



40-Mile Loop: Troutdale to Gresham

Trail Alignment Study

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ACKNOWLEDGEMENTS

Creating this trail study required the commitment, support, and involvement of many people who dedicated time and resources. Thank you to the following individuals for their interest and involvement in developing a vision for the 40-Mile Loop between Troutdale and Gresham.

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EXECUTIVE SUMMARY

The original vision for the 40-Mile Loop was developed by the Olmsted Brothers in 1903. For 80 years, the Olmsted Brother's Report of the Park Board, laid the framework for the region's systems of parks and boulevards. Over time, boulevards and carriageways became trails, and in 1983 the 40-Mile Loop Master Plan was developed. The 40-Mile Loop Master Plan identified a route, just over 140-miles, of hiking and bicycle trails that formed a loop around the region to be completed by the year 2000.

In 2012, Metro's East Multnomah County Connections Plan – adopted by Troutdale, Gresham, Metro, Multnomah County, and other local governments – identified a north-to-south walking and bicycling trail as a major commuting and recreating need for residents without cars.

Since the 1980's, Metro and its partners have been working to complete the 40-Mile Loop, but several gaps in the trail remain. The largest gap spans approximately six-miles between the Sandy River in downtown Troutdale and the Springwater Corridor in Gresham. Metro, the City of Troutdale, and the City of Gresham formed a team to determine the best route for a new multi-use trail to connect neighborhoods, parks, and schools between Depot Park in Downtown Troutdale and the Springwater Trail in Gresham.

The 40-Mile Loop: Troutdale to Gresham Trail Alignment Study is the culmination of over one year of conversations with partner agencies, project stakeholders, and community members to develop a route and design concepts. The study was ended abruptly following public feedback about safety and security concerns along the trail following a temporary change to Portland's illegal camping rules enforcement and a summer of increased crime along the Springwater Trail just west of Gresham. Once these concerns have been addressed, trail planning efforts will continue, and this document is intended to serve as a summary of the routes studied and feedback received over the past year.

INTRODUCTION

Metro, the City of Troutdale, and the City of Gresham formed a team of planners to serve as the Project Management Team (PMT) and launched a community engagement effort in early 2016 to try to determine the best route for the 40-Mile Loop between Troutdale and Gresham. The Troutdale to Gresham Trail Alignment Study is the first step toward realizing the vision of a continuous off-street connection for walkers, runners, cyclists, and nature enthusiasts that has long been envisioned for East Multnomah County.

Project Purpose

Metro and its partners have been working since the 1980s to complete the 40-Mile Loop – the greater Portland region’s most iconic trail system. Several gaps in the trail remain, the largest of which spans approximately six-miles between the Sandy River in downtown Troutdale and the Springwater Trail in Gresham. The purpose of the Troutdale to Gresham Trail Alignment Study is to determine the best route for a new multi-use trail to connect neighborhoods, parks, and schools between Depot Park in Downtown Troutdale and the Springwater Trail in Gresham.

Terrain and available land between Troutdale and Gresham make development of a trail challenging, but also provide opportunities to connect to the natural beauty unique to our region. The future trail will lead through or near Beaver Creek Canyon, past Mt. Hood Community College, through neighborhoods, and into the peace and quiet of nature alongside Johnson Creek. Based on success of trails across the country, this segment of the 40-Mile Loop is likely to draw cyclists and runners from all over the region, and has the potential to attract new businesses and residents to East Multnomah County.

Currently, 40-Mile Loop trail users are directed to bike lanes along SW 257th Avenue/SE Kane Road and SE Palmquist Road between Troutdale and the Springwater Trail (Figure 1). just south of Main City Park in Gresham. SW 257th Avenue/SE Kane Road is a busy arterial street and a freight route. In addition, the road is “built out” to capacity and there is no room to expand without purchasing adjacent right-of-way (ROW). Both the volume and speed of vehicles contribute to the existing road not being comfortable for cyclists and pedestrians.



Figure 1 - The largest gap remaining in the 40-Mile Loop is the Mt. Hood Gap, shown above.

Project Area

The Troutdale to Gresham Trail Alignment Study focuses on identifying a connection between Depot Park in Downtown Troutdale and the Springwater Trail south of Gresham for the 40-Mile Loop. From the Sandy River, opportunities exist for the trail to be situated above Beaver Creek along the rim of Beaver Creek Canyon with connections to existing hiking trails, Downtown Troutdale businesses, neighborhoods, and local parks. The 40-Mile Loop connects Downtown Troutdale to the Historic Columbia River Highway State Trail which attracts cyclists from across the region and beyond for opportunities to ride in the Columbia River Gorge. This trail study area (Figure 2) includes a connection to the existing College Nature Park at Beaver Creek near Mt. Hood Community College, and continues along Beaver Creek through Mt. Hood Community College property or along S/SE Troutdale Road.

South of Mt. Hood Community College, a planned shared use path is shown on several planning maps. However, topography along Beaver Creek south of NE 17th Street/SE Cochran Road is very steep. Initial feedback from private property owners is that they are unwilling to grant a trail easement through their property or to sell property for a trail. Gresham's Trail Master Plan identifies a paved multi-use path along SE Troutdale Road and SE 282nd Avenue. Other on-street routes from the Gresham Transportation System Plan may be considered as alternatives to SE Troutdale Road/SE 282nd Avenue, but require further study. The southern end of the trail would connect to the Springwater Trail between Main City Park in Gresham and SE Stone Road.



Figure 2 – 40-Mile Loop: Troutdale to Gresham Trail Alignment Study project area.

Previous Planning

The original vision for the 40-Mile Loop was outlined by the Olmsted Brothers in their outline for a “System of Parkways, Boulevards and Parks for the City of Portland” (1903).

Parks should be connected and approached by boulevards and parkways. A connected system of parks and parkways is manifestly far more complete and useful than a series of isolated parks.... Parks and parkways should be located and improved to take advantage of beautiful natural scenery and to secure sanitary conditions.

-Olmsted Brothers, Landscape Architects

Planning for the 40-Mile Loop has continued for over 100-years (Figure 3). In 1983, with broad citizen and agency support for the 40-Mile Loop, the 40-Mile Loop Land Trust was formed and the Portland Vancouver Area Parks Coordination Group identified the 40-Mile Loop as the highest priority regional park project in the metropolitan area. At that time, the 40-Mile Loop Master Plan was published. Subsequent planning efforts further refined the route for the 40-Mile Loop between Troutdale and Gresham, but more than 30-years later a gap in this section of the 40-Mile Loop still exists. In 2012, East Multnomah County jurisdictions adopted the East Metro Connections Plan, which identified the Sandy River to Springwater multi-modal connection as a top priority catalyst project for regional mobility.

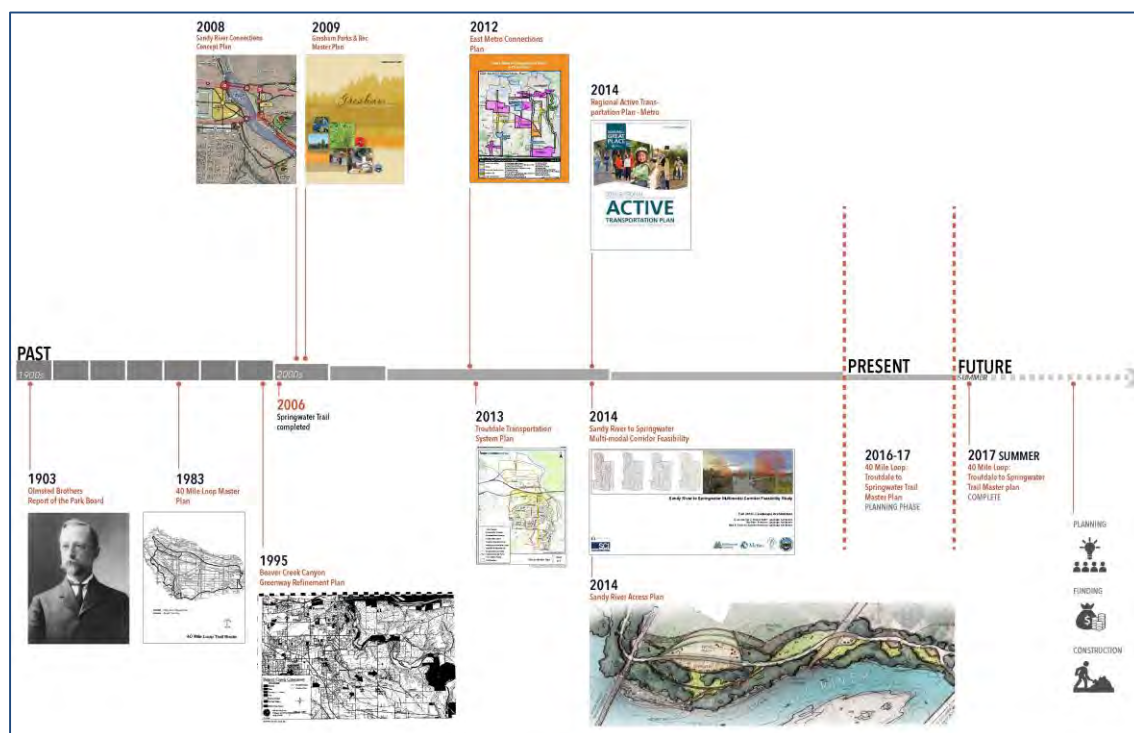


Figure 3 – Timeline of planning for the 40-Mile Loop has occurred over the past 100 years.

Report of the Park Board (1903) The Olmsted Brother's report laid the framework for the region's system of parks and boulevards for eighty years. Over time, boulevards and carriageways became trails, and in 1983, a master plan was developed for the 40-Mile Loop (1983), even as the loop expanded to more than 140 miles and went beyond the City of Portland and expanded into eastern Multnomah County. More recently, the 40-Mile Loop route between Troutdale and Gresham has been shown on maps as the "Mt. Hood Gap", and several plans have identified the need for completing the gap. The plans outlined below have identified the need for closing this gap, identified potential routes, and even developed design guidelines. These plans were referenced as part of this trail alignment study.

40-Mile Loop Master Plan (1983) This document forms the basis for renewal of the original Olmsted Brothers Plan for Portland Parks prepared in 1903 that included a "connected system of parks and parkways." The Plan defined the mission of the 40-Mile Loop Land Trust. One objective was to complete the Loop by the year 2000.

Beaver Creek Canyon in Troutdale and Gresham is listed as part of the 30% of the existing portion of the loop route that was already built in 1983. At the time the plan was published, ½ mile of the Beaver Creek Trail had been built.

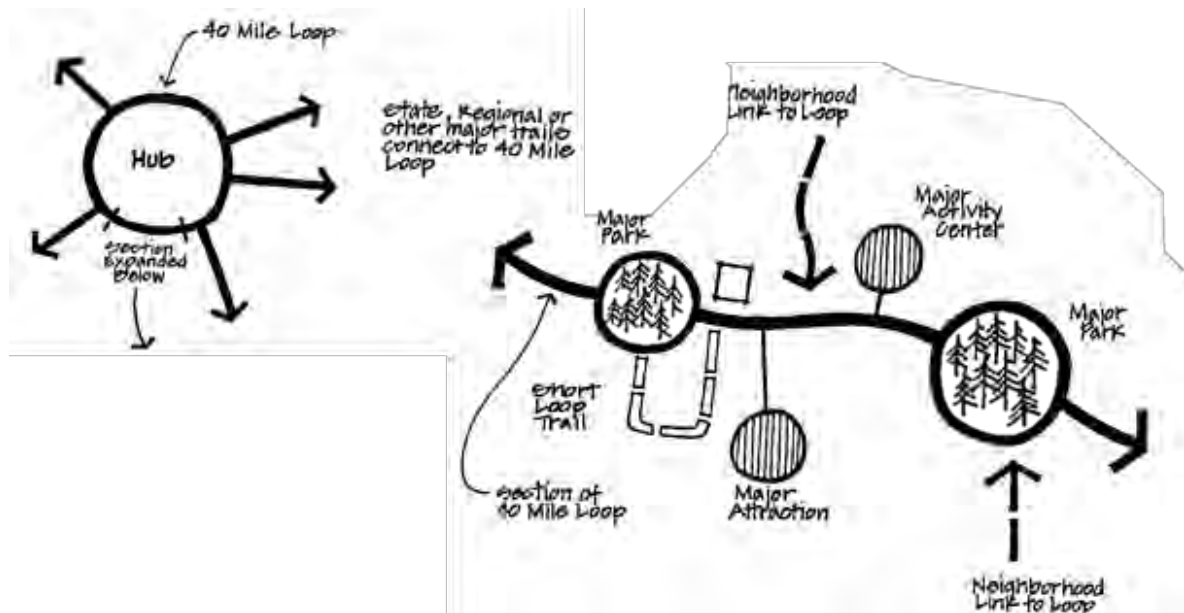


Figure 4 – Illustrations from the 40-Mile Loop Master Plan.

The Loop (Figure 4) includes accommodations for both hiking and bicycle traffic, but allows paths of travel to be separated where appropriate, but specifies that they still be in proximity to each other. The Plan:

- Establishes the loop as oriented primarily toward recreational use.
- Specifies that there should be one loop trail route; separate, but approximately paralleling, bicycle and trail routing is acceptable in areas of very steep terrain.

Major trailheads and access points are identified for:

- Troutdale Community Park (now known as Depot Park)
- Mt. Hood Community College
- Gresham Main Park

Troutdale Comprehensive Plan (1990) Two goals from the Troutdale Comprehensive Plan relevant to this planning effort are:

- Goal 8 – Recreational Needs
 - Greenways, open spaces, and special use areas will be used to conserve the ecological systems, drainage ways, and areas of special natural features. Greenways will be used to link neighborhood, community, and regional parks, schools, and other public facilities, with natural corridors accommodating trails, walkways, and bikeways.
 - Areas not suitable for development will be preserved as open space and will include the Sandy River and Beaver Creek Canyons
- Goal 9 – Economic Development
 - Within the Central Business District, encourage a transportation system that will provide safe and convenient circulation for pedestrians, bicycles, automobiles, trucks, and public transit. Promote a system of pedestrian ways which connect the retail areas with the waterfront and residential areas, parking facilities, and open spaces.

Beaver Creek Canyon Greenway Refinement Plan (Metro, 1995) The goal of the Beaver Creek Canyon Greenway Refinement Plan was to acquire land to create a four-mile greenway of appropriate width to protect fish, wildlife and water quality values, and provide for trail-related recreational opportunities. The Refinement Plan established the Beaver Creek Greenway Target Area from the Sandy River to the north to the intersection of NE/SE Division Road and SE Troutdale Road south of Mt. Hood Community College.

Springwater Community Plan (September 2005) The Plan outlines trail system recommendations that comply with Metro's Green Trails Handbook to the extent possible. A connection to the Beaver Creek Trail to the North East along 282nd and trail connections to existing neighborhoods to the north of the Springwater Community are identified. The plan also recommends potential synergies with wastewater management and stormwater management by combining efforts to create infrastructure such as bridges or stormwater conveyance.

Springwater Transportation System Plan (2005) The Springwater Transportation System Plan (TSP), adopted as part of the Gresham TSP as an attachment, identifies a proposed off-street trail from the Springwater Trail over a new crossing of Highway 26, north on 282nd Avenue and continuing to the east along SE Orient Drive.

'Eastwinds' Development Prospectus

(2007) A plan for the redevelopment in an urban renewal area between I-84 and downtown Troutdale, the Eastwinds Development plan (Figure 5) identifies a location for the 40-Mile Loop through the property adjacent to the Sandy River.

Sandy River Connections Concept Plan (ODOT, 2008)

The Sandy River Connections project area is considered the "Gateway to the Gorge". The Concept Plan (Figure 6) provides a framework for partners to coordinate current and future opportunities for recreational, transportation, educational, and interpretive and natural resource improvements in the vicinity of the Sandy River Delta.

The plan identifies several projects that should be pursued and are relevant to this trail planning effort:

- 40-Mile Loop trail connection under the I-84 bridge (now complete)
- Trail connection through the Troutdale Urban Renewal Area following an existing service road parallel to the Sandy River including access under the railroad bridge and a bridge over the railroad
- Trail connection south of the railroad bridge through the western Beaver Creek riparian corridor to the Historic Troutdale bridge between the RV Park and several parcels along the Historic Columbia River Highway
- Sandy River Bicycle and Pedestrian Bridge along I-84 (now complete)



Figure 5 - Eastwinds Development site plan.

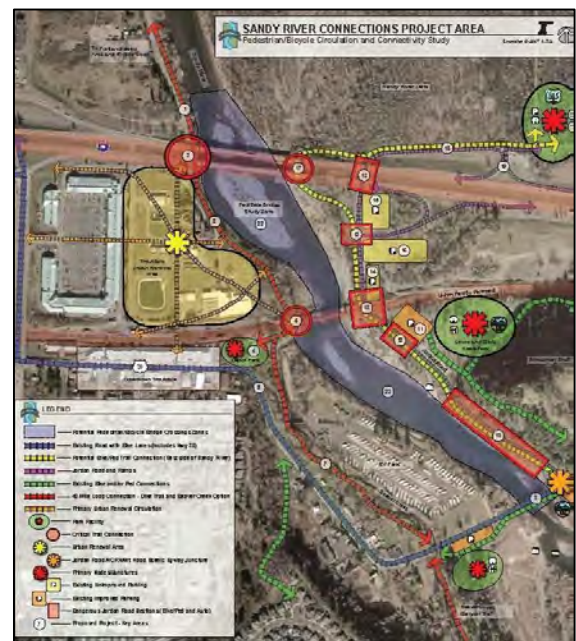


Figure 6 - Sandy River Connections Concept Plan.

City of Gresham Parks & Recreation, Trails and Natural Areas Master Plan (2015)

The City of Gresham Parks & Recreation, Trails, and Natural Areas Master Plan identifies opportunity to enhance the City's park and recreation system. The planning process included extensive public outreach to identify community preferences for the park system, and received responses from nearly 1,800 Gresham residents.

Participants in public involvement activities associated with the development of the Master Plan identified walking/biking trails, nature trails, and neighborhood parks are the three greatest needs in Gresham. The most-supported park improvements include, in ranked order, developing trails/connecting existing trails, improving parks and natural areas, and improving park maintenance. The top two priorities for spending tax dollars include developing walking/biking trails and upgrading neighborhood parks. Those participating in the process, indicated they recognized improvements to public health and fitness and providing opportunities for socializing are top benefits of parks, recreation facilities, and trails.

The vision for the plan included developing a system of interconnected parks, open space, and trails to maximize access to community destinations, parks, and recreation facilities. Other priorities included:

- Reducing auto-dependency and enhancing recreational opportunities by providing a connected system of trails and bikeways;
- Ensuring equitable distribution of recreation resources throughout Gresham's neighborhoods;
- Providing equal access to diverse recreational opportunities for all residents, regardless of age, physical and mental ability, culture, and economic ability;
- Improving community connectivity through trail development.



Figure 7 – Gresham Paths and Trails Master Plan map.

The plan highlights one strategy for improving the level-of-service by supporting trail development using appropriate means for obtaining access to trail corridors:

‘This may or may not involve land acquisition. Trail development most likely will require a collaborative role where the City of Gresham partners with others to acquire some trail corridors and develops trails along planned and desired routes.’

The plan does not contain any formal standard or guidelines for provision or development of trails, and presumes the City will prioritize and implement the trail planning projects noted in the Trails Master Plan and Transportation Plan. A map (updated and adopted in 2015) of existing and planned off-roadway paths, paved paths along roadways, and trails was included in Appendix J of the master plan (Figure 7, page 8).

US 26: Access to the Springwater Community Interchange Area Management Plan (ODOT, 2011) ODOT developed three interchange alternatives, along with three interim improvement options that would allow for some development if full funding is not available, initially, for the interchange. From the plan, Alternative C-2 was selected as the preferred alternative, an urban diamond configuration. Per the plan, the Springwater Trail would be elevated above the proposed 5-lane arterial.

Traffic analysis was only conducted for vehicular travel, and the roadway configurations outlined in the plan do not identify shared use paths, trails, or bicycle lanes on either the new five-lane arterial or the new interchange, but the planned transportation network recommendation references the Springwater TSP.

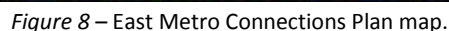
“Provisions for either on-street bicycle lane facilities or parallel off-street trails would be made for all community streets, collector streets, and arterials within the Springwater area.”

Goal 1 of the IAMP is to improve access and capacity for all modes of transportation in the Springwater area including improving connectivity to the existing and planned bicycle, pedestrian, trail, and street networks.

East Metro Connections Plan (July 2012) The East Metro Connections Plan (Figure 8, page 10) was a partnership of Wood Village, Troutdale, Fairview, Gresham, Multnomah County, Metro, and ODOT, and identifies opportunities for public and private investments within transportation corridors in eastern Multnomah County to improve connectivity and foster economic vitality. This document is a complementary process to jurisdictions’ transportation system plans and capital improvement programs, and recommends Metro amend the Regional Transportation Plan (RTP) to support projects, policies, and outcomes named in this action plan. The Plan includes goals relevant to the Troutdale to Springwater Trail Master Plan such as providing better access and mobility; increasing safety; activating employment areas; and helping people navigate through and to key destinations. Top plan priorities include North/South Connections; Downtowns and Employment Areas; Regional Mobility and enhancing the livability of East Metro communities.

- Phase 1 – Trail master plan to define the alignment (regionally sponsored effort by Metro)
- Phase 2
 - S/SE Troutdale Road improvements (pedestrian improvements between SE 21st Street and SE Stark Street)
 - S/SE Troutdale Road improvements (bicycle between Buxton Road and SE Stark Street)
 - 40-Mile Loop extension: SE Orient Drive to SE Troutdale Road
- Phase 3 – Construct the corridor (locally sponsored effort)
 - Reconstruct SE Troutdale Road (SE Stark Street to SE Division Street/Drive)
 - Beaver Creek Trail

Figure 8 – East Metro Connections Plan map.



The TSP identifies, “...an additional future planned facility that runs along the eastern boundary of Gresham and into neighboring jurisdictions, from the Sandy River in the City of Troutdale to the Springwater Plan Area and Springwater Corridor Trail. The length of that multi-use path (shared use path) will be approximately five miles long, of which one mile is planned within the Springwater Plan Area. This system of multi-use paths offers an off-street pedestrian experience on 10-12-foot-wide, paved facilities. They are a part of the planned regional pedestrian and bicycle system, and Gresham is actively involved in their planning and implementation....”

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Pedestrian system improvements include a recommendation to incorporate special or unique sites for nature trails, scenic walkways, or other special purpose trails.

The TSP highlights the “Sandy River to Springwater Multimodal Corridor” as one of the three additional multi-use paths that will complete Gresham’s network of off-street paths. The TSP identifies a route to the east of Gresham that runs north-south along SE 282nd Avenue.

- Project number 57 from the TSP is construction of an extension of the 40-Mile Loop from SE Orient Drive to SE Troutdale Road. This multi-use path is part of the 20-year phase.
- Project number 114 is a corridor study for the same segment of the 40-Mile Loop, and is also part of the 20-year phase.

The Functional System Plan (Chapter 5) consists of multimodal functional classification system plan and specific plans for the pedestrian and bicycle modes of travel. The functional classification system plan defines the function and design of Gresham’s

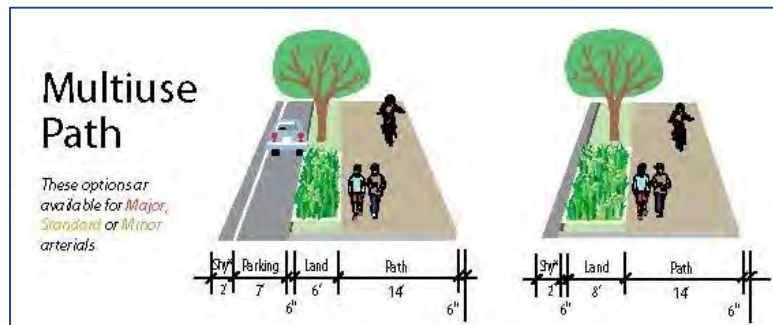


Figure 9 – Standard recommended cross section for multi-use paths adjacent to arterial streets from Chapter 5 of the Gresham TSP.

roadways to serve all travel modes, support existing and planned land uses, create aesthetic streets, and to accommodate stormwater management. Roadway volumes, speeds, number of lanes, and lane widths are functional parameters and parking, bicycle facilities, medians, and widths of sidewalks and planter strips are design elements. The functional classification plan focuses on arterial and collector streets. There is a standard recommended cross section for multi-use paths adjacent to arterials and collectors where the multi-use path replaces the bike lanes and sidewalks (Figure 9).

Gresham’s first Active Transportation Plan is scheduled for adoption in Fall 2017 and will amend the Transportation System Plan.

Transportation System Plan – City of Troutdale (2013) The Troutdale Transportation System Plan (TSP) includes several projects and action items relevant to this trail planning effort.

- Multi-use path between Depot Park, Beaver Creek Canyon, and through Mt. Hood Community College to the Gresham city limits, the Sandy River and Springwater Area Connections Trail;
- Multi-use path segment of the 40-Mile Regional Trail between Columbia/Sandy River Levy Trail to downtown Troutdale;

- Master plan for the Sandy River and Springwater Area Connections Trail to determine the alignment/recommended design treatments;
- Bike lanes along S Troutdale Road from downtown Troutdale south to SE Strebin Road.

Goal 3 of the Troutdale TSP is to, “...provide a balanced, multi-modal transportation system and reduce the number of trips by single occupant vehicles....” Policy b of this goal calls for the city to develop and maintain standards for pedestrian connectivity to activity centers, residential areas, and recreational trail, and says that the 40-Mile Loop shall link to Troutdale’s bicycle and pedestrian plans.

Regional Active Transportation Plan – Metro (2014) The Regional Active Transportation Plan (ATP) creates a vision, plan, and policies for communities in the region to increase transportation options and to support economic development, healthy active living, and equity. People walking, bicycling, and skateboarding are all active transportation modes. The ATP identifies trails as important element in the region’s transportation network because they provide a unique travel experience and safe, comfortable opportunities for active travel. Providing trails can make walking and bicycling more accessible to people. The Sandy River to Springwater Trail is identified as a Regional Bikeway Gap and a Regional Pedestrian Network Gap in the ATP.

Sandy River Access Plan (2014) The Sandy River Access Plan determines the location of a shared use trail based on the City of Troutdale defined Vegetative Corridor (VECO) boundaries and provides connectivity to the north and south links of the 40-Mile Loop shared use path system. The plan includes a concept design (Figure 10) for a shared use path from I-84, along the Sandy River, under the Union Pacific Railroad Bridge, to Depot



Figure 10 – Sandy River Access Plan concept design rendering.

Park. The design includes an event plaza, an overlook with seating, and a viewing platform located at the steepest area of the bank. A gravel trail connects to the waterfront for direct access to the Sandy River.

Sandy River to Springwater Multi-modal Corridor Feasibility – University of Oregon (2014) The University of Oregon’s Sustainable Cities Initiative provided a trail planning and feasibility study for the eastern-most gap in the 40-Mile Loop. Students from the University

of Oregon used a combination of GIS analysis and field studies to develop three potential route solutions: low-cost, quality, and cost-effective. Based on their analysis, the cost-effective alignment was recommended. Detailed studies proposed design solutions for the cost-effective alignment.

Project Goals

The following project goals were developed with Stakeholder Advisory Committee input. These goals were developed specifically for this alignment study, and reflect shared values about access and mobility reflected in previous plans. In the future, objectives should be developed that identify short- and long-term actions to carry out each goal.

Goal 1 – Mobility

Provide opportunities for those who choose to use the trail for both transportation and recreation.

- Transportation – provide direct non-motorized connections to destinations
- Recreation – provide a variety of recreational opportunities for users of all ages and abilities

Goal 2 – Experiences

Quality of experience should be provided for users of all ages and abilities to experience nature and to access key destinations such as parks and commerce centers.

- Access to nature and key destinations
- Opportunities for all users
- Key views to natural resources
- Family friendly

Goal 3 – Implementation

Construction cost and feasibility as well as property ownership should be given a high priority.

- Constructability
- Property ownership
- Cost

Goal 4 – Management

Public safety and welfare and maintenance are important. Trail development should be pursued in a manner that will be efficient and effective.

- Safety
- Operations and maintenance

EXISTING CONDITIONS

Existing conditions for the entire study area were documented using base mapping and field visits to verify conditions. A photo summary of existing conditions keyed to geographical locations is included in Appendix B.



Figure 11 – The project area was divided into a grid of 21 one-mile tiles

The project area was divided into a grid of 21 one-mile tiles (Figure 11). Two sets of maps were generated, one set of environmental conditions and one set of land use conditions, for each tile. Environmental conditions include topography (particularly slopes greater than 15%), habitat and conservation areas, and floodways and 100-year flood zones. Land use conditions include existing and proposed trails, political boundaries (city, county, and urban growth boundary), established and planned on-street bikeways, schools, municipal facilities (town centers, libraries, and schools), and existing parks and natural areas.

OPPORTUNITIES AND CHALLENGES

Opportunities and challenges were documented at a high-level to inform potential trail routes. The study area was divided into nine tiles at half the scale of the existing conditions map (1"=1,000' or one tile = 4 square miles, Figure 12). Diagrams keying opportunities and challenges to specific locations are in Appendix C.

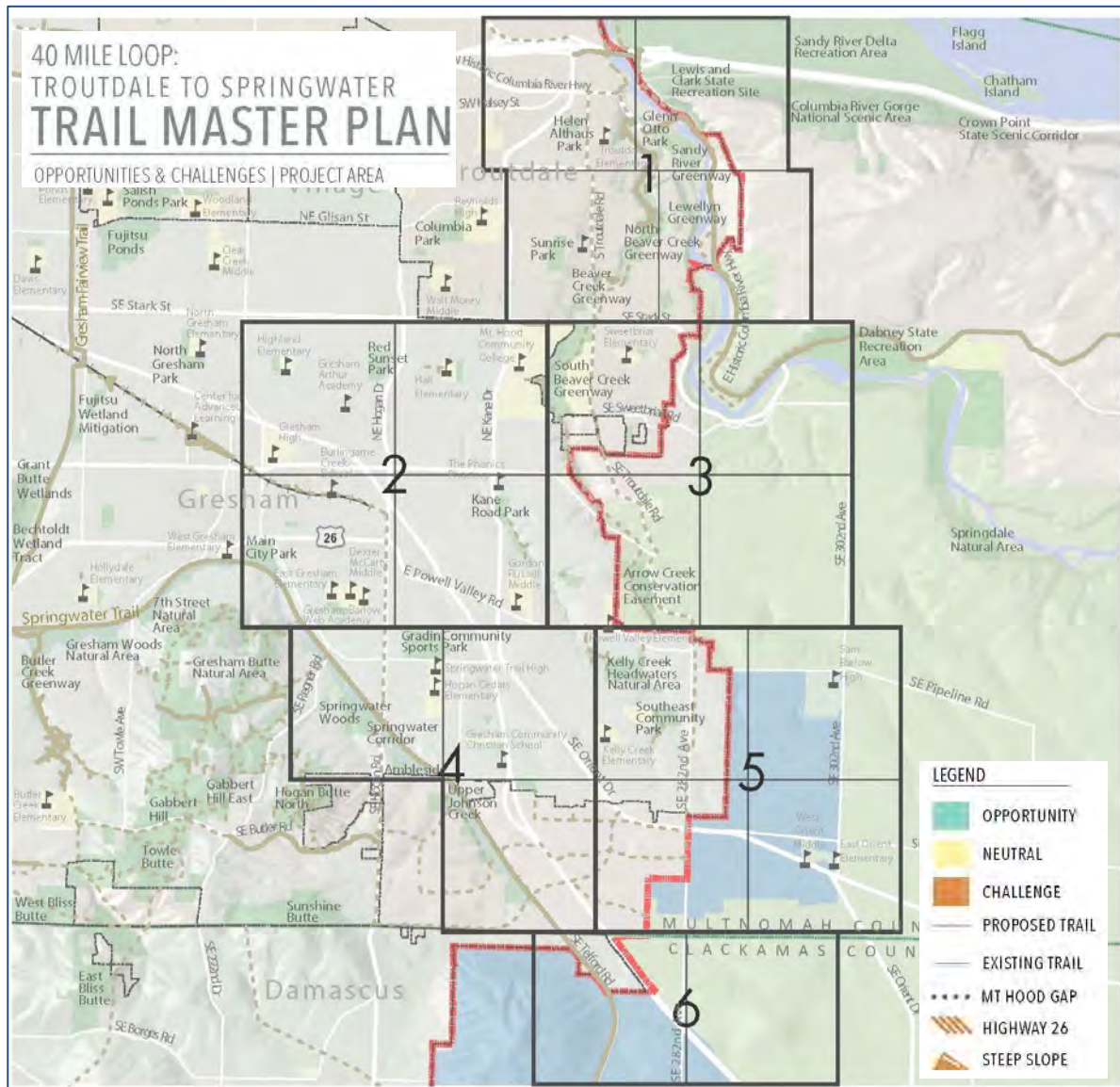


Figure 12 – The project area was divided into a grid of nine one-mile tiles for the opportunities and challenges summary.

Opportunities include:

- Connections to existing segments of the 40-Mile Loop to the north (shared use path under I-84) and to the south (Springwater Trail).
- Connections to parks and open spaces.

- Existing greenway corridors.
- Publicly-owned properties, particularly large linear parcels.
- Areas of natural significance such as canyons or topographical significance.
- Planned trails or shared use paths previously adopted through other planning efforts. The City of Gresham is already requiring developers to dedicate rights-of-way or easements for portions of the 40-Mile Loop, adopted as part of Gresham's TSP, along SE 282nd Avenue.

Challenges include:

- Steep topography. Trails through steep areas will likely be hiking trails with a parallel route for cyclists on a nearby roadway.
- Densely developed areas with several privately-owned properties.
- Wide roadways or waterways that require new bridges or under crossings.
- Intersections with irregular geometry.
- Areas beyond the jurisdictional control of project partners.

Neutral items are shown for reference and include:

- Existing pedestrian crossings of the Springwater Trail.
- "Mt. Hood Gap" route from the 40-Mile Loop Trail map. This route is shown for reference.
- Connections to nearby regional parks that are beyond the project corridor.
- Utility corridors. There may be opportunities to add a trail to an existing utility corridor, but in some cases a trail may not be compatible with the existing utility.

ALIGNMENT ROUTE OPTIONS AND EVALUATION

Based on project goals, study area observations, and stakeholder input, three initial routes were developed for the Troutdale to Gresham Trail. These routes were refined and adjusted based on the evaluation results and community, project management team, and stakeholder input.

Initial Route Alternatives

Three initial routes were developed between Troutdale and Gresham (Figure 13, page 20). Each route connects Troutdale to Mt. Hood Community College and Mt. Hood Community College to the Springwater Trail in Gresham, and is described from north to south below.

1. **Gresham Downtown** – Follows portions of the existing “Mt. Hood Gap” on roadways with existing bike lanes, shared use paths, or designated bike routes. Of the three routes, this is the shortest and most direct option. However, it utilizes truck routes and lacks connectivity to natural features.

Two route alternatives, 1A and 1B, follow SW 257th Avenue/NE Kane Road to Mt. Hood Community College. SW 257th Avenue/NE Kane Road would be upgraded to include a shared use path within the road right-of-way (ROW). Route 1A is a mixture of on-street bikeways (neighborhood streets between Red Sunset Park and NE Cleveland Ave and west of NE Cleveland Avenue toward Historic Downtown Gresham and Main City Park) and a shared use path along NE Cleveland Avenue. Route 1B follows the existing “Mt. Hood Gap” route south to the Springwater Trail.

2. **Troutdale Road** – Roughly follows S/SE Troutdale Road and SE 282nd Avenue to Springwater, a large rural area in southeast Gresham with a robust network of planned trails and shared use paths. The route provides a mixture of opportunities to connect with unique landscape features of eastern Multnomah County and is an efficient transportation route. There is an opportunity to improve the existing hiking trails in Beaver Creek Canyon and Harlow Canyon to create a hiking trail parallel to the on-street facilities.

Two route alternatives, 2A and 2B, through Troutdale were considered. Route 2A follows Buxton Road south to S Troutdale Road. Route 2B follows SE Sandy Avenue, a low-volume street adjacent to Harlow Canyon, past Troutdale Elementary to S Troutdale Road. The two route alternatives diverge at the north side of Mt. Hood Community College. Route 2A passes through the campus, crosses Beaver Creek, and continues south on neighborhood streets with existing signed bike routes and follows the route for the 40-Mile Loop already adopted by the City of Gresham Trails Master Plan. Route 2B follows S Troutdale Road on the east side of Mt. Hood Community College Campus to SE Salquist Road and connects to the existing “Mt. Hood Gap” route on SE Palmquist Road via SE Orient Drive.

3. **Beavercreek and East Orient** – Connects Troutdale to more rural areas of eastern Multnomah County, and is very scenic with dramatic views of Mt. Hood and the

surrounding agricultural community. It also connects schools and offers recreational opportunities. The route utilizes an existing utility easement and trail to access the eastern rim of Beaver Creek canyon and passes through Mt. Hood Community College campus. Existing plans show the 40-Mile Loop continuing through private properties west of SE Troutdale Road along Beaver Creek. This route follows the alignment from previous plans to the intersection of SE Troutdale Road and SE Division Drive. Cyclists would follow SE Division Drive east to SE 302nd Avenue, south to SE Lusted Road, and west toward Johnson Creek. A hiking trail parallel to Beaver Creek, parallel to SE Division Drive, would allow for a more comfortable experience for pedestrians.

Preliminary Route Evaluation

The evaluation criteria outlined below (Table 1) served as methodology to analyze and compare the preliminary routes described above. Project goals outlined earlier in this document guided the route selection and evaluation process.

Maximum scores and criteria were based on input and review from the Project Management Team (PMT) and Stakeholder Advisory Committee (SAC). The top three criteria were rated

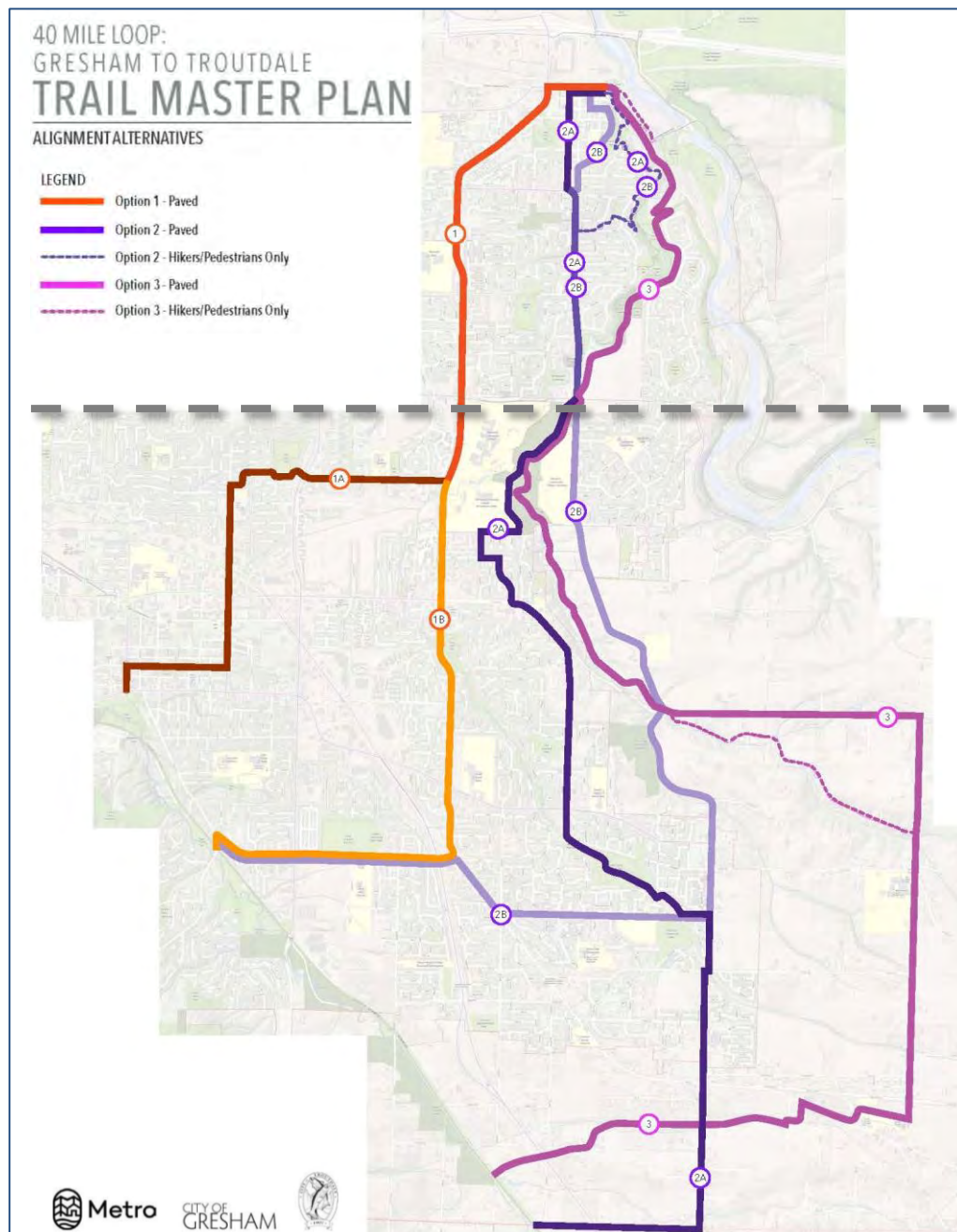


Figure 13 - Three preliminary alignment routes were identified for the Troutdale to Gresham Trail.

as highest value, the middle three were the next highest value, and the final four criteria were given lowest point values. Evaluation criteria was considered a 'living' document and was used as a flexible guideline for identifying a recommended trail route.

Table 1: Evaluation Criteria, Description, and Scoring

Evaluation Criteria		Maximum Score
User Experience	<ul style="list-style-type: none"> Is the user able to directly access views that are otherwise unavailable or inaccessible? Does the route provide opportunities for users of all ages and abilities, and does the route allow for a variety of user types? Routes that avoid noisy corridors with high volumes of vehicular and truck traffic will rank higher than those along roadway corridors 	18
Environmental Impact	<ul style="list-style-type: none"> Does the route enhance habitat connectivity? Will the route potentially have an adverse impact on existing habitats or cultural resources? Are there opportunities to create mitigation areas or to restore degraded areas? 	18
Connectivity to Parks, Recreation, & Schools	<ul style="list-style-type: none"> Will the route provide connections to parks and natural areas? Are there opportunities for the route to provide safer access to schools? 	18
Cost / Ease of Implementation	<ul style="list-style-type: none"> Is the cost reasonable relative to the expected user experience and community value of the project? Is the cost per unit relative to similar scaled projects in the Portland region? 	10
Safety and Security	<ul style="list-style-type: none"> Is the route visible from adjacent properties? How challenging is emergency access? Routes that are visible and accessible will rank higher 	10
Conforms with Plans & Regulations	<ul style="list-style-type: none"> Is the route already part of a previously adopted planning document? Will the route require extensive land use permitting? 	10
Economic Impact / Economic Catalyst	<ul style="list-style-type: none"> Does the route provide access to land that can support future trail-oriented development? Will the route promote the development of catalyst projects? 	4
Property Ownership	<ul style="list-style-type: none"> Does the route fall within properties or rights-of-way already publicly owned? Fewer required property acquisitions or easement purchases will rank higher If privately owned, anticipated amount of time before property will redevelop Fewer individual property acquisitions will rank higher 	4

Table 1: Evaluation Criteria, Description, and Scoring

Evaluation Criteria		Maximum Score
Directness of Travel	<ul style="list-style-type: none">• Will the route provide a direct connection to destinations?• Does the route directly connect to the 40-Mile Loop at both the northern and southern ends and minimize out of direction travel those using the Loop?	4
Topography / Terrain	<ul style="list-style-type: none">• How steep is the route?• Routes that do not exceed maximum thresholds for accessibility will rank higher	4

Each numbered route was evaluated for the north end (Troutdale to Mt. Hood Community College) and south end (Mt. Hood Community College to Gresham) to facilitate mixing portions of one route with another to determine the recommended route for the trail. The preliminary alignment route evaluation is shown on the next page (Table 2). Appendix D is the complete summary of preliminary alignment alternatives and evaluation.

Table 2: Preliminary Alignment Route Evaluation.										
Evaluation Criteria	Alignment Alternatives: North				Alignment Alternatives: South					
	Option 1	Option 2A	Option 2B	Option 3	Option 1A	Option 1B	Option 2A	Option 2B	Option 3	
User Experience (max 18)	6	12	15	18	6	6	12	12	15	
Environmental Impact (max 18)	6	6	9	15	6	6	9	3	15	
Connectivity to Parks, Recreation, and Schools (max 18)	7	16	18	12	10	8	10	14	6	
Subtotal (max 54)	19	34	42	45	22	20	31	29	36	
Cost / Ease of Implementation (max 10)	4	10	10	6	6	4	8	4	5	
Safety and Security (max 10)	10	7	6	4	10	10	9	8	4	
Conforms with Local Plans (max 10)	3	4	8	4	4	6	8	5	3	
Subtotal (max 30)	17	21	24	14	20	20	25	17	12	
Economic Impact (max 4)	2	2	1	1	4	1	3	2	1	
Property Ownership (max 4)	4	4	4	2	3	4	3	4	1	
Directness of Travel (max 4)	2	4	2	1	2	3	2	3	0	
Topography (max 4)	4	1	3	2	4	3	3	3	0	
Subtotal (max 12)	12	11	10	6	13	11	11	12	2	
Total Score (max 100)	48	66	76	65	55	51	67	58	50	

Refined Route Alternatives

Based on stakeholder feedback, there was a need for further study before selecting a preferred route in four areas.

- Troutdale – From downtown to the intersection of S Troutdale Road and SE Stark Street. Five route alternatives were considered (Figure 14, page 25).
 - Buxton Road – Shared use path within the road ROW
 - Sandy Avenue – Shared use path with two-way vehicle traffic to remain
 - Sandy Avenue – Shared use path with one lane of vehicle traffic closed
 - Beaver Creek Canyon – A paved shared use path within the existing utility easement behind houses on SE Evans Avenue
 - Beaver Creek Canyon – bicycles to share the roadway on SE Evans Avenue
- Mt. Hood Community College – Additional site visits and stakeholder outreach were conducted with Mt. Hood Community College, City of Troutdale, Metro, and Multnomah County staff and members of the SAC to refine the preferred route through or adjacent to campus.
- Kelly Creek Natural Area – Additional neighborhood stakeholder outreach and a site visit was conducted to determine whether a route that used existing trails through the Kelly Creek Natural Area is appropriate for a regional trail, or if a different route should be considered.
- Gresham – Concurrent to this trail study, the City of Gresham was developing an update to their Active Transportation Plan. Route 2A, above, was introduced following the first public open house. Gresham has already required easement dedications for a shared use path along portions of SE 282nd Avenue as a condition of development. For these reasons, Gresham staff and members of the SAC requested more detail of a route through Gresham before a recommended route was identified between S/SE Troutdale Road/SE 282nd Avenue and SE Orient Drive/SE 282nd Avenue. Three routes were considered:
 - Kelly Creek On-Street Route – Combination of shared streets between Mt. Hood Community College south to SE Powell Valley Road.
 - Williams Road Route – Combination of shared street from Mt. Hood Community College, between NE 17th Street and SE Division Street these are the same streets as the “Kelly Creek Route” (above), and a shared use path along NE Division Street and NE/SE Williams Road to SE Powell Valley Road.

- Troutdale Road Route – Shared use path from Mt. Hood Community College south along S/SE Troutdale Road and SE 282nd Avenue.

Each of the routes described above involved a slightly different level of additional public outreach, site analysis, and additional evaluation.

Troutdale Routes

Each of the five route options considered for Troutdale (Figure 14) have unique attributes. Following the first open house and each of the first three stakeholder meetings, public safety was expressed as the top concern. PMT and SAC members agreed that it was important that the trail be separated from vehicle traffic for as much of the route as possible, and that it was also important that the trail be visible. Streets with very low traffic volumes, less than 2,000 vehicles per day, were considered acceptable for short distances.

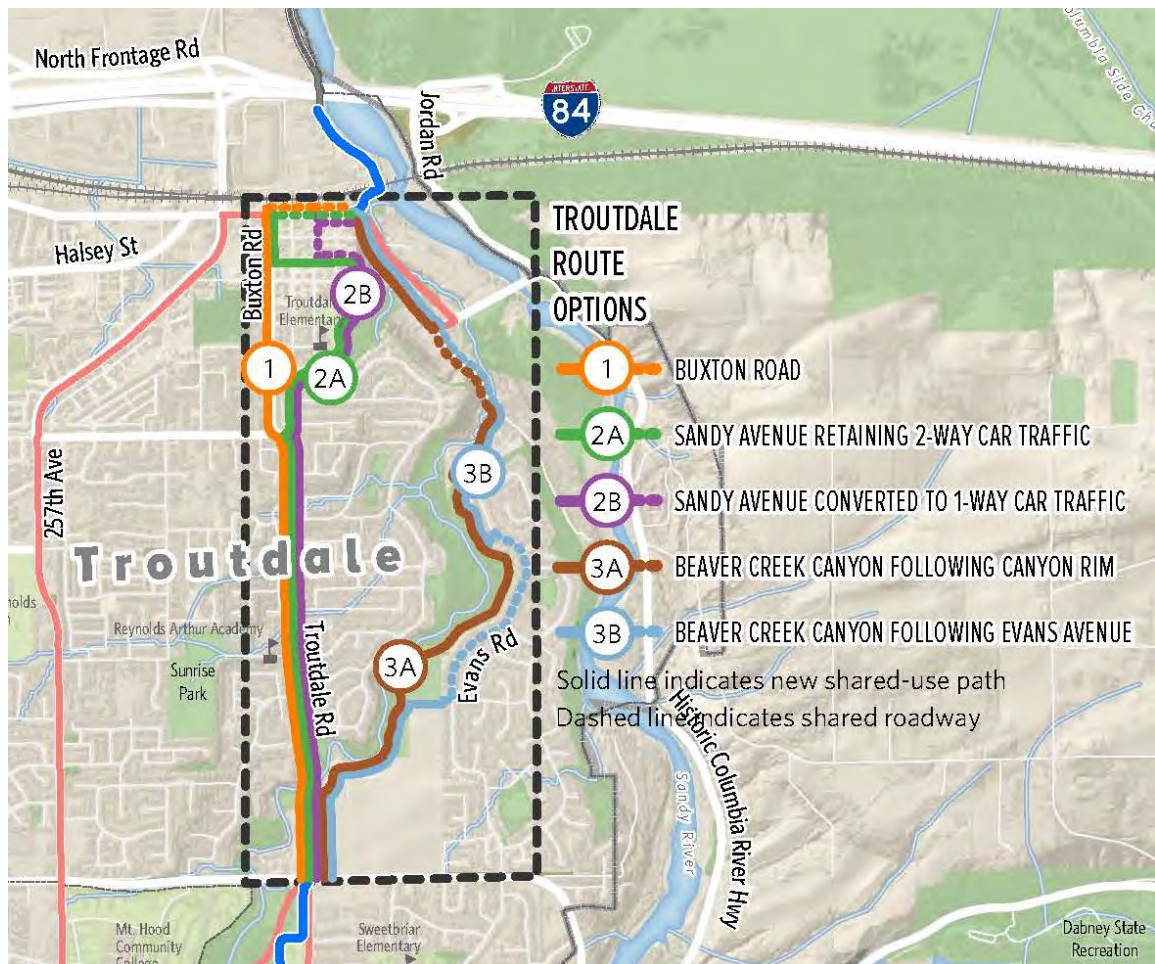
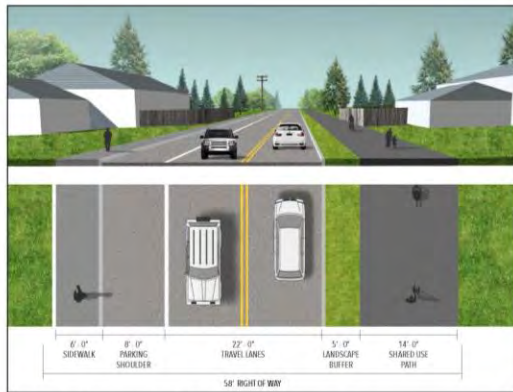


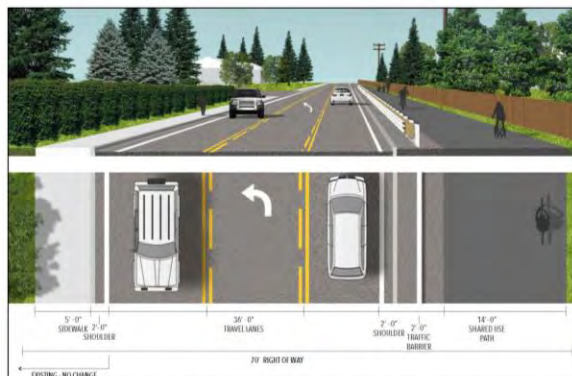
Figure 14 – Five route alternatives through Troutdale were studied in further detail.

1

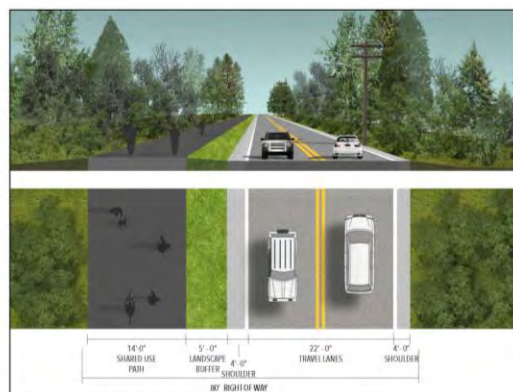
- Shared use path on Buxton Rd
- Shared use path on S Troutdale Rd



Side Path - east side of Buxton Road



Side Path - north/east side of Troutdale Road



Side Path - west side of Troutdale Road

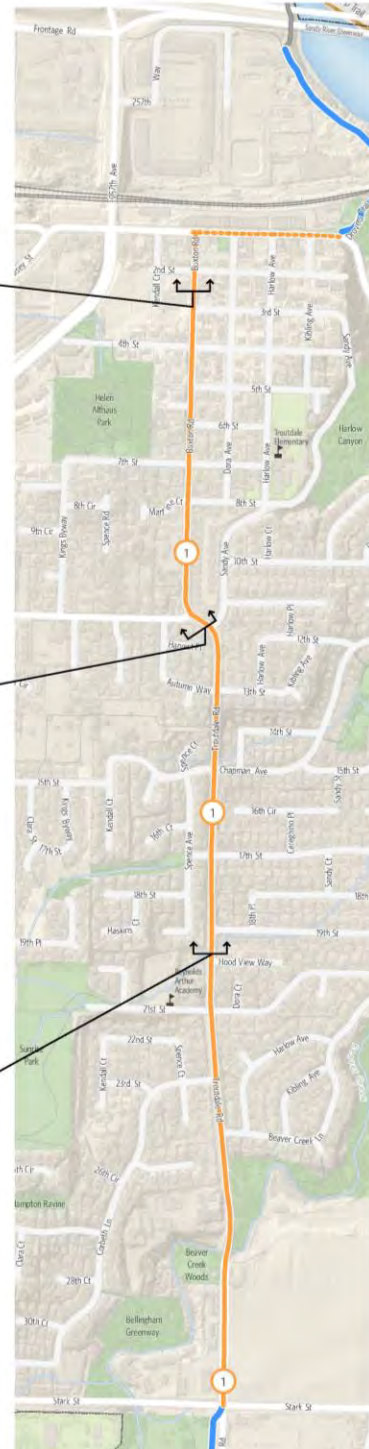
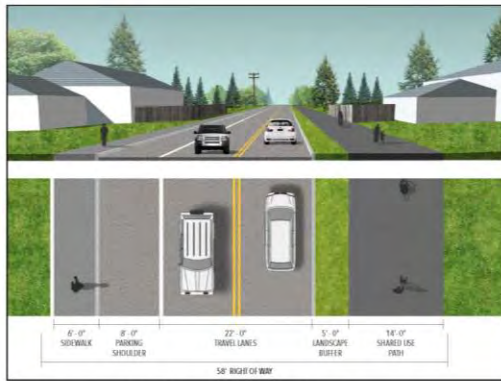


Figure 15 – Buxton Road to S Troutdale Road route and sections.

2A Sandy Avenue: keep 2-way car traffic on SE Sandy Avenue

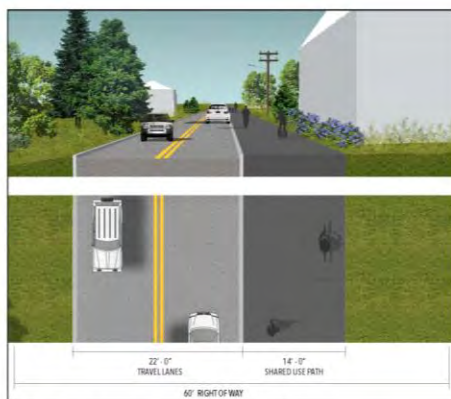
- Shared use path on Buxton Rd
- Share use path on SE 3rd St
- Shared use path on SE Sandy Ave
- Shared use path on S Troutdale Rd



Side Path - east side of Buxton Road



Side Path - south side of 3rd Street



Side Path - south side of 3rd Street

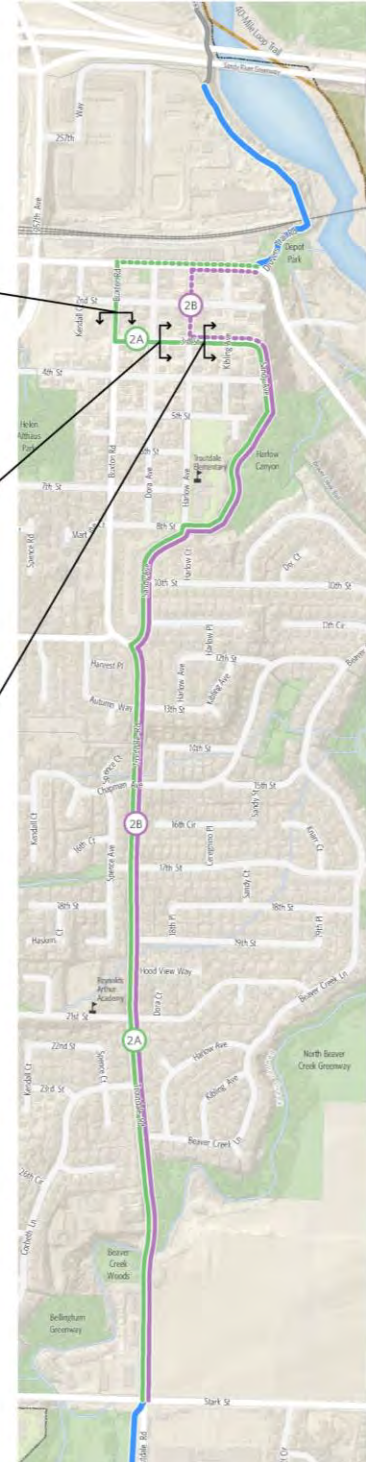
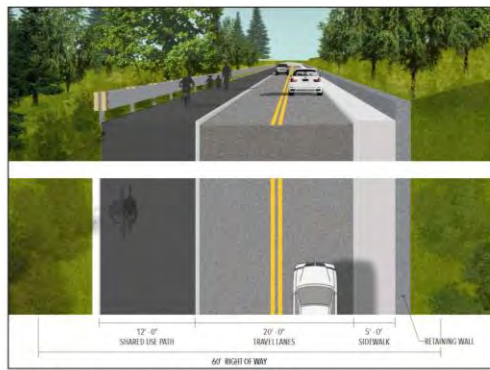
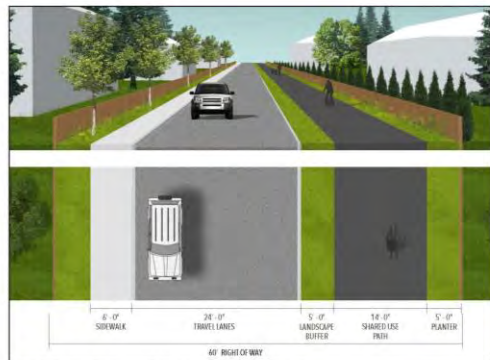


Figure 16 – Buxton Road to NE Sandy Avenue route and sections.



Side Path - east side of Sandy Avenue



Side Path - west side of Sandy Avenue



Side Path - west side of Troutdale Road

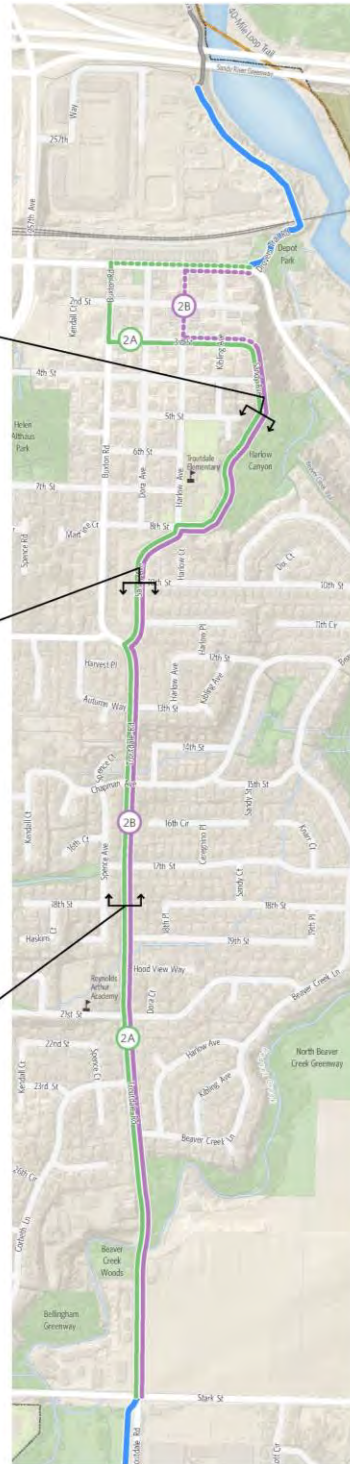


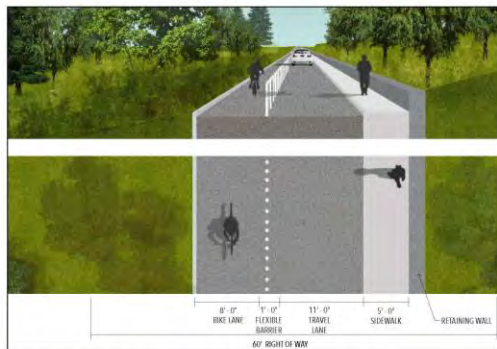
Figure 17 – Buxton Road to NE Sandy Avenue route and sections.

2B Sandy Avenue: 1-way car traffic on Sandy Avenue

- Shared roadway on SE Harlow Ave
- Shared use path on SE Sandy Ave
- Shared roadway on SE 3rd St
- Shared use path on S Troutdale Rd



Neighborhood Greenway - Dora Street or Harlow Avenue



Side Path - west side of Sandy Avenue

Option A - replace vehicle travel lane with an 8' wide shared use path separated from the vehicles by flexible delineators; no width added to Sandy Avenue.



Side Path - west side of Sandy Avenue

Option B - replace vehicle travel lane with a 12' wide shared use path separated from the vehicles by permanent barrier; Sandy Ave widened to accommodate new shared use path.

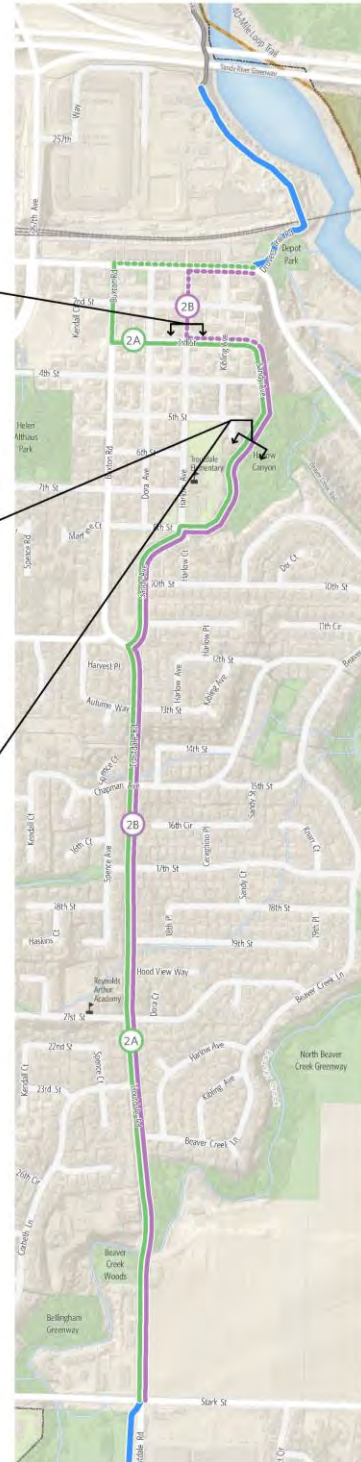
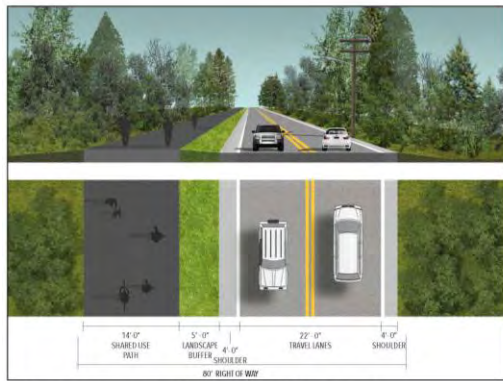


Figure 18 – NE Harlow Avenue to NE Sandy Avenue route and sections.



Side Path - west side of Sandy Avenue



Side Path - west side of Troutdale Road



Figure 19 – NE Harlow Avenue to NE Sandy Avenue route and sections.

3A Beaver Creek Canyon (3A) – following canyon rim

- Either keep existing bike lanes and sidewalk on Historic Columbia River Hwy or replace the existing sidewalk and south eastbound bike lane with a shared use path
- Shared roadway on SE Jackson Park Road, requires easement
- Shared use path through private property at the southern end of SE Jackson Park Road, requires easement or property purchase
- Shared use path to replace the existing trail within the publicly-owned utility corridor to the west of residences along SE Evans Avenue
- Shared use path through private property to the northeast corner of SE Stark Street and S Troutdale Road, requires easement.



Shared Use Path - Beaver Creek utility easement



Shared Use Path - Beaver Creek Greenway

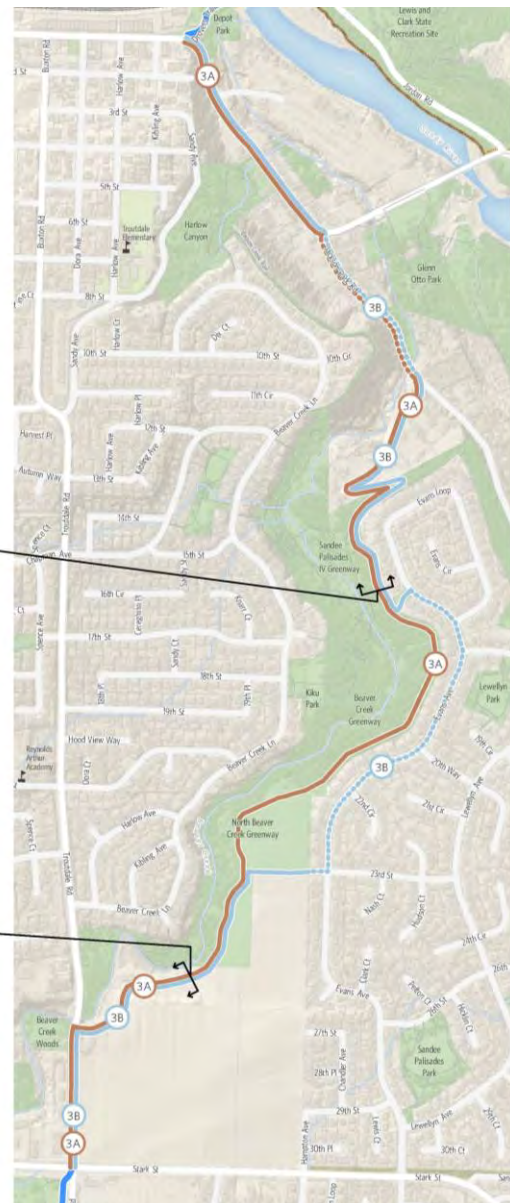
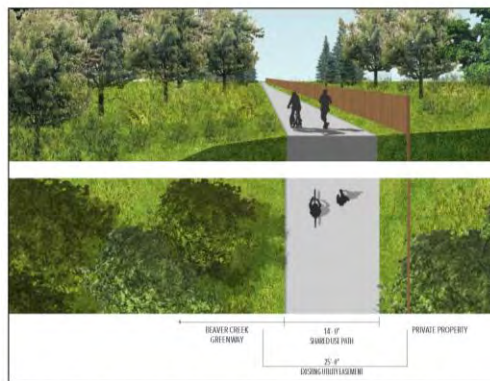


Figure 20 – Beaver Creek Canyon route and sections.

3B**Beaver Creek Canyon (3B) – follow SE Evans Avenue**

- Either keep existing bike lanes and sidewalk on Historic Columbia River Hwy or replace the existing sidewalk and south eastbound bike lane with a shared use path
- Shared roadway on SE Jackson Park Road, requires easement
- Shared use path through private property at the southern end of SE Jackson Park Road, requires easement or property purchase
- Shared use path to replace the existing trail within the publicly-owned utility corridor to the west of residences along SE Evans Avenue to the existing trailhead just north of SE Evans Loop
- Shared roadway between trailhead and SE 23rd Street
- Shared use path through private property to the northeast corner of SE Stark Street and S Troutdale Road, requires easement.



Shared Use Path - Beaver Creek utility easement



Neighborhood Greenway - Evans Avenue



Shared Use Path - Beaver Creek Greenway



Figure 21 – Beaver Creek Canyon to SE Evans Avenue route and sections.

Troutdale Route Evaluation Criteria

The evaluation criteria outlined below (Table 3) was recommended by the Project Management Team (PMT) to further compare route alternatives through Troutdale after additional study was recommended by the PMT and Stakeholder Advisory Committee (SAC).

Table 3: Troutdale Evaluation Criteria and Description

Evaluation Criteria	Description
Cost	<ul style="list-style-type: none">• Based on planning level cost estimate• Relative cost of each option is compared
Traffic Volume	<ul style="list-style-type: none">• Existing traffic counts were provided by Multnomah County• Traffic counts for City of Troutdale roadways were conducted
Roadway Condition	<ul style="list-style-type: none">• Insufficient information was available about all routes to make a comparison
Crossing Conflicts	<ul style="list-style-type: none">• Driveways and roadway crossings were counted along each route alternative where a shared use path is proposed
On-Street Parking	<ul style="list-style-type: none">• Fewer crossings are preferred for a shared use path• Number of on-street parking spaces were estimated and confirmed with a field review• No consideration is given to existing or future demand for on-street parking
Steepness	<ul style="list-style-type: none">• Based on available GIS slope information for each route alternative

Troutdale Route Cost Assessment

Planning level cost estimates were developed using the cross sections described above for each route alternative and are based on rough order of magnitude lineal foot pricing. The full cost assessment workbook is attached in Appendix L. The costs do not include:

- Architectural, design, and construction management fees
- Assessments, taxes, finance, legal, or development charges
- Environmental impact
- Owner-provided insurance or builder's risk
- Land and easement acquisition

The least cost route alternative is 3B, but additional property purchases and easements are not included in the estimate. Table 4 (page 35) provides a summary of the linear foot cost for each route.

Table 4: Troutdale Routes Cost Summary

Route Option		Total Length	Cost Per LF	Total Cost
Route 1		8,030 LF	\$517.26	\$4,153,559
Route 2A		9,356 LF	\$495.36	\$4,634,603
Route 2B	Option A	8,777 LF	\$331.58	\$2,910,261
	Option B	8,777 LF	\$478.86	\$4,202,927
Route 3A		10,574 LF	\$327.77	\$4,465,815
Route 3B		11,272 LF	\$142.98	\$2,307,757

Troutdale Route Traffic Volume Assessment

Traffic volume information is based on traffic counts from different sources. Counts for Buxton Road were available from Multnomah County from August 2013, and counts for S Troutdale Road from May 2015. No counts were available for either SE Sandy Avenue or SE Evans Avenue from the City of Troutdale, and a private consultant was hired to collect and analyze traffic counts. Counts for SE Sandy Avenue were collected for a 24-hour period beginning at midnight Tuesday, October 11, 2016. Counts for SE Evan Avenue are based on morning and evening peak hour traffic counts collected at the intersection of SE Evans Avenue and SE Lewellyn Avenue. A summary of available and collected traffic counts is shown in Table 5 (below).

Table 5: Troutdale Traffic Volumes

	ADT	AM 2hr Peak	NB - AM	SB - AM	PM 2hr Peak	NB - PM	SB - PM
Buxton Rd	6,439	825	168	657	1,092	705	387
SE Sandy Ave	130	-	-	-	33	-	-
S Troutdale Rd	8,176	1,139	454	685	1,515	584	931
SE Evans Ave	490	34	-	25	49	36	-

Both Buxton Road and S Troutdale Road are owned and managed by Multnomah County within the Troutdale city limits. Buxton Road has average daily traffic (ADT) of approximately 6,500 vehicles. Approximately 2.6% of the vehicles counted with tube counters were bicycles and 87.8% of the vehicles were cars, small trucks, or buses. S Troutdale Road has an ADT of approximately 8,200 vehicles. Approximately 1.0% of the vehicles counted were bicycles and 89.9% of the vehicles were cars, small trucks, or buses. For comparison, SW 257th Avenue which parallels Buxton Road and S Troutdale Road has an

ADT of 18,499 (June 2013) with 1.2% of the vehicles being bicycles and 88.4% being cars, small trucks, or buses. SW 257th Avenue/NE Kane Drive is also the designated truck route from Gresham, through Troutdale, to I-84. From the Troutdale TSP (counts collected June 2004), pedestrian counts during the PM peak are available for Buxton Road/Historic Columbia River Highway (38 pedestrians), Buxton Road/SW Cherry Park Road (2 pedestrians), and S Troutdale Road/SE Stark Street (44 pedestrians).

The threshold typically used for separating car and bicycle traffic with a shared use path, or similar facility, is 10,000-50,000 ADT. Buxton Road, SE Sandy Avenue, and S Troutdale Road are below this threshold. In this case, a shared use path rather than bike lanes and sidewalks is being considered because the 40-Mile Loop is a regional trail with a goal of connecting users of all ages and abilities and a higher level of separation and clarity is desired.

SE Sandy Avenue is owned and maintained by the City of Troutdale and has an ADT of approximately 130 vehicles. No properties are directly served by SE Sandy Avenue between SE 4th Street and SE 8th Street, and SE Harlow Avenue offers a more direct route between SE 4th Street and SE 8th Street, so the low traffic volumes are not surprising. Based on field observations and collected traffic volumes, a lane of vehicle traffic could be repurposed for a shared use path with very little impact to the surrounding street system.

SE Evans Avenue is also owned and maintained by the City of Troutdale. The ADT is approximately 490 vehicles. SE Evans Avenue is being considered as a candidate for a shared roadway or neighborhood greenway; bicycles would share the roadway with motor vehicles and pedestrians will use the sidewalks. The North American City Transportation Officers (NACTO) *Urban Bikeway Design Guide*, and the recently published City of Portland *Neighborhood Greenways Assessment Report*, suggest 1,500 ADT (former) or 1,000 ADT is the threshold for vehicle volumes for a neighborhood greenway. The *Neighborhood Greenways Assessment Report* also says that ideally a neighborhood greenway should have fewer than 50 peak hour vehicles in the peak direction; SE Evans Avenue has 49 vehicles in both directions combined during the PM peak. For all standards, the examined segments of SE Evans Avenue are within the ideal range.

Troutdale Route Crossing Conflicts

Crossing conflicts include driveways or roadways that will cross a separated shared use path. Field observations, aerial photos, and Google Street View images were reviewed for both sides of the streets where shared use paths are being considered to determine which side of the street would have fewer motor vehicle crossings. This data was not collected for streets where a shared roadway and sidewalk is being considered. Table 6 (page below) and Figure 22 (page 39), quantify the number of crossings and show locations of intersections and driveways.

Table 6: Troutdale Crossing Conflict Summary

Route Segment		Driveways	Roadways	Total
Buxton Rd – Hist Columbia River Hwy to SE 3rd St	West	2	1	3
	East	2	1	3
Buxton Rd – SE 3rd St to SW Cherry Park Rd	West	13	3	16
	East	4	6	10
SE 3rd St – Buxton Rd to SE Harlow Ave	North	0	1	1
	South	3	1	4
SE 3rd St – SE Harlow Ave to SE Sandy Ave	North	2	0	2
	South	3	0	3
SE Sandy Ave – SE 3rd St to S Troutdale Rd	West	1	2	3
	East	1	3	4
S Troutdale Rd – SW Cherry Park Rd to SE Stark St	West	11	4	15
	East	10	5	15
Historic Columbia River Hwy – Depot Park to Bridge	West	13	0	13
	East	8	2	10

The number of crossings alone is not an accurate comparison. Some driveways or roadways are frequented several times per day, such as those of a business or those of a busy street, and others are frequented only one to two times per day by the same individual. Drivers who regularly cross the path are more likely to be aware of trail users, and portions of the path with more frequent vehicle crossings will need additional signs and visual cues for both 40-Mile Loop users and drivers.

Troutdale Route On-Street Parking

For each of the streets being compared where parking loss was anticipated with the addition of a shared use path, parking spaces are not striped. Rather, each space was assumed to be 25-feet long. The distance was measured using Google Earth imagery and GIS data. Driveways and driveway offsets (5' each side), intersections and intersection offsets (10' each side), and areas labeled No Parking were subtracted from the total distance and divided by 25-feet to calculate the approximate number of available on-street parking spaces. This information was field verified. On-street parking for Buxton Rd, S Troutdale Rd, and SE Sandy Avenue appears to see limited use, and remaining spaces are expected to

cover the potential demand based on surrounding land uses. A summary of parking changes is shown in Table 7, below and Figure 22 (page 39).

Table 7: Troutdale On-Street Parking Summary

	On-Street Parking, Existing	On-Street Parking, Remaining
Buxton Rd – Hist Columbia River Hwy to SW Cherry Park Rd	167	85
SE 3rd St – Buxton Rd to SE Sandy Ave	11	11
SE Sandy Ave – SE 8th St to S Troutdale Rd	31	16
S Troutdale Rd – SW Cherry Park Rd to SE Stark St*	190	105

Troutdale Route Steepness Assessment

Areas of each route near Troutdale are steep, and this comparison considered the slope in the steepest segments of each route.

- Buxton Road – 8.8% for approximately 715-feet
- SE Sandy Avenue – 4.3% for approximately 1,190-feet
- SE Jackson Park Road/SE Evans Avenue – 5% max (unbuilt)

Shared use paths installed within the road right-of-way

When a shared use path is installed within the road right-of-way, the recommended maximum slope should be equal to or less than the slope of the roadway. Typically, the recommended maximum slope for a shared use path is 5%. SE Sandy Avenue is the least steep of the three roadways currently being considered. The SE Jackson Park Road to SE Evans Avenue trail does not currently exist, and slope steepness may be mitigated slightly during design, but that will also require obtaining additional land for the shared use path.

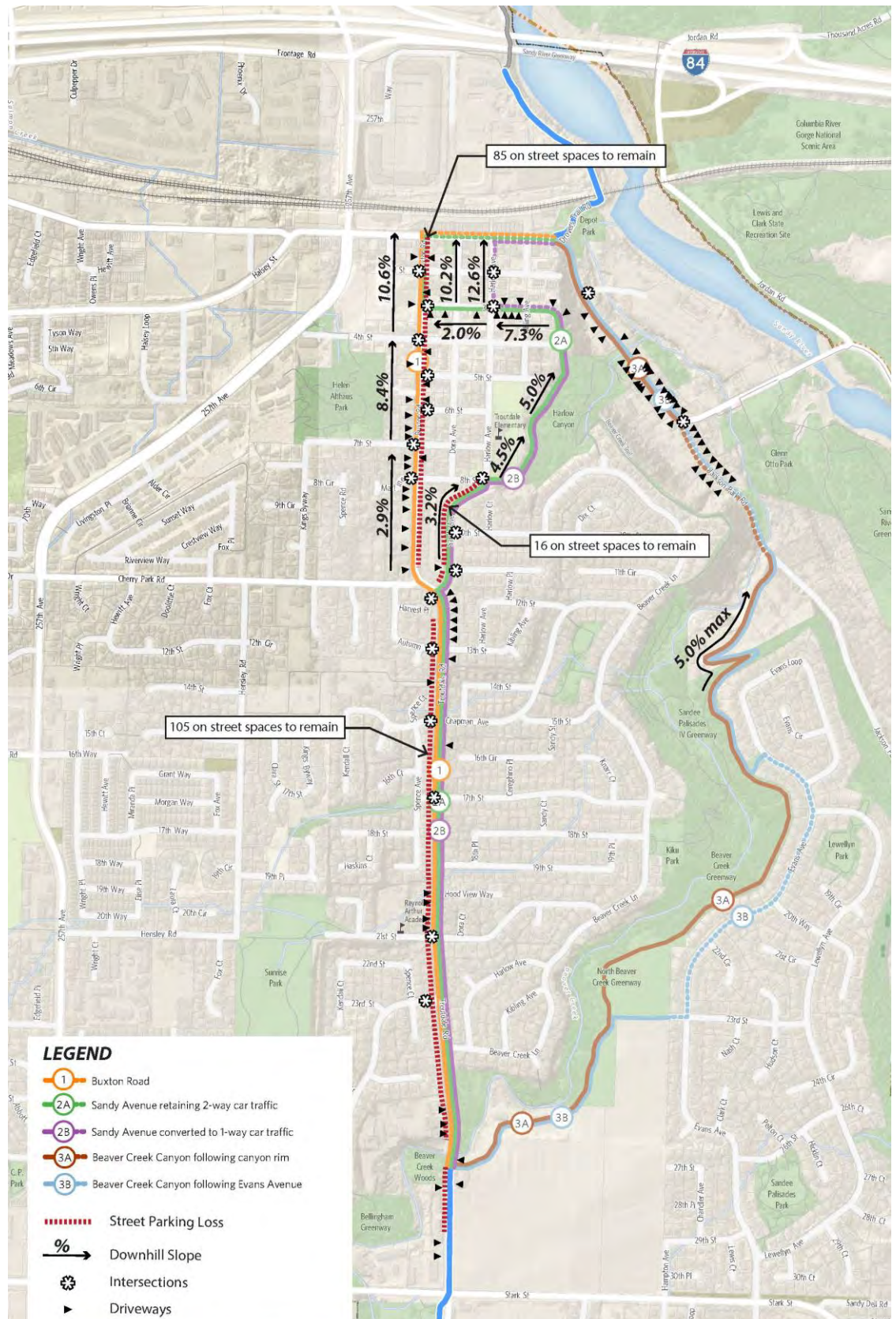


Figure 22 – Map of Troutdale Route Comparison

Preliminary Troutdale Evaluation

Each of the five route alternatives described previously was rated independently. Figure 23 illustrates the results of that evaluation.

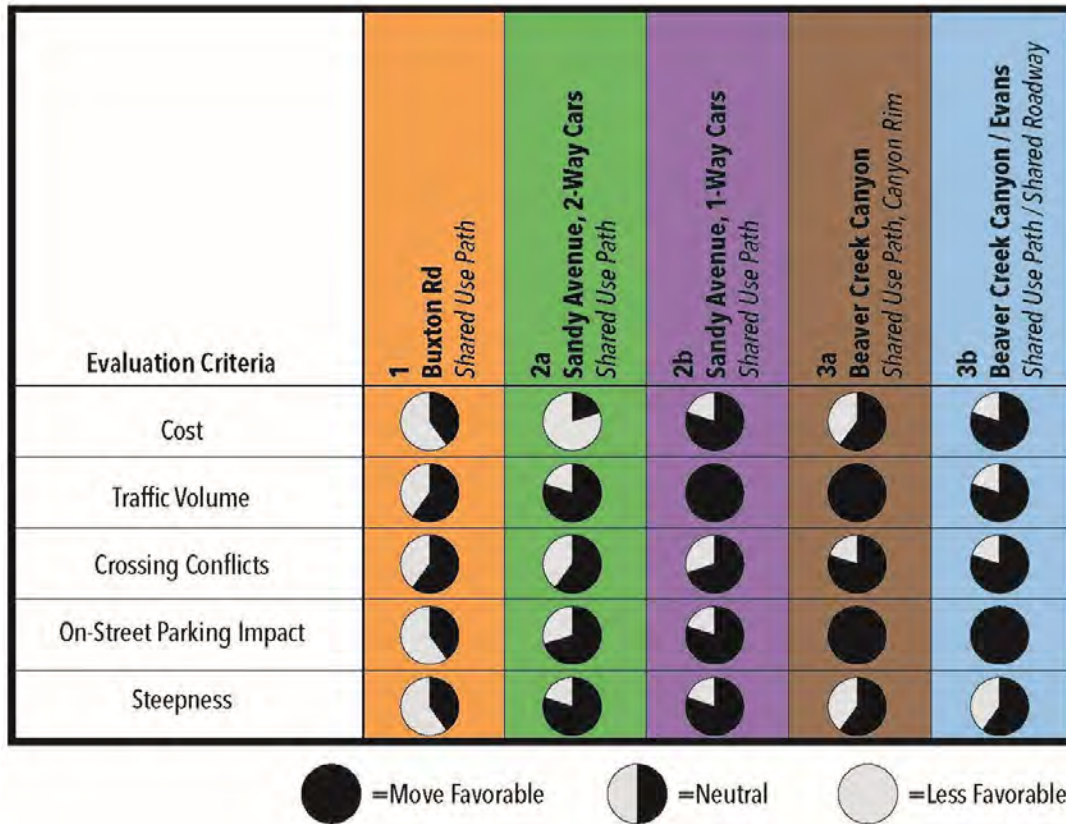


Figure 23 – Preliminary Troutdale Route Evaluation

Mt. Hood Community College Route Potential

Following two field visits and discussions with campus representatives, a recommended route through Mt. Hood Community College (MHCC) was established. The recommended route was approved by the President's Council in the fall of 2016.

Recommended Route – From north to south, the 40-Mile Loop route through MHCC campus is as follows:

- Corner of SE Stark Street and S Troutdale Road – widen existing paved connection to the Mt. Hood Community College Greenway nature trail to accommodate a shared use path
- Along MHCC property boundary – share use path that borders South Beaver Creek Greenway
- Beaver Creek crossing – new bridge at the site of a former weir
- NE 17th Street – shared use path on the north side of the street

Recommendations for the intersection of SE Stark Street and S Troutdale Road are pending the outcome of a recommended route from Troutdale to MHCC.

Implementation of the 40-Mile Loop between SE Stark Street and NE 17th Street will likely be in parallel with expansion of MHCC east of Beaver Creek, and will act as a buffer between campus and the restored natural area along Beaver Creek. A short-term alignment with a path along S Troutdale Road, bike lanes and sidewalks on the new SE Cochran Road/NE 17th Street bridge over Beaver Creek (completion planned for 2018, by Multnomah County), and existing bike lanes and sidewalks along NE 17th Street could be implemented until MHCC expands east of Beaver Creek. Stakeholders were also supportive of lighting this portion of the 40-Mile Loop to improve user safety, and alternatives for specific lighting types should be considered further as part of the design phase.

Mt. Hood Community College – North: A minor modification to the existing trailhead for the Mt. Hood Community College Greenway, replacing the existing sidewalk from the intersection of SE Stark Street and S Troutdale Road with a shared use path, will allow the 40-Mile Loop to connect through MHCC regardless of whether the route from Troutdale is along the western or eastern side of S Troutdale Road north of the intersection. This shared use path continues south to the west of an existing row of trees. The existing natural surface nature trail, an important 40-Mile Loop asset (Figure 24), and a sidewalk along S Troutdale Road will remain. A conceptual plan for what the improvements would include is shown in Figure 25 (page 42).



Figure 24 – The existing Mt. Hood Community College Greenway will remain *unchanged*.

Mt. Hood Community College – Central: South of the nature trail connection to SE 34th Circle, the shared use path will follow the canyon rim on property owned by MHCC, (cross section shown in Figure 26 on page 42). Development of this portion of trail will serve as a buffer between future MHCC campus development and the restored natural area adjacent to Beaver Creek. A new bridge crossing of Beaver Creek will be located at the site of a former weir. Weir abutments that currently existing will be removed, and the new bridge will span the floodway (Figure 27, page 43).



Figure 25 – Mt. Hood Community College – North: 40-Mile Loop connection to the north side of Mt. Hood Community College at the intersection of Stark Street and Troutdale Road.



Figure 26 – Mt. Hood Community College – Central: 40-Mile Loop connection through Mt. Hood Community College property adjacent to Metro-owned South Beaver Creek Greenway Natural Area.



Figure 27 – Mt. Hood Community College – Central: New 40-Mile Loop bridge over Beaver Creek.

Mt. Hood Community College – South: On the west side of Beaver Creek, the shared use path will continue along the north side of NE 17th Street between a MHCC access road east of the baseball field and the existing shared roadway on NE Hacienda Avenue. The existing bike lane, shoulder, and sidewalk on the north side of NE 17th Street would be replaced by a new shared use path, and no changes would be required to the existing roadway. Figure 28 illustrates the proposed cross section for this portion of the trail.

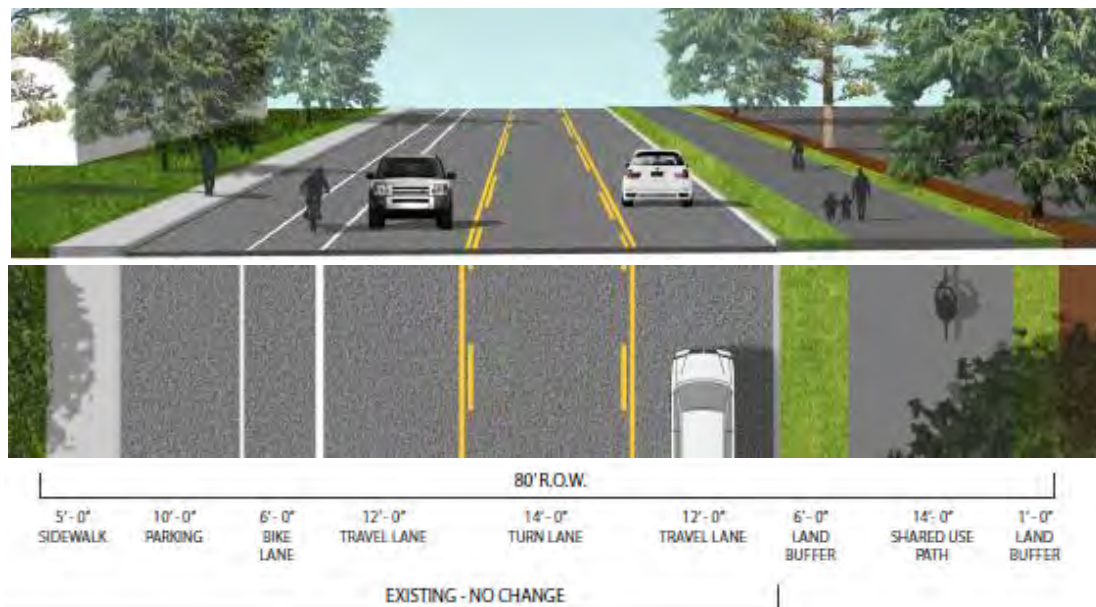


Figure 28 – Mt. Hood Community College – South: NE 17th Street – Existing roadway plus a shared use path on the north side of the street adjacent to Mt. Hood Community College.

If the 40-Mile Loop continues south through the neighborhood using Gresham's existing network of shared roadways, a more visible crossing of NE 17th Street is recommended (Figure 29).



Figure 29 – Mt. Hood Community College – South: 40-Mile Loop connection to the south side of Mt. Hood Community College at the intersection of NE 17th Street and NE Hacienda Avenue.

Kelly Creek Headwaters Natural Area

Members of the PMT, project stakeholders, and Gresham natural areas staff toured the Kelly Creek Headwaters Natural Area (Figure 30) to determine whether a route through the Natural Area was appropriate for a regional trail. Ultimately, those in attendance agreed that the site was best suited to remain a natural surface trail and the route for the 40-Mile Loop should connect to the trails in the Natural Area rather than replace them.

At the time of the site visit, the focus was determining the best route between SE Williams Road/SE Powell Valley Road and SE Salquist Road/SE 282nd Avenue. Driveway and roadway conflict points and challenging intersections were identified along SE Powell Valley Road on the Route Comparison map (Figure 31, page 45 and Appendix H). The preliminary recommendation, based on driveway counts and stakeholder feedback to keep the trail on the opposite side of SE Powell Valley Road from the elementary school, was to locate the trail along the south side SE



Figure 30 - The trail through Kelly Creek Greenway is an 18-inch to 24-inch wide natural surface hiking trail through dense vegetation.

Powell Valley Road. A cross section of potential changes to the road right-of-way is shown in Figure 32 (page 46).

Available right-of-way on both sides of SE 282nd Avenue between SE Powell Valley Road and SE Lusted Road is very constrained. Neighborhood representatives noted that Powell Valley Church has discussed constructing a walking loop for neighbors to use on private property. In subsequent conversations by Metro staff with the church, church representatives were open to further discussion of a route on church property that followed SE Mimosa Drive (Figure 33, page 46) and SE Woodland Drive to SE 282nd Avenue. The right-of-way between SE Mimosa Drive and SE 282nd Avenue on SE Woodland Drive is not currently open to vehicle traffic (Figure 34, page 47). The adopted Gresham Trail Master Plan shows the planned multi-use path along the east side of SE 282nd Avenue south to SE Chase Road (Figure 35, page 47).

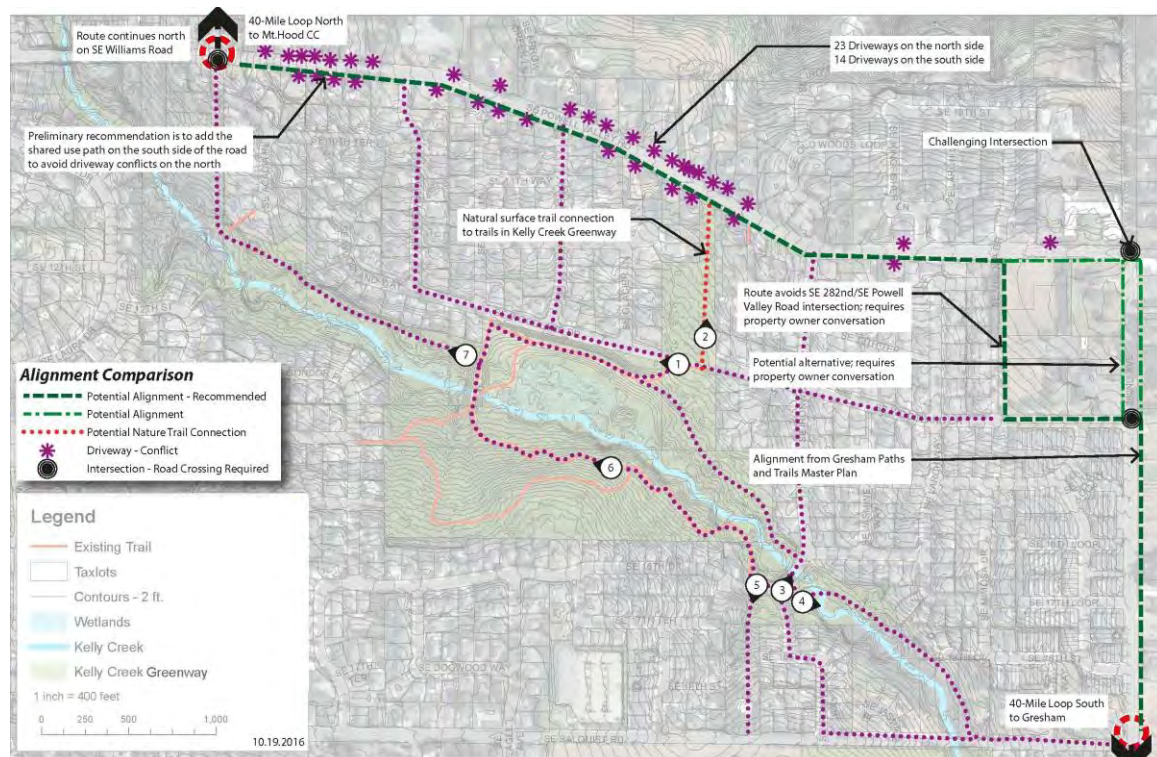


Figure 31 – The diagram above is the conclusion of a field visit to the Kelly Creek Greenway. Complete field notes and full-size diagram are included in Appendix H.

The three most challenging intersections near the Kelly Creek Headwaters Natural Area are shown in Figure 31 (above).

- SE Williams Road and SE Powell Valley Road – if the trail needs to cross to the south side of SE Powell Valley Road
- SE Powell Valley Road and SE 282nd Avenue – traffic volumes are high and a trail crossing at the existing 4-way stop will be challenging

- SE Woodland Drive and SE 282nd Avenue – if the trail crosses to the east side of SE 282nd Avenue, a marked trail crossing is recommended.



Figure 32 – Looking toward the west, a trail along the south side of SE Powell Valley Road crosses fewer driveways on the south side of the street. (Dimensions provided per the Gresham TSP)



Figure 33 – Looking toward the south, a trail along SE Mimosa shown on Powell Valley Church property would have no impact on the existing street.



Figure 34 – Looking toward the east, a trail within the existing SE Woodland Drive with no change proposed to the existing curb and sidewalk on the south side of SE Woodland Drive.

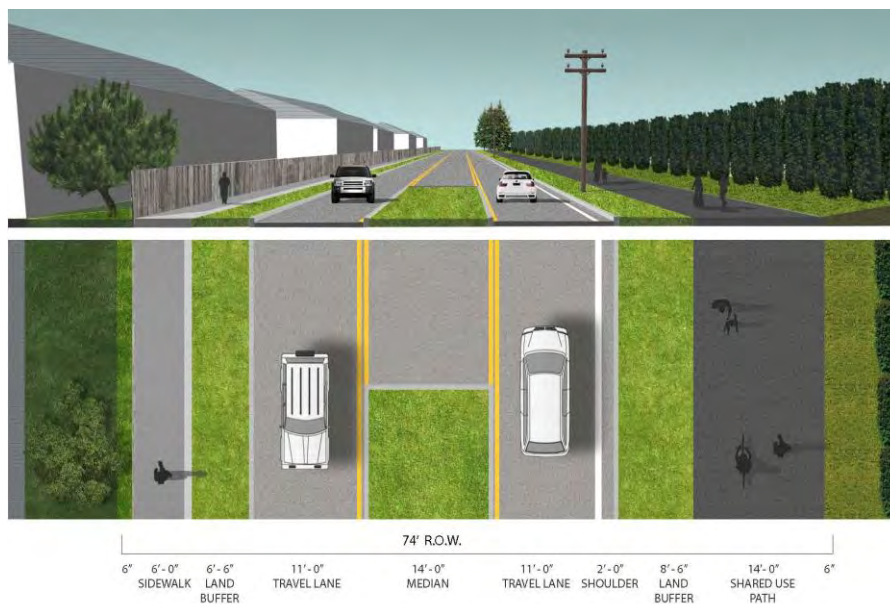


Figure 35 – Looking toward the north, a trail route along the east side of SE 282nd Avenue was adopted as part in the Gresham Trails Master Plan.

Gresham

Members of the PMT representing the City of Gresham requested further study of three route alternatives between Mt. Hood Community College and SE Orient Drive based on feedback from neighbors along SE Williams Road (Figure 36, page 50). The route alignment study was never complete, as the project was cancelled before the analysis was complete. The following information is a discussion of the potential routes and proposed evaluation criteria. A site walk with residents and stakeholders of SE Williams Road was conducted and a full summary of this walk is included in the Appendix K.

Evaluation Criteria	Description
Steepness	<ul style="list-style-type: none">Based on available GIS slope information for each route alternative
Slope	<ul style="list-style-type: none">Based on available topographic data, the steepness of slopes adjacent to each route alternative.Will inform the height of retaining walls or other engineered structures.
Stormwater Impact	<ul style="list-style-type: none">Review current and future impact of adding a paved shared use path.
Crossing Conflicts	<ul style="list-style-type: none">Driveways and roadway crossings counted and confirmed with field review.Fewer crossings are preferred for a shared use path.
Cost	<ul style="list-style-type: none">Based on planning level cost estimateRelative cost of each option is compared
Traffic Volume	<ul style="list-style-type: none">Existing traffic counts provided by Multnomah County.Existing traffic counts provided by the City of Gresham.No new traffic counts were conducted.
On-Street vs. Off-Street Comparison	<ul style="list-style-type: none">Summarize the percentage of on- and off-street distances for each route alternative.

1 Kelly Creek On-Street Route – Each of the shared roadways identified for this route are recommended additions to the Gresham Bicycle network identified as part of the Gresham Active Transportation Plan.

- Shared roadway on NE Hacienda Ave
- Shared roadway on NE 15th St
- Shared roadway on NE Centurion Dr
- Shared use path through a church parking lot
- Shared roadway on NE 8th St
- Shared roadway on NE Scott Ave/Dr
- Share roadway on SE Paloma Ave
- Shared roadway on SE Greenway Dr

2 Williams Road Route – Each of the shared roadways identified for this route are currently designated as low-volume shared roadways on the Gresham Bike Map.

- Shared use path along NE 17th St
- Shared use path along NE Division St
- Shared roadway on NE Hacienda Ave
- Shared use path along NE/SE Williams Rd
- Shared roadway on NE 15th St
- Shared use path along SE Powell Valley Rd
- Shared roadway on NE Centurion Dr

3 Troutdale Road Route – Shared use path along streets adopted in the Gresham Paths and Trails Master Plan.

- Shared use path along SE Cochran Rd (or bike lanes and sidewalk)
- Shared use path along SE Troutdale Rd
- Shared use path along SE 282nd Ave

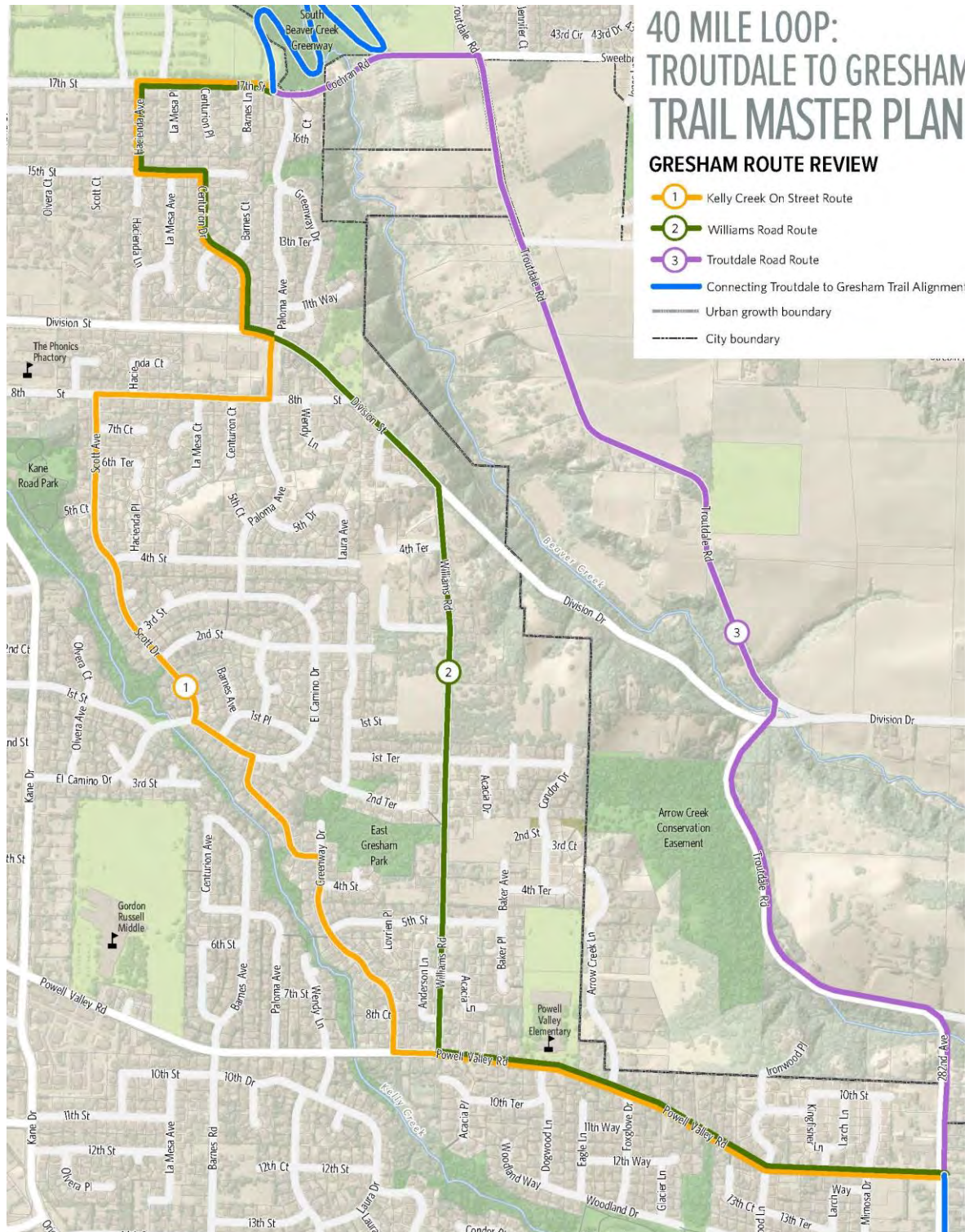


Figure 36 – Gresham Route Alternatives.

DRAFT ALIGNMENT

In March 2017, Metro ended the planning effort for the Troutdale to Gresham Trail in response to concerns from community members. Figure 37 (page 52) illustrates the default route from the 40-Mile Loop: Troutdale to Gresham Trail Alignment Study. This alignment is consistent with previously adopted plans. Without further study or an adopted plan, this alignment will serve as the default route should funding become available to build the trail. A cost summary, Table 8 (page 53), is included for reference and reflects cost for 2017 construction costs. More detail about per unit anticipated project construction costs can be found in Appendix L and Appendix M. If further study commences in the future, this alignment provides a starting point for additional route refinement.

40 MILE LOOP: TROUTDALE TO GRESHAM TRAIL ALIGNMENT STUDY

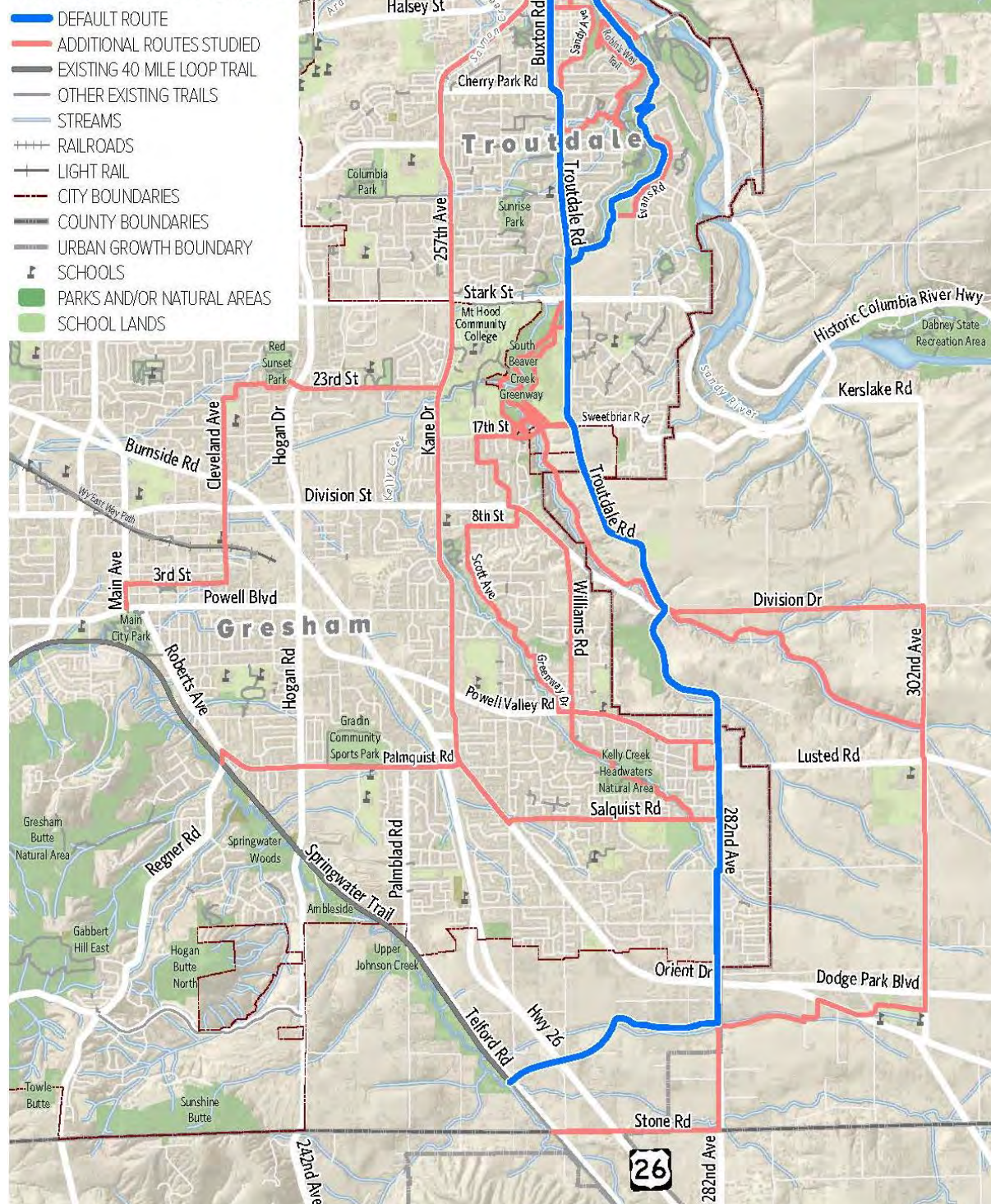


Figure 37 – Default Alignment Map

Table 8: Default Alignment Cost Summary

	Quantity	Unit Cost	Total Cost
Troutdale to Mt Hood Community College - A¹			\$4,153,578.98
SE Buxton Road	2,566 lf	\$416.39	\$1,068,456.74
SE Cherry Park Rd and SE Sandy Ave	200 lf	\$373.31	\$74,662.00
S Troutdale Rd	5,264 lf	\$446.91	\$2,352,534.24
Additional Elements			
<i>Roadway Bridge (Light Vehicular)</i>	200 lf	\$3,289.63	\$657,926.00
Troutdale to Mt Hood Community College - B¹			\$3,465,788.02
Hist Columbia River Hwy	1,722 lf	\$292.97	\$504,494.34
SE Jackson Park Rd	1,178 lf	\$28.17	\$33,184.26
Beaver Creek Canyon Rim	7,674 lf	\$193.33	\$1,483,614.42
Additional Elements			
<i>Retaining Walls - medium grade</i>	3,692 lf	\$391.25	\$1,444,495.00
Mt Hood Community College to Gresham²			\$10,529,719.09
SE Troutdale Rd and SE 282nd Ave	19,958 lf	\$345.39	\$6,893,293.62
Johnson Creek	5,656 lf	\$184.40	\$1,042,966.40
Additional Elements			
<i>Roadway Crossing - Low</i>	4 ea	\$757.58	\$3,030.32
<i>Roadway Crossing - Med</i>	5 ea	\$31,736.25	\$158,681.25
<i>Trail Bridge (Light Vehicle)</i>	60 ea	\$28,692.30	\$1,721,538.00
<i>Modifications of Existing Roadways</i>	10,406 lf	\$68.25	\$710,209.50

NOTE:

lf – linear feet

ea - each

¹ Unit costs for Troutdale were refined during further study. See Appendix M for unit costs.² Unit costs for Gresham were developed as part of the preliminary route alternative comparison phase. See Appendix L for unit costs.

DESIGN CONSIDERATIONS

The original scope of this study included conceptual design recommendations for the trail, areas adjacent to the trail, and trail connections or trailheads. However, the planning effort was stopped before conceptual designs were developed. One of the initial tasks was to develop design considerations that informed trail route priorities.

Desired Connectivity

The 40-Mile Loop Trail Master Plan from 1983 established trail connectivity goals still relevant today: connect open spaces, town centers, and parks throughout the greater Portland area (Figure 38). This segment of the 40-Mile Loop will serve as a hub for recreation and active transportation, supporting connections to neighborhoods and to larger regional and state trails.

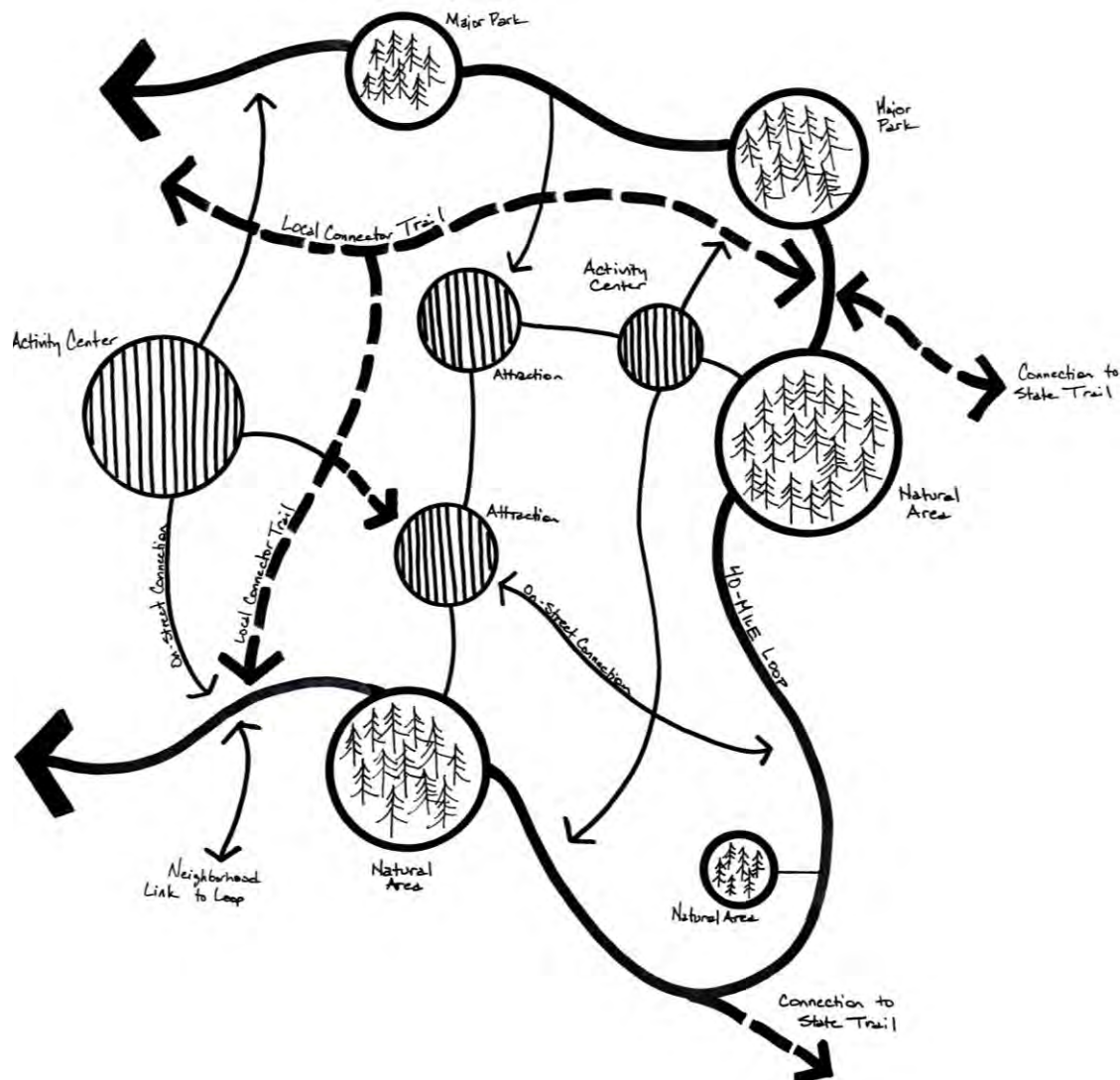


Figure 38 – Conceptual illustration showing how the 40-Mile Loop connects open spaces, town centers, and parks.

Trail Users

The 40-Mile Loop is intended to be used by pedestrians/hikers and cyclists, and is designed to be accessible, to the extent possible, depending on terrain and adjacent topography. Different trail users travel at different speeds and have different requirements for operating space. Figure 39 summarizes the spatial requirements for different trail uses that were considered for this segment of the 40-Mile Loop. Segments of the trail to the north and south of the Troutdale to Springwater Trail allow equestrian use; therefore, equestrian use was considered for this segment.



Figure 39 – Different trail users have different spatial requirements and travel at different speeds. The graphic above illustrates these requirements and average speeds.

Trail Width and Surface

The desired corridor condition is a paved shared use path, 10-12' wide with 2' shoulders to be consistent with current requirements for federal funding by ODOT. ODOT refers to AASHTO's *Guide for the Development of Bicycle Facilities* (2012) as trail standards. The minimum paved width for a two-directional shared use path is 10-feet or wider (typically no wider than 14-feet wide) in areas with higher use volumes or with a wide variety of user groups. A reduced width of 8-feet wide is acceptable for short distances due to a physical constraint. A shared use path can be located in a designated right-of-way, or may be included within an existing street right-of-way.

In some locations throughout the corridor, the trail may need to split to include a natural surface hiking trail with a parallel on-street bicycle facility. In these locations, the hiking trail corridor will be at least 6' wide with a tread surface of 18-36", and the on-street bicycle facility should be consistent with Metro's Active Transportation Plan for regional bikeway and pedestrian facilities. On streets with freight traffic or high vehicle speeds/volumes, the

facility should, at a minimum, be a buffered bike lane with a 3' buffer between the 5' bike lane and vehicle travel lanes.

Buffer Conditions

Buffers between stream corridors and environmentally sensitive areas will be per local codes and standards. Where a shared use path is within the road right-of-way a planted buffer between the shared use path and the roadway of at least 5-feet is desired. The Gresham Transportation System Plan standard for a shared use path within the road right-of-way is for an 8-foot buffer between the edge of the roadway and the shared use path.

Crime Prevention Through Environmental Design (CPTED)

People are heavily influenced to either use a trail or avoid a trail based on feelings of personal safety. Design should address both perceived safety issues, feeling safe or fear of crime, and actual safety threats, criminal acts or infrastructure failure. One of the most effective and most visible deterrents to illegal activity on the trail and at trailheads is the presence of legitimate users. Getting as many 'eyes on the corridor' as possible is a key deterrent to undesirable activity. When spaces have a defined use and the use is clearly legible in the landscape, it is easier to identify undesired behavior. CPTED principles provide a "multi-disciplinary approach to deterring criminal behavior through environmental design using". (CPTED principles Figure 40-Figure 43, this page and next)

Natural Access Control

- Clearly differentiate between public space and private space
- Delineate the intended use



Figure 40 – Natural Access Control

Natural Surveillance

- Create the perception that people can be seen, even if users can not actually be seen
- Use the shortest, least sight-limiting fence appropriate for the situation
- Ensure problem areas are well-lit
- Avoid lighting that is too bright



Figure 41 – Natural Surveillance

Natural Territorial Reinforcement

- Create a sense of ownership
- Schedule activities that increase proper use, attract more people, and increase the perception that the area is controlled
- Make the intended user feel safe and the offender aware of substantial scrutiny



Figure 42 – Natural Territorial Reinforcement

Maintenance

- Deterioration indicates less control and a tolerance of disorder
- Places that are well cared for are well respected



Figure 43 - Maintenance

Desired Trail Crossing Conditions

Per the Gresham TSP, crosswalk markings are typically ladder style crosswalks, or may be delineated with enhanced paver or paint design. Mid-block crossings with pedestrian activated Rectangular Rapid Flashing Beacons (RRFBs) have been installed on arterials frequently crossed by pedestrians, and are largely located at trail/shared use path or MAX crossings. Depending on traffic volumes where the Troutdale to Gresham Trail crosses roadways, ladder style crosswalks with RRFBs will likely be recommended, particularly at crossings of multi-lane streets. At low-volume streets and private driveways, the trail will be given priority and stop signs will be installed for vehicles, similar to crossings of the Springwater Trail and elsewhere along the 40-Mile Loop.

Crossing Conditions

There are four general crossing scenarios that will likely occur throughout the corridor. Each of the diagrams and descriptions below comply with the 2012 AASHTO *Guide for the Development of Bicycle Facilities* design guidelines for shared use paths.

Shared Use Path or Trail Crossing a Street - At intersections with streets where traffic volumes are within the acceptable limits and visibility is good, the shared use path crossing will be signed and marked consistent with local standards. Splitting the tread eliminates the need for bollards which are hazardous to bicyclists, especially at night, and deters motor vehicles from turning onto the share use path (Figure 44).

Acceptable traffic volumes are defined in AASHTO to be:

- $\leq 9,000 - 12,000$ ADT (average daily traffic)
- Up to 15,000 ADT on two-lane streets, preferably with a median
- Up to 12,000 ADT on four-lane streets with a median

The maximum posted speed limit should be 35 miles per hour or less where the crossing is not signalized.

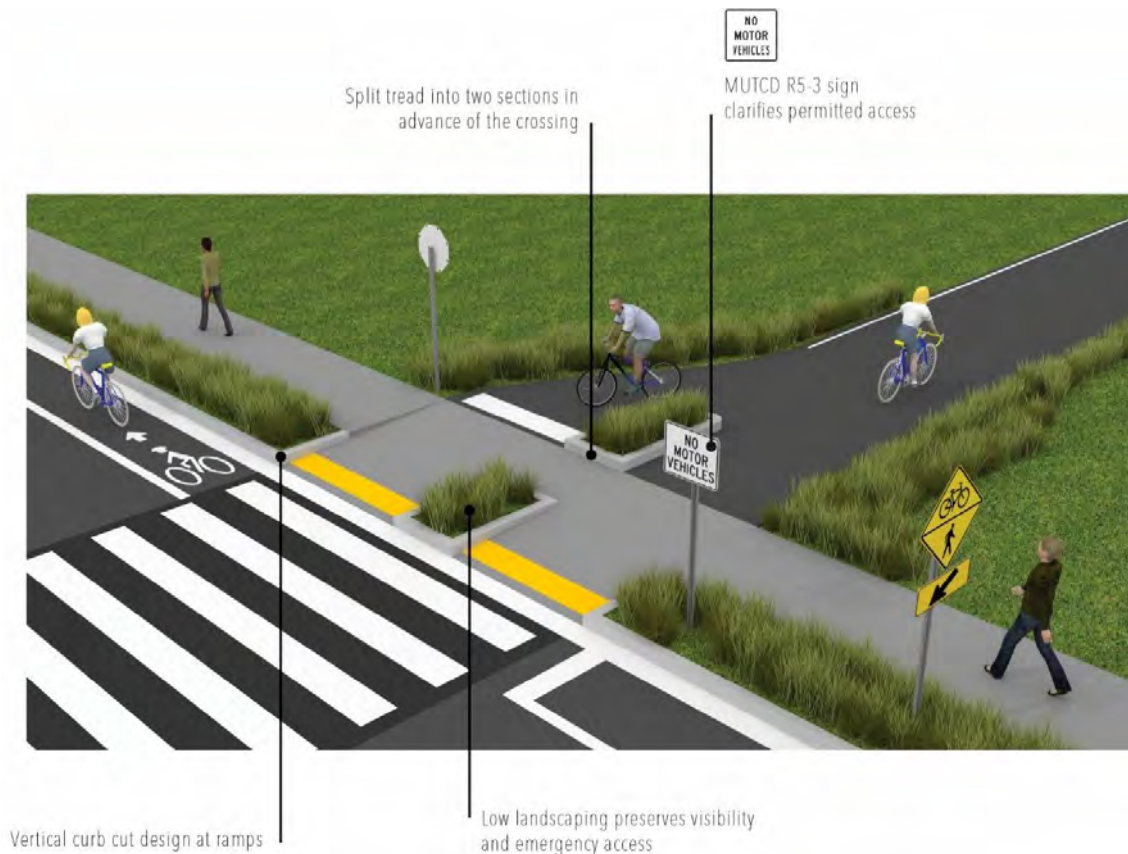


Figure 44 – Typical trail crossing of a street with a split tread rather than bollards.

Shared Use Path or Trail Crossing a Street with Median - On streets with two or more lanes of traffic moving in the same direction, including a median in the center of the street allows trail users to negotiate the crossing in two phases (Figure 45, page 59). Off-set crossings slow trail users and encourage eye contact between trail users and oncoming motor vehicles before the trail user proceeds into the street. Advanced warning signs alert vehicle drivers to the presence of a trail crossing ahead.

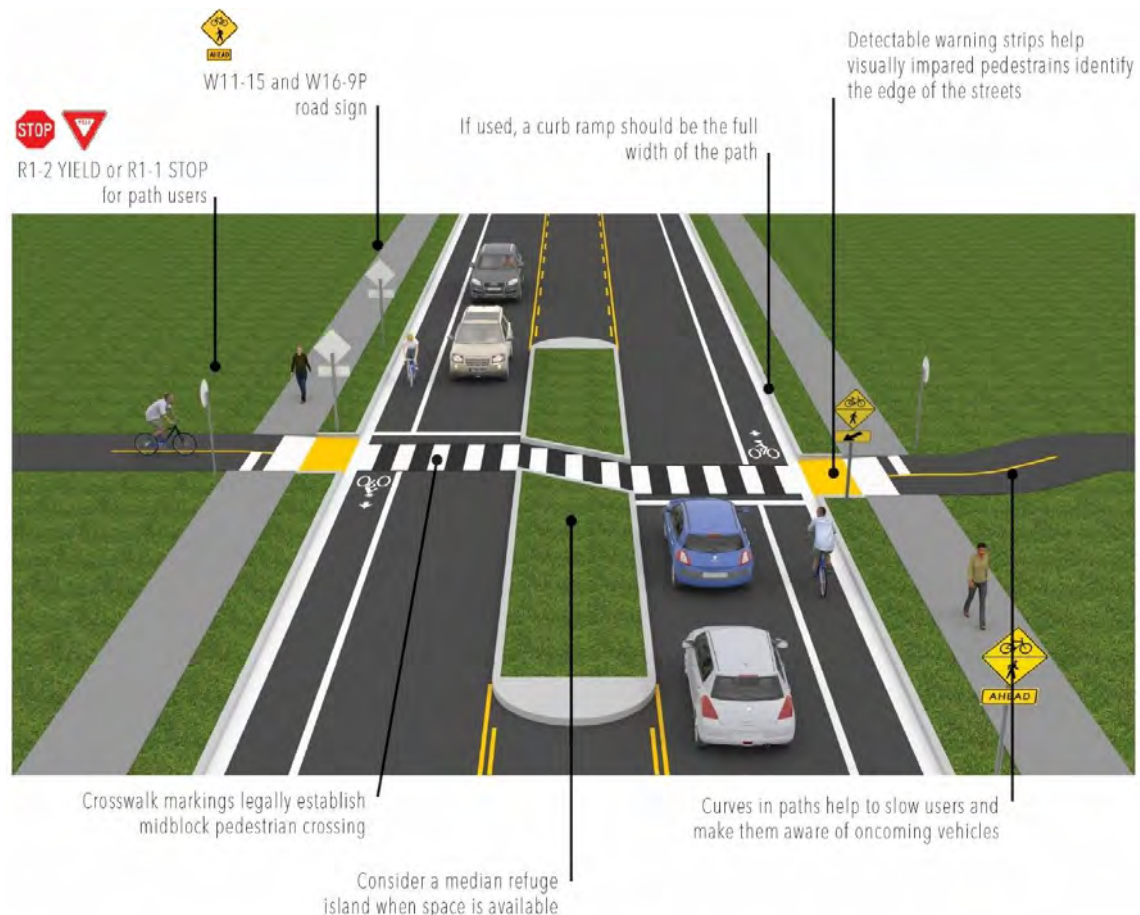


Figure 45 – Typical trail crossing with an off-set median crossing and advanced warning signs.

Shared Use Path or Trail Crossing Street at an Intersection - On streets with exceptionally high traffic volumes, or in locations where the trail alignment is close to an existing signalized intersection, the shared use path should curve to align with the existing sidewalk (Figure 46, page 60). Trail users can use the existing crosswalk and crossing signal to cross the street, and proceed along the trail.

Bridge crossing - The southern end of the Troutdale to Gresham Trail will cross Highway 26. At present, there are a limited number of existing signalized crossings and no designated bicycle/pedestrian bridge exists. There are a few other locations throughout the corridor where the trail may need to cross a creek or river. Bridge designs should include 2-foot shoulders within the bridge deck and may be designed to accommodate emergency or maintenance vehicles (Figure 47, page 60). A rub rail should be designed to the height of an average cyclists' handlebars and should align with the outside edge of the travelway.

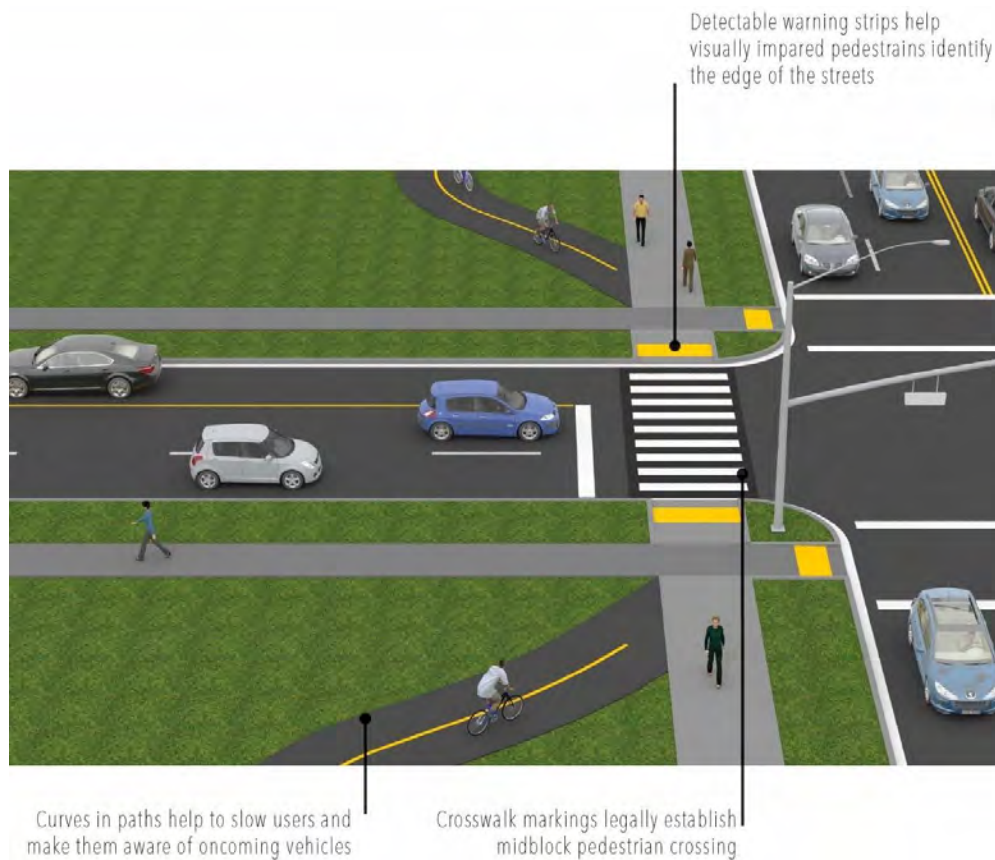


Figure 46 – Typical trail crossing at a signalized intersection.



Figure 47 – Typical trail bridge.

Trail Name and Design Themes

The Troutdale to Gresham section of the 40-Mile Loop will need a more evocative name that references the trail character or local culture. The name will establish a sense of place for this segment of the 40-Mile Loop. Listed below are examples of terms that can be combined to create a name (Table 1).

Table 9: Trail Name and Design Theme Ideas

Environmental	Geographic	Built	Historical
Valley	East Multnomah County	Corridor	Kon'-a-way (Chinook word for 'all')
Creek	Beaver Creek	Connection	Ko (Chinook word for 'reach')
Gorge	Sandy River	Link	Farming
Forest	Johnson Creek	Trail	Interurban
River		Approach	
Cascade			

The lists above should be expanded and informed based on public feedback to encourage public ownership of the trail during future planning and design studies. This section of the 40-Mile Loop is rich in history and culture that can be translated into themes to enhance the user experience and leave lasting impressions.

Some themes to consider could include:

- **Indigenous Peoples** – The Chinook Illahee tribe has had a considerable impact on the Lower Columbia and Willamette Valley landscape. This area was inhabited by Upper Chinookan speakers including the Multnomah and Clackamas peoples. The Chinookans were known as skilled craftspeople who created distinct forms, artwork, and technologies that conveyed their utilitarian and ceremonial culture. This theme could be intrinsically connected to the trail through sculpture, material use, and interpretive storytelling.
- **Environmental/Natural History** – The focus on historical impacts of farming, industry, and development that shaped the current landscape character through the lens of ecological history and habitat significance. Interpretive opportunities can educate trail users about native wildlife species of rainbow trout, cedar waxwing, peregrine falcon, and norther flying squirrels, to name a few, and native plant species such as the black hawthorn, pacific dogwood, and Oregon grape.
- **Settlement History** – The Oregon Trail directly led to early settlements that shaped Troutdale and Gresham. This theme could speak to the complex beginnings of

Troutdale and Gresham expressing the founders, noteworthy people, businesses and events that cultivated the east side of Portland as we see it today. For example, the significance of David Buxton the founder of Troutdale, and Captain John Harlow, who played an important role in creating the town; and the original settler James Powell, or Walter Gresham, the post master. The trail can relate back to the settler history through interpretive signage, town branded trail symbols/material, and alignment priorities.

- **Agricultural History** – The culture of farming has had a large impact on eastern Portland, especially in the Gresham area. Agriculture fueled the economy with farmers growing berries, grapes, cherries and vegetables. Some of these historic farm homes and fields are still present today. The Gresham area has become known as a great stop for berries and the trail can highlight this cultural history through alignment selection and interpretive signage.
- **Fitness** – The trail can highlight the importance of physical activity. The Portland community is known for being active and adventurous; however, according to the Trust for American Health, Oregon has an obesity rate of 27.9%. Opportunities exist for partnering with local healthcare providers to encourage healthy living through daily activity.

Each of the themes suggested above can be expressed through educational wayfinding elements, use of local materials, the trail alignment, sculptural elements, and benchmarks. Additional themes may emerge through community engagement and as a preferred alignment is selected.

PUBLIC INVOLVEMENT

The alignment study process for the 40-Mile Loop Trail connection between Troutdale and Gresham began in the spring of 2016 and continued through the winter of 2017. Metro and the cities of Troutdale and Gresham formed the Project Management Team (PMT). A team of technical advisors including senior managers, transportation planners, public health officials, and scientists provided project oversight and review. The Stakeholder Advisory Committee (SAC) met at key project milestones to review deliverables and provide input. The SAC included local agency representatives, elected officials, trail user group advocates, neighborhood representatives, and business owners. See Appendix A for meeting minutes.

A combination of site tours, public open houses, project website updates, and farmers market visits were used both to provide project updates and solicit public feedback about the study from community members.

Community Engagement

The Trail Alignment Study sought to understand the needs and concerns of potential trail users, adjacent property owners, and project partners through a combination of focus meetings, open houses, and attendance at community events.

- **Stakeholder Advisory Committee Meetings** – SAC members helped develop project goals, discussed potential challenges, and reviewed potential trail routes at key project milestones.
- **Study Area Tours** – Early in the process, the PMT toured the entire study area with SAC members and others interested in providing feedback. Once route options were selected, site tours with adjacent property owners and land managers were used to refine routes, and to better document the existing conditions and inform future trail development (Figure 49).



Figure 48 – Metro staff and SAC members shared information about the project with community members at summer events in the summer of 2016.



Figure 49 – Study area tours were conducted with SAC and PMT members several times during the trail study to develop a common understanding of the route challenges and opportunities.

- **Summer Community Outreach** – SAC representatives and Metro staff attended the Troutdale Summerfest (where over 120 community members visited the project booth) and the Gresham Arts Festival (where over 250 visitors visited the project booth) to share project goals, potential routes, and draft trail design scenarios with the public (Figure 48, page 63). Feedback received was used to further refine the route evaluation and design solutions.
- **Presentations** – PMT members presented information about the trail study to City and County organizations, committees, commissions, and neighborhood organizations several times during the route selection and evaluation process.

Metro’s web site was used as a tool to engage interested community members during the trail study process (Figure 50). Community members could use the project website to review materials, to learn about engagement opportunities, to provide feedback, and to complete public opinion questionnaires.

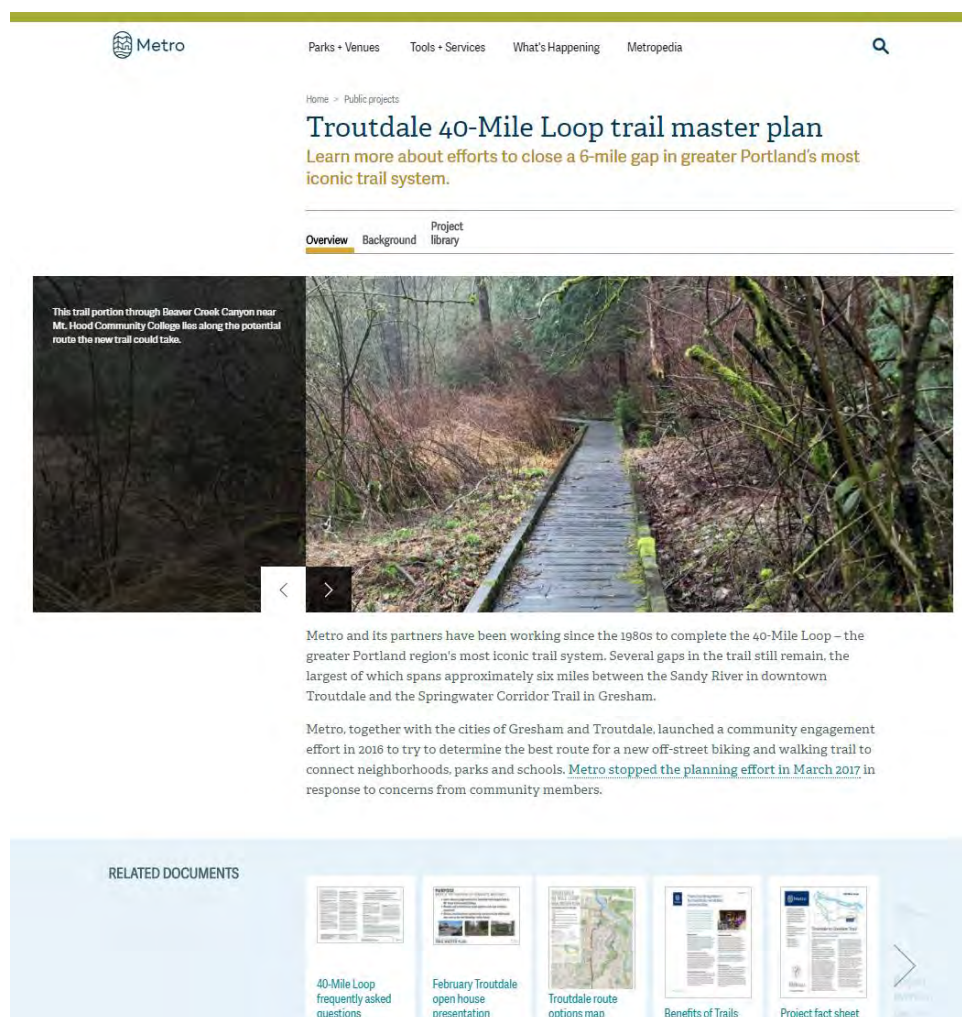


Figure 50 – Metro’s website was used to engage and inform the community during the trail study.

Open Houses

Two open house events were held. The first open house was in June and focused on existing conditions, trail user characteristics, and preliminary routes. The second open house focused on the 40-Mile Loop Trail options between Depot Park in Troutdale and Mt. Hood Community College. Each open house included information about previous planning efforts, project goals, and solicited feedback from attendees about potential design solutions and route options. Direct mailers, newspaper advertisements, email invitations, and online announcements were used to promote the open houses.



Figure 51 – Approximately 90 people attended the first open house for the trail study.

Open House #1

The first public engagement opportunity for the Troutdale to Gresham Trail Alignment Study was held June 29, 2016 at Mt. Hood Community College. Approximately 90 people attended (Figure 51). Most of the attendees were interested in reviewing the route options and providing feedback about safety concerns. Metro staff and project consultants provided a brief presentation about the goals, background, existing conditions, and route alignment options. Stations were organized around the room where participants could review route options, and comment about their desires for the future of the trail and route preference. Materials and comment forms were also available online.

Participants were asked three questions.

1. Where would you go on the new trail connection?
2. How would you most often use the trail?
3. What else would you like the team to consider?

A total of 247 survey responses were received from June 29 through July 16. The most popular destinations are the Springwater Trail, Downtown Troutdale, and Downtown Gresham. Based on 202 responses, most people are interested in walking, biking, and spending time in nature. Public feedback was sorted into those in favor of the trial and those opposed or concerned (Figure 53, page 66).



Figure 52 – Feedback about how community members use trails from the first open house event.



Responses in Opposition or Concern

Figure 53 – Summary of comments collected from public open house and online responses.



NEXT STEPS

The decision to suspend further planning and to recommend a route for the Troutdale to Gresham Trail was in response to opposition from Troutdale, Gresham, and eastern Multnomah County residents who voiced their opinions at two public open houses and an online survey. A majority of participants in the process indicated they wanted no trail at all.

Most of the concerns with a trail evolved around concerns for safety along the trail and illegal camping. These concerns largely stemmed from camping along the Springwater Trail west of Gresham in Portland, which was sparked by a temporary change to Portland's illegal camping rules enforcement. Metro, Troutdale, Gresham, and Multnomah County officials hope to address the challenges associated with illegal camping through outreach and engagement programs. Once these concerns have been addressed, trail planning efforts, including development of a trail master plan for this portion of the 40-Mile Loop, may continue.