage growth and build livable communities for future generations (Fig. 1).\*

This project is about much more than engineering 7.3 miles of infrastructure and providing transit to under-served communities. It is about enhancing pedestrian facilities in neighborhoods and improving the region's bicycle network. It is about helping communities envision and achieve their aspirations. To be truly successful, the project must support the transportation, urban design, environmental, social and economic objectives of the region—and of each neighborhood and community.

Project partners Metro, Clackamas County, Multnomah County, the cities of Portland, Milwaukie and Oregon City, the Oregon Department of Transportation, TriMet and the Portland Development Commission are collaborating to carry out this ambitious project.

\* Project station names have not been finalized; names assigned to stations and station areas in this report designate station locations only and are subject to change.



FIGURE 1: Map of alignment and stations on the Portland-Milwaukie Light Rail project

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### Community Involvement

Since the adoption of the Locally Preferred Alternative in July 2008, the community relations team, comprised of staff members from TriMet, Metro, Clackamas County and the cities of Milwaukie and Portland, has been meeting with a variety of organizations, neighborhood associations and business and property owners. TriMet also created a public website for the project ([trimet.org/pm](http://trimet.org/pm)) that provides project updates, access to planning and design documents, notes from past meetings and a current list of upcoming meetings.

In addition to the public input received from community meetings, guidance on the project has been provided by five oversight committees—the Steering Committee, Project Management Group, Project Team Leaders, Citizens Advisory Committee and Willamette River Bridge Advisory Committee. Extensive community outreach will continue through the Final Design phase of the project.

The project partners created this Conceptual Design Report to further engage the public in discussions about the project's current design and issues yet to be resolved. Additionally, this report will initiate more comprehensive conversations with stakeholders around station area planning and urban design.

### Overall Corridor Concept: Connecting Communities

The PMLR project will provide light rail connections to communities in the corridor. It also presents opportunities to make related improvements and add significant design features that connect neighborhoods, encourage pedestrian activity and bicycle use, and create engaging public spaces where people *want* to be. The stations themselves will become neighborhood landmarks and community gathering places. Major elevated structures, such as the Willamette



Staff work with members of the community at open houses and stakeholder meetings to address project concerns.

River and Kellogg Creek bridges, present special opportunities for design distinction. Pedestrian/bicycle overcrossings at locations along the alignment will create important links across freight rail lines and major arterials that are currently barriers between neighborhoods and, if thoughtfully designed, can also become neighborhood features.

Significant development opportunities in many of the station areas create the potential to maximize access to public transportation and enhance livability by expanding walking and cycling opportunities, thereby increasing auto independence. Combining infrastructure improvements and major design features with new transit-oriented development along the alignment will create neighborhood landmarks and vibrant environments that bring communities together.

### Station Area Design Concepts

Building on a series of public workshops held in 2007-08, this report provides an overview of station area design concepts developed through Preliminary Engineering. The corridor's station areas have been grouped together into separate segments to reflect their similarities within the context of surrounding neighborhoods and their distinctiveness within the context of the entire corridor (Fig. 8). An overview of these five segments—Innovation Quadrant, Neighborhoods/Employment, Neighborhoods/Recreation, Downtown Milwaukie and Green Gateway/Multi-Modal—and the context, opportunities, challenges and vision for each station area are discussed in the Corridor and Station Area Design Concepts section of this report. Below is a brief summary of the improvements planned for each station area and for major structures along the alignment.

#### Innovation Quadrant

**PSU/Lincoln Street Station Area:** This is the starting point for the new light rail line in downtown Portland and the point of connection with the existing system at the southern terminus of the Green and Yellow lines on the Portland Mall (Fig. 2). Located in the Halprin District and adjacent to Portland State University (PSU), this station will be on a center platform on SW Lincoln Street between the Halprin pedestrian walkways on SW 2nd and 3rd avenues. Enhanced crossings aligned with these walkways will create a portal to these major pedestrian features, and green treatments added to SW Lincoln Street will include vegetated storm water elements. SW Lincoln Street will be extended one block to connect to SW Naito Boulevard. Bicycle lanes will be provided on SW Lincoln Street in both directions between SW Naito and 1st Avenue and in the westbound direction (uphill) from SW 1st to 4th Avenue. These



The new light rail line will connect to Portland Streetcar and the Portland Aerial Tram in the South Waterfront.

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improvements will help activate the Halprin District and better connect it to the rest of downtown.

**Harbor Drive Structure:** This elevated structure will allow the light rail to cross over SW Harbor Drive and proceed on a structure under the I-5/I-405 ramps and into the South Waterfront District travelling along the west side of SW Moody Avenue. It will be a well-rendered element that preserves future development opportunities, improves connectivity between neighboring districts and supports pedestrian activity. The northern section of the structure will be the most visible to pedestrians, and will be designed to optimize the experience for people walking underneath it (the top of the structure will not be accessible to pedestrians or cyclists). The three columns under this section (near SW Harrison, SW Harbor and SW River Parkway) have been identified as public art opportunities. The structure will also be highly visible for drivers coming from the I-5 freeway and South Waterfront, and can therefore contribute to a sense of arrival in downtown.

**South Waterfront Station Area:** This station and related improvements will be integrated with the future development of the Oregon Health & Science University's (OHSU) Schnitzer Campus, the Zidell Company property, the greenway and the district's street infrastructure. The light rail station will be configured with separate platforms for east- and westbound trains; light rail trains will run on the outside and buses will run in the middle. The platforms will be built approximately 14 feet above the current grade and future local streets will be constructed to slope up and meet the grade of the station. Buses, future streetcar and light rail will pass through this station as they head to and from the east side of the river, and the platform will serve both light rail and buses (streetcar will not stop at the platform but will have stations nearby). Bicycles will also move through this station in one-way cycle tracks, between the light rail trackway and sidewalks, to access existing and future street

networks. As part of a separate project, the City of Portland will improve Moody Avenue, which will enhance pedestrian and bicycle connections from the PMLR project to the Portland Aerial Tram.

**Willamette River Bridge:** This is the first bridge built across the Willamette in 35 years, and it will be a significant addition to the city and its riverscape. Many stakeholders, architects and community leaders have participated in advisory committees formed to choose the bridge location and type. The elegant cable-stayed bridge will be located between the Marquam and Ross Island bridges. It will begin north of the property line between OHSU's future Schnitzer Campus and the Zidell Company property in the South Waterfront, and cross the river to land on the east bank at the former SE Sherman Street right-of-way just north of the Portland Opera. It will include a 14-foot wide shared pedestrian and bike path on each side of the bridge and will have integrated artwork.

**OMSI Station Area:** The station is located and designed to support plans for future development of the Oregon Museum of Science & Industry (OMSI), Portland Opera and Oregon Rail Heritage Foundation properties, and the future streetcar loop. The station platform will be located approximately one block north of SE Caruthers Street between the proposed "new" and the existing "old" Water Avenue, where it will be surrounded by these development opportunities. There will be separate platforms for east- and westbound trains; light rail trains will run on the outside and buses will run in the middle and share platforms with light rail. Future streetcars will come on and off the alignment near the west end of the station and will have separate platforms on "old" Water Avenue. The project will include a rebuild of a portion of the greenway that runs under the Willamette River Bridge to improve the vertical clearance between the bridge and the trail. Bicycles will move through this station area in one-way cycle track.





For much of its length, the light rail alignment parallels Union Pacific Railroad tracks.

### Neighborhoods/Employment Segment

**Clinton Street Station Area:** This station will become a central gathering place that spurs new transit-oriented development and connects the well-established neighborhoods that surround it. The platform will be located east of SE 12th Avenue, parallel with SE Gideon Street. The project will include significant bicycle and pedestrian improvements in this area. A new Powell Boulevard overpass and improved pedestrian/bicycle connections under SE Powell (on the west side) will greatly enhance safety and accessibility through this station area. A new pedestrian/bike bridge at SE 14th Avenue will replace the existing one to link directly to the light rail station and better connect the Brooklyn and Hosford-Abernethy neighborhoods, and new bike lanes will be added to a widened SE Milwaukie Avenue from SE Powell to the 11th/12th Avenue split adjacent to the station. Various trackway crossing improvements will be made to help meet the standards required for a quiet zone.

**Rhine Street Station Area:** This station will be a gateway to the Brooklyn neighborhood and provide connections to major employment sites and open spaces, including the Powell and Brooklyn parks. This section of the alignment crosses SE Powell Boulevard on a new structure and then continues south in the center of a rebuilt SE 17th Avenue. The station platform is in a center island configuration between SE Haig and SE Rhine streets. Bicycle and pedestrian improvements planned for the station area include new bike lanes added to SE 17th Avenue, and a new pedestrian/bike bridge that crosses the Union Pacific Railroad's Brooklyn Yard between SE Lafayette and SE Rhine streets.

**Holgate Boulevard Station Area:** This station will be a gateway to the Brooklyn neighborhood. The platform will be in a center island configuration on SE 17th Avenue, north of the intersection with SE Holgate Boulevard. New bike lanes will be added to SE 17th Avenue to create a safe north-south connection through this area. Green enhancements, such as storm water treatments, street trees, planters, and pervious (tie and ballast) trackway, and public art, will also be added to SE 17th Avenue.

### Neighborhoods/Recreation Segment

**Bybee Boulevard Station Area:** This station is surrounded by greenery and parkland, providing an easy escape from the urban landscape. The light rail alignment through this area runs between SE McLoughlin Boulevard and the freight rail line. The station platform will be in a center island configuration immediately north of the Bybee Boulevard overpass, which will have stair and elevator access down to the station. The project includes a bridge span over Crystal Springs Creek to accommodate future riparian restoration efforts in the watershed. Floodplain mitigation for the project's fill within the 100-year floodplain of Crystal Springs Creek will establish an equal amount of floodplain capacity south of the bridge at SE Bybee.

Impacts to wetlands near Crystal Springs Creek will be mitigated through partial funding of the City of Portland's Westmoreland Park Restoration Project.

**Tacoma Street/Springwater Corridor Station Area:** This station will celebrate Johnson Creek and the Springwater Corridor. The station and Park & Ride facility are located just south of Johnson Creek. The platform will overlook the creek area, which will be enhanced with additional riparian vegetation. The project will include a multi-use path connection to the Springwater Corridor, with a sculptural storm water feature planned to help activate the connection.

**Tillamook Branch Alignment:** This segment of the alignment does not include a station. The trackway runs on an elevated structure through an industrial area that begins south of the Springwater Corridor and crosses over the railroad tracks and lands north of Mailwell Drive (north of Highway 224). The elevated structure is necessary to transition the light rail tracks from the west side of the Union Pacific Railroad main line tracks to the east side of the Tillamook Branch alignment in order to eliminate freight conflicts, minimize property impacts in downtown Milwaukie and serve the Milwaukie station.

#### Downtown Milwaukie Segment

**Downtown Milwaukie Station Area:** After crossing under Highway 224, the alignment enters a residential area, then downtown Milwaukie's design district. In these sensitive neighborhoods, the project will be designed to a scale and level of care that reinforces the community's plans for revitalization. This station will honor the historic character of downtown and support the community's revitalization aspirations by incorporating elements of the South Downtown Concept. It is located at the south end of downtown at the intersection of Lake Road and 21st Avenue, adjacent to the



Riverfront Park is a major destination within the City of Milwaukie.

UPRR tracks. It is at the hub of the city's network of bikeways and will include facilities and connections that support bicycle use and pedestrian activity. The space created under the new trackway bridge that crosses over Lake Road will be well-lit and designed to create a safe and comfortable environment for pedestrians and cyclists; this will be an important passageway from the station platforms and Lake Road to the city's planned plaza at the terminus of Main Street.

#### Green Gateway/Multi-Modal Segment

**Kellogg Creek Bridge:** Heading south out of the Downtown Milwaukie station, the alignment will cross Kellogg Creek on a new bridge that extends from Lake Road, over the creek and Robert Kronberg Park, and lands south of River Road on the west side of SE McLoughlin Boulevard. The project will construct the bridge for light rail and with the infrastructure to accommodate a future multi-

use path under the track that would be built outside of the project scope. The design of the bridge is still in development but it presents opportunities to incorporate elements of distinction that enhance the visual aesthetics of the structure.

**Oak Grove/Park Avenue Station Area:** The Park Avenue station and Park & Ride are located at the intersection of McLoughlin Boulevard and Park Avenue, adjacent to the developing Trolley Trail and at the gateway to the Oak Grove community. If additional funding is granted, the project will restore riparian areas to the southwest of the station, provide a new ecosystem-based storm water treatment along McLoughlin Boulevard, treat and manage storm water flows from the Trolley Trail and the Milwaukie Elks Club site, and add elements to the Park & Ride that collect storm water and create a vertical garden. The station will link with the Park & Ride, Trolley Trail and other pedestrian/bicycle improvements to capture Clackamas County commuters and provide multi-modal connectivity for cyclists, bus riders, pedestrians and transit users. The rail segment running parallel to the Trolley Trail is being carefully designed to provide a quality experience for trail users, limiting site obstructions and utilizing design principles that enhance safety.

#### Future Station

**Future Harold Street Station:** The Harold Street station was examined and ultimately designated for future development due to a variety of factors, including low boarding projections, the close proximity of other stations, travel delays and land use in the area that does not support the station and the cost of the necessary pedestrian overcrossings. In coordination with the adjacent neighborhoods, a set of “triggers” is being developed to identify conditions for the future construction of the station. The future station would be located on the south side of the Harold Street

intersection in an elevated, side platform configuration. Pedestrian overcrossings of the UPRR tracks and McLoughlin Boulevard would likely also be constructed when the future station is added.

#### Project Budget

The total cost of the project is currently estimated at \$1.417 billion. A 60 percent match from the Federal Transit Administration will be requested and regional partners will provide a 40 percent local share to fund the project. The local share of \$567 million will include contributions from the State of Oregon through bonds backed by the state lottery, Metro through bonds backed by the Metropolitan Transportation Improvement Program (MTIP), the cities of Portland and Milwaukie, Clackamas County, TriMet and in-kind contributions from land donations.

#### Project Schedule

The Preliminary Engineering phase of the project started in March 2009 and will be completed in March 2010. It is expected that the Final Environmental Impact Statement will be completed and published by the Federal Transit Administration in May 2010, and the project will be in Final Design from October 2010 to January 2012. The Full Funding Grant Agreement is projected to be executed in June 2012. Construction is scheduled to begin in 2011 and the new light rail service is expected to commence in September 2015.

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## **KEY NEXT STEPS FOR THE PORTLAND-MILWAUKIE LIGHT RAIL PROJECT**

There are several key next steps to be implemented that will inform Final Design and help ensure that project improvements enhance the quality and livability of the neighborhoods:

- **Station area planning:** The next series of station area planning will evaluate opportunities that focus on land use, zoning and other planning initiatives associated with each station area, to help inform the light rail project and plan for future transformations of surrounding neighborhoods. These efforts build on Metro's station area assessment work in 2007 and 2008 as well as input from community meetings. Pending funding approval, the City of Portland intends to facilitate station area planning activities beginning in summer 2010. Clackamas County will begin station area planning efforts for the Park Avenue station in spring 2010. The City of Milwaukie is engaging the community to refine existing plans to incorporate the concepts from the South Downtown Pattern Language.
- **Station area urban design:** In coordination with the station area planning efforts by Clackamas County and the cities of Portland and Milwaukie, TriMet is developing an urban design program for the stations along the alignment. The objective is to follow up on issues raised by this report, identify opportunities to be pursued during the project's Final Design, coordinate with current and future planning efforts by other jurisdictions, inform the project's Conduct of Construction program, and design/select the appropriate station elements for each station area. Workshops focusing on station area urban design begin in March 2010 and will continue into Final Design (fall 2010).
- **Urban design workshops for major structures:** Design workshops that focus on major structures along the alignment, including the Harbor Drive structure, Tillamook Branch alignment and Kellogg Creek Bridge, will take place in 2010 to advance the design work in accordance with community goals and expectations. The workshops will also allow the City of Portland and TriMet to reach consensus on the details of the future greenway connections from the proposed Willamette River Bridge.
- **Final transit plan/bus routing:** Additional planning for the new bus routes is currently underway. The final transit plan will detail a bus service strategy that identifies routing changes and stop locations and addresses how buses will connect with the Willamette River Bridge and serve riders adjacent to the Ross Island Bridge. Planning for LIFT service will also commence. The community will be involved in the decision-making process.
- **Bicycle/pedestrian access:** Although opportunities and strategies for bicycle and pedestrian improvements have been identified and are discussed in the station area sections of this report, a comprehensive approach that fully integrates bike and pedestrian access with each station area and the Willamette River Bridge is still in development. There will continue to be meetings with bicycle and pedestrian stakeholder groups to finalize the improvement plans.

**Map of Alignment and Stations on the Portland-Milwaukie Light Rail Project**



**North Macadam URA Requested Budget FY 2010-2011 and Forecast Years**

Five-Year Forecast Project Requirements

	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
<b>North Macadam URA</b>						
<b>Resources</b>						
Beginning Fund Balance	5,468,582	4,225,659	463,814	1,010,396	340,013	496,906
Fees and Charges	306,880	315,472	0	0	0	0
Interest on Investments	20,000	20,000	25,000	25,000	25,000	25,000
Loan Collections	159,928	1,978,882	178,882	128,000	128,000	128,000
Property Income	1,500,000	1,550,000	50,000	50,000	50,000	50,000
TIF Proceeds	8,147,241	20,177,249	6,353,096	12,890,617	7,309,893	7,057,407
<b>Total Fund Resources</b>	<b>15,602,631</b>	<b>28,267,262</b>	<b>7,070,792</b>	<b>14,104,013</b>	<b>7,852,906</b>	<b>7,757,313</b>
<b>Requirements</b>						
<b>Program Expenditures</b>						
<b>Business and Industry</b>						
Community Economic Development						
H79020 Business Finance	0	0	0	0	0	81,944
High Growth						
H79020 Business Finance	0	0	0	0	0	81,944
Industry Cluster						
H11063 RiverPlace Lot 3 Redevelopment	30,000	0	0	0	0	0
H61000 Bio-Tech Build-Out	300,000	700,000	700,000	0	0	0
H61001 Industry Development	0	0	0	100,000	100,000	100,000
H61016 PSU Wetlab Project	1,200,000	0	0	0	0	0
H79020 Business Finance	0	0	0	0	0	163,887
<b>Business and Industry Total</b>	<b>1,530,000</b>	<b>700,000</b>	<b>700,000</b>	<b>100,000</b>	<b>100,000</b>	<b>427,775</b>
<b>Debt Service</b>						
Debt Service						
H98001 Debt Management	16,626	17,457	18,330	20,000	20,000	20,000
<b>Debt Service Total</b>	<b>16,626</b>	<b>17,457</b>	<b>18,330</b>	<b>20,000</b>	<b>20,000</b>	<b>20,000</b>
<b>Housing</b>						
Housing Operations						
H10543 Affordable Veterans Housing	8,000	0	0	0	0	0
Multi-Family - Rental Housing						
H10543 Affordable Veterans Housing	262,000	19,000,000	1,000,000	0	1,500,000	2,000,000
H10544 Block 33 Mixed Use Afford Rental Housing	10,000	0	0	0	0	0
<b>Housing Total</b>	<b>280,000</b>	<b>19,000,000</b>	<b>1,000,000</b>	<b>0</b>	<b>1,500,000</b>	<b>2,000,000</b>
<b>Infrastructure</b>						
Parks						
H10518 Central District Greenway Design And Construction	540,000	1,500,000	1,860,000	0	0	0
H10536 Neighborhood Park Design and Construction	2,177,205	0	0	0	0	0
H10540 New Initiatives - Parks and Greenway	0	0	757,000	700,000	1,960,000	655,548
Plans and Strategies - Infrastructure						
H11081 Harbor Naito Plan/Redev	15,000	0	0	0	0	0
Transportation						
H10532 Central District Infrastructure	1,224,000	0	0	0	0	0
H10537 Gibbs Street Pedestrian Bridge	213,795	364,205	0	0	0	0
H10541 New Initiatives - Transportation	0	0	0	0	1,900,000	2,300,000
H61002 Light Rail	0	0	0	10,000,000	0	0
H61003 South Portal Design	0	400,000	0	0	0	0
<b>Infrastructure Total</b>	<b>4,170,000</b>	<b>2,264,205</b>	<b>2,617,000</b>	<b>10,700,000</b>	<b>3,860,000</b>	<b>2,955,548</b>
<b>Revitalization</b>						
Plans and Strategies - Revitalization						
H10510 NMAC Implement Coord	60,000	95,000	50,000	0	0	0
H10512 Central District Development Agreement	20,000	0	0	0	0	0
H92110 Westside/Central City Study	0	15,000	0	0	0	0

**Five-Year Forecast Project Requirements**

	<b>FY 2009-10</b>	<b>FY 2010-11</b>	<b>FY 2011-12</b>	<b>FY 2012-13</b>	<b>FY 2013-14</b>	<b>FY 2014-15</b>
Redevelopment						
H11060 RiverPlace Environmental Parcel 1 - The Strand	12,000	0	0	0	0	0
H11062 RiverPlace Lot 8 Parcel Develop	40,000	0	0	0	0	0
H11063 RiverPlace Lot 3 Redevelopment	50,000	10,000	0	0	0	0
H27001 Storefront Grants	0	0	100,000	100,000	100,000	100,000
H27050 DOS Grants	0	0	50,000	50,000	50,000	50,000
H28030 Redevelopment Loan Projects	0	0	300,000	300,000	300,000	300,000
H61004 Pre-Development	100,000	200,000	200,000	200,000	200,000	200,000
Revitalization Operations						
H11080 RiverPlace Property Management	10,000	10,000	15,000	0	0	0
<b>Revitalization Total</b>	<b>292,000</b>	<b>330,000</b>	<b>715,000</b>	<b>650,000</b>	<b>650,000</b>	<b>650,000</b>
<b>Total Program Expenditures</b>	<b>6,288,626</b>	<b>22,311,662</b>	<b>5,050,330</b>	<b>11,470,000</b>	<b>6,130,000</b>	<b>6,053,323</b>
Personal Services	359,520	237,289	242,416	550,560	294,240	290,560
Debt Service	2,000,000	3,100,000	0	0	0	0
Transfers - Indirect	2,644,078	1,827,097	646,442	1,468,160	784,640	774,825
PHB Staff/Admin	84,613	327,400	121,208	275,280	147,120	145,280
<b>Total Fund Expenditures</b>	<b>11,376,837</b>	<b>27,803,448</b>	<b>6,060,396</b>	<b>13,764,000</b>	<b>7,356,000</b>	<b>7,263,988</b>
Contingency	4,225,794	463,814	1,010,396	340,013	496,906	493,325
Ending Fund Balance	0	0	0	0	0	0
<b>Total Requirements</b>	<b>15,602,631</b>	<b>28,267,262</b>	<b>7,070,792</b>	<b>14,104,013</b>	<b>7,852,906</b>	<b>7,757,313</b>

**Map of the Innovative Quadrant**

