North Portland Greenway Trail Alignment Plan
Eastbank Esplanade to Kelley Point Park
Portland, Oregon

Volume 1






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Oregon Department of Transportation

PORTLAND PARKS & RECREATION
Healthy Parks, Healthy Portland

Metro



DAVID EVANS
AND ASSOCIATES INC.

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- Jane Hart, Senior Planner, Sustainability Center (retired)

Consultant Team

- Walt Bartel, Project Manager, David Evans and Associates, Inc.
- Adrian Esteban, Professional Engineer, David Evans and Associates, Inc.
- Dan Iliyn, Engineer in Training, David Evans and Associates, Inc.
- Anneke Van der Mast, Planner, David Evans and Associates, Inc.
- Ethan Rosenthal, Ecologist, David Evans and Associates, Inc.
- Gigi Cooper, Senior Planner, David Evans and Associates, Inc.
- Brynn Reimann, Professional Landscape Architect, David Evans and Associates, Inc.
- Chris Weber, Right-of-Way Specialist, David Evans and Associates, Inc.
- Christine Immroth, Technical Editor, David Evans and Associates, Inc.
- Melissa Foltz, Graphics Specialist, David Evans and Associates, Inc.

Project Advisory Committee

- Pam Arden, 40-Mile Loop
- Aaron Brown, Boise Neighborhood Association
- Mark Freeman, St. Johns Neighborhood Association
- Rich Hatfield, Overlook Neighborhood Association
- David Lee, Eliot Neighborhood Association
- Heather Mickler, University Park Neighborhood Association
- Marian Rhys, Willamette Pedestrian Coalition
- Francie Royce, npGREENWAY
- Tom Hughes, Adidas
- Phyllis Harris, Daimler
- Jim Kuffner, University of Portland
- Thad Collins, United Parcel Service
- Jim Barnas, Friends of Baltimore Woods; Cathedral Park Neighborhood Association

List of Acronyms

AASHTO	American Association of State Highway Transportation Officials
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
BES	City of Portland Bureau of Environmental Services
BNSF	Burlington Northern Santa Fe Railroad
BPA	Bonneville Power Administration
Corps	U.S. Army Corps of Engineers
DEQ	Oregon Department of Environmental Quality
EPA	Environmental Protection Agency
ESA	Endangered Species Act
mph	Miles per hour
NPGT	North Portland Greenway Trail
ODOT	Oregon Department of Transportation
OHW	Ordinary High Water
OPRD	Oregon Parks and Recreation Department
PAC	Project Advisory Committee
PBOT	City of Portland Bureau of Transportation
PP&R	Portland Parks & Recreation
ROW	Right-of-way
RP/NR	River Plan/North Reach
The buildable alignment	NPGT buildable alignment
UPRR	Union Pacific Railroad

Executive Summary

The North Portland Greenway Trail Alignment Plan refines the adopted (2010) City of Portland River Plan/North Reach (RP/NR), North Portland Greenway Trail (NPGT) alignment, providing a continuous trail alignment from the Eastbank Esplanade to Kelley Point Park. Approximately 90 percent of the NPGT alignment can be constructed as shown in the RP/NR. The remaining 10 percent will be implemented as access and right-of-way (ROW) are obtained. To provide a NPGT buildable alignment (the buildable alignment), conceptual (10 percent) engineering was completed and alternative routes, some of which are on-street, were identified to address gaps due to lack of property access. The engineering work provides the basis of the NPGT Alignment Plan, which was developed with guidance from a Project Advisory Committee (PAC), consisting of representatives from businesses and the community, and which incorporates additional input from the public gathered through three public comment periods.

Improving recreational access points along the Willamette River has been a State Goal since 1975 (Goal 15). In addition to its identification in the RP/NR, a trail in this area is also identified in:

- The City of Portland's Transportation System Plan and Bicycle Plan for 2030,
- Portland Parks & Recreation's 2020 Vision,
- Portland Parks & Recreation's Recreational Trails Strategy, and
- Metro's Regional Trail Plan.

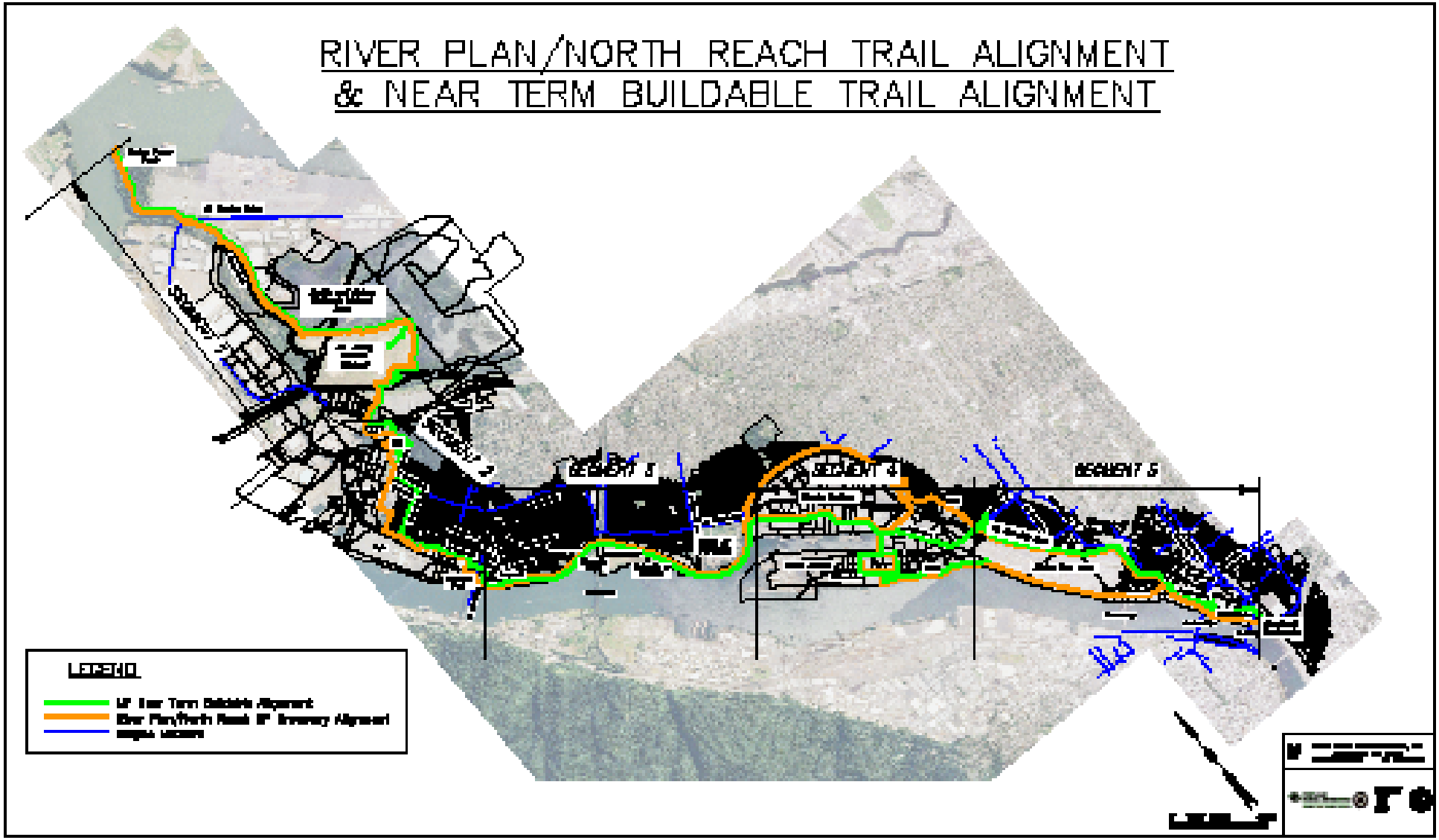
The buildable alignment provides a 10.5-mile, continuous recreational and transportation trail route for pedestrians and bicyclists that connects North Portland with downtown Portland. This alignment will serve transportation demand generated by major employment centers, including the Rivergate Industrial District, Swan Island Industrial Park, Lloyd Center, and downtown Portland. The buildable alignment incorporates already constructed portions of the NPGT, existing and planned bicycle system improvements, engineering, and ROW improvements. On-street sections of the buildable alignment leverage existing and planned bicycle and pedestrian facilities to create a connected trail system that also links other major regional trails and Portland Neighborhood Greenways.

The buildable alignment is divided into five segments that can be constructed independently of each other. The five segments are summarized in the following table and shown on Figure 1. Included in this plan are the next steps for each segment and for project implementation, including potential permitting requirements, future studies needed, and cost estimates. This information will serve as a basis for future funding and continued engineering phases.

TABLE 1 SEGMENT SUMMARY

Segment	Logical Termini[1] (Connections)	Length	Trail Cross Section[2]	Major Crossings[3]	Ownership/ROW Requirements[4]	Estimated Cost
Segment 1: Kelley Point Park to N Columbia Boulevard	Connects Kelley Point Park with Chimney Park via the Smith and Bybee Wetlands Natural Area.	2.1 miles	• Off-street trail	• Existing N Lombard Street undercrossing • New North Slough Bridge • Modifications to existing Landfill Bridge • Modifications to the existing at-grade Union Pacific Railroad (UPRR) tracks	Easements: Port of Portland, Metro, City of Portland Bureau of Environmental Services (BES), Bonneville Power Administration, Oregon Department of State Lands, Union Pacific Railroad (UPRR)	$7,353,155
Segment 2: N Columbia Boulevard to N Pittsburg Avenue	Connects Chimney Park, Pier Park, Baltimore Woods, Cathedral Park, and the St. Johns neighborhood and pedestrian district with the existing NPGT on the BES property along the river.	2.1 miles	• Off-street Trail in Chimney and Pier parks and along part of N Decatur Street • Shared roadway and sidewalks from Pier Park to N Catlin Avenue, N Decatur Street, portions of N Decatur Street, N Crawford Street, and N Pittsburg Avenue	• Grade-separated crossing over N Columbia Boulevard between St. Johns Landfill and Chimney Park • Existing N Lombard Street at N Reno Avenue	Portland Parks & Recreation and Portland Bureau of Transportation; ODOT	$1,602,980
Segment 2 Gap (Future): Predominantly off-street from Pier Park to Baltimore Woods	Connects Pier Park to Baltimore Woods with planned and existing sections of trail through the Crown, Cork, and Seal property.	TBD	• Off-street trail	• N Lombard Street	Easements: Crown, Cork, and Seal; additional private owners	TBD
Segment 3: N Pittsburg Avenue to N Basin Avenue	Connects the BES property with Swan Island via University of Portland and Willamette Cove; utilizes portions of existing trail.	2.7 miles	• Off-street trail	• Existing at-grade UPRR (N Pittsburgh Avenue) • Existing undercrossing of Burlington Northern Santa Fe Railroad line	Easements: University of Portland, UPRR, McCormick & Baxter, Lampros Steel, Metro	$11,375,100
Segment 4: N Basin Avenue to N Going Street	Connects Waud Bluff Trail to N Going Street	1.9 miles	• Cycle track and sidewalks on N Basin Avenue • Off-street trail along south end of N Basin Avenue	• New marked bike/ped crosswalk on N Basin Avenue to access trail along N Basin Avenue	Within City of Portland ROW or public ownership	$4,043,400
Segment 5: N Going Street to Eastbank Esplanade	Connects Swan Island with downtown Portland via the "Going to the River" sidewalk improvements and through the Rose Quarter, utilizing portions of existing infrastructure.	2.7 miles	• Off-street separated trail along N Greeley Avenue • Existing bike lanes and sidewalks on N Interstate Avenue and sidewalks on N Larabee Avenue to N Interstate. Avenue	• New crossing of N Going Street • At-grade crossing of N Broadway Street	Easements: Potential along N Greeley Avenue	$5,620,700
Segment 5 Gap (Future): Off-street trail; Albina Yard to Eastbank Esplanade	Connects Albina Yard and the Eastbank Esplanade along the river with planned and existing trail sections.	TBD	• On-and off-street trail	• NE Broadway Street	Easements: UPRR and additional private owners	TBD

1 Logical termini are determined by access, connections, and implementation factors.
2 The typical off-street trail cross section is multi-use, between 12 and 14 feet wide, except for boardwalks and bridges, which are 14 to 16 feet wide. Some areas of off-street trail may be narrower. On-street trail sections will have bicycle and pedestrian features appropriate for the Average Daily Traffic (ADT) and street designation.
3 All trail roadway crossings will be marked according to applicable standards and to provide safety for trail users.
4 Additional temporary construction easements may be necessary.



EX FIGURE 1: TRAIL BY SEGMENT

Introduction

This plan provides a concept-level, 10 percent engineering study for a continuous trail alignment that allows pedestrians and bicyclists to travel from the Eastbank Esplanade to Kelley Point Park, an approximate 10.5-mile distance (as shown in Figure 1). The majority (90 percent) of the River Plan/North Reach (RP/NR) North Portland Greenway Trail (NPGT) alignment is buildable in the near term as described in this plan. There are areas where the trail deviates from the RP/NR NPGT alignment based on engineering and/or safety concerns (reducing 90-degree curves or separating active and passive park uses that are not desirable or safe for a multiuse trail). In addition, there are two key areas where the buildable alignment in this plan is different from the adopted RP/NR: (1) from Pier Park to the Baltimore Woods and (2) along the river from Swan Island to the Eastbank Esplanade. Once acquisition or easements are secured, the NPGT in these areas will be designed and developed as funding is obtained.

The NPGT buildable alignment (the buildable alignment) is consistent with the direction in the RP/NR to provide access along the Willamette River through a multimodal trail and includes existing portions of the trail already constructed, planned and existing bicycle system improvements, and right-of-way (ROW) impacts. On-street sections were identified to users to overcome gaps in the trail until future easements or acquisitions are secured.

The buildable alignment is divided into five segments that can be constructed independently of each other. Each segment has logical termini that were determined based on connections, resources in the area, and implementation factors, including ROW constraints (see Figure 1). For each segment, the plan identifies ROW needs, further technical studies needed, permitting requirements, and the estimated costs for trail development.

PROJECT HISTORY

The Willamette River is the centerpiece of the city, a valued resource that shapes history, landscape, economy, and culture. The RP/NR is a testament to how important access to, and along, the Willamette is to the community, including the ability to walk and bike to the river from neighborhoods and commute to work using riverfront trails. The Willamette River Greenway originated in the 1967 Oregon Legislature as a grant program to acquire land for state parks along the Willamette River from Eugene to Portland. The greenway evolved from a state parks and recreation program in 1970 to a natural corridor program in 1972. The Willamette River Greenway was then created in 1973 with the enactment of House Bill 2497 (ORS 390.310-368). House Bill 2497 became Statewide Planning Goal 15, Willamette River Greenway, with a stated purpose:

"To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River as the Willamette River Greenway."

Goal 15 provides an overarching framework by which state and local governments carry out protection and enhancement of the greenway. The City of Portland implements Goal 15 through the Willamette Greenway Plan (1988). An objective of the plan is:

"To increase public access to and along the Willamette River. To achieve this, the Plan identifies a continuous recreational trail extending the full length on both sides of the Willamette River, but not necessarily adjacent to the river for the entire length. The Plan also identifies trail and river access points, viewpoints and view corridors, and provides direction as to their design. The purposes to be achieved by designating and requiring property owners to dedicate right-of-way or recreational trail easements include increasing recreational opportunities, providing emergency vehicle access, assisting in flood protection and control, providing connections to other transportation systems and helping to create a pleasant, aesthetically pleasing urban environment."

To update the 1988 Willamette Greenway Plan, the City of Portland is developing the River Plan with completion of the North Reach as the first section. The River Plan is a comprehensive plan for the land along the Willamette River. The RP/NR, adopted by Portland City Council in 2010, included a trail alignment along the east bank of the Willamette River from the Eastbank Esplanade to Kelley Point Park. To implement the RP/NR, Portland Parks & Recreation (PP&R), working with Metro and Oregon Department of Transportation (ODOT), renewed its commitment and effort to improving access and recreation opportunities along the NPGT by applying for and receiving a Regional Flexible Funds grant. There are many completed trail sections in northeast and north Portland (including large sections of the 40-Mile Loop trail); however, significant gaps remain. The NPGT fills one of the largest trail gaps in the 40-Mile Loop trail by connecting residents to the river, downtown Portland, employment opportunities, recreation opportunities, natural areas, and each other.

PROJECT PURPOSE AND PRINCIPLE

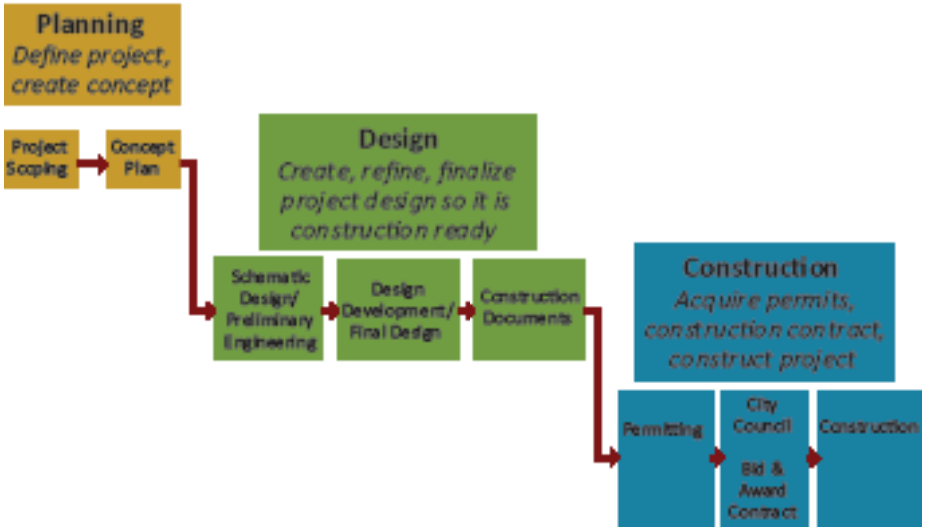
In October 2011, PP&R started refinement of the NPGT, as shown in the RP/NR. The purpose of the project is to develop conceptual designs (10 percent engineering) for the buildable elements of the five segments that make up the 10.5 miles of the NPGT. Figure 2, Life of a Project, shows the planning process for project development. This plan is represented in the first green design box, in Figure 2 - Schematic Design/Preliminary Engineering. Previous studies have evaluated different alignment possibilities for the trail; those studies (summarized in Appendix B, Unresolved Issues Table) and the alignment shown in the RP/NR are the starting point for this project.

The goals of the project are to:

- Complete a preliminary engineering study that shows a buildable trail alignment (buildable, for the purpose of this project, is defined as an alignment that is on land that is publicly owned, goes through property owned by a landowner willing to host the trail, is in a public easement, or is within the public ROW);
- Ensure that users have continuous, safe access the entire duration of the route; and
- Identify alternative alignments to fill gaps for what is shown in the RP/NR.

The City of Portland is committed to constructing a multiuse path along the Willamette River that follows the NPGT alignment as adopted in the RP/NR. However, largely because of private property constraints, implementation of approximately 10 percent of the alignment identified in the RP/NR is not buildable at this time.

FIGURE 2: LIFE OF A PROJECT



Planning Context

PUBLIC INVOLVEMENT AND COORDINATION

Three open houses provided the primary opportunities for the public to become involved in this project. Each open house was attended by more than 50 individuals. Comments from the first open house reflected a strong desire on the part of participants to keep the trail close to the river, maintain a trail separated from the street, and take advantage of the natural features associated with the alignment. The second and third open houses captured feedback from the public through comment forms, which were also available online for two weeks after the event (see Appendix A – Public Involvement). The buildable alignment was shown at these events, was refined, and more detail was added each time.

The Project Advisory Committee (PAC) held six meetings that were also open to the public. The PAC was composed of a number of community organizations and businesses as well as a member at-large. PAC members were responsible for giving feedback and engaging their constituencies. PAC meetings discussed and developed general trail principles, reviewed trail alignments and intersection crossings, and made recommendations on refinements. PAC members were asked to:

- Educate the public, disseminate information, represent the project in the community, engage the community, and seek out public opinion, as well as to "see the big picture" in regard to their advisory role and limit single-interest advocacy;
- Attend all PAC meetings; and
- Participate in open houses.

In addition to the open houses and PAC meetings, information on the project was shared through a project website, electronic notifications, fliers, postcards, and articles in the St. Johns Review.

The project team made a special effort to reach out to the property owners along the proposed trail alignment. The team mailed letters to all property owners immediately adjacent to the trail inviting them to the open houses. The team met with interested stakeholders during the refinement of the alignment, including: 40-Mile Loop, npGREENWAY, Swan Island Transportation Management Association (TMA), Friends of Baltimore Woods, University of Portland, and UPRR.

EXISTING PLANS

Previous studies and plans evaluated different alignment possibilities for sections of the trail based on the regulatory planning framework and existing conditions at the time. Those studies were reviewed and used to inform the proposed alignment. The plans and policies described below are most relevant to the project's development as it moves forward to implementation. Each plan is summarized and reviewed in the context of the NPGT.

THE RIVER PLAN/NORTH REACH (2010)

The River Plan is an update of the Willamette Greenway Plan (1988) and serves as a comprehensive planning document for the area along the Willamette River. The River Plan addresses three reaches, one of which is the North Reach, which extends from the Willamette River's confluence with the Columbia River to the Broadway Bridge and includes the area of the NPGT. The RP/NR identifies a preferred alignment for the NPGT. This preferred alignment serves as the basis for the implementation of the NPGT described in this document.

METRO REGIONAL TRAIL PLAN (2003)

The Metro Regional Trail Plan identifies the existing and planned trail system for the Portland metropolitan region. The NPGT is identified as a planned trail (project number 39). The Metro Regional Trail Plan shows the NPGT along the Willamette River from the Eastbank Esplanade to Kelley Point Park, and also acknowledges that additional planning and potentially constructing the trail in segments may be necessary.

CITY OF PORTLAND RECREATIONAL TRAILS STRATEGY (JUNE 2006)

Regional trails connect adjacent communities and significant natural features such as parks, rivers, and streams. The City of Portland Recreational Trails Strategy builds upon the 40-Mile Loop vision by identifying additional regional trail segments and community connectors. The strategy indicates that a regional trail can vary widely in its dimensions. It can have a 2-foot-wide soil surface, such as the 30-mile-long Wildwood Trail, or 14-foot-wide concrete surface, such as the 1-mile-long Eastbank Esplanade. The Regional Trails Priorities were rated (1 [high] to 5 [low]) based on the following factors: connects long length of trail, completes loop(s), has outstanding scenic quality, connects to park/natural area destinations, and serves high number of potential users. Once rated, the projects were packaged by priorities in five-year increments, starting with 2010.

The majority of the NPGT project is considered a "Regional Trail Priorities – 2 (2015)." The Willamette Greenway-Swan Island and South of Swan Island trails are shown on the map on page 19 in the Recreational Trails Strategy as priorities. Segments of the NPGT are also identified in "Regional Trail Priorities – 3 (By 2020)," which focuses on completing gaps in existing trails and linking disconnected segments. "Regional Trail Priorities – 5" includes any delayed projects from previous packages. In addition, the strategy recognizes the constraints along the river and notes that in the "…long term, if land uses have changed, developing trails closer to the Willamette River offers more scenic value."

PORTLAND BICYCLE PLAN FOR 2030

The Portland Bicycle Plan for 2030 sets the stage for an expanded bicycle transportation network in the city. The bike plan was adopted by Portland City Council in February 2010. Policies from the plan will be included in the update of Portland's Transportation System Plan, a part of the Comprehensive Plan update scheduled for 2015 adoption. The NPGT is represented in this plan as a multiuse trail that follows the river for much of its alignment. The plan identifies major City Bikeways along N Basin Avenue, N Going Street, N Interstate Avenue, and N Reno Avenue as a City Bikeway. The plan also identifies the Lloyd Center area as a proposed bicycle district.

npGREENWAY

npGREENWAY began in 2004 as a group of eight interested residents exploring the idea of a greenway trail. npGREENWAY envisions a trail system providing access to and along the Willamette River to link North Portland neighborhoods with the Willamette River for recreation and access to jobs. npGREENWAY works collaboratively with community stakeholders to realize this goal. In addition, they have created a vision plan and a brochure for wide distribution, hosted booths at community events, taken elected officials on tours of the future alignment, and assisted with grant pursuits and preparation.

DESIGN CONTEXT

GUIDING DESIGN STANDARDS

To advance development of the trail and to meet eligibility requirements for state and federal funding, the trail design adheres to national design standards for bicycle and pedestrian facilities as defined by the:

- American Association of State Highway Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities, 4th Edition (2012)
- Americans with Disabilities Act (ADA) Standards for Accessible Design 2010 Edition
- Manual on Uniform Traffic Control Devices (MUTCD) 2009 Edition

Additionally, PP&R Trail Design Guidelines for Portland's Park System (2009) include design guidelines for trail types that serve multiple uses in a variety of settings. The NPGT project fits Trail Type L – Walking and Biking. The cross section for Type L is a width between 8 feet and 25 feet, with a preferred 10-foot to 12-foot width and a gravel asphalt or concrete surface.

Based on these standards, the typical off-street section of the trail (as shown in Figure 3, Off-Street Trail Typical Section) is:

- 12 feet wide (minimum of 8 feet wide in constrained areas) and up to 14 feet wide where possible
- 20 miles per hour (mph) design speed, except at crossings and curves
- Asphalt concrete paving, except where boardwalks are identified
- 2-foot shoulders on each side
- A maximum profile grade = 5.0 percent
- Minimum curve radius = 36 feet (12 mph design speed)

The design is subject to change and will be refined in subsequent project phases. Design changes could include wider trail cross sections to provide increased separation between bicyclists and pedestrians (potentially in Segment 3 between Cathedral Park and Swan Island).

Where the buildable alignment is on-street, it will follow the City of Portland Design Guide for Public Street Improvements and reflect the Average Daily Traffic (ADT) of the street and other factors such as speed limits. Typically, pedestrians will use sidewalks and bicyclists will ride on the street either sharing the roadway with cars on low traffic volume streets or on higher volume streets using bike facilities such as a cycle track or bike lanes.

The sections of the buildable alignment that utilize streets and have low traffic volume, may include Neighborhood Greenway Street features and be part of the Neighborhood Greenway network. Neighborhood Greenway Streets are residential streets with low volumes of auto traffic and low speeds where bicycle and pedestrians are given priority. Examples of some Neighborhood Greenway Street features include: speed bumps and traffic diverters, pavement markings, improved crossings, and curb ramps (see photo on following page).

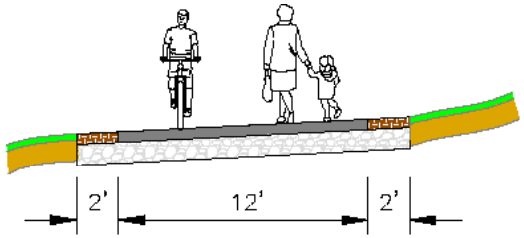
SIGNAGE

Signage will be consistent with PP&R signage standards which include the Intertwine standards. NPGT signage may include:

- Wayfinding signage: shows the trail logo and mileage markers.
- Orientation and interpretive signage: provides information at viewpoints and at other locations that will be identified in future design phases.
- Regulatory information signage: states the rules of the trail and the road, and safety considerations.
- Directional signage: consists of arrows that direct users to or from a trailhead or to amenities along the greenway.

On-street sections of the trail, where appropriate, would use bikeway destination signs that conform to either City of Portland guidelines for bikeways or to recently developed regional guidelines.

FIGURE 3: OFF-STREET TRAIL TYPICAL SECTION





Springwater corridor along the Willamette River, typical of an off-street trail condition.



Neighborhood Greenway Street

OPPORTUNITIES AND CONSTRAINTS CONTEXT

The RP/NR NPGT alignment crosses and parallels a wide variety of land uses, including residential neighborhoods, existing heavy and light industrial areas, environmentally sensitive areas, formerly contaminated and remediated areas, park and natural areas, and Union Pacific Railroad (UPRR) property through the Albina Yard. It also requires major street crossings at N Lombard Street and N Columbia Boulevard. Appendix B, Unresolved Issues Table, reviews the opportunities and constraints identified from the previous planning efforts for the NPGT. The unresolved issues provided a framework for this trail refinement. In general, project opportunities include:

- A 2.7-mile section along the Willamette River, from Cathedral Park to Swan Island, that is largely undeveloped or not actively being used.
- A string of parks that could be connected from Kelley Point Park to Cathedral Park, including Smith and Bybee Wetlands Natural Area, Chimney Park, Pier Park, and Baltimore Woods Natural Area.
- Existing improvements, such as the Waud Bluff Trail, Chimney-Pier Park Bridge, and "Going to the River" project that add key connectors to the trail.
- Existing and planned bicycle and sidewalk networks, including Neighborhood Greenway Streets such as N Central Street, N Concord Avenue, and parts of N Overlook Boulevard.



Existing trail at BES Property

Project constraints include:

- ROW and property constraints, particularly for areas along the railroad ROW and heavy industrial areas. The City of Portland needs to obtain a trail easement or acquire property along these areas, in particular, the Cement Road in the Albina Yard; the Crown, Cork and Seal Property; and Lampros Steel; and along the river adjacent to the Steel Bridge.
- Contamination at Portland Harbor Superfund sites, such as Willamette Cove and Lampros Steel.
- Busy road crossings, particularly at N Columbia Boulevard which is a designated freight corridor.
- Geotechnical and steep grade issues associated with providing the trail connection from the North Slough Bridge to the St. Johns Landfill, the trail along the edge of Waud Bluff, and the trail at the bottom of the bluff along N Greeley Avenue.
- Roadway configurations, such as unfinished sections of N Reno Avenue, and existing N Basin Avenue roadway cross section features, including driveways and curbs and street trees.



N Columbia Boulevard

North Portland Greenway Trail Buildable Alignment

FULL ALIGNMENT OVERVIEW

The buildable alignment begins at the northern point of Portland at Kelley Point Park (Figure 1). It follows an existing 10-foot wide multiuse trail through the park, but a section still needs to be constructed to connect under N Lombard Street to the Columbia Slough in the Smith and Bybee Wetlands Natural Area. From the endpoint of the existing trail before crossing the slough onto the St. Johns Landfill, a boardwalk will be constructed to minimize trail exposure and impacts from floodwaters. From the new boardwalk, a new bridge over the North Columbia Slough will be constructed. The buildable alignment will then follow the Smith and Bybee Wetlands edge of Metro's St. Johns Landfill and cross over the Columbia Slough on the existing landfill bridge, with a modified sidewalk to accommodate the trail. The alignment then follows the City Dump Road to N Columbia Boulevard.

The buildable alignment includes a grade-separated crossing at N Columbia Boulevard. The alignment crosses into Chimney Park and parallels N Columbia Boulevard to a bridge connecting Pier Park and Chimney Park. From Chimney Park, the alignment will then travel through Pier Park and connect to N Bruce Avenue. At N Bruce Avenue, bicyclists are on-street and pedestrians will use the sidewalks. The buildable alignment continues west on N Bruce Avenue, then south on N Central Street, and west on N Reno Avenue. The alignment uses an existing signalized pedestrian crossing at N Lombard Street and N Reno Avenue, and heads south on N Catlin Avenue, continuing through the Baltimore Woods and to N Decatur Street. On N Decatur Street, the trail profile again becomes a multiuse trail, until it intersects N Baltimore Avenue, where it reverts to a Neighborhood Greenway. Bicyclists will follow N Baltimore Avenue west to N Crawford Street, N Crawford Street south to N Pittsburg Avenue, and N Pittsburg Avenue west to the river to connect to the portion of the trail built on City of Portland Bureau of Environmental Services (BES) land. Pedestrians will follow N Baltimore Avenue west to Cathedral Park, and use existing trails through Cathedral Park to connect with the trail on BES land.

From the existing trail along the BES facility, the buildable alignment follows the river past Lampros Steel and Willamette Cove, passes through McCormick Baxter and then onto University of Portland land adjacent to UPRR. The buildable alignment continues along Waud Bluff on a boardwalk along the bank of the river within the UPRR ROW. The alignment then uses the recent Waud Bluff improvements to connect to N Basin Avenue and Swan Island. From Swan Island, the buildable alignment follows N Basin Avenue to N Going Street, and takes advantage of recent N Going Street improvements to connect to N Greeley Avenue. On N Greeley Avenue, the buildable alignment is an off-street trail along the east side of the roadway. At N Interstate Avenue, the buildable alignment uses existing bicycle lanes and sidewalks until N Larabee Avenue. At N Larabee Avenue, pedestrians will use N Larabee Avenue sidewalks and then will go back onto N Interstate Avenue south of the Broadway Bridge, and bicyclists will follow N Interstate Avenue to connect to the Eastbank Esplanade heading south, the Steel Bridge heading west to the Eastbank Esplanade, and the future Sullivan's Gulch Trail heading east.

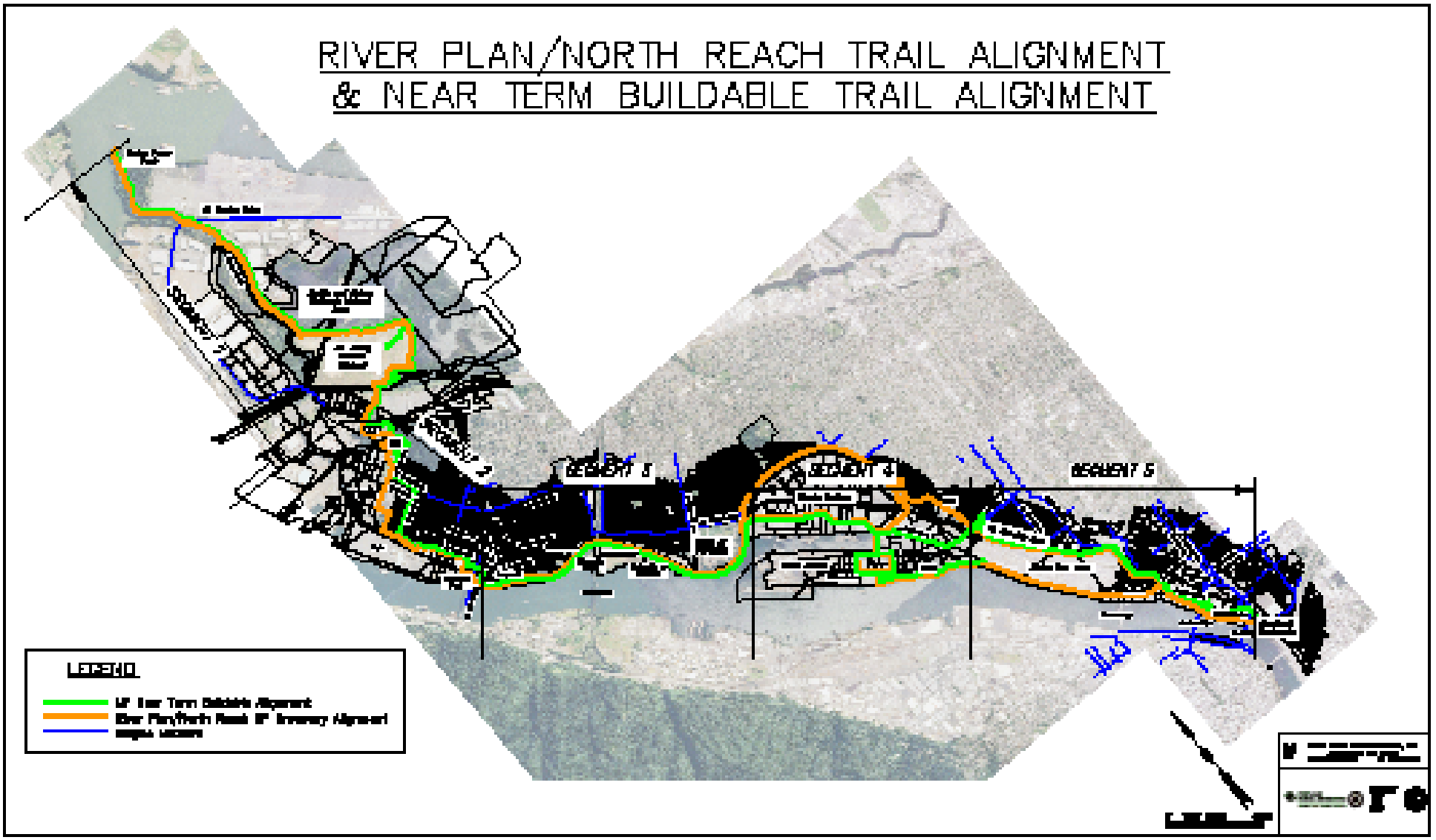


FIGURE 1 (REPEATED): TRAIL BY SEGMENT

SEGMENT 1

SEGMENT 1 OVERVIEW

As identified in the RP/NR, Segment 1 will provide an off-street trail from the confluence of the Willamette and Columbia rivers at Kelley Point Park to N Columbia Boulevard, connecting to the St. Johns neighborhood (see Figure 4). This trail segment provides an opportunity for the public to access scenic recreation opportunities through and along natural areas. This segment will provide spectacular views of the Smith and Bybee Wetlands Natural Area. Segment 1 has two minor deviations from the RP/NR alignment. The first is the addition of a spur trail and viewpoint to take advantage of a unique overlook opportunity of the Smith and Bybee Wetlands Natural Area. Although not identified in the adopted RP/NR, this trail addition and viewpoint are identified in the Smith and Bybee Wetlands Natural Area, Comprehensive Natural Resource Plan (Metro 2012). The second deviation occurs at the southeast corner of the St. Johns Landfill, where the trail remains along the perimeter of the landfill due to safety concerns associated with maintaining the landfill cap.

DETAILED ALIGNMENT DESCRIPTION

Segment 1 begins at Kelley Point Park, where there is an existing 10-foot-wide paved trail, except where the pavement terminates approximately 2,000 feet from the park entrance. The trail in Kelley Point Park will be paved to provide the typical trail cross section and to provide a connection to the existing trail, which passes under the N Lombard Street Bridge and under the railroad bridge south of N Lombard Street. The existing trail follows along the eastern edge of the Columbia Slough. A new segment of trail will be provided from this point that will be a 16-foot-wide and approximately 150-foot-long boardwalk structure. The boardwalk structure will raise the trail above the 100-year floodplain, elevating it to allow floodwaters to flow underneath. The boardwalk will lead to the North Slough Bridge which is anticipated to be a single-span, cable-stayed bridge providing a 16-foot-wide trail. The North Slough Bridge will be located to avoid tree removal, to minimize impacts in the floodplain, and to minimize bridge length by maintaining a perpendicular crossing of the slough.

From the North Slough Bridge, the buildable alignment will follow the existing landfill access road around the northern and eastern perimeter of the landfill, minimizing the need for extensive cut and fill into the landfill or slough. There will be two viewpoints/pullouts along the east side of the trail to view the Smith and Bybee Wetlands Natural Area. One of the viewpoints will be set back from the trail and accessed by an approximately 500-foot-long, 10-foot-wide spur trail. The buildable alignment remains along the perimeter of the southwestern edge of the landfill until it intersects City Dump Road at its approach to the bridge over the Columbia Slough. To provide protection of landfill property such as wellheads, condensate collection stations, and piping support, a fence will be located along the landfill side of the trail. In addition, there will be gated entrances with fencing at access points to internal roads.

Segment 1 crosses the Columbia Slough at the south side of the St. Johns Landfill using the existing bridge. The bridge has a 5-foot-wide concrete sidewalk on the south side and a roadway width of 26 feet. The concrete sidewalk will be widened to 14 feet to allow for both pedestrians and bicyclists, reducing the vehicular roadway width to 17 feet. South of the landfill bridge, the buildable alignment will continue along the south side of City Dump Road until approximately 150 feet north of the at-grade railroad crossing, where it will cross City Dump Road. The buildable alignment proceeds across the railroad tracks at the existing at-grade crossing, which will be will be widened to accommodate the trail. Staying between the traffic barrier on the north side of City Dump Road and the property line, the buildable alignment continues west to N Columbia Boulevard.

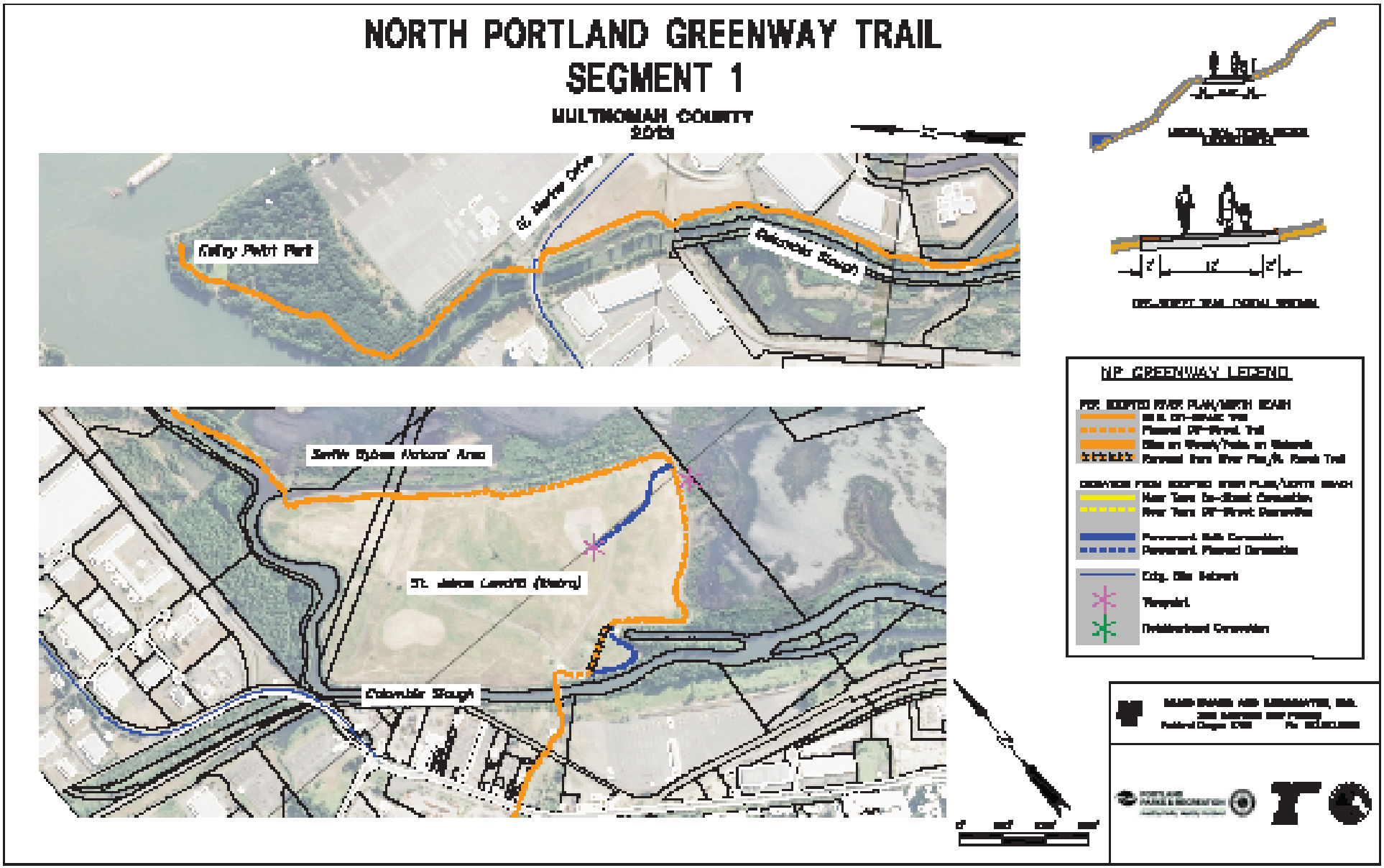


FIGURE 4: SEGMENT 1, NORTH PORTLAND GREENWAY TRAIL

COMMUNITY CONNECTIONS

Segment 1 connects gaps in the 40-Mile Loop trail with connections to the regional trail system along the Columbia River and Kenton neighborhood to the east. Segment 1 connects to an existing trail along N Lombard Street and N Marine Drive, which follows the north side of the Smith and Bybee Wetlands Natural Area, and intersects the Lombard Trail. At the north end, Segment 1 connects to the recreational and natural areas of Kelley Point Park, the Smith and Bybee Wetlands Natural Area, and the Columbia Slough. A new multimodal bridge crossing of the North Columbia Slough and trail along the St. Johns Landfill provide access to public viewing opportunities of the Smith and Bybee Wetlands Natural Area. At the south terminus of Segment 1, the trail connects to the St. Johns neighborhood including Chimney and Pier parks and the Rivergate Industrial District.

SEGMENT NEXT STEPS

DESIGN

The design was developed with the following considerations: regulatory requirements, the 100-year floodplain, and constraints on the landfill including the need to minimize cut and fill. There will need to be approximately 5 feet of cut into the St. Johns Landfill at the southern approach of the North Slough Bridge to meet AASHTO design standards for bicycle paths (36-foot radius for 12 mph design speed), and there is an approximately 600-foot section of the trail along the northern edge of the landfill that will need to be raised 4 to 5 feet.

The exact type and design of the boardwalk leading to the North Slough Bridge was not part of this project and will be determined later in the design process. This phase of the project assumes that the North Slough Bridge will be a single-span bridge with a perpendicular crossing of the slough. Additional studies and design associated with the bridge will be necessary, including geotechnical and hydraulic studies. Modifications of the existing City Dump Road bridge may require structural analysis of bridge; the existing bridge railing will need to be upgraded if it is less than 42 feet in height.

TRAIL RIGHT-OF-WAY

Segment 1 is on or crosses property owned by several government agencies. The trail begins on PP&R property, and then enters Port of Portland property, where it connects to an existing trail. The NPGT then crosses the North Columbia Slough, which is owned by the State of Oregon as a tidally influenced waterway, and onto the St. Johns Landfill, owned by Metro. Once the trail reaches the south side of the St. Johns Landfill, it crosses the Columbia Slough on an existing bridge. Upon leaving Metro property, the trail follows the existing City Dump Road. City Dump Road is located on property owned by the City of Portland and is a public road. While sharing City Dump Road, the trail crosses the UPRR tracks and then continues on property owned by BES to the point where Segment 1 ends.

Agreements or easements are likely needed from each of the agencies that own property that the trail will cross. An easement for crossing state-owned submersed land will be needed from the Oregon Department of State Lands for the new bridge crossing the Columbia Slough. A permit from Bonneville Power Administration (BPA) will be needed for crossing BPA's easement. Also, an agreement for modification of the existing at-grade crossing of the UPRR tracks should be anticipated.

SEGMENT 2

SEGMENT 2 OVERVIEW

Segment 2 follows the RP/NR for approximately 50 percent of the buildable alignment (see Figure 5). Segment 2 deviates from the NPGT alignment in the adopted RP/NR in one location. There is a section of trail through the ball fields and along the northern boundary of Pier Park that is permanently changed to avoid user conflict in the park. Until an easement on the Crown, Cork, and Seal property for an off-street trail connection is obtained, this section of the buildable alignment is on N Bruce Avenue to N Central Street and N Reno Avenue, and utilizes an existing signal crossing at N Lombard Street and bike route on N Reno Avenue. When an off-street easement is obtained, the NPGT will go from N Bruce Avenue to Baltimore Woods.

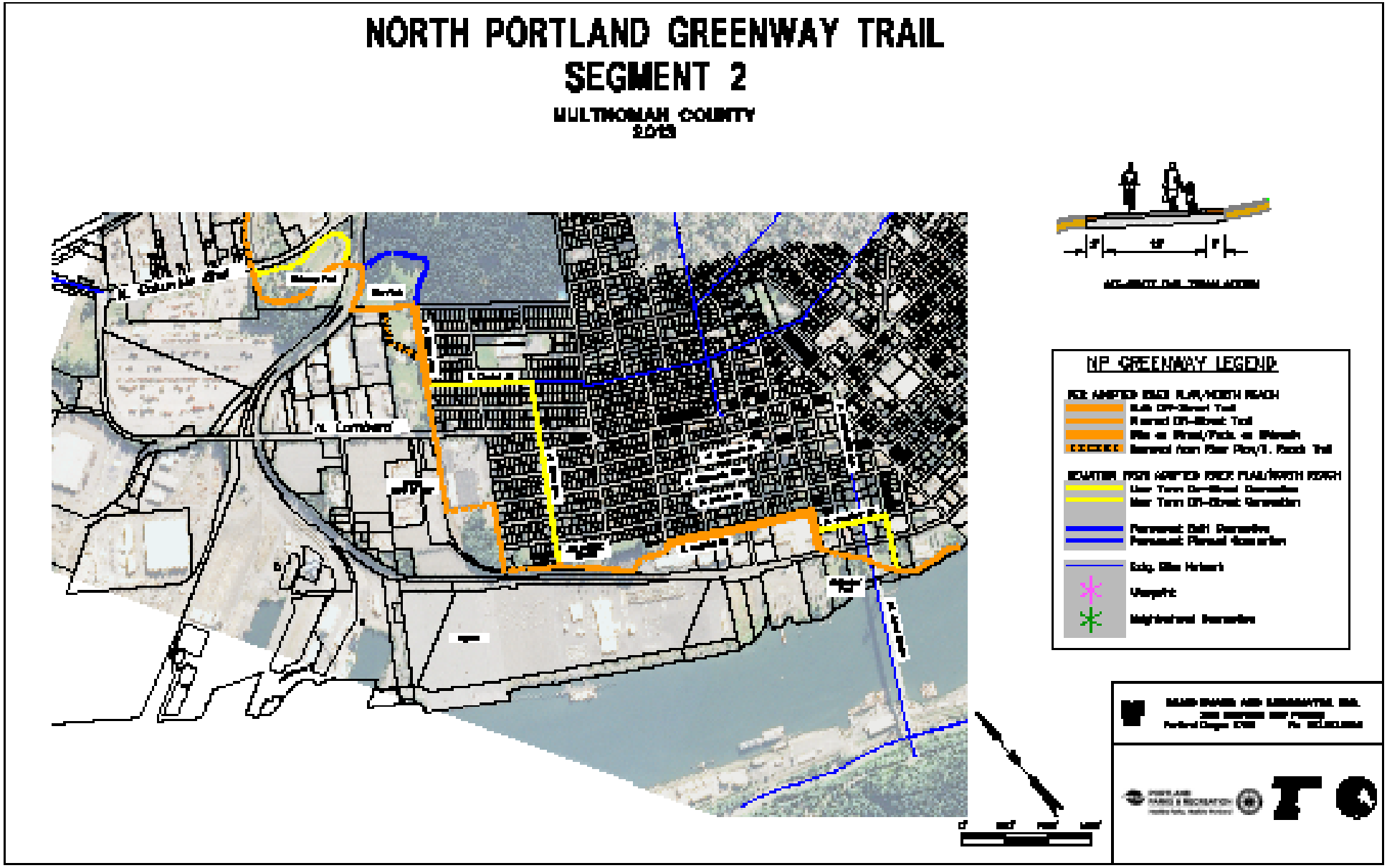


FIGURE 5: SEGMENT 2, NORTH PORTLAND GREENWAY TRAIL

At Cathedral Park, uses are separated; commuting cyclists can use an on-street alignment around the park while pedestrians can use existing trails through the park. This eliminates conflicts between riders and park events.

This segment implements portions of the Portland Bicycle Plan for 2030 with bicycle improvements on N Central Street and N Reno Avenue. With the grade-separated crossing of N Columbia Boulevard, Segment 2 will provide a valuable connection for the St. Johns neighborhood to the natural areas and recreation areas to the north, and the Rivergate Industrial District.



Wooded area in Pier Park



Cathedral Park under the St. John's Bridge

DETAILED ALIGNMENT DESCRIPTION

Segment 2 begins with the grade-separated crossing of N Columbia Boulevard. The crossing is being studied by the City of Portland to identify a means to address concerns regarding safety and freight movement. At the south side of N Columbia Boulevard, the buildable alignment will tie into a section of trail to be constructed in 2013 as part of the Chimney Park – Pier Park Pedestrian/Bicycle Bridge project. The buildable alignment will roughly parallel N Columbia Boulevard through Chimney Park, while avoiding trees within the park and traveling north of the railroad tracks. Currently, there is a dog park in this area. A fence will be constructed to separate the dog park from trail users. The trail then crosses the railroad tracks over the bike/pedestrian bridge into Pier Park.

Once in Pier Park, the buildable alignment heads south and then curves east using the existing gravel road to connect to N Bruce Avenue. An alternative park trail will be constructed for ADA access that passes through a wooded area, goes around the eastern baseball field, and connects to the existing park trail behind the backstop, leading out to the N Bruce Avenue park entrance. The ADA section of trail is proposed to be an 8-foot-wide paved surface, to match the design of the Chimney Park – Pier Park trail section.

From the Pier Park entrance at the intersection of N Bruce Avenue and N James Street, the buildable alignment follows N Bruce Avenue to N Central Street (south N Central Street is currently designated as a bike route and Neighborhood Greenway) onto N Reno Avenue. The buildable alignment will be on-street for bicyclists and pedestrians will use sidewalks. From N Central Street, the alignment turns west onto N Reno Avenue toward the Willamette River. An existing pedestrian crossing signal with a median refuge island on N Reno Avenue is located at the N Lombard Street intersection. Immediately south of the intersection of N Reno Avenue and N Willamette Boulevard, a half-block of N Reno Avenue is currently a gravel roadway of varying width and without pedestrian amenities. This section of Segment 2 will be improved to meet applicable City of Portland design guidelines.

At the end of N Reno Avenue, the buildable alignment turns south and transitions to an off-street trail on top of the sewer line through a section of the Baltimore Woods. The buildable alignment then travels through a recently reclaimed parking lot at the southern border of Baltimore Woods to connect to an on-street section of the trail at N Catlin Avenue and N Decatur Street. The N Decatur Street segment of the buildable alignment between N Catlin Avenue and N Baltimore Avenue remains on-street to the intersection with N Baltimore Avenue.

Cyclists will be on-street on N Baltimore Avenue, south on N Crawford Street, and then west again on N Pittsburg Avenue to a cul-de-sac where they will be directed onto an existing section of the NPGT along the river. Cyclists will cross the railroad tracks on the existing unprotected roadway crossing on N Pittsburg Avenue. Pedestrians will use a crosswalk that will be installed on N Baltimore Avenue to direct pedestrians to the south side of N Baltimore Avenue and west into Cathedral Park, onto an existing trail that winds through the park from the north to N Pittsburg Avenue at the southern edge of the park, to connect to the existing NPGT along the river.

COMMUNITY CONNECTIONS

Segment 2 connects Chimney and Pier parks, via Baltimore Woods, with Cathedral Park and the St. Johns neighborhood (business district and pedestrian district). The buildable alignment utilizes the existing bike facilities and Neighborhood Greenway Streets on N Central Street and intersects existing bike facilities on N Philadelphia Avenue. The trail also connects to future bike facilities on N Lombard Street, N Columbia Boulevard, and N Fesseden Street, as depicted in the Portland Bicycle Plan for 2030. In addition, connections are provided to St. Johns Bridge pedestrian facilities and the future North Willamette Greenway Trail on the west side of the river.

SEGMENT NEXT STEPS

DESIGN

The grade-separated crossing of N Columbia Boulevard will be designed in the next phase of development. The City of Portland is looking into reclassifying N Decatur Street and examining an alternative for freight traffic. On N Baltimore Avenue, the existing roadway grade is about 11.5 percent. Safety of ADA pedestrian use will need to be considered for the steep grade on N Baltimore Avenue.

Coordination between PP&R, Portland Bureau of Transportation (PBOT), local neighborhood associations, community groups and Friends of Baltimore Woods will continue to ensure that the trail design is compatible with existing and proposed management/restoration activities in the area; freight traffic; and trail alignment.

TRAIL RIGHT-OF-WAY

The buildable alignment for Segment 2 follows existing local streets from Pier Park to N Reno Avenue, staying within City of Portland ROW. Between N Reno Avenue and N Decatur Street, the trail crosses property owned by PP&R and BES. From N Decatur Street to N Crawford Street, where Segment 2 ends, the buildable alignment again follows existing local streets within ROW. Additional ROW is not anticipated to be required for Segment 2 of the trail. Coordination with PBOT is needed regarding the potential to implement Neighborhood Greenway Street features and to remove the freight designation of the street on N Decatur Street.

SEGMENT 3

SEGMENT 3 OVERVIEW

Segment 3 follows the alignment shown in the adopted RP/NR and provides an off-street trail near the Willamette River for 2.4 miles from Cathedral Park to Swan Island (see Figure 6). The buildable alignment deviates slightly from the RP/NR immediately east of the Lampros Steel property to eliminate a sharp curve and maintain the most direct route along the tree line.

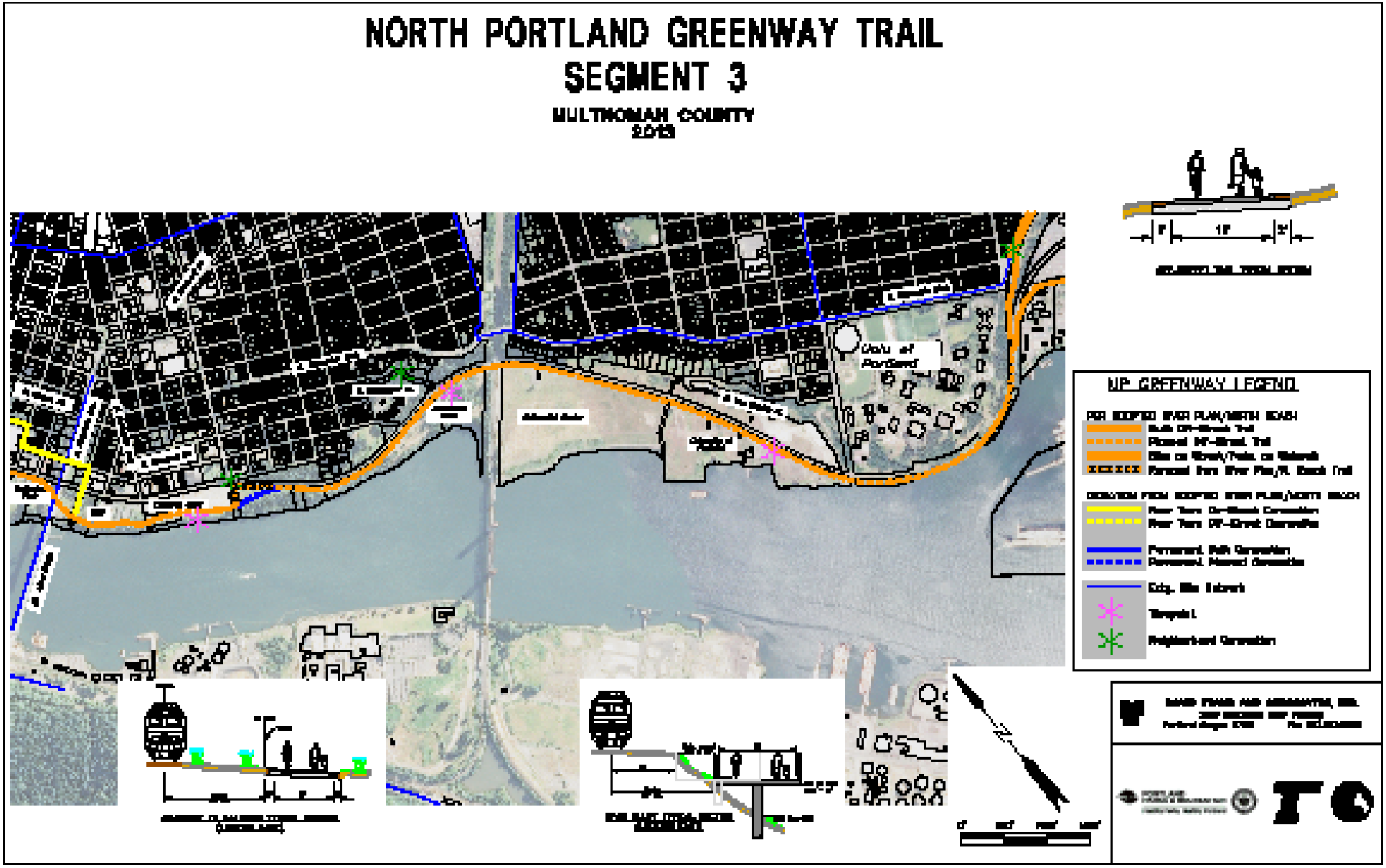


FIGURE 6: SEGMENT 3, NORTH PORTLAND GREENWAY TRAIL



Railroad tracks along Waud Bluff

Segment 3 provides public access to enjoy active recreation along the river as well as a key alternative transportation corridor from North Portland to Swan Island. The trail provides three viewpoints, one each at the Lampros Steel property, Willamette Cove, and the University of Portland.

DETAILED ALIGNMENT DESCRIPTION

Segment 3 consists of existing and new off-street trail (14 feet wide), and a boardwalk. The trail crosses several large property parcels. At the end of N Pittsburg Avenue, near the Willamette River, the buildable alignment will connect to an existing portion of the NPGT that runs between the BES Water Pollution Control Laboratory and the river for the length of the property. Adjacent to the southern edge of the BES property is Lampros Steel, where the buildable alignment would be constructed adjacent to the top of the riverbank. The riverbank here is densely vegetated, and the buildable alignment will be set back from the riparian area to avoid impacting the natural setting while also minimizing impacts to the Lampros Steel property.

The Willamette Cove property stretches from the Lampros Steel property at its western edge to the Burlington Northern Santa Fe Railroad (BNSF) line at its eastern edge. A trail plan for Willamette Cove was completed in 2010. The buildable alignment will largely follow the trail shown in that plan outside the railroad ROW. At the eastern edge of Willamette Cove, the buildable alignment will shift closer to the UPRR line and N Edgewater Street in order to utilize the grade-separated crossing of the BNSF line.

At the McCormick & Baxter property, the buildable alignment runs parallel to, and south of, the UPRR rail line outside of the railroad ROW to the University of Portland property purchased for future campus expansion (River Campus). The buildable alignment will continue through the property parallel to the UPRR line.

Between the future University of Portland River Campus to the west and Mocks Bottom to the east, the trail will continue to follow the UPRR rail line as it wraps around Waud Bluff. From the Willamette River, the land rises more than 120 feet vertically to the main university campus atop the bluff. The railroad sits on a narrow bench created in the bluff about 20 feet above the river.

The buildable alignment will construct a boardwalk structure on deep foundations around Waud Bluff, with a 25-foot offset from the center line of the railroad tracks. The boardwalk would be 1,742 linear feet and constructed above the 100-year flood elevation. East of the bluff, the trail will tie to the Waud Bluff trail connection between N Willamette Boulevard and N Basin Avenue.

COMMUNITY CONNECTIONS

Segment 3 connects the St. Johns neighborhood with Willamette Cove, the University of Portland, and the industrial and employment center of Swan Island. Access points are from N Crawford and N Pittsburg avenues at the south end of Cathedral Park, and N Burlington Street via the BES Water Pollution Control Laboratory. From N Edgewater Street, the buildable alignment can be accessed in the Willamette Cove area. N Van Houten Avenue provides access via University of Portland. The terminus of the buildable alignment provides trail access points via the Waud Bluff Trail to N Willamette Boulevard and to N Basin Avenue on Swan Island.

SEGMENT NEXT STEPS

DESIGN

In the Segment 3 area, contamination from past industrial use needs to be remediated to meet the Oregon Department of Environmental Quality (DEQ) standards. Coordination with DEQ and the U.S. Environmental Protection Agency (EPA) is necessary to understand compliance issues associated with the Portland Harbor Superfund cleanup efforts at the following locations; McCormick Baxter, Willamette Cove, Lampros Steel, and University of Portland (Triangle Park), and the implications they may have on trail design and construction.

Coordinated efforts among PP&R, Metro, and state and federal regulatory agencies are necessary to ensure that the buildable alignment is consistent with existing and proposed management activities for Oregon white-oak and Pacific madrone habitat along the Waud Bluff slopes. This habitat is relatively rare in the Portland metropolitan area, and is a focus for conservation and restoration efforts.

At Waud Bluff, there is insufficient level space between the railroad line and the buildable alignment. Further geotechnical studies and design for the boardwalk structure are necessary. Design of an accessible connection to the Waud Bluff Trail is needed.

TRAIL RIGHT-OF-WAY

Segment 3 begins on property owned by the PP&R, then continues along the river on Metro-owned and privately owned property until it ends on City of Portland ROW at N Basin Avenue. Private property owners along this segment include the University of Portland, UPRR, McCormick & Baxter, and Lampros Steel.

A trail easement may be needed with Lampros Steel and the University of Portland. The property owners can also build the trail and maintain it on their properties. The University of Portland Conditional Use Masterplan (2013) shows the alignment through the University of Portland property. Continued coordination with UPRR is also needed to put the trail along Waud Bluff.

SEGMENT 4

SEGMENT 4 OVERVIEW

Segment 4 largely follows the adopted RP/NR off-street trail alignment. The buildable alignment follows N Basin Avenue south to connect to the existing multiuse path on N Going Street (see Figure 7). This section also provides connections to existing off-street trail sections west of N Basin Avenue along the southern edge of the Swan Island Basin to N Channel Avenue and along to the “captain’s walk” on N Channel Avenue. The Waud Bluff Trail provides a connection from N Basin Avenue to N Willamette Boulevard, an upland section of the NPGT.

DETAILED ALIGNMENT DESCRIPTION

The buildable alignment for Segment 4 begins at the cul-de-sac at the western end of N Basin Avenue, where the Waud Bluff Trail ties into the roadway. A 12-foot-wide cycle track and 6-foot-wide sidewalk will follow the east side of N Basin Avenue to minimize tree removal. Curbs and driveways will need to be reconstructed to accommodate the trail. N Basin Avenue’s curb will be moved back to minimize conflict between cars leaving driveways and trail users. Where N Basin Avenue curves near the end of the Swan Island Basin, the buildable alignment becomes a 16-foot-wide multiuse path until its connection with the existing 10-foot-wide multiuse path on N Going Street that is part of the “Going to the River” project. The buildable alignment follows N Going Street east to N Greeley Avenue.

The buildable alignment will provide connections from N Basin Avenue to existing trail sections on Swan Island and in preparation for future development for the NPGT along the Cement Road in Albina Yard. This route along N Basin Avenue connects to N Lagoon Avenue and N Commerce Street, is anticipated to be an off-street trail, and will connect to existing sections of the NPGT on N Channel Avenue and along the river until it ends at the Albina Yard.

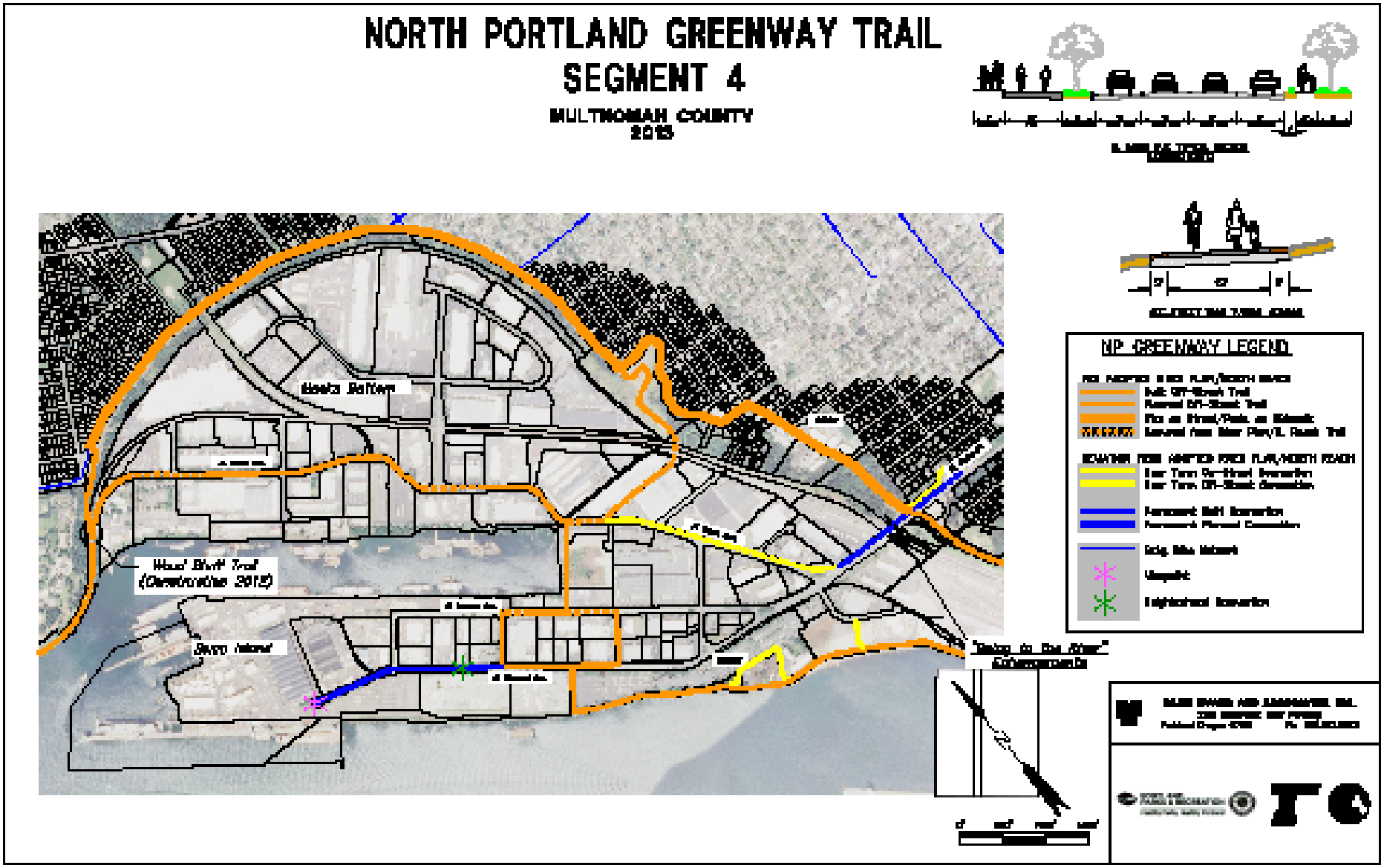


FIGURE 7: SEGMENT 4, NORTH PORTLAND GREENWAY TRAIL



View from eastbank of Willamette River to downtown



N Basin Avenue

COMMUNITY CONNECTIONS

Segment 4 connects the University of Portland and N Willamette Boulevard, via the Waud Bluff Trail and pedestrian bridge over the railroad tracks, with Swan Island. The buildable alignment along N Basin Avenue provides numerous connections to the Swan Island industrial and employment area and to the Overlook and Boise neighborhoods.

SEGMENT NEXT STEPS

DESIGN

The N Basin Avenue street profile, curb, and tree impacts will need to be further studied in future design phases. Trees along N Basin Avenue will be impacted by the buildable alignment.

TRAIL RIGHT-OF-WAY

The buildable alignment follows N Basin Avenue on existing City of Portland ROW. Further coordination with PBOT will be necessary to coordinate refinement of design for N Basin Avenue. Easements may be necessary from private landowners. Existing utilities, signage, and bus stop shelters would either be relocated or the trail would be realigned around them. Also, private driveways would need to be reconstructed to match the trail and meet ADA standards.

SEGMENT 5

SEGMENT 5 OVERVIEW

The Segment 5 buildable alignment follows most of the eastern (upland) portion of the adopted RP/NR NPGT alignment from Swan Island to the Eastbank Esplanade, except where it deviates to an on-street alignment at N Larabee Avenue (see Figure 8). This deviation is due to private property and access constraints through the Albina Yard and along N Thunderbird Avenue, which are necessary to provide a connection that is closer to the river, between Swan Island and the Eastbank Esplanade.

DETAILED ALIGNMENT DESCRIPTION

The buildable alignment travels under N Greeley Avenue, on an existing trail, part of the “Going to the River” project. A 12-foot-wide trail and ramp along N Going Court will be constructed to connect with N Greeley Avenue. The buildable alignment crosses over N Going Street with a 12-foot-wide

off-street trail overcrossing on the existing N Greeley Avenue bridge. The terrain is steep, and it is anticipated that a retaining wall will be necessary between N Going Court and N Going Street. After crossing N Going Street, a 12-foot-wide off-street trail will be constructed along the east side of N Greeley Avenue, separated from the road by a barrier. In some areas along N Greeley Avenue, retaining walls will be necessary.

From N Greeley Avenue, the buildable alignment will transition to existing on-street bicycle facilities (bike lanes) and sidewalks on N Interstate Avenue. Where N Interstate Avenue intersects N Larabee Avenue, pedestrians will be directed to sidewalks on N Larabee Avenue, past the Broadway Bridge and then back onto N Interstate Avenue, while bicyclists will remain on N Interstate Avenue. The buildable alignment terminates at the connection to the Eastbank Esplanade near the intersection of NE Lloyd Boulevard and NE Oregon Street.

COMMUNITY CONNECTIONS

Segment 5 provides connections from Swan Island to the Rose Quarter. There are no access points to the buildable alignment as it follows N Greeley Avenue between N Going Street and N Interstate Avenue. Once it crosses under the Fremont Bridge, the buildable alignment can be accessed via marked crossings at N Russell Street, N Mississippi Avenue, N Albina Avenue, and N Tillamook Avenue. This portion of the buildable alignment will also provide access to the Albina/Mississippi MAX station, the Broadway Bridge, and the Northwest Portland Interstate/Rose Quarter MAX station. Finally, Segment 5 connects Swan Island with the Rose Quarter, Eastbank Esplanade, Steel Bridge, future Sullivan's Gulch Trail, and Lloyd Center Pedestrian District.

SEGMENT NEXT STEPS

DESIGN

Where the trail requires cut and fill slopes along N Greeley Avenue adjacent to private properties, retaining walls or a narrowed footprint will be needed to avoid property impacts and prevent possible landslides. Future design phases for Segment 5 will require study of the intersection at N Broadway for a safe crossing.



Connection to Eastbank Esplanade



Bike and pedestrian facilities in the Rose Quarter

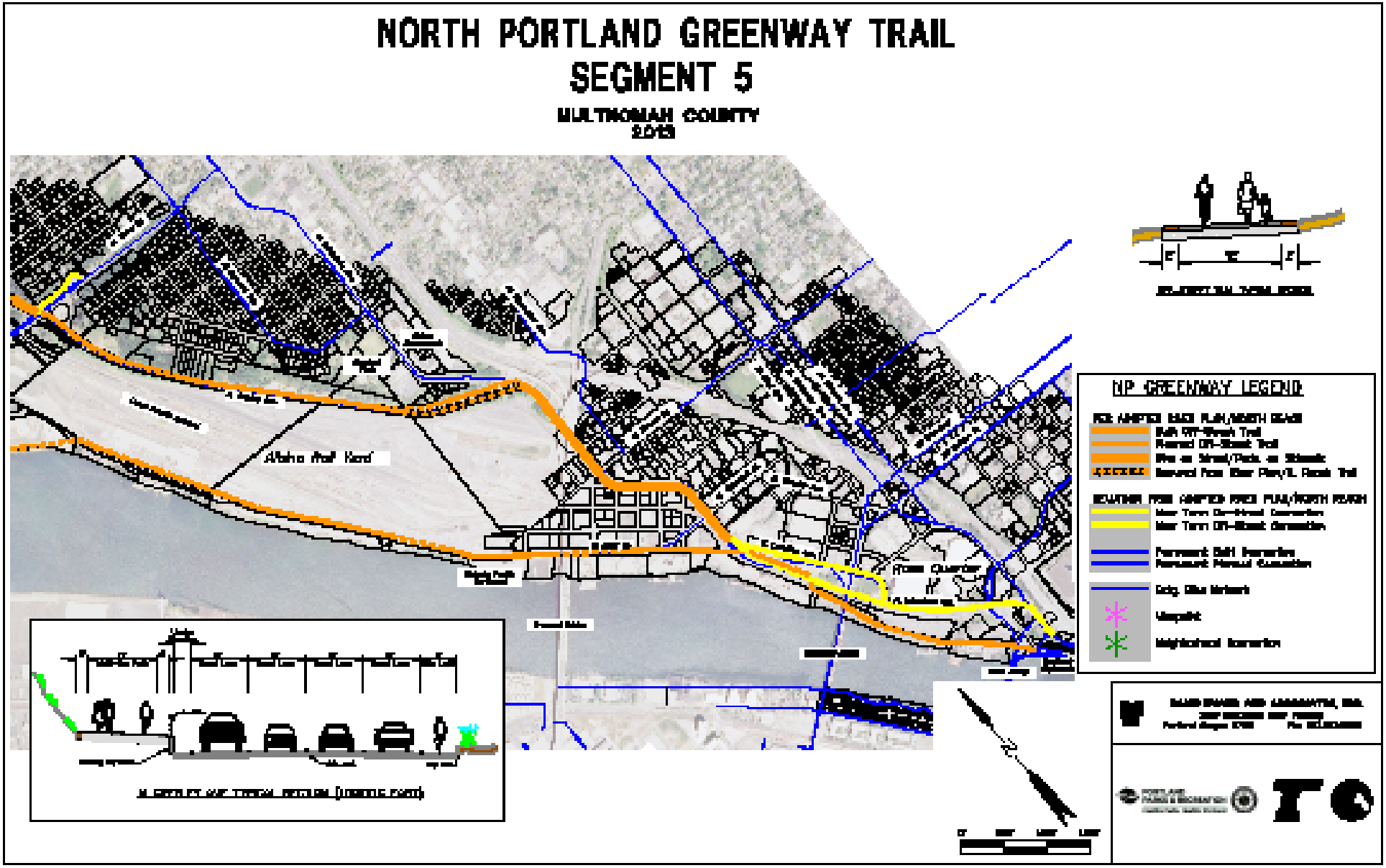


FIGURE 8: SEGMENT 5, NORTH PORTLAND GREENWAY TRAIL

Coordination with PP&R should be conducted to make sure the trail design is consistent with existing and proposed habitat management/restoration activities in the area, particularly at the bottom of the bluff below N Greeley Avenue along the northern end of N Going Street. The City of Portland will work to secure an easement for the trail along Cement Road in the Albina Yard that allows for safe and bicycle and pedestrian access. Continued coordination with PBOT will occur on the possible use of the N Larabee Avenue ramp for bicycle and pedestrian use. If the ramp becomes available, a grass area of ROW at N Larabee Avenue will be used for an off-street trail. The off-street trail would connect back to the street at the NE Broadway signal.

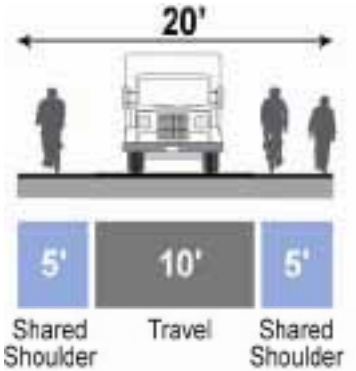
TRAIL RIGHT-OF-WAY

Additional ROW may need to be acquired along N Greeley Avenue to provide the required trail width. Property along the north side of N Greeley Avenue is owned by a variety of public agencies, private residential owners, and businesses. Easements or fee ownership for the additional ROW will be needed.

Easements are needed from UPRR for the trail through Albina Yard. Easements will also be needed from private property owners from N River Street to the Eastbank Esplanade as shown in the RP/NR.

A study was conducted for the NPGT alignment from Swan Island Industrial Area to the Albina Yard Industrial Area by ALTA Planning + Design (Swan Island/Albina Connector Transportation Feasibility Study, 2001), which provided alignment alternatives and cross sections. Figure 9 shows a potential cross section along Cement Road through the Albina Yard. Due to access restrictions that were confirmed recently by UPRR in a letter dated April 9, 2013 (Appendix C), this section of the NPGT is not included in the buildable alignment. However, this section of trail remains part of the NPGT alignment, and the City of Portland will work to secure an easement for the trail along Cement Road in Albina Yard that allows for safe bicycle and pedestrian access.

FIGURE 9. SHARED ROADWAY CROSS SECTION
(ALTA PLANNING + DESIGN, SWAN ISLAND/ALBINA CONNECTOR TRANSPORTATION FEASIBILITY STUDY, 2001)



Next Steps for Trail Design

LAND USE AND ENVIRONMENTAL PERMITTING AND ADDITIONAL STUDIES

This plan is for 10 percent conceptual level engineering. Additional studies, surveys, and detailed analysis will be necessary to develop a design that meets all applicable regulatory, technical, and design criteria. Changes in project design, footprint, and actions reflect changes in land use and environmental documentation and permitting requirements. Below is a summary of the anticipated coordination, permits, and approvals needed for all segments.

SECTION 10 OF THE RIVERS AND HARBORS ACT (US ARMY CORPS OF ENGINEERS)

Section 10 of the Rivers and Harbors Act, which is administered by the U.S. Army Corps of Engineers (Corps), regulates activities in navigable waters. The Corps considers the Columbia Slough and Willamette River to be navigable waters. Therefore construction activities below the Corps-published ordinary high water (OHW) elevation for the slough in Segments 1 and 3 would be considered regulated activities.

Next Step: Determine requirements based on preliminary engineering and OHW surveying

CLEAN WATER ACT SECTION 404 PERMIT (U.S. ARMY CORPS OF ENGINEERS) AND OREGON REMOVAL-FILL LAW (OREGON DEPARTMENT OF STATE LANDS)

Section 404 of the Clean Water Act establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. The Oregon Removal-Fill Law requires a permit from the Oregon Department of State Lands for fill and/or removal of greater than 50 cubic yards. Due to the proximity of Segment 1 to likely jurisdictional wetlands and waterways associated with the Columbia Slough and the Smith and Bybee wetlands, a wetland delineation is recommended. For all other segments, there is a low probability of wetlands or waterways being present within the alignment. A wetland reconnaissance memorandum is recommended to document that no wetlands or waterways are present within the alignment in Segments 2 through 5.

Next Step: Wetland Reconnaissance Memorandum or Delineation.

CLEAN WATER ACT SECTION 401 CERTIFICATION (OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY)

Work in Waters of the U.S. (i.e., waterways and wetlands) that requires a federal permit would also require a Clean Water Act Section 401 Water Quality Certification. A Section 401 permit is often issued during the Section 404 permitting process. If the project disturbs one acre or more of land, then a National Pollutant Discharge Elimination System 1200-C Storm Water Discharge Permit (i.e., erosion control permit) will also be required prior to project construction.

Next Step: Determine exact stormwater requirements based on further engineering.

ENDANGERED SPECIES ACT (ESA) OF 1973 (U.S. FISH AND WILDLIFE SERVICE AND NATIONAL MARINE FISHERIES SERVICE)

Section 7 of the Endangered Species Act (ESA) requires that federal agencies ensure that any action they authorize, fund, or carry out does not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Projects that impact wildlife or plant species require agency coordination and approval. In the vicinity of Segment 1, the Columbia Slough contains several listed fish species (Chinook and coho salmon and steelhead trout). Additionally, the streaked horned lark, found on the St. Johns Landfill, has recently been proposed for listing. In Segment 3, there will be work in and near the Willamette River, which contains several listed fish species (Chinook and coho salmon and steelhead trout). These segments may require a more detailed Biological Assessment and potential regulatory consultation.

Next Step: ESA (Oregon Biodiversity Information Center) database search for sensitive species and ESA Technical Memorandum.

CITY OF PORTLAND CODE TITLE 33: PLANNING AND ZONING / ENVIRONMENTAL AND GREENWAY ZONES

Compliance with Title 33 is dependent on standards, regulations, and approval criteria identified in the overlay zones and applicable management plans (e.g., Smith and Bybee Lakes Comprehensive Resources Management Plan). Segment 1 has an environmental overlay because of significant resources and functional values related to the Columbia Slough and Smith and Bybee Lakes Natural Area. Segment 5 has an environmental overlay related to the vegetated bluff along N Going Street.

Next Step: Early assistance or pre-application meeting at 30 percent design.

CITY OF PORTLAND CODE TITLE 11: TREES

Title 11, the Tree Code, which became effective in February 2013, is an implementation measure of the Urban Forest Plan. Title 11 regulates trees on public and private property. One of the goals of Title 11 is to "...enhance the quality of the urban forest and optimize the benefits that trees provide." A Tree Plan will be needed for tree removal related to the project, especially in Segment 4. Mitigation requirements will be determined based on tree removal.

Next Step: Early assistance or pre-Application meeting at construction drawings phase.

CITY OF PORTLAND CODE TITLE 24: BUILDING REGULATIONS

The Title 24 Building regulations standards will apply to bridges and boardwalks. In particular, Chapter 24.50 Flood Hazard Areas will apply for Segments 1 and 3. Key applicable standards in Chapter 24.50 for Segments 1 and 3 include:

- Balance cut and fill: All fill in the floodplain needs to have an equal amount of cut.
- No-net rise: Models must demonstrate that new structures in the floodway will not result in impacts to adjacent property.

Next Step: Early assistance or pre-application meeting at construction drawings phase.

RAILROAD RIGHT-OF-WAY IMPACTS

During design, the preferred railroad setback of 25 feet from the centerline was considered, as well as property lines. Where the buildable alignment follows the UPRR ROW, a fence will separate the trail from the tracks. In a letter dated April 11, 2013, UPRR stated that a setback of 50 feet from the centerline is needed (see Appendix C - UPRR Letter). Coordination and agreements with UPRR will be necessary to advance some of the segments towards construction.

The following are the potential easements necessary from UPRR:

- Segment 1 – One crossing of UPRR at an existing at-grade crossing at the City Dump Road. This is a modification to widen an existing crossing easement that the railroad has with the City of Portland.
- Segment 2 – No impacts anticipated.
- Segment 2 Gap – No impacts anticipated.
- Segment 3 – For trail alignment around Waud Bluff.
- Segment 4 – No impacts anticipated.
- Segment 5 – No impacts anticipated.
- Segment 5 Gap – Cement Road through Albina Yard.

UPRR has many public and railroad employee safety and security issues regarding development of public transportation in the Albina Yard.

COST ESTIMATES AND FUNDING STRATEGY

COST ESTIMATES

Planning-level cost estimates for trail construction based on the conceptual design were prepared for each segment. The cost estimates includes construction, design and engineering, construction engineering, and right-of-way. These estimates rely on many assumptions such as trail width, treatments, and topography and represent 2013 dollars. These estimates will be used to assess the necessary funding to further develop and construct the segments. As the design progresses, more accurate estimates will be developed.

TABLE 2: SEGMENT 1 10% DESIGN COST ESTIMATE

Segment 1
10% Design Cost Estimate

CONSTRUCTION	
Site Preparation	$866,000
Roadway, Bikeway, and Walkway	$779,000
Structures	$735,500
Other Items	$1,705,000
Contingency	$1,634,200
Total Construction Cost	$5,719,700
DESIGN AND ENGINEERING	$774,000
CONSTRUCTION ENGINEERING	$857,955
RIGHT-OF-WAY	$1,500
TOTAL PROJECT COST	$7,353,155

Notes:
1. Structures includes bridge over slough and short section of boardwalk along landfill.

2. Other Items includes Kelly Point Park Trail improvements and railroad crossing improvements on City Dump Road.

3. Grade separated crossing over Columbia Blvd not included.

TABLE 3: SEGMENT 2 10% DESIGN COST ESTIMATE

Segment 2
10% Design Cost Estimate

CONSTRUCTION	
Site Preparation	$182,000
Roadway, Bikeway, and Walkway	$446,200
Structures	$0
Other Items	$160,000
Contingency	$315,280
Total Construction Cost	$1,103,480
DESIGN AND ENGINEERING	$334,000
CONSTRUCTION ENGINEERING	$165,500
RIGHT-OF-WAY	$0
TOTAL PROJECT COST	$1,602,980

TABLE 4: SEGMENT 3 10% DESIGN COST ESTIMATE

Segment 3
10% Design Cost Estimate

CONSTRUCTION	
Site Preparation	$1,076,900
Roadway, Bikeway, and Walkway	$713,000
Structures	$4,300,000
Other Items	$30,000
Contingency	$2,448,000
Total Construction Cost	$8,567,900
DESIGN AND ENGINEERING	$1,472,000
CONSTRUCTION ENGINEERING	$1,285,200
RIGHT-OF-WAY	$50,000
TOTAL PROJECT COST	$11,375,100

Notes:
Structures include boardwalk at Waud Bluff and retaining walls.

TABLE 5: SEGMENT 4 10% DESIGN COST ESTIMATE

Segment 4
10% Design Cost Estimate

CONSTRUCTION	
Site Preparation	$462,000
Roadway, Bikeway, and Walkway	$1,392,000
Structures	$0
Other Items	$250,000
Contingency	$841,600
Total Construction Cost	$2,945,600
DESIGN AND ENGINEERING	$596,000
CONSTRUCTION ENGINEERING	$441,800
RIGHT-OF-WAY	$60,000
TOTAL PROJECT COST	$4,043,400

Notes:
Does not include any costs associated with the roadway realignment/improvements on N Basin Avenue.

TABLE 6: SEGMENT 5 10% DESIGN COST ESTIMATE

Segment 5
10% Design Cost Estimate

CONSTRUCTION	
Site Preparation	$644,000
Roadway, Bikeway, and Walkway	$563,700
Structures	$1,550,000
Other Items	$275,000
Contingency	$1,213,100
Total Construction Cost	$4,245,800
DESIGN AND ENGINEERING	$693,000
CONSTRUCTION ENGINEERING	$636,900
RIGHT-OF-WAY	$45,000
TOTAL PROJECT COST	$5,620,700

Notes:
Structures include retaining walls on N Greeley Avenue.

FUNDING STRATEGY

There are a variety of funding sources available for future design and construction of the trail. To identify potential funding sources, trail features were taken into account such as the new North Slough Bridge, signage, fencing, parking lot removal at Baltimore Woods, and the three viewpoints at St. Johns Landfill and Smith and Bybee Wetlands Natural Area. In some cases, a grant may cover signs, but not parking lot removal. Therefore, funding the project will likely require a mix of sources.

Accompanying this report is a funding and financing report that contains more details about the funding sources listed in this section. Eligibility requirements, criteria, and fiscal year appropriation are listed for federal sources. For each state and private source, the following are provided:

- Description and eligible activities—Description of the program, its intentions, and the types of projects that it funds.
- Amount and match requirement—Program allocation for the current fiscal year, if known; typical amount of each grant; maximum and minimum amounts, if any; and match requirements.
- Timing—The months when applications are due, decisions made, grants awarded, and time limit for project expenditure and completion, if applicable.
- Eligibility—Eligible applicants; typically government agencies (and Tribes), and/or nonprofit organizations.

WORKING WITH PRIVATE LANDOWNERS

The City should work with the landowners and interested parties along the trail alignment to form partnerships.

Landowners include:

- BPA
- Lampros Steel
- Port of Portland
- University of Portland
- UPRR

FEDERAL SOURCES

Moving Ahead for Progress in the 21st Century (MAP-21) is the federal surface transportation funding program. It provides $105 million for FY 2013 and FY 2014 overall funding. The split for highways and transit is (approximately 80 percent/20 percent). Relevant MAP-21 programs are:

- Transportation Alternatives Program (TAP)—aggregates SAFETEA-LU programs such as Transportation Enhancements, National Scenic Byways, and Safe Routes to School.
- Recreational Trails Program (RTP) (U.S. Department of Transportation) —under TAP in MAP-21, but MAP-21 specifically sets aside Railway-Highway Crossings Program
- Railway-Highway Crossings Program
- Surface Transportation Program (STP)
- Highway Safety Improvement Program (HSIP)
- Congestion Mitigation and Air Quality Improvement (CMAQ)

In addition, the U.S. EPA's brownfields programs may be considered for the portions of the trail that intersects with brownfield sites:

- St. John's Landfill (Segment 1)
- East side of N Greeley Avenue (Segment 5)
- Portland Harbor Superfund:
    - Willamette Cove (Segment 3)
    - Lampros Steel (Segment 3)
    - UPRR Albina Yard (Segment 5)

STATE SOURCES

State grant sources consist of Oregon Parks and Recreation Department (OPRD) and ODOT programs:

- Recreational Trails (OPRD)
- Land and Water Conservation Fund (OPRD)
- Bicycle and Pedestrian Program Grants (ODOT)—The application process is combined with ODOT's Transportation Enhancements program.

PRIVATE SOURCES

Private foundations grants typically are area specific or project-type specific, such as for trails and bicycling. Although private grants typically are for smaller amounts than federal or state awards, they may be used for required local matches or to fund a particular project feature. Since portions of the trail will cross or abut railroad property, the BNSF and UPRR foundations are included.

Potential private sources of grants are:

- Advocacy Advance
- American Hiking Society—National Trails Fund
- Bikes Belong Coalition—Community Partnership Grants
- BNSF Railway Foundation
- Clif Bar Trail Preservation Grants
- Conservation Alliance
- Meyer Memorial Trust
- REI
- Union Pacific Foundation Community-Based Grant Program
- Wal-Mart Foundation

KEY NEXT STEPS

There are still challenges and design opportunities for the NPGT. Table 7 summarizes the key next step(s) for implementation for each segment and identifies key organizations to keep moving the project forward.

TABLE 7: KEY NEXT STEPS

Location	Action	Responsibility or Partners for Resolving
Segment 2		
N Columbia Boulevard Crossing	Determine grade-separated crossing design	PBOT, PP&R, Freight Community
N Bruce Avenue and N Reno Avenue	Incorporate Neighborhood Greenway Streets features	PBOT
N Decatur Avenue	Change street designation	PP&R, PBOT, Friends of Baltimore Woods, Port of Portland, UPRR
Crown, Cork, and Seal Easement	Obtain easement	Metro
Pier Park	Determine internal park trail	PP&R
Segment 3		
Lampros Steel	Obtain easement	Metro
Waud Bluff	Obtain easement	UPRR, PP&R, Portland City Council
Segment 4		
N Basin Avenue	Design roadway cross-section	PBOT, land owners/businesses, Swan Island TMA
Segment 5		
Albina Yard (Cement Road)	Obtain easement	Portland City Council/Portland Parks Commission, Swan Island TMA, UPRR, npGREENWAY
Larabee Ramp/ROW	Determine use of the Larabee Ramp and off-street trail to NE Broadway Avenue	PBOT, PP&R
Broadway Bridge to Eastbank Esplanade	Refine trail alignment	Bureau of Planning and Sustainability, PP&R, private property owners, npGREENWAY

Conclusion

This plan shows 10 percent engineering design for a buildable alignment from Kelley Point Park to the Eastside Esplanade. It is a refinement from the alignment shown in the RP/NR and will be used for the next level of design and construction. The buildable alignment permanently deviates from the adopted RP/NR in a few locations. Alternatives that are shown to fill the gaps in the buildable alignment do not preclude the realization of the RP/NR NPGT alignment. There are portions of the NPGT that are used today as a trail (e.g., Swan Island, Pier Park, Kelley Point Park). Additionally, there are on-street bicycle and pedestrian improvements that can be leveraged to provide a continuous, multimodal trail.

The process behind this plan uncovered opportunities and continual challenges that will need to be resolved in future phases. These include enhanced trail cross sections both off-street and on-street, ROW acquisition and geotechnical challenges. The trail is broken into five segments that can be constructed independently as easements and ROW are obtained, and funding is available. The tasks and next steps for each segment vary broadly depending on the proposed trail location and existing conditions.

This plan will be refined through design and construction over many years depending on funds, community commitment and encouragement, and the ability to overcome simple and complex obstacles. Ultimately, connecting to other local and regional trails, the NPGT will link people and communities along a 10.5-mile corridor with natural areas and downtown Portland. When constructed, the NPGT will provide healthy and enjoyable alternatives to motorized travel and will consequently benefit our environment and future generations.

Appendix A: Public Involvement Comment Summaries

PORTLAND PARKS & RECREATION
Healthy Parks, Healthy Portland

North Portland Greenway Trail - Comment Summary
Open House 5/16/2012
(41 comment cards)

The first Open House for the North Portland Greenway Trail was held on May 16, 2012. The purpose of the Open House was to provide participants with information on the project, create a shared understanding of what the study would and would not accomplish and to remind the community of the long history of work that had been established up to that point – public advocacy and staff efforts.

The comment forms did not solicit feedback on specific items, but rather asked for open-ended commentary on the trail segments. The following is a summary of those comments.

General Comments

Provide access to viewpoints	**2**
The proposal must include bicycle plan route	**1**
The proposal must include river plan	**1**
This is a transportation AND recreation trail	**1**
Keep it as close to the river as possible	**1**
Keep the trail by green spaces	**1**
This should be a non-residential trail	**1**
Provide safe crossings	**1**
Avoid high traffic areas	**1**
There should be neighborhood connections/access points	**1**
Develop new wording for trail alternatives	**1**
Maximize trail widths 10' to 12', or more	**1**
Over water aqueduct (bike-que-duct?)	**1**
Thank you!	**1**

Segment 1

What keeps pink area from being designated?	**1**
Connect trail to bikeway on Columbia	**1**
St. Johns landfill should be used for off-road biking	**1**
Landfill property-mark viewpoints	**1**
Maximize trail widths 10' to 12'	**1**
It is great!	**1**

Segment 2

Access to Decatur (non-motorized)	**8**
Have trail go through Baltimore woods	**7**
Crown Cork and Seal—Preferred	**6**
N. Weyerhaeuser—Preferred alignment	**5**
Use the 10 acre wood property	**5**
Keep trail close to river	**3**
Concerned with Columbia crossing	**3**
Keep trail in green spaces	**2**
Follow North Reach River Plan	**2**
Keep trail off-street as much as possible	**2**
Do not stop traffic at Columbia	**2**
Put a HAWK light on Lombard	**1**
Put a full light signal on Lombard – HAWK is confusing	**1**
Provide neighborhood access to trail	**1**
Have trail pass through Cathedral Park, not the neighborhood	**1**
Friends of Baltimore Woods and Friends of Cathedral Park Neighborhood Association should be in advisory	**1**
Potential conflict with proximity to ball field at Pier Park	**1**
Provide viewpoints/access	**1**
This is a good plan	**1**
Under Columbia	**1**
Have trail pass through and around Cathedral Park	**1**
Use Commando St. crossing to Pier Park	**1**
Concerned with trail in Pier, meet with Bridge	**1**

Segment 3

Future access/connection to Peninsula	**5**
Add trail connections – Edgewater and Van Houten, check ROW	**2**
Add viewpoints	**2**
Traffic calming at Willamette	**1**
BNSF bridge – long term	**1**
University of Portland crossing is good	**1**
Cantilever around University of Portland is preferred	**1**
Add soft trail by river in McCormick and UP property	**1**
Access from bike path and Willamette	**1**
Refer to the Willamette Cove Study (PP&R)	**1**
Can be away from the railroad	**1**
Should be close to river	**1**
Widest path	**1**
Worried about Waud Bluff stairs	**1**

Cantilevered path around bluff is great	**1**
Add access from Big Dig bike path and Willamette	**1**

Segment 4

Path from Dog Bowl to trail/neighborhood connection	**3**
Basin separation	**3**
Traffic calming at Willamette	**2**
Waud Bluff stairs is not (but should be!) accessible	**2**
Emphasize along trail – Shenanigans old restaurant	**1**
Basin alternative preferred	**1**
Traffic calming at Swan Island/Basin Ave	**1**
Sharrows on Swan are dangerous	**1**
There should be on street parking in front of Fed Ex and along road	**1**
Add car parking North of BES pump station	**1**
Spur to shipyard viewpoint	**1**
Winds too much for commuters – the trail is good in going near river	**1**

Segment 5

Do NOT use Greeley Rd.	**6**
Push for the Cement Road	**5**
Do not use interstate	**2**
Cantilever trail along UP	**2**
Follow River Plan	**2**
Use Larrabee	**2**
Widen the trail	**1**
Use riverside by interstate (short term)	**1**
Add N. Michigan Neighborhood Greenway	**1**
Move Greeley, put bike path on West Side	**1**
Meet with Friends of Overlook Bluff (they are trying to buy land that can be used as a connection)	**1**
Cantilever along river	**1**

PORTLAND PARKS & RECREATION
Healthy Parks, Healthy Portland

Survey Results: North Portland Greenway Trail **Total Items: 167**

Methodology – An Open House took place on September 10th. Approximately 50 community members participated. The event was advertised through electronic notifications, mailings sent to adjacent residents and fliers and posters were distributed throughout the community. The comment form was available online and in hard copy through September 24th. Notice about the comment period was sent out through our contact lists and forms were distributed at Riverfest in Cathedral Park and at the Swan Island TMA meeting.

The comments below represent the opinions of the 167 respondents. Similar comments were generalized and grouped. The number of individuals making comments does not equal the number of ideas – multiple ideas within a comment were split up.

Themes – The following themes and ideas were recurring throughout the summary.

1 – There appears to be a disconnect between the purpose and outcome of this project and the full development of the North Portland Greenway Trail. This disconnect should be addressed through additional outreach and education.
2 – The first three trail segments appear to have solid community support with some adjustments
3 – Trail segments 4 and 5 need further vetting and discussion with the community
4 – There is some tension between developing a trail for community and direct access and a more leisurely, recreational facility
4 – There is strong community support and excitement for movement toward development this trail

Community Responses

1 = I like this a lot
2 = I like it
3 = no opinion
4 = I don't like it
5 = I really dislike it

Segment 1. Kelley Point Park to Columbia Blvd		
1 & 2		81.0%
3		12.8%
4 & 5		6.1%
Total	**148**	

Comments	
Like it	16
Go around west of landfill (7), straighten trail (1), go through landfill (3)	11
Suggestions regarding Columbia Blvd: low stress sensory trigger, at grade (2), bridge (2), either works (1)	7
Stay close to natural areas and river	5
Concerns include; increased use (1), parking (1), trash (1) and safety (2)	5

Make it more commuter friendly (2)		2
Connect to Kelly Pointe Park		2
Agree with change from NPRRP		1
Go through Pier Park		1
Path area by slough is prone to flooding		1
Create viewing platforms/rest areas		1
Interpretation		1
12’ is too narrow		1
Trail under bridge to Kelly Pointe		1
Build NPRRP		1
Native Plants		1
Place it closer to businesses on Farrugut		1
Total	**57**	
Segment 2. Columbia Blvd to Cathedral Park		
1 & 2		63.1%
3		18.8%
4 & 5		18.1%
Total	**149**	
Comments		
Like it		12
Street separated e.g. Cyclotrack		11
Through Crown Cork and Seal		10
Plan deviations: change 1 – ok (3), change 2 – ok (2), change 3 – ok (2) not ok (1), change 4 – go along river (1), skip (1)		10
Like NPRRP		8
Build Lombard overpass		5
Columbia – above grade (2), safety (2)		4
South on Baltimore to ROW		2
Don’t impact dogs park at Chimney		2
Fix N. Central		2
Not Decatur		2
Green streets for on-street portions		2
Grades are a concern		2
Cathedral Park – through (1), around (1)		2
Like Baltimore (1), follow sewer		2
Don’t like Pier Park		1
Go west of Pier Park through chimney		1
Speed bumps on Reno		1
Viewing points/rest areas		1
Will increase use		1
Make it more commuter oriented		1

Close central Decatur		1
Total	**72**	
Segment 3. Cathedral Park to Swan Island		
1 & 2		79.4%
3		15.8%
4 & 5		4.8%
Total	**146**	
Comments		
Like it		31
Boardwalk – like it (3), concerns (4)		7
Closer to water		4
Path along Willamette cove and McCormick & Baxter		3
Make neighborhood connections		2
Concerned about wildlife		1
Soften edge at McCormick & Baxter		1
No shared road		1
No sharp curves		1
Like University of Portland portion		1
Baltimore to BNSF is Great!		1
Not Pittsburg		1
Like cement road		1
Waud Bluff is great!		1
Like Van Houten		1
Safety		1
What about BNSF crossing?		1
Add boat dock		1
Add connection to N. Portsmouth and Willamette		1
Peninsula crossing trail connection		1
Like basin		1
Total	**59**	
Segment 4. Swan Island to Going St		
1 & 2		34.9%
3		19.9%
4 & 5		45.2%
Total	**146**	
Comments		
Keep trail along water		26
Cement Road – yes (prefer North Portland River Plan - 7)		22
Not Going		10
Not Basin (concern about Basin)		9
Not family friendly (steep)		9

Use existing paths		8
Like – ok as interim		7
Not Greeley		6
Safety		5
Use Lagoon and Ensign		4
Not ADA		3
Like Basin (save trees -1)		3
Separate pedestrians, bikes and vehicles		3
Need good signage		2
Need above and below routes		2
Address Going to Lagoon transition		1
Total	**97**	
Segment 5. Going Street to Steel Bridge/Eastbank Esplanade		
1 & 2		31.9%
3		10.9%
4 & 5		57.1%
Total	**147**	
Comments		
Use Cement Road		52
Keep trail close to river		25
Not Greeley		24
Concerned about safety		9
Not east of Rose Quarter		8
Like it (ok)		7
Problems with Interstate		7
Use Thunderbird Road		6
Greeley OK (make it elevated – 1)		6
Not family friendly		4
Connect to Overlook Park		2
Not ADA		2
No cyclotracks		2
Not Interstate		1
Stay on bluff		1
Connect to Eastbank Esplanade		1
Use Lagoon		1
Do nothing – wait		1
Total	**114**	
Baltimore Woods		
What would you prefer?		
Trail follows sewer line route	76	55.9%

Trail curves through site	60	44.1%
Total	**136**	
Other		
Two trails (hard and soft surface		5
Save trees		3
Either works		3
Make it wide enough		1
Make it more direct		1
Create views		1
Total	**20**	
How will you primarily use this trail?		
Commuting by walking		
No	161	96.4%
Yes	6	3.6%
Total	**167**	
Commuting by bicycle		
No	92	55.1%
Yes	75	44.9%
Total	**167**	
Recreational walking/hiking		
No	100	59.9%
Yes	67	40.1%
Total	**167**	
Recreational biking		
Yes	94	56.3%
No	73	43.7%
Total	**167**	
Please tell us about yourself!		
I am age		
35-44	48	29.6%
45-59	39	24.1%
25-34	36	22.2%
60-79	35	21.6%
16-24	3	1.9%
15 & under	1	0.6%
Total	**162**	
I am		
Male	107	67.3%
Female	50	31.4%
Other	2	1.3%

Total	**159**	
Regarding residence, I		
Own my home	118	73.8%
Rent my home	37	23.1%
Other	5	3.1%
Total	**160**	
How many children do you have living with you under the age of 18?		
0	77	67.6%
1	16	14.0%
2	16	13.2%
3	4	3.3%
Total	**121**	
Total	**39**	
I identify as (check all that apply)		
Latino		
No	166	99.4%
Yes	1	0.6%
Total	**167**	
African American/Black		
No	164	98.2%
Yes	3	1.8%
Total	**167**	
Asian/SE Asian		
No	166	99.4%
Yes	1	0.6%
Total	**167**	
Pacific Islander		
No	167	100.0%
Total	**167**	
Native American/Alaska Native		
No	167	100.0%
Total	**167**	
Caucasian/White		
Yes	145	86.8%
No	22	13.2%
Total	**167**	
Other		
Life long Oregonian	1	50.0%
x	1	50.0%

Total	**2**	
My most frequently used mode of transportation (check one):		
bike	75	47.5%
car	56	35.4%
bus	16	10.1%
foot	11	7.0%
Total	**158**	

PORTLAND PARKS & RECREATION
Healthy Parks, Healthy Portland

North Portland Greenway

Total Items: 88

In April 2012, Portland Parks & Recreation convened a team of consultants, community members, and staff to continue work on the design of the North Portland Greenway Trail, as outlined in the North Reach/River Plan, adopted by City Council in 2010. The outcome of this work will be a buildable trail alignment that consolidates all the previous trail research, planning, and design work; fills information gaps; and creates a 10% engineering package for a near-term buildable trail alignment.

Methodology - An Open House was held at the University Of Portland on January 9, 2013. The Open House was advertised in the St. Johns Review, notifications were distributed electronically directly to persons indicating an interest in this project and to organizations including the St. Johns Neighborhood Association, Friends of Baltimore Woods, BikePortland.org etc. The comment form was available online through January 25th.

88 individuals completed this comment form. The responses below represent the perspective of those individuals who completed the comment form.

Themes – The following themes and ideas were recurring throughout these comments. Additionally, they were reflected in a letter submitted during the comment period from the Friends of the North Portland Greenway Trail.

- Safety is important, especially for families and children using the segments
- There is strong desire to pursue an alignment that is consistent with the North Reach River Plan especially:
  - Keeping alignments along the river
  - Pursuing the Cement Road, Thunderbird Road and the Crown, Cork and Seal segments
- Respondents strongly suggested maximizing the trail width
- Respondents strongly prefer keeping the alignment off-road

There is a marked difference between the responses to this comment form and the previous feedback solicited in September 2012. The previous comment form asked respondents to identify their support for individual trail segments. Each of the first three segments received strong approval (Segment 1 = 81% approval, Segment 2 = 63% approval, Segment 3 = 80% approval) with segments 4 and 5 dropping to 35% and 32% approval respectively.

These responses suggest that the strong community concern about Sections 4 and 5 are driving the overall negative response to the entire trail.

What is your general reaction to the draft trail alignment for the near-term buildable North Portland Greenway Trail?	
Strongly Dislike / Dislike	55%
Strongly Support / Support	37%
Neutral	7%

Principles
The following principles measure what we wanted to accomplish with this design. Please tell us how well we accomplished this.

1 - very well 2 - well 3 - no opinion 4 - not well 5 - not at all

Principle 1. Create a safe multiuse trail from Kelley Point Park to the Eastbank Esplanade.	
4/5 – not well / not at all	57%
1/2 – very well / well	36%

3 – no opinion	7%
Principle 2. Create a trail that is comfortable and accessible for a range of users and uses.	
4/5 – not well / not at all	57%
1/2 – very well / well	31%
3 – no opinion	12%
Principle 3. Create a direct multiuse trail that provides connections to centers, neighborhoods, and the city's bicycle network.	
4/5 – not well / not at all	46%
1/2 – very well / well	37%
3 – no opinion	17%
Principle 4. Minimize impacts to private properties.	
1/2 – very well / well	55%
3 – no opinion	35%
4/5 – not well / not at all	10%
Principle 5. Create a trail that has the support of the community and is acceptable to the property owners who are impacted by the trail.	
4/5 – not well / not at all	48%
1/2 – very well / well	33%
3 – no opinion	19%
Please tell us how which trail segment you would prioritize for future development. Please rank them 1, 2, 3, 4, 5 with 1 - highest priority (invest in this segment first) 5 - lowest priority (invest in this segment last)	
Segment 3 - N. Pittsburg Ave to connection with the Waud Bluff Trail	2.7
Segment 4 - N. Basin Ave to the intersection of N. Going & Greeley (Swan Island)Total	2.9
Segment 5 - N. Greeley to Eastbank Esplanade	2.9
Segment 2 - N. Columbia Blvd (including crossing) to N. Crawford	3.0
Segment 1 - Kelley Point Park to N. Columbia Blvd	3.1
Comments	
Greeley Disapprove, this is not a good investment, unsafe, wait to build it	28
Interstate Disapprove, this is not a good investment, unsafe	16
Cement Road Need more cooperation from the railroad. Work harder to get it.	15
Trail Widths Trails that are too narrow are unsafe. Make them wider. Need room for kids, families, strollers, etc.	8
Do it right, or don't do it at all. We want it to be done right, and are willing to wait for it. Don't do it halfway.	8
Bridge over interstate to Thunderbird Connect Esplanade to Thunderbird UNDER Steel Bridge/Connect to Thunderbird	8
Segment 5 – Dislike/Unsafe	7
Trail should be direct Needs to be connected to rest of greenway. Trail does not connect to Esplanade.	6

Avoid signal crossings/impeding traffic	5
Segment 4 – Dislike/Unsafe	5
Trail would not be attractive for new riders	5
Separate pedestrians and bikes where possible	4
Make it 100% off-street	3
Baltimore Woods Decatur needs to be pedestrian and bike only	3
Historical Landmarks/Signage Lewis & Clark	3
Recreation & Commuting Keep in mind the many potential uses for this trail. Families and commuters have separate needs.	3
Waud Bluff Staircase doesn't work as part of main alignment	2
Segment 2 – Dislike/Unsafe	2
Pedestrian bridge across Columbia Blvd (seg 1)	2
Willamette Should be limited to local traffic only.	1
Floating path	1
Shuttle in section 5 Suggestion from The History Collection	1
Segment 1 – Dislike/Unsafe	1
Segment 3 – Dislike/Unsafe	1
Separated path on Greeley Too narrow to be worth investment	1
Crossing at Going – dislike	1
Access to viewing the "working river"	1
Building segments should be reversed Start from Esplanade and move North towards Kelly Point	1
Work with Friends of Overlook Bluff To create access from Greeley Blvd to Overlook Park	1
Please tell us about yourself!	
I am age	
35-44	28.0%
25-34	25.6%
45-59	23.2%
60-79	20.7%
16-24	2.4%
I am	
male	76.5%
female	23.5%
Regarding residence, I	
own	82.1%
rent	17.9%
I identify as: (please check all that apply)	

Latino	
No	100.0%
African American/Black	
No	100.0%
Asian/SE Asian	
Yes	2.3%
Pacific Islander	
Yes	2.3%
Native American/Alaska Native	
Yes	1.1%
Caucasian/White	
Yes	76.1%
No	23.9%

Appendix B: Unresolved Issues Table

Unresolved Issue/Needs to Advance Design	Proposed Solution(s) from Existing Documentation	Action Needed to Resolve	Proposed Solution	Issue Resolved?
All Segments[1]				
1. Land use permitting requirements	N/A	○ Early Assistance Meeting with City. ○ Map and analysis of overlay zones specifically Environmental and Greenway Zones to identify permitting and mitigation requirements including as they pertain to tree removal and mitigation.	Not part of this study. Next Phase for Implementation of Each Segment.	No
2. Environmental permitting requirements	N/A	○ Map existing wetlands to determine probability of permits in each section (Wetland delineation/determinations may be needed (only last 5 years from acceptance). ○ Natural resource, including tree, and biological surveys. ○ Identify Geological Hazard/Slope Constraints	Not part of this study. Next Phase for Implementation of Each Segment.	No

[1] Initially, the segments were numbered from south to north.

Unresolved Issue/Needs to Advance Design	Proposed Solution(s) from Existing Documentation	Action Needed to Resolve	Proposed Solution	Issue Resolved?
3. Need to investigate right-of-way needs and easements from private properties.	N/A	○ Identify property ownership of key parcels once alignment is further set (e.g. Lampros Steel).	Property Owners Identified.	YES
Segment 5				
1. Connection to Eastbank Esplanade. Options are limited to land above the railroad yard along the river, because river dependent businesses front on the river. Draft N/NE Quadrant Concept Plan shows alignment along river. However, Rose Quarter Plan takes trail around property north of Steel Bridge and then north of Interstate at Broadway Bridge. This alignment should be studied further as it would have less of an impact on river-dependent uses. (Need information such as exact location where existing trail ends, elevations, and dimensions.)	Existing City of Portland Comprehensive Plan	○ Requires further study by project engineer.	Trail avoiding Railroad, grade and LRT and bus conflict issues associated with alignment along river edge. Alignment east of Rose Quarter ties in better to COP Bicycle Master Plan.	YES/No This issue was resolved in the near term for a buildable alignment but will need to be studied further as part of the trail Segment 5 gap.
2. The trail is intended to connect with the Albina RR Yard segment via the Larabee ramp and River Road (existing alternate on-street route is	River Plan/North Reach (RP/NR)	○ Requires further study by project engineer. ○ Evaluate Larabee Ramp with PBOT (bicycle and vehicle or bicycle only). Larabee Ramp is preferred	Alignment utilizes existing N. Going trail.	YES/No This issue was resolved in the near term for a buildable

Unresolved Issue/Needs to Advance Design	Proposed Solution(s) from Existing Documentation	Action Needed to Resolve	Proposed Solution	Issue Resolved?
Interstate Ave. & Greeley Ave.).		connection - PBOT engineered. Profile of trail on ramp needs to be established for tie in.		alignment but will need to be studied further as part of the trail Segment 5 gap.
3. Right-of-way issues for affected streets such as N Interstate.	N/A	○ Consult with PBOT on crossing and ROW issues.	Trail avoids this issue by maintain existing infrastructure. Property west of Rose quarter is likely being redeveloped making it difficult to accommodate trail.	YES
4. Investigate longitudinal and crossing easements and Construction and Maintenance Agreement with railroad.	N/A	○ Consult with railway on easements and agreements.	Trail avoids this issue. Railroad is redesigning track to eliminate 'S' curve; no room to accommodate trail. If Preferred Alignment changes, issue will need to be reopened.	YES
5. Obtain surveys from Big Pipe project in project location – near Rose Garden.	N/A	○ Request data from City of Portland.		YES
7. Crossing of Broadway Bridge Ramp. Potentially road separation and signalized intersection.	N/A	○ Requires further study by project engineer.	Trail uses existing crossing	YES
8. Evaluate connection through Albina Yard without encroaching on active UPRR lines or river-dependent uses.	3 Alternatives proposed for connection from N	○ Coordinate with the railroad regarding roadway options.	Current alignment follows N. Greeley and N. Interstate.	YES

Unresolved Issue/Needs to Advance Design	Proposed Solution(s) from Existing Documentation	Action Needed to Resolve	Proposed Solution	Issue Resolved?
	River just north of Fremont Bridge to north of North Port Center Way. All Alternatives require property or easement acquisitions from Ash Pacific and UPRR. All Alternatives include crossing of railroad tracks. Alternative 3 is the only alternative that doesn't include abandoning track and relocating switches and spur track.			
9. Need alternate trail segment, which avoids Albina Yard but connects with Rose Quarter and Swan Island.	RP/NR	○ Review current bike lane options on Interstate & Greeley and "Going to the river" project. ○ Requires continual study by project engineer, now an Alternative. ○ Talk with PBOT. ○ Look at options on N. Concord Avenue and N. Interstate Avenue	Current alignment follows N Greeley Avenue and N Interstate Avenue.	YES

Unresolved Issue/Needs to Advance Design	Proposed Solution(s) from Existing Documentation	Action Needed to Resolve	Proposed Solution	Issue Resolved?
		Segment 4		
1. Design of facilities within PBOT right-of-way including: constraints with providing a multi-use trail on Lagoon Avenue, conflict with freight uses including truck traffic and limited right-of-way in some areas.	N/A	○ Future Coordination with PBOT regarding facilities in ROW.	Current alignment follows N. Basin Avenue and N. Greeley Avenue.	YES
2. Need to determine potential crossing of railroad tracks and railroad easements for UPRR.	N/A	○ Coordinate with the railroad.	Current alignment follows N. Greeley Avenue and avoids railroad impacts	YES
3. Locate active monitoring wells to avoid.	N/A	○ Coordinate with DEQ.	Active monitoring wells need to be verified through mapping in subsequent design phases.	NO
		Segment 3		
1. Narrowness of rail corridor area below the bluff to accommodate trail	2010 University of Portland engineering students study. 3 alternatives proposed: a floating path, a path that cuts into the bluff above the rail line, and a path adjacent to and paralleling the	○ Requires further study by project engineer. ○ Follow up UPRR on easement issue. ○ Identify geotechnical constraints. ○ Need an analysis or property ownership for this section of the trail. ○ A ramp will be needed using Waud Bluff Bridge – needs further	The project proposes to construct a boardwalk structure on deep foundations around Waud Bluff where width is not available to construct the typical 14’ asphalt concrete trail to the south of the UPRR. The boardwalk will be constructed above the 100 year flood elevation.	NO, Refer to letter from UPRR dated April 9, 2013.

Unresolved Issue/Needs to Advance Design	Proposed Solution(s) from Existing Documentation	Action Needed to Resolve	Proposed Solution	Issue Resolved?
	railroad tracks. The path paralleling the railroad tracks was initially chosen as the preferred design, but because it was deemed not feasible in the report due to ownership issues, the alternative that cuts into the bluff was chosen as the preferred alternative.	study by project engineer.		
2. Geotechnical information for Waud Bluff needed to evaluate area.	N/A	○ Request information from City of Portland (should be available as part of permitting for Waud Bluff bridge over tracks)	Information received	YES
3. Connection into University of Portland Master Planning for "Triangle site".	RP/NR	○ Requires further study and continued coordination with University of Portland. ○ Meet with U of P to discuss these options. Jim Kufner will provide.	Alignment shown in University of Portland Master Planning City of Portland Land Use Permit submittal.	YES
4. Proximity to railroad tracks		○ Coordinate with railroad - two at-grade crossing of railroad tracks.	Avoid railroad ROW.	NO

Unresolved Issue/Needs to Advance Design	Proposed Solution(s) from Existing Documentation	Action Needed to Resolve	Proposed Solution	Issue Resolved?
5. Identify soil cap location on McCormick-Baxter property. Determine any DEQ requirements and easement area.	N/A	○ Coordinate with DEQ. ○ Identify easement parameters.	Stay upland toward railroad ROW to avoid soil cap.	NO
6. Coordinate alignment through sight including avoidance of contaminated areas, checks status of environmental clean up.	Use plan from Willamette Cove Trail Alignment Refinement Report (January 2010)	○ Coordinate with DEQ, Metro, and Port of Portland on status of remediation in area of the trail alignment.		NO
7. Proximity to railroad tracks.	N/A	○ Coordinate with railroad including identifying railroad requirements such as fencing and for what distance. ○ Consider wildlife crossing needs with fencing options	At the eastern edge of the Cove, the alignment will shift nearer to the UPRR line and Edgewater Street in order to utilize the grade separated crossing with the BNSF line	YES
8. Assess Natural Resources (may need status, plans and footprint for site restoration and master planning (request updated wetland delineation and natural resource assessment if available).	N/A	○ Coordinate with Metro. ○ PPR will organize Metro meeting for Land fill and Willamette Cove ○ Map vegetation – need tree survey. ○ Tree removal and mitigation plans for permits	An existing dirt path travels through much of the property and provides a logical location for the trail alignment to follow in order to minimize impacts to existing vegetation.	YES

Unresolved Issue/Needs to Advance Design	Proposed Solution(s) from Existing Documentation	Action Needed to Resolve	Proposed Solution	Issue Resolved?
9. Lampros Steel is currently for sale and easement negotiations are ongoing.	N/A	○ City will work with Metro on finalizing easement.	Assume easement location will be riverside of future development.	NO
Segment 2 Cathedral Park to Chimney Park				
1. Trail will be incorporated into a green street design on Crawford – needs coordination.	N/A	○ Work with City Bureaus (PBOT on ROW and BES on storm water issues).	The roadway is proposed to become a Neighborhood Greenway. The Greenway project does not plan for new amenity construction here.	NO
2. Integration with Park Master Planning	Cathedral Park Master Plan	○ Review where Greenway trail interfaces with park trails.	Trail will not go into park. Consideration will be given to the proximity of the park and connections to its resources throughout project design.	YES
3. ROW alignment corridor needs to connect into the 7 acre natural area and allow existing easements to function safely. Determine private property impacts such as driveways. Alignment needs to be determined: weave the trail by Crown, Cork and Seal, an on-	N/A	○ Coordinate with PBOT. Coordinate with BES and PPR City Nature for trail in natural area Allow space for existing property access easements Examine option of trail on sewer easement	Trail will be incorporated into Decatur Street design – awaiting PBOT approval of design.	NO

Unresolved Issue/Needs to Advance Design	Proposed Solution(s) from Existing Documentation	Action Needed to Resolve	Proposed Solution	Issue Resolved?
street alignment or other alignment. Will Decatur Street ROW by upgraded to street? What street/ROW improvements are necessary.				
4. Identify status and footprint of restoration plan.	N/A	○ Coordinate with BES and PPR	Trail will not pass through Baltimore Woods Restoration Area. Trail through Baltimore Woods will be completed as a separate City of Portland Parks project.	YES
5. Accommodating active trail uses with passive recreation uses safely in park.	N/A	○ Requires further study by project designers	Chimney Park: The trail alignment will roughly parallel Columbia Boulevard through the park to the south while avoiding trees within the park and traveling along the northern portion of the off-leash dog park. A fence will be constructed to separate the dog park from trail users. Pier Park: an internal trail that will be ADA compliant travels around the eastern baseball field and connects the existing park trail behind the backstop which leads out to the N Bruce Avenue park entrance.	YES

Unresolved Issue/Needs to Advance Design	Proposed Solution(s) from Existing Documentation	Action Needed to Resolve	Proposed Solution	Issue Resolved?
Segment 1 Columbia Boulevard to Kelly Point				
1. Crossing of Columbia	N/A	○ Coordinate with PBOT	Grade separated crossing	YES
2. Bridge crossing over slough	N/A	○ Coordinate with PBOT, BES, and Metro	The trail crosses the Columbia Slough at the south side of the St. Johns Landfill using the existing bridge into the landfill. The bridge has a five-foot wide concrete sidewalk and a roadway width of twenty-six feet. The concrete sidewalk will be widened to 14', reducing the vehicular roadway width to seventeen feet wide. This will physically impose the current signed restriction allowing only one vehicle to cross the bridge at a time. Existing bridge railing will be upgraded if it is less than 42" in height.	YES
3. Ensure trail avoids well head locations, gas piping and condensation collecting stations associated with Landfill	N/A	○ Request survey information from Metro and coordinate any design features necessary. ○ Land fill will be fenced from trail	Around the northern and eastern perimeter of the landfill, the alignment will follow the existing access road both horizontally and vertically in order to minimize cut and fill into the landfill or slough. In order to prevent pedestrians from entering the landfill, a fence will be located along the landfill side of the trail.	YES
4. Determine location of bridge approach over North Slough.	N/A	○ Coordinate with Metro	Data received.	YES

Unresolved Issue/Needs to Advance Design	Proposed Solution(s) from Existing Documentation	Action Needed to Resolve	Proposed Solution	Issue Resolved?
5. Review bridge and tie-in to existing trail.		○ Coordinate with Metro	The North Slough Bridge is located to avoid tree removal and minimize bridge length by maintaining a perpendicular crossing of the Slough.	YES

Appendix C: UPRR Letter

UNION PACIFIC RAILROAD
5424 South East Mcloughlin Boulevard
Portland, Oregon 97202

P 503 249 3079
C 503 320 3099
F 402 233 3162

E banelson@up.com

Brock Nelson Director Public Affairs

April 9, 2013

Emily Roth
Portland Parks & Recreation
1120 SW Fifth Ave., Suite 1302
Portland, OR 97204

RE: North Portland Greenway Trail Alignment

Dear Emily;

Union Pacific has completed its review of the proposed trail alignment based on the 10 % design drawings included with your letter dated March 7, 2013. Per your request, our comments are as follows:

Segment 1

1.) The proposed trail will be crossing an active railroad track.

2.) UP commented previously in our letter dated December 12, 2012 (copy attached) regarding the proposed trail crossing our tracks on City Dump Road.

3.) UP understands that a study will be performed to evaluate different alternatives for crossing Columbia Boulevard and that a possible grade separation will be considered. UP would also ask that a grade separation over our tracks in City Dump Road be considered.

Segment 2

1.) No comments

Segment 3

1.) Please provide a cross section of the trail where it crosses our tracks in Cathedral Park. It is our understanding that the trail will cross at N. Pittsburgh Avenue.

2.) Our understanding is that the proposed trail will be adjacent to, and not on, UP property until a point east of the existing public grade crossing over our tracks in N. Van Houten

3.) UP would recommend that a drainage ditch/swale be constructed between our property and the proposed trail.

4.) Where the proposed trail is immediately adjacent to UP property we will require that No Trespassing signs be erected.

5.) For safety and liability reasons, UP's current standard for linear projects of this type is that they be a minimum of 50 feet from the center line of the closest track. Thus, UP will not allow any portion of the trail to be placed on our property on the side slope of the embankment between our tracks and the Willamette River.

6.) As information, there has been a history of mudslides in this area along our tracks below the University of Portland.

7.) Have you considered staying on the north side of the tracks all the way from N. Pittsburgh to either N. Van Houten or N. Portsmouth? Either of these streets would then allow you to go up the hill to N. Willamette Boulevard, which would take you to the new pedestrian overcrossing at Waud Bluff. This would save you the expense of having to build in the water adjacent to our property.

8.) Trains will routinely block access to the trail when conducting air brake tests etc. UP requests that this be taken into consideration when planning the points where people may access the trail. Putting the trail on the north side of the tracks would alleviate that concern.

Segment 4

1.) No comments

Segment 5

1.) UP would like reiterate our position that for safety and liability reasons we will not support the proposed trail alignment being located on the Cement Road in Albina Yard.

If you would like, I'd be willing to meet with City Staff to discuss our comments further.

Please let me know if you have any further questions.

Sincerely,

Brock Nelson
Director of Public Affairs

UNION PACIFIC RAILROAD
5424 South East Mcloughlin Boulevard
Portland, Oregon 97202

P 503 249 3079
C 503 320 3099
F 402 233 3162

E banelson@up.com

Brock Nelson Director Public Affairs

December 12, 2012

To Whom It May Concern;

This letter is to confirm communications that I have had with staff at Metro and Portland Parks and Recreation over the last few years regarding their interest in building a multi-use trail crossing next to an existing Union Pacific (UP) at-grade railroad crossing in North Portland. The crossing of interest is where UP tracks cross City Dump Road near the former St. John's landfill.

Most recently we met on October 15, 2012 at Portland Parks to discuss this crossing as a component of a grant application that Portland Parks and Metro are submitting to ODOT for a segment of the Willamette Greenway Trail. In that meeting we discussed in general terms the type of design that the railroad would require.

UP will conditionally work with the partners on the design and possible construction of an at-grade structure at this location. However, as information, a critical issue that will need to be addressed is that the existing at-grade crossing in City Dump Road is a "private" crossing and the proposed multi-use trail cannot be allowed under that designation. The crossing will need to be converted to a "public" crossing for UP to be able to consider the new multi-use trail crossing.

UP requires that the project partners work with us to identify two (2) at-grade crossings for subsequent closure. UP typically asks local jurisdictions to help close existing grade crossings in exchange for new at-grade public crossings.

UP will also require that a letter authorizing us to be reimbursed for our costs associated with the project be executed.

It is my understanding that this letter will fulfill the requirements for ODOT's Transportation Enhancement Grant Program and is not meant to be, nor is it intended to be, an agreement for the design and construction or use of the above mentioned at-grade UPRR crossing for the proposed trail.

Sincerely,

Brock Nelson
Director of Public Affairs