



# FINAL REPORT: Alternatives Analysis, Recommendations, and Implementation Strategy

July 2025



## FUNDING AND PROJECT SUPPORT

This study was funded through a \$150,000 Federal Surface Transportation Block Grant with \$23,410 in local matching funds. The grant was administered by Thurston County with project support from Thurston Regional Planning Council and SCJ Alliance.

## COMPANION REPORTS AND DOCUMENTS

The following documents were developed as part of the Southwest Thurston County Trail Feasibility Study and provide additional background, analysis, and community input:

1. Southwest Thurston County Trail Feasibility Study Community Survey, TRPC, 2022.
2. Existing Conditions Report, TRPC, 2024
3. Southwest Thurston County Trail Feasibility Study Route Alternatives Analysis Community Survey, TRPC, 2024

### Title VI Notice

Thurston Regional Planning Council (TRPC) hereby gives public notice that it is the agency's policy to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and related statutes and regulations in all programs and activities. Title VI requires that no person shall, on the grounds of race, color, sex, or national origin, be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination under any Federal Highway Aid (FHWA) program or other activity for which TRPC receives federal financial assistance. Any person who believes they have been aggrieved by an unlawful discriminatory practice under Title VI has a right to file a formal complaint with TRPC. Any such complaint must be in writing and filed with the TRPC's Title VI Coordinator within one hundred and eighty (180) days following the date of the alleged discriminatory occurrence.

### American With Disabilities Act (ADA) Information

Materials can be provided in alternate formats by contacting the Thurston Regional Planning Council at 360.956.7575 or email [info@trpc.org](mailto:info@trpc.org).

# PROJECT PARTNERS AND ACKNOWLEDGEMENTS

## BOARD OF COUNTY COMMISSIONERS

Carolina Mejia, District 1

Rachel Grant, District 2

Tye Menser, District 3

Wayne Fournier, District 4

Emily Clouse, District 5

## THURSTON COUNTY STAFF

Shannon Shula, Lead, Public Works

Becky Conn, Public Works

Ed Marson, Public Works

Matt Unzelman, Public Works

Mike Lowman, Public Works

Chris Hawkins, Public Health and Social Services  
(former)

Dave Pearsall, Sheriff's Office (former)

Theresa Parsons, Public Works (former)

## THURSTON REGIONAL PLANNING COUNCIL STAFF

Paul Brewster, Lead, Senior Planner

Burlina Lucas, Executive Assistant

Dorinda Merrill, Office Specialist IV

Katrina Van Every, Transportation Manager

Michael Ambrogi, Senior Planner

Michael Mills, Associate Planner

Sarah Selstrom, Communications and Outreach  
Specialist

Scott Carte, GIS and Modeling Manager

Theresa Julius, Senior Planner

Casey Mauck, Associate Planner (former)

## SCJ Alliance

Dan Penrose, Principal

Whitney Holm, Lead, Associate Principle

Kelcie Hopkins, Design Engineer

Laura Barker, Planner

## **ADVISORY WORKGROUP**

Jeff Merryman, Community Member

Joel Belmont, Community Member

Kevin Dayton, Community Member

Laura Christiansen, Community Member

Paul Ferrell, Community Member

Stephanie Ferrel, Community Member

Vivian Eason, Community Member

Ed Dowell, Rochester School District

George Mazur, WSDOT

Yvette Liufau, WSDOT

Chief Robert Scott, West Thurston Regional Fire Authority (former)

Jeff Bowe, Experience Olympia and Beyond (former)

# Table of Contents

<b>Chapter 1: Introduction.....</b>	<b>7</b>
Purpose .....	7
Report Contents.....	7
Background .....	9
<b>Chapter 2: Route Alternatives Analysis.....</b>	<b>13</b>
Route Identification .....	13
Cost Estimation .....	25
Route Evaluation .....	26
Discussion.....	33
<b>Chapter 3: Implementation Strategy and Recommendations .....</b>	<b>37</b>
Introduction .....	37
Implementation Strategy Overview .....	38
Phasing Details .....	40
Recommendations.....	60
<b>Appendix 1 Road Conditions and Trail Exhibits.....</b>	<b>65</b>
<b>Appendix 2 Conceptual Cost Estimate Summary.....</b>	<b>85</b>
<b>Appendix 3 Alternative Analysis .....</b>	<b>97</b>
<b>Appendix 4 Shared-Use Path Concepts.....</b>	<b>107</b>

### List of Tables

Table 2-1: Southwest Thurston County Trail Feasibility Study Route Alternatives .....	22
Table 2-2 Alternative Routes Cost Estimates .....	26
Table 2-3 Route Evaluation Criteria and Ratings .....	27
Table 2-4: Performance Attributes Pair Wise Comparison Matrix Results .....	27
Table 2-5: Route Evaluation Criteria Scores (weighted) and Performance Scores .....	28

### List of Maps

Map 1-1: Thurston County Population Density and the Existing and Proposed Trail Network for Thurston County Communities .....	11
Map 2-1: Study Area and Route Segment Objectives .....	15
Map 2-2: Community Feedback on Priority Destinations Accessible by Trail .....	16
Map 2-3: Community Feedback on Direct Routing.....	18
Map 2-4: Community Feedback on Scenic Routing .....	19
Map 2-5: Segment 1 and Segment 2 and 3 Route Alternatives .....	24
Map 2-6: Best Value Alternative Route (Segment Objectives 1, 2, and 3 combined) .....	32
Map 3-1: Southwest Thurston County Trail – Three Phase Implementation Strategy .....	39
Map 3-2: SWTCT – Phase 1 Route and Planning and Design Considerations .....	41
Map 3-3: SWTCT – Phase 2 Route and Planning and Design Considerations .....	50
Map 3-4: SWTCT – Phase 3 Route and Planning and Design Considerations .....	57

# Chapter 1: Introduction

## Purpose

This report presents the key findings and recommendations of the Southwest Thurston County Trail Feasibility Study. The study evaluated route alternatives, benefits, opportunities, and challenges associated with establishing a paved shared-use trail corridor connecting the greater Grand Mound Urban Growth Area, the Rochester Sub-Area, and the Confederated Tribes of the Chehalis Reservation to the southern terminus of the Gate-Belmore Trail.

## Report Contents

The contents of this document serve as a blueprint for Thurston County staff, County Commissioners, project partners, and community members to inform decisions about future trail development, supporting infrastructure, and maintenance services.

This report is organized into five chapters, each documenting important outcomes and components of the study:

1. **Introduction** – Provides an overview of the study’s purpose, scope, and objectives, establishing the context for the planning effort and outlining the significance of the project.
2. **Route Alternatives Analysis** – Describes the evaluation of potential trail routes based on criteria such as traffic stress, connectivity, environmental considerations, scenic appeal, and cost. The analysis offers a comparative look at each alignment’s feasibility, benefits, and challenges.

## *Investing in Active Transportation and Outdoor Recreation*

*Thurston County supports active transportation and outdoor recreation by developing and maintaining a system of parks and a shared use trail network. The existing 40-mile paved trail network includes the Chehalis Western, Yelm-Rainier-Tenino, Ralph Munro, and Old Evergreen Parkway trails. The County's Comprehensive Plan aims to acquire additional public recreation areas and open spaces to support the growing population.*

*In 1996, the county purchased the abandoned 12.5-mile Gate-Belmore Railroad Corridor. Further acquisition of 1.43 miles in 2017 and a Connectivity Study completed in 2019 will help pave the way to convert the corridor to a shared use trail. Once completed, the Gate-Belmore Trail will stretch nearly 14 miles from Black Lake to Gate, traversing rural western Thurston County through natural preserves, forests, riparian habitats, prairies, and farmlands.*

*The findings from this study present a key opportunity to expand residents’ access to the Gate-Belmore Trail.*

3. **Implementation Strategy** – Outlines the proposed trail alignment and offers a strategic path forward, including phased implementation, funding opportunities, fostering partnerships, and continued community engagement.
4. **Appendices** Includes supporting documents exhibits, cost estimates, and technical reports.



*The Chehalis Western Trail is a safe and scenic route for cyclists, pedestrians, and outdoor enthusiasts, enhancing quality of life, community connectivity, and active lifestyles.*

## Background

The study aimed to identify a suitable multi-use trail route that could enhance county resident's access to safe active transportation options and outdoor recreation between the communities of Grand Mound, Rochester, the Confederated Tribes of the Chehalis Reservation, and the southern terminus of the Gate-Belmore Trail.

## Community Needs

The study engaged community members to understand their needs, interests, and preferences for a trail network that connects people to the places they want to travel to. Both the 2019 Main Street Rochester planning process and this study, which included community surveys, reinforced local community support for this initiative. Recreation use with access to nature and scenic areas ranked highest among survey respondents. Eighty-five percent of survey respondents stated they wanted to see a trail developed in the area. One in three respondents said they would use a trail at least weekly; 66 percent would use it at least once a month or more frequently (Southwest Thurston County Trail Feasibility Study Community Survey, TRPC, 2022).

Southwest Thurston County stands to gain the most from the development of the Gate-Belmore Trail, which will benefit residences, schools, businesses, and community hubs in the area. The study area is primarily served by US Highway 12 and the surrounding county road network. However, significant barriers exist for those wanting to walk or bike due to the lack of dedicated sidewalks, bike lanes, and trails. Current options are limited to the shoulders of US-12 and other county roads that experience high speed and high-volume traffic. Community members report these options are unsafe, unpleasant, and inconvenient.

*“People park cars along 183rd to walk into the Scatter Creek preserve. Traffic is fast and the shoulder isn’t wide enough.”*

*“The Rochester area lacks any community locations that are easily accessed via trails such as this. I find it extremely important that this trail (if feasible) be connected to other trails that would make access to community areas easier for the resident.”*

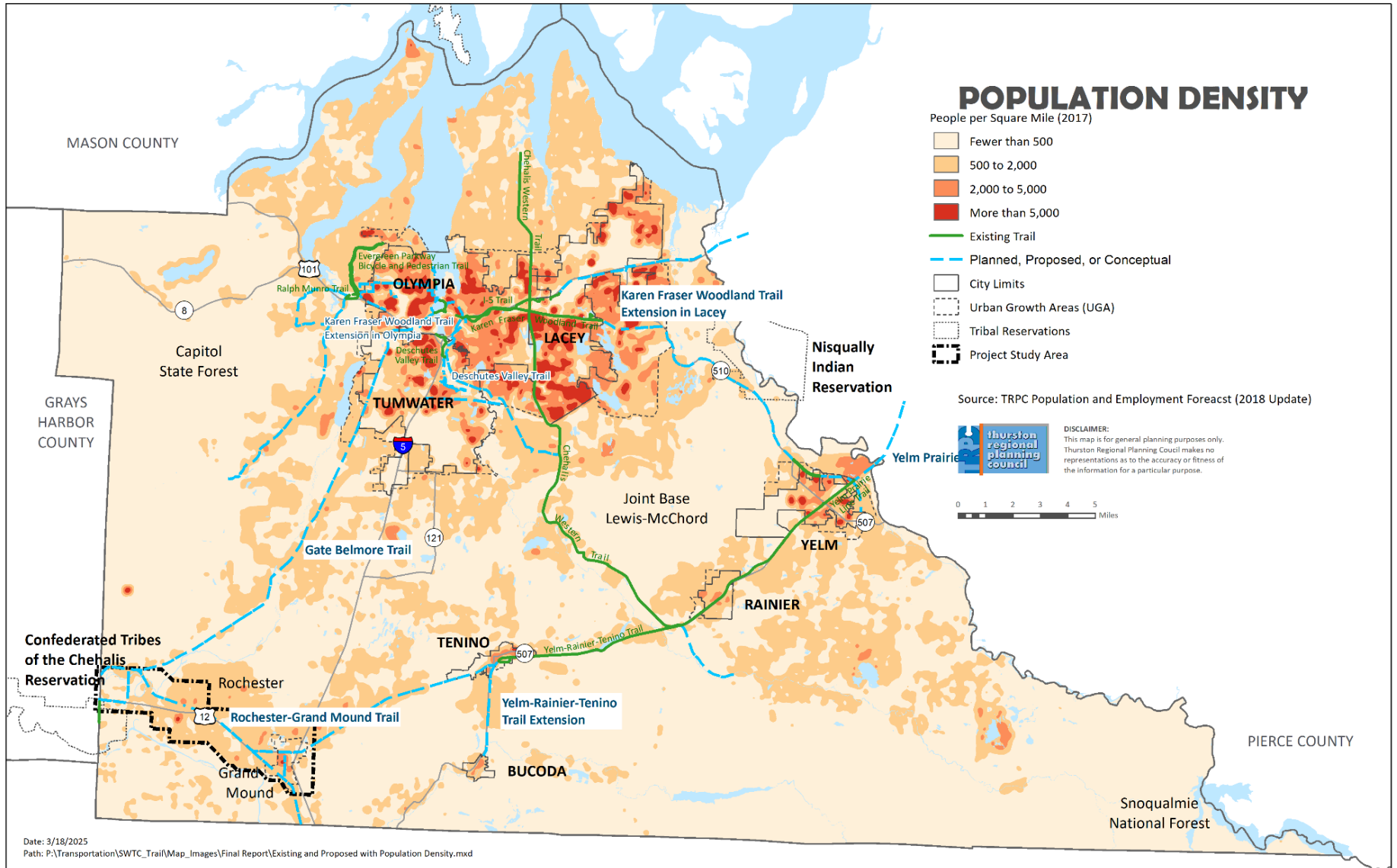
- Southwest Thurston County Feasibility Study  
Community Survey participants' comments

## Planning Needs

The need to plan for active transportation infrastructure improvements, including shared use paths, to improve transportation safety and connectivity in Southwest Thurston County communities is identified in several key plans including the Thurston Regional Trails Plan (2007 and 2023), the Main Street Rochester Multimodal Transportation Plan (2019), the Thurston County Parks, Open Space and Trails Plan (2020), the Rochester Sub-Area Plan (2020), and the Grand Mound Sub-Area Plan (2023). Map 1-1 shows the Thurston region's existing and proposed regional trails network with region's population density. The project's study area is drawn with a black dashed line.

Rapid growth in the Grand Mound Urban Growth Area and Rochester Subarea has increased the urgency for planning active transportation infrastructure. This study examined the feasibility of a trail that would offer practical east-west recreation and mobility opportunities similar to Thurston County's popular Chehalis Western and Yelm-Rainier-Tenino trails. Such a trail would divert active transportation traffic away from the high-speed highway and adjacent arterials and collectors, reducing the risk of collisions for bicyclists and pedestrians. Several potential trail routes were identified and evaluated to determine the most suitable options for development.

**Map 1-1: Thurston County Population Density and the Existing and Proposed Trail Network for Thurston County Communities**



This page left intentionally blank.

## Chapter 2: Route Alternatives Analysis

The Route Alternatives Analysis evaluates potential trail alignments to determine their feasibility for future planning, funding, design, and construction. This chapter outlines the methodology used to identify, evaluate, and compare multiple routing options across the study area. It describes the steps taken to define potential alignments, estimate costs, and to assess each route's performance relative to their alternatives and the project's goals.

The chapter concludes with a discussion of key considerations that emerged during the analysis—highlighting factors that will shape future planning decisions and help contextualize the recommended trail corridor's subsequent planning needs.

### Route Identification

The first step in the analysis was to identify alternative routes that could meet the study area's trail connectivity needs while maximizing the use of existing public infrastructure, right-of-way, and valued community assets. The study focuses on identifying a continuous and feasible shared-use trail corridor that connects the communities of Grand Mound, Rochester, and the Confederated Tribes of the Chehalis Reservation to the Gate-Belmore Trail (see Map 2-1). Three geographic segments were defined to structure the analysis:

- **Segment 1:** A trail corridor connecting Grand Mound and Rochester
- **Segment 2:** A trail corridor connecting Rochester to the southern terminus of the Gate-Belmore Trail (referred to as the Gate Segment)
- **Segment 3:** A trail corridor extending from the intersection of Anderson Road SW and US 12 (within the Chehalis Reservation) to the Gate Segment of the Gate-Belmore Trail

*“Safety is my biggest concern in regards to using the trails with family.”*

*“I am impressed with the alternatives and think your criteria does a great job of evaluating the options. Linkage to the schools is a critical need to provide our future generation an option of walking to and from school.”*

*“Just hoping that whatever routes are chosen that it won't impact landowners too much and that it will be scenic.”*

*“Looking forward to having the gate-belmore trail accessible for our family.”*

- Southwest Thurston County Feasibility Study  
Community Survey participants' comments

## Route Alternatives Selection Process

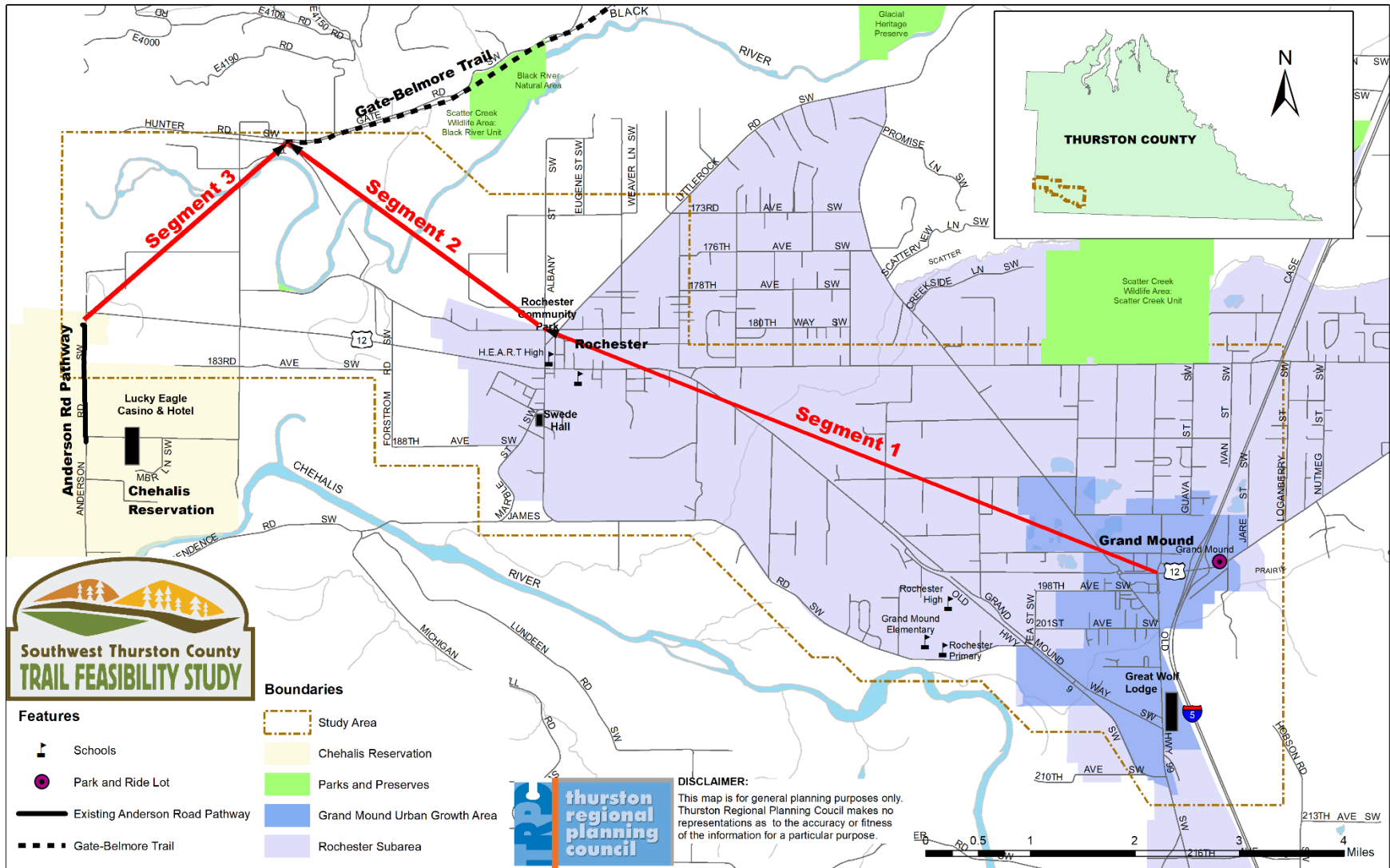
To identify alternative routes for analysis, the study began with a comprehensive review of the existing transportation network, environmental conditions, and community needs.<sup>1</sup> Key considerations included:

- **Community Preferences:** Feedback from community members and stakeholders was incorporated in aligning the routes with community active transportation and recreation needs and preferences.
- **Right of Way Availability:** Existing county-owned roads and existing infrastructure were prioritized to leverage available right of way and avoid the complexities and costs associated with acquiring new properties.
- **Safety:** Traffic volumes, speed, and the types and number of intersections were assessed. Routes minimizing interactions with high-speed traffic were prioritized to enhance safety for pedestrians and cyclists.
- **Connectivity:** The route alternatives aimed to effectively link key destinations, such as residential areas, schools, businesses, community hubs, and natural areas.
- **Environmental Impact:** Potential environmental impacts of each route were assessed to minimize disruption to natural habitats and ecosystems.

---

<sup>1</sup> Southwest Thurston County Trail Feasibility Study Existing Conditions Report. TRPC, 2023.

**Map 2-1: Study Area and Route Segment Objectives**



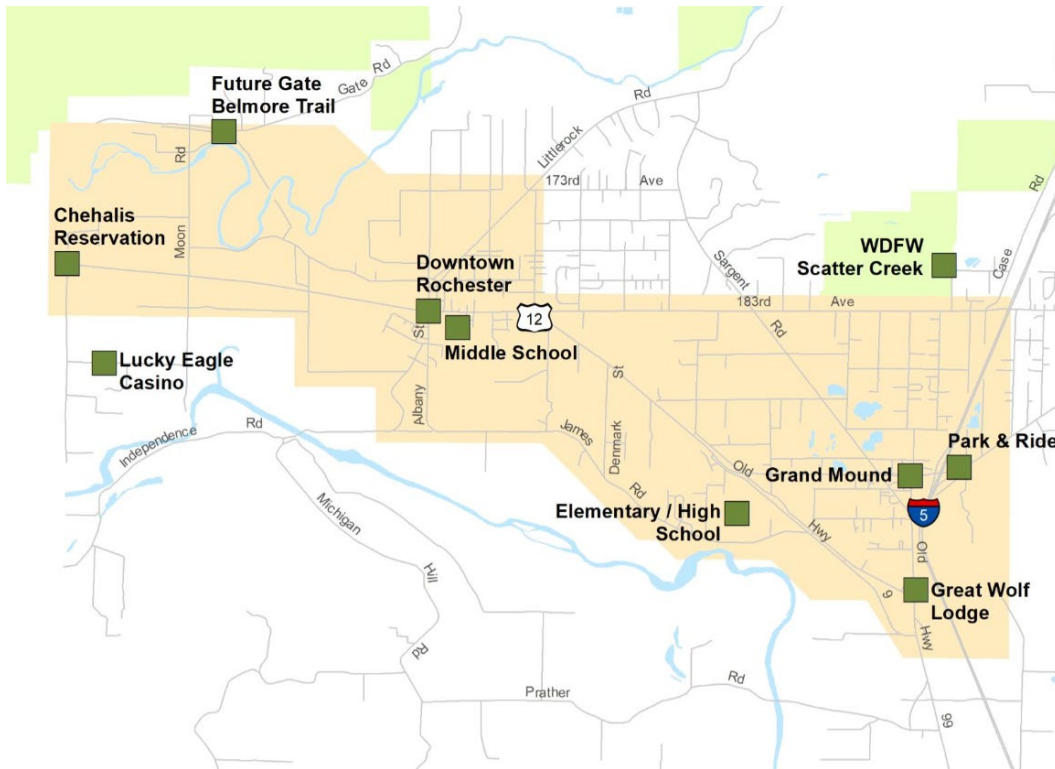
9/4/2025 | P:\Transportation\SWTC\_TrailMap\_Images\Final Report\StudyAreaMapVer2.mxd

## Community Preferences

### Connectivity

In Fall 2021, TRPC hosted an online public meeting and an online virtual open house with a mapping tool and a companion survey to gather community feedback on desired routes and destinations for a trail system in the study area. Community members expressed a strong preference for the trail to connect to schools, businesses, outdoor recreation areas, and community hubs (see Map 2-2). A summary of the community's preferences and feedback for potential trail is documented in the Survey Summary Report.<sup>2</sup>

**Map 2-2: Community Feedback on Priority Destinations Accessible by Trail**



<sup>2</sup> Southwest Thurston County Trail Feasibility Study Survey Summary. TRPC, 2022.

## Route Alignments

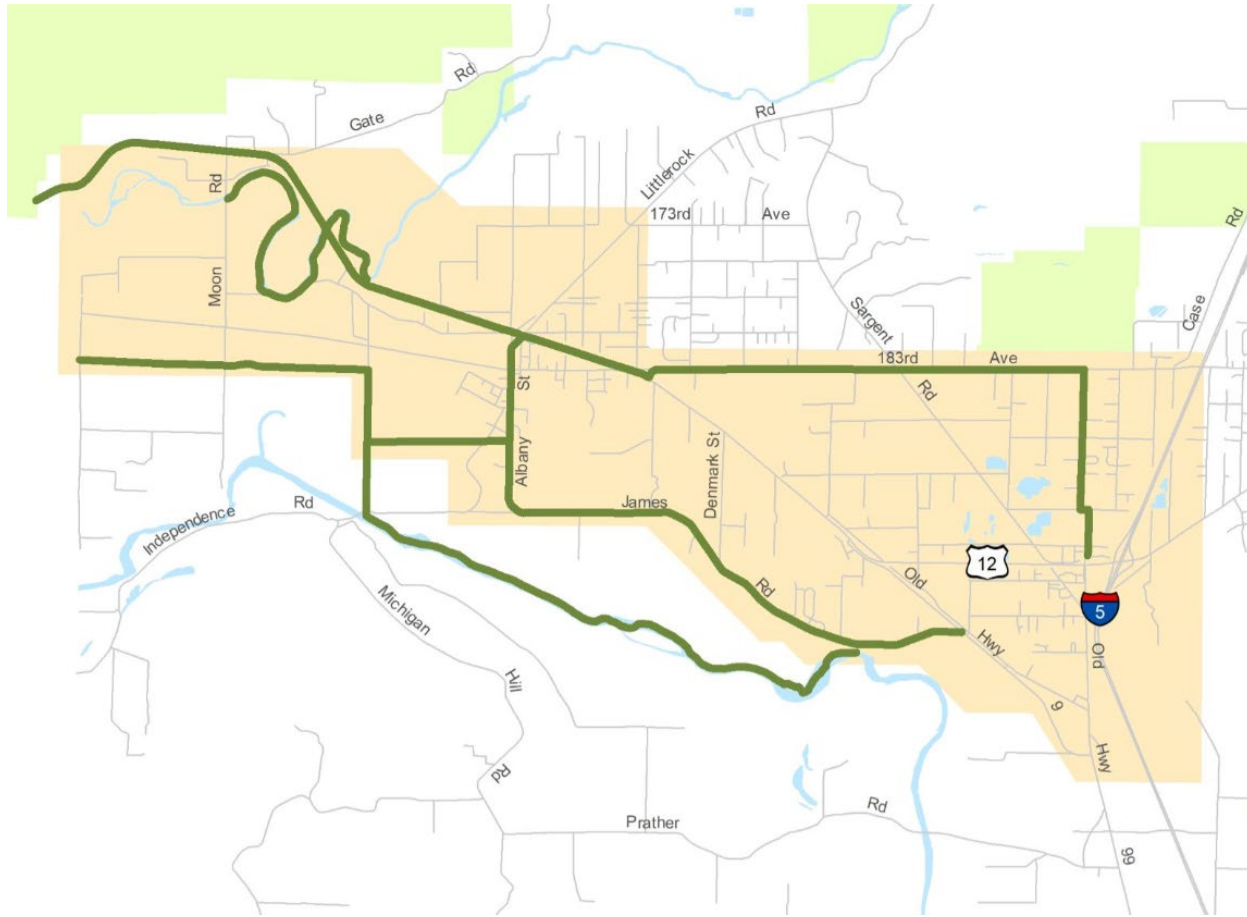
Residents expressed two main preferences for the alignments of the trail from Grand Mound to Rochester and to the Gate-Belmore Trail:

1. **Direct Routing.** Some community members preferred a trail that provides the most direct route between Grand Mound and Rochester, aligning the trail with US 12 or the Puget Sound and Pacific Railroad to avoid traffic conflicts around the pole yard in Rochester. They also emphasized the importance of connecting to the Washington State Department of Transportation Park and Ride Lot east of I-5 (Map 2-3).
2. **Scenic and Recreational Routing.** Many community members preferred a scenic route for outdoor recreation. Popular alignments included 183rd Ave SW, for its proximity to the Scatter Creek Wildlife Area, James Rd SW, for its scenic character, and an entirely new route that would follow the course of the Chehalis River from east to west (Map 2-4).

**Map 2-3: Community Feedback on Direct Routing**



**Map 2-4: Community Feedback on Scenic Routing**



## Route Alternatives

SCJ Alliance—the lead technical team—coordinated with Thurston County, TRPC, and a Community Advisory Workgroup to identify and evaluate a range of potential trail alignments (see Table 2-1). All the route alternatives follow public rights-of-way owned by Thurston County or WSDOT, except for the Holm Road Route, which would require a new bicycle and pedestrian bridge across the Black River. Detailed maps and exhibits for each alternative, including road conditions, proposed routes, detailed alignments, proposed cross-sections, waterbodies, and National Wetlands Inventory data—are provided in Appendix 1: Road Conditions and Trail Exhibits. Eight routes were identified and organized into the segment objectives they align with (see Map 2-5):

### Segment 1 Alternative Routes: Grand Mound to Rochester

Five alternatives were identified to connect Grand Mound and Rochester, based on input gathered from a 2021 public meeting, online open house, and community survey. All route options share common termini:

- Eastern terminus: US 12 and Elderberry Street SW
- Western terminus: Rochester Community Center near Albany Street SW and Littlerock Road SW

#### Key considerations:

- The Puget Sound and Pacific Railroad corridor was identified in the 2007 Thurston Regional Trails Plan as the conceptual route alignment; however, due to a lack of response from the railroad operator, it could not be evaluated in this study.
- Route 1, which extends the trail east to the WSDOT Park and Ride, is included as a default option for this segment.

## **Segment 2 and 3 Alternative Routes: Rochester and the Chehalis Reservation to the Gate-Belmore Trail**

Alternatives for Segments 2 and 3 explore options to connect:

- Rochester and the Confederated Tribes of the Chehalis Reservation
- Both communities to the Gate Segment of the Gate-Belmore Trail

### **Key route considerations:**

- Route 6 (School Land Road) serves as the default connector between Rochester and the Chehalis Reservation.
- US 12 was excluded due to safety concerns associated with high traffic volumes, speed, and noise.
- Route 7 (Holm Road) and Route 8 (Moon Road) are the two options for crossing the Black River and linking to the Gate Segment (see Map 2-6). Route 7 would require a new bridge.

**Table 2-1: Southwest Thurston County Trail Feasibility Study Route Alternatives**

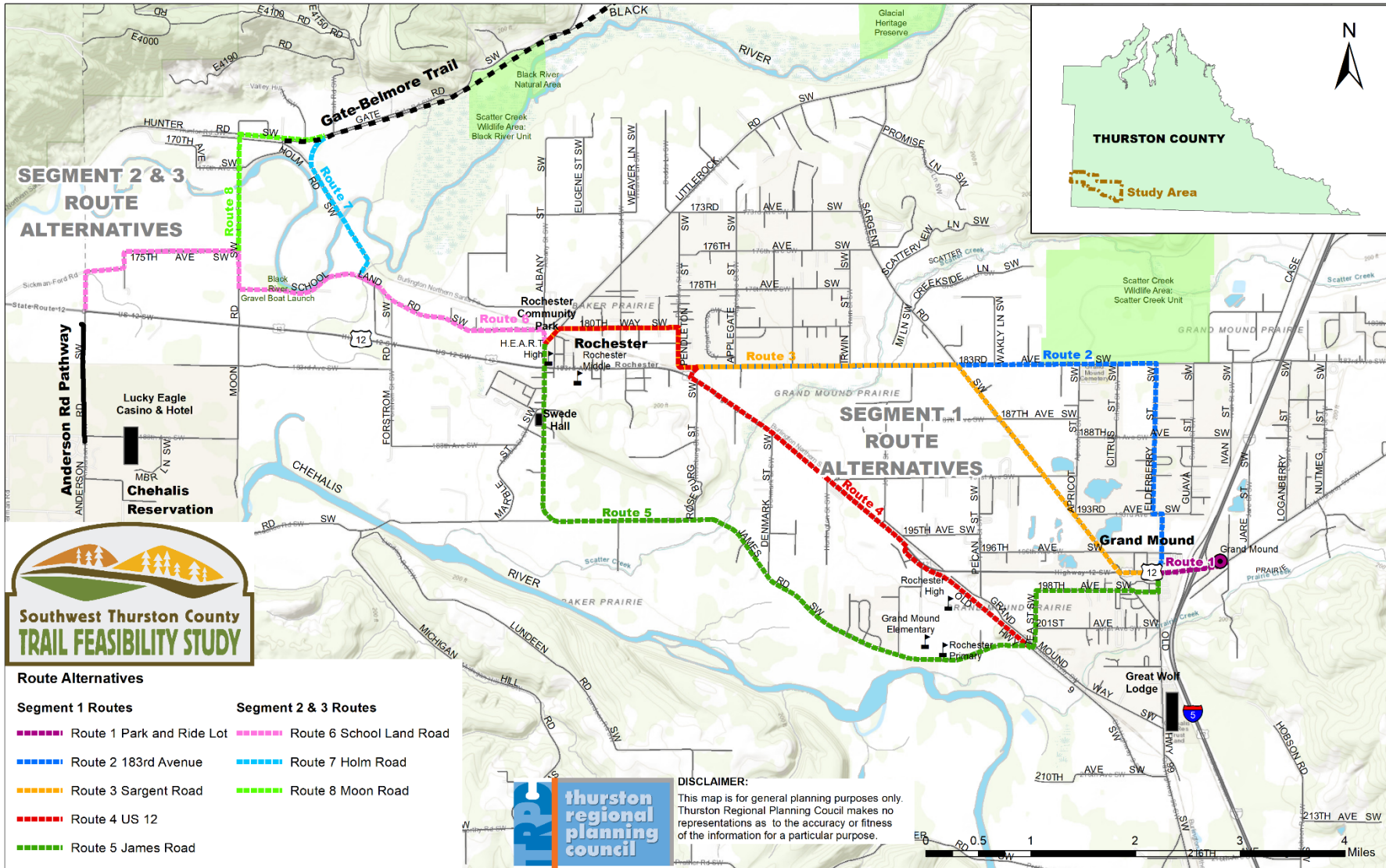
**Segment 1 Alternatives Routes – Grand Mound to Rochester**

Route	Length (miles)	Alignment	Features
<b>Route 1: I-5 Park and Ride to Grand Mound</b>	0.5	Old Hwy 99 and US 12 from I-5 Park and Ride Lot (east of I-5) to Elderberry St SW.	<ul style="list-style-type: none"> <li>- Vital link to transit and rideshare services.</li> <li>- Utilizes existing bridge across I-5.</li> <li>- Requires physical barriers for safety.</li> </ul>
<b>Route 2: 183rd Avenue</b>	5.8	Elderberry St SW → 183rd Ave SW → Pendleton St SW → 180th Way SW → Little Rock Rd SW → Rochester Community Center.	<ul style="list-style-type: none"> <li>- Connects north Rochester residents to Scatter Creek Wildlife Area.</li> <li>- Links to Grand Mound commercial services.</li> </ul>
<b>Route 3: Sargent Road</b>	5.0	US 12 → Elderberry St SW → Sargent Rd SW → 183rd Ave SW → Pendleton St SW → Rochester Community Center.	<ul style="list-style-type: none"> <li>- Similar to Route 2 but lacks direct access to Scatter Creek Wildlife Area.</li> </ul>
<b>Route 4: US 12</b>	5.5	US 12 → Elderberry St SW → 183rd Ave SW → Pendleton St SW → 180th Way SW → Rochester Community Center.	<ul style="list-style-type: none"> <li>- Most direct route between Grand Mound and Rochester.</li> <li>- Limited connectivity to community destinations.</li> <li>- Potential links to local schools.</li> </ul>
<b>Route 5: James Road</b>	6.0	Elderberry St SW → Old Hwy 99 SW → 198th Way SW → Tea St SW → James Rd SW → Albany St SW → Rochester Community Center.	<ul style="list-style-type: none"> <li>- Links Grand Mound to southern Rochester.</li> <li>- Direct access to schools, Swede Hall, and Rochester commercial services.</li> </ul>

**Segment 2 & 3 Alternative Routes – Rochester and Confederated Tribes of the Chehalis Reservation to the Gate-Belmore Trail**

Route	Length (miles)	Alignment	Features
<b>Route 6: School Land Road</b>	3.8	Rochester Community Center → School Land Rd → Moon Rd SW → 175th Ave SW → McCormick Rd SW → Anderson Rd SW → US 12.	- Most direct local east-west route connecting Rochester to the Gate-Belmore Trail.
<b>Route 7: Holm Road</b>	1.0	School Land Rd → Laymon St SW → new bike/pedestrian bridge → Holm Rd SW → Mima Gate Rd SW → Gate-Belmore trailhead.	- Scenic, low-stress route to Gate-Belmore trail. - Significant private property and environmental impacts.
<b>Route 8: Moon Road</b>	1.3	School Land Rd SW → Moon Rd SW → Black River existing bridge → Mima Gate Rd SW → Gate-Belmore trailhead.	- Peaceful farmland and scenic Black Hills views. - Follows Thurston Bountiful Byway.

**Map 2-5: Segment 1 and Segment 2 and 3 Route Alternatives**



9/4/2025 | P:\Transportation\SWTC\_TrailMap\_Images\Final Report\Route Alternatives Map.mxd

## Cost Estimation

Planning-level design and construction cost estimates were developed for each fixed and alternative routes. These estimates provide an initial assessment of the financial feasibility of each route alternative. The WSDOT Design Manual two-way shared use path cross-section, consisting of a six-foot vegetated buffer, a ten-foot-wide asphalt paved trail, and two two-foot gravel shoulders, was used to calculate costs (Figure 2-1). Additional costs for bridge construction and concrete barriers were included where applicable. Costs include design and engineering, right-of-way, construction management, construction (including materials), and a miscellaneous/contingency factor of 50 percent. Long-term operations and maintenance costs are not included. Detailed cost accounting is provided in Appendix 2: Conceptual Level Cost Estimate Summary.

## Cost Index

A *Cost Index* was calculated to compare the costs of each trail against other alternative routes within their segment group. This index helps determine if a potential investment in a new trail serving Southwest Thurston County would provide good value for the community. It is calculated by dividing the cost of each route by the total sum of the combined routes within each segment group. No Cost Indices were calculated for the Park and Ride and School Land Road routes as no alternate routes were established for a performance and cost comparison.

The *Cost Index* is used in the next step to calculate a route's overall *Performance Value Index*. Table 2-2 summarizes the alternative routes' total cost estimates and cost indices.

**Figure 2-1: Cross-Section for Two-Way Shared Use Path Adjacent to Roadway >35 mph**



Figure from the WSDOT Design Manual, Chapter 1515. Buffer must be at least 3 feet for roadways  $\geq 35$  mph and greater than 5 feet for roadways  $> 35$  mph.

## Pairwise Comparison Process

The pairwise comparison process is a method to prioritize various criteria by comparing them in pairs. Each criterion is evaluated against every other criterion to determine which is more important. This method helps in assigning relative weights to the criteria, ensuring that the most significant factors receive appropriate emphasis. The comparisons are typically organized in a matrix format, and the results are used to calculate the overall importance of each criterion. This approach offers a more balanced assessment of all factors involved in a prioritization or decision-making process.

**Table 2-2 Alternative Routes Cost Estimates**

Segments	Route	Length (feet)	Total Cost	Cost Index
1	1. Park and Ride Route	2,500	\$310,000	n/a
	2. 183 <sup>rd</sup> Avenue Route	30,400	\$8,870,000	0.252
	3. Sargent Road Route	26,280	\$7,400,000	0.210
	4. US 12 Route	29,210	\$11,830,000	0.336
	5. James Road Route	31,660	\$7,130,000	0.202
2 & 3	6. School Land Road Route	20,200	\$7,660,000	n/a
	7. Holm Road Route	5,600	\$6,090,000	0.711
	8. Moon Road Route	7,020	\$2,480,000	0.289

## Route Evaluation

The study conducted an alternatives analysis to assess trail route performance, aiming to identify the routes that best achieve the segment objectives and meet community needs. A *Performance Score* was developed to compare each route based on how well it aligns with community values and preferences.

## Evaluation Criteria

Four performance attributes were established as evaluation criteria, derived from the findings of the study's 2021 community survey. These criteria reflect essential aspects of trail functionality and appeal, as prioritized by community members (see Table 2-3).

## Weighting

Weighting factors were determined by the Community Stakeholder Workgroup through a pairwise comparison process. Each criterion was evaluated against the others to determine its relative importance. For instance, Traffic Safety (Criterion A) was deemed more significant than all other criteria, Natural Setting (B) and Low Environmental Impact (C), and Connectivity (D) – and received the highest weight at 40 percent. The Natural Setting and Connectivity criteria were rated equally important. The Connectivity criterion scored lowest, suggesting that the Workgroup believed the community prioritized safety and the quality of an outdoor recreational experience over direct links to community destinations (see Table 2-4).

**Table 2-3 Route Evaluation Criteria and Ratings**

Criteria	Low Traffic Stress	Natural Setting	Low Environmental Impact	Connectivity
<b>Description</b>	Assesses users’ perceived safety on the route, focusing on minimizing traffic hazards such as road and driveway crossings and proximity to high-speed traffic.	Evaluates the route’s scenic quality, including views, wildlife viewing, and reduced exposure to noise and urban settings.	Assesses how trail construction avoids or minimizes harm to sensitive areas such as wetlands, flood plains, and wildlife habitats.	Measures the route’s effectiveness in connecting to key community destinations such as schools, parks, and commercial areas.
<b>Preferred Rating</b>	<b>10 points:</b> The route has minimal potential traffic hazards, creating a safe and comfortable experience for users.	<b>10 points:</b> The route features unobstructed scenic views, abundant wildlife viewing, and minimal exposure to noise.	<b>10 points:</b> The route avoids or has negligible impact on sensitive environmental areas.	<b>10 points:</b> The route provides direct, seamless connectivity to multiple essential community destinations.
<b>Acceptable Rating</b>	<b>5 points:</b> The route has some potential traffic hazards, but users generally feel safe.	<b>5 points:</b> The route includes some scenic features but may have obstructions or moderate noise levels.	<b>5 points:</b> Less than 50 percent of the project length or cost impacts sensitive environmental areas.	<b>5 points:</b> The route connects to some community destinations but lacks comprehensive connectivity.
<b>Poor Rating</b>	<b>0 points:</b> The route has frequent traffic hazards, creating an unsafe experience for users.	<b>0 points:</b> The route lacks scenic features, with obstructions and excessive noise detracting from the experience.	<b>0 points:</b> 50 percent or more of the project length significantly impacts sensitive environmental areas.	<b>0 points:</b> The route provides minimal or no connectivity to key community destinations.

**Table 2-4: Performance Attributes Pair Wise Comparison Matrix Results**

	A	B	C	D		
Performance Attributes	Low Traffic Stress	Natural Setting	Low Environmental Impact	Connectivity	Total Count	Weight
<b>A</b>	A	A	A	A	4.0	40%
<b>B</b>		B	B	B/D	2.5	25%
<b>C</b>			C	C	2.0	20%
<b>D</b>				D	1.5	15%
				<b>Grand Total</b>	10.0	100%

## Performance Score

The consultant team evaluated each route using a 0 to 10 scale for each criterion, where 10 represents the highest alignment with community priorities. Each score was then adjusted by applying the criterion's weighting factor (Table 2-3). For example, the James Road Route received a rating of 9 for Low Traffic Stress. With a weighting factor of 40%, the weighted score was calculated as  $9 \times 1.40 = 12.6$ . The overall *Performance Score* for each route was determined by summing the weighted scores across all four criteria. This score provides a clear comparison of each route's strengths and weaknesses, with higher scores indicating better alignment with desired community route attributes. Detailed *Performance Score* results are presented in Table 2-5.

**Table 2-5: Route Evaluation Criteria Scores (weighted) and Performance Scores**

Segments	Route Alternatives	Low Traffic Stress	Natural Setting	Low Environmental Impact	Connectivity	Performance Score
<b>1</b>	1. Park and Ride Route	4.2	0	12	6.9	23.1
	2. 183 <sup>rd</sup> Avenue Route	8.4	8.75	4.8	5.75	27.7
	3. Sargent Road Route	9.8	6.25	4.8	5.75	26.6
	4. US 12 Route	5.6	1.25	7.2	5.75	19.8
	5. James Road Route	12.6	11.25	9.6	8.05	41.5
<b>2 &amp; 3</b>	6. School Land Road Route	7	11.25	4.8	2.3	25.4
	7. Holm Road Route	12.6	11.25	2.4	3.45	29.7
	8. Moon Road Route	12.6	11.25	4.8	5.75	34.4

### Segment 1 Performance Score Results

- From Grand Mound to Rochester, the James Road Route (Route 5) emerged as the top performer. It outscored all the other routes in all the performance attributes.
- The 183<sup>rd</sup> Avenue (Route 2) and Sargent Road (Route 3) routes performed similarly.
- The US 12 Route (Route 4) scored lowest, due to its low performance in the traffic stress, natural setting, and connectivity attributes.

### Segment 2 and 3 Performance Score Results

- From Rochester and the Chehalis Reservation to the Gate-Belmore Trail, the Moon Road route (Route 8) outperforms the Holm Road route (Route 7) due to its lower environmental impact and higher connectivity rating.
- While the School Land Road Route (Route 6) has a low connectivity score, it is the key route connecting Grand Mound, Rochester, and the Confederated Tribes of the Chehalis Reservation to the Gate-Belmore Trail.

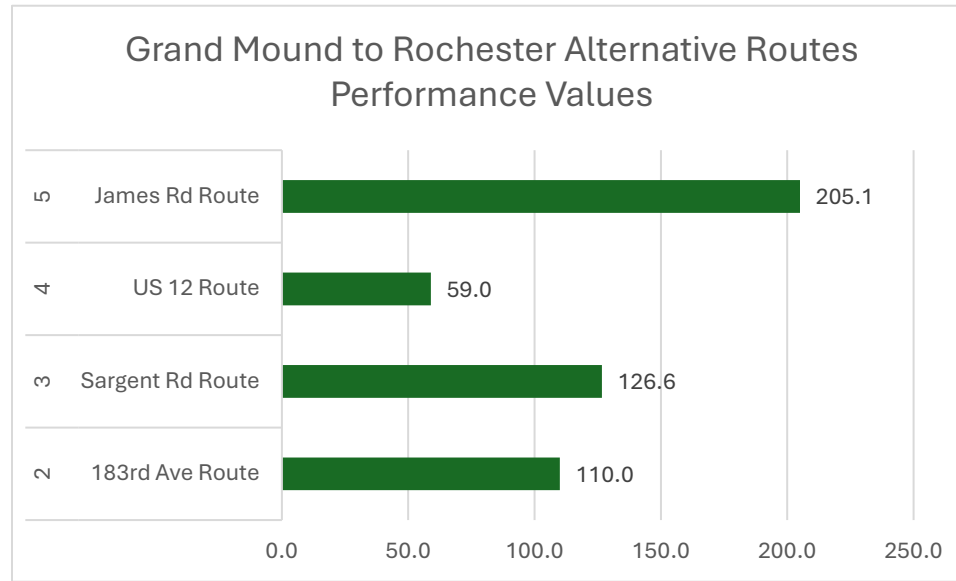
### Best Value Alternatives

To determine which route alternative offers the best value for Segment 1 and Segment 2, the *Performance Score* for each route was divided by its *Cost Index*. This index allows for a direct comparison of the cost-effectiveness of each route within its segment group, highlighting which alternative provides the highest benefit relative to its cost. Figures 2-2 and 2-3 display the *Performance Value Index* (PVI) for Segment 1 and Segments 2 and 3 route alternatives.

The *Cost Index* is the cost estimate of the route divided by the sum of the cost estimates for all the alternative routes in its segment group (see Table 2-2). PVI is computed using the following formula:

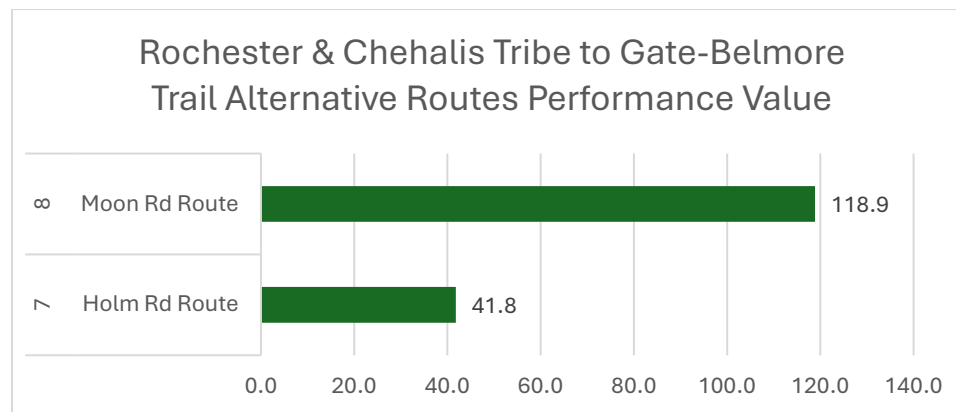
$$PVI = \frac{\text{Performance Score}}{\text{Cost Index}}$$

**Figure 2-2: Segment 1 Performance Value Index Results**



*A higher value means better performance.*

**Figure 2-3: Segments 2 and 3 Performance Value Index Results**



### **Segment 1 Scenario Best Value Alternative – James Road (Route 5)**

From Grand Mound to Rochester, the James Road Route's PVI exceeds that of the Sargent Road Route, its closest competitor, by 62 percent. In contrast, the US 12 Route not only rated poorly in the evaluation criteria but also proves to be a less cost-effective investment due to its higher construction cost. Combined with the Park and Ride Lot Route, the James Road Route provides the highest combined PVI for satisfying the Segment 1 objective.

### **Segments 2 and 3 Scenario Best Value Alternative – Moon Road (Route 8)**

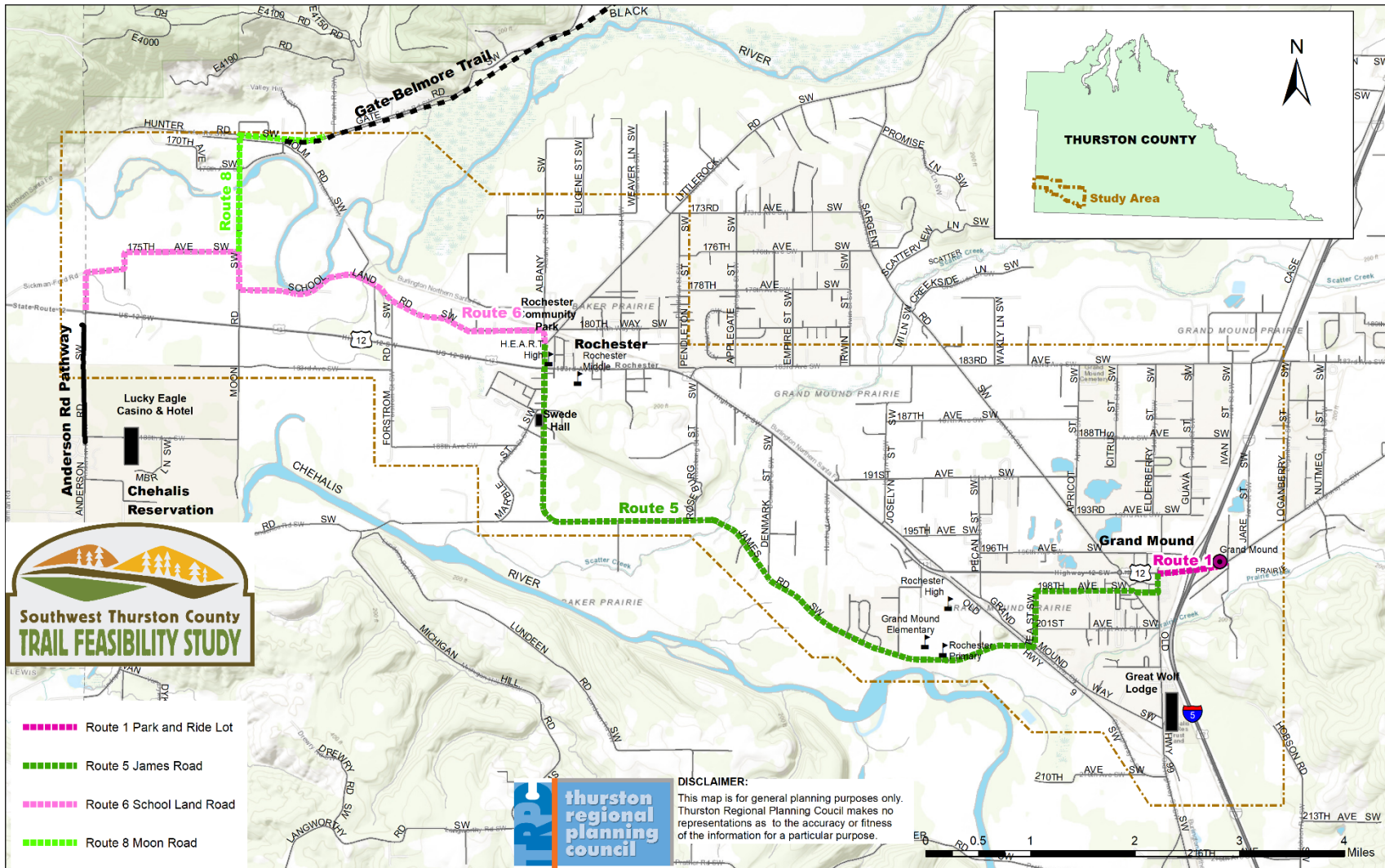
To link Rochester and the Confederated Tribes of the Chehalis Reservation to the Gate-Belmore Trail, the Moon Road Route outperforms the Holm Road Route's PVI by 184 percent. Although the Holm Road Route provides a more direct connection from Rochester, the additional cost of constructing a new trail bridge over the Black River underscores the cost-effectiveness of the Moon Road Route. When combined with the School Land Road Route, the Moon Road Route offers the highest combined Performance Value for satisfying Segment 2 and 3 objectives. This route is also consistent with the Gate-Belmore Trail Connectivity Strategy proposed alignment of Priority Expansion Route 1.

### **Recommended Trail Route**

The route alternatives analysis shows that overall Best Value Alternative route for the Southwest Thurston County shared-use trail corridor consists of four combined routes from east to west (Map 2-6):

- Route 1: I-5 Park and Ride to Grand Mound
- Route 5: James Road
- Route 6: School Land Road
- Route 8: Moon Road

**Map 2-6: Best Value Alternative Route (Segment Objectives 1, 2, and 3 combined)**



## Discussion

Public support underscores the importance of incorporating community values into the evaluation framework. The alignment between survey feedback and the best value alternative demonstrates that a criteria-based assessment can resonate with public sentiment when paired with transparent engagement. Moving forward, it will be crucial to maintain this approach to ensure future trail planning reflects both objective performance attributes and the values of the community.

However, the evaluation process for selecting a preferred trail route revealed some shortcomings in the criteria used for assessing alternative routes. Among these challenges are the lack of a criterion addressing privacy concerns of property owners near the trail routes and the absence of a criterion for evaluating the security and natural surveillance for trail users. Additionally, the Low Traffic Stress criterion, while important, does not comprehensively account for the safety measures and design elements, such as traffic safety countermeasures and physical barriers, that would accompany the development of a future trail. These gaps in the evaluation framework highlight areas for improvement that would ensure a more balanced and thorough review of potential trail routes.

### Public Support and Alignment with Best Value Alternatives

The July 2024 community survey revealed strong public support for the James Road and Moon Road Route Alternatives. Survey respondents cited these routes as providing the best balance of accessibility, safety, connectivity and recreation opportunities. This public preference aligns closely with the results of the PVI, where these alternatives scored highest due to their ability to meet key evaluation criteria.<sup>3</sup>

---

<sup>3</sup> Southwest Thurston County Trail Feasibility Study Route Alternatives Analysis Community Survey Summary. TRPC, 2024.

Although the Sargent Road Route received a lower PVI compared to the Jame Road, it garnered notable public support for its potential use. While the primary objective of the study was to identify a primary east-west corridor, the strong community interest suggests that further exploration of the benefits that an additional route in the Rochester Subarea could be valuable. Providing additional future trail connections in this area may enhance overall accessibility and address localized needs for recreational and active transportation.

### **Privacy of Adjacent Property Owners**

One notable omission in the evaluation criteria was the absence of a specific consideration for privacy concerns of property owners adjacent to the trail. Public comments revealed apprehensions about the proximity of trail users to private properties, including concerns over potential noise, trespassing, and a sense of intrusion into private spaces. A criterion addressing these concerns could have provided a structured approach to evaluating these impacts. A meaningful stakeholder process that addresses privacy concerns, with affected individuals, during the design phase could explore privacy protection through landscaping, fencing, or selecting routes that naturally minimize property interactions. Privacy concerns can be addressed during the preliminary engineering and design phase prior to construction.

### **Security and Natural Surveillance for Trail Users**

Similarly, the security of trail users and the role of natural surveillance were not explicitly evaluated. The project team met with the Thurston County Undersheriff and the West Thurston Regional Fire Authority Fire Chief, both of whom expressed support for pursuing the James Road Route Alternative as being safer for trail users. They believe James Road's lower speed, less frequent driveway and street crossings, and its connectivity with Rochester schools would make it a more attractive route. This feedback highlights the importance of considering visibility, accessibility for emergency responders, and opportunities for passive surveillance when selecting and designing trail routes. Incorporating these considerations into the evaluation criteria would offer additional insights into the potential safety and comfort experiences of trail users.

## **Traffic Safety Criteria and Countermeasures**

The existing traffic safety criterion focused primarily on current traffic conditions and potential conflicts with vehicles. However, it did not account for the comprehensive safety improvements that would be integrated into a developed trail. Future trails will likely include traffic safety countermeasures, such as signal controls, designated pedestrian crossings, signage, and speed reduction measures, as part of their design. Additionally, most trail designs incorporate landscaping or other physical buffers to separate trail users from adjacent roadways, significantly enhancing safety. These elements are critical for understanding the true safety profile of a proposed route. Opportunities to address this shortcoming will be addressed in the future preliminary engineering and design phase should Thurston County proceed with the development of a new shared-use trail.

## **Implications of These Gaps**

The absence of these criteria does not diminish the results of the alternatives analysis but rather highlights the feasibility study's limitations to address legitimate community concerns. Accounting for these criteria in the development of a trail would lend additional community support in the process to identify alternatives that are truly inclusive and accessible. For example, communities historically underserved by recreational infrastructure may disproportionately face privacy or safety concerns, exacerbating equity gaps. By integrating these considerations into the planning process, trail projects can more effectively balance competing interests, reduce conflict, and create spaces that are welcoming for all.

## **Recommendations for Future Analysis**

To address these challenges, future trail planning efforts could incorporate dedicated criteria for privacy and security. Tools such as stakeholder interviews, GIS-based analysis of land uses, and crime data assessments could provide the necessary inputs to evaluate these factors systematically. In addition, fostering collaboration with community members, first responders, and design professionals such as landscape architects could yield innovative solutions that balance privacy, security, and connectivity.

This page left intentionally blank.

# Chapter 3: Implementation Strategy and Recommendations

## Introduction

This chapter presents a roadmap for implementing the Southwest Thurston County Trail (SWTCT), the Best Value Alternative identified in the alternatives analysis. The SWTCT would connect Grand Mound, Rochester, and the Confederated Tribes of the Chehalis Reservation to the Gate-Belmore Trail's Gate Segment.

The implementation strategy prioritizes connections to community centers and outlines a phased approach to planning, design, and construction. It emphasizes strong community engagement, regional coordination, and sustained effort, and identifies key partners, funding opportunities, and technical recommendations necessary for success.

Together, the strategy and recommendations provide a framework to develop a safe, accessible, and sustainable trail system—one that supports active transportation, recreation, and broader goals for mobility, equity, and quality of life in Southwest Thurston County.

## Implementation Strategy Overview

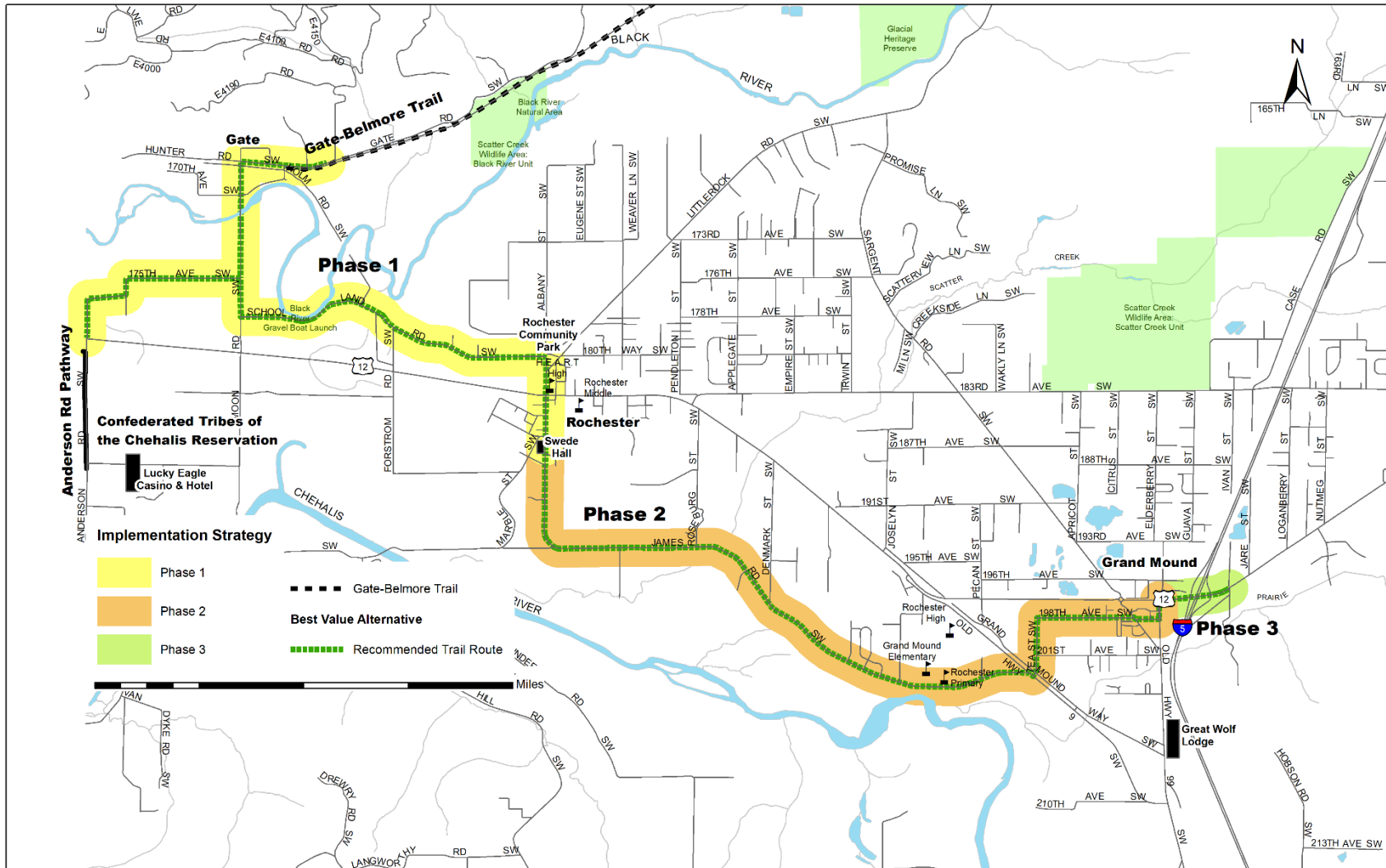
The implementation strategy divides the SWTCT into three segmented phases progressing west to east (Map 3-1). Each phase identifies opportunities and challenges at key locations, with planning and design considerations intended to guide future decisions on planning, engineering, and construction efforts (reference the callouts on Maps 3-2 through 3-5).

- **Phase 1** establishes connectivity to the Gate Segment of the Gate-Belmore trail from Rochester starting at Swede Hall, and from the End of the Trail on Anderson Road on the northern limits of Confederated Tribes of the Chehalis Reservation.
- **Phase 2** expands the trail corridor to the east starting from the intersection of Elderberry St SW and US 12 in Grand Mound to Swede Hall in Rochester.
- **Phase 3** connects the trail to the Washington State Department of Transportation (WSDOT) I-5 Park and Ride east of I-5 west to Elderberry Street SW in Grand Mound.



*Cyclists riding south on Moon Road SW. Photo by Experience Olympia and Beyond.*

**Map 3-1: Southwest Thurston County Trail – Three Phase Implementation Strategy**



9/4/2025 | P:\Transportation\SWTC\_TrailMap\_Images\Final Report\Phasing Strategy\_Ver2\_Zoomed.mxd

## Phasing Details

### Phase 1 – Rochester and the Confederated Tribes of the Chehalis Reservation to the Gate-Belmore Trail

**Total Length:** 6 miles

**Estimated Cost:** \$11,223,826

**Lead Agency:** Thurston County

**Partners:** Confederated Tribes of the Chehalis Reservation, WSDOT, and Rochester School District

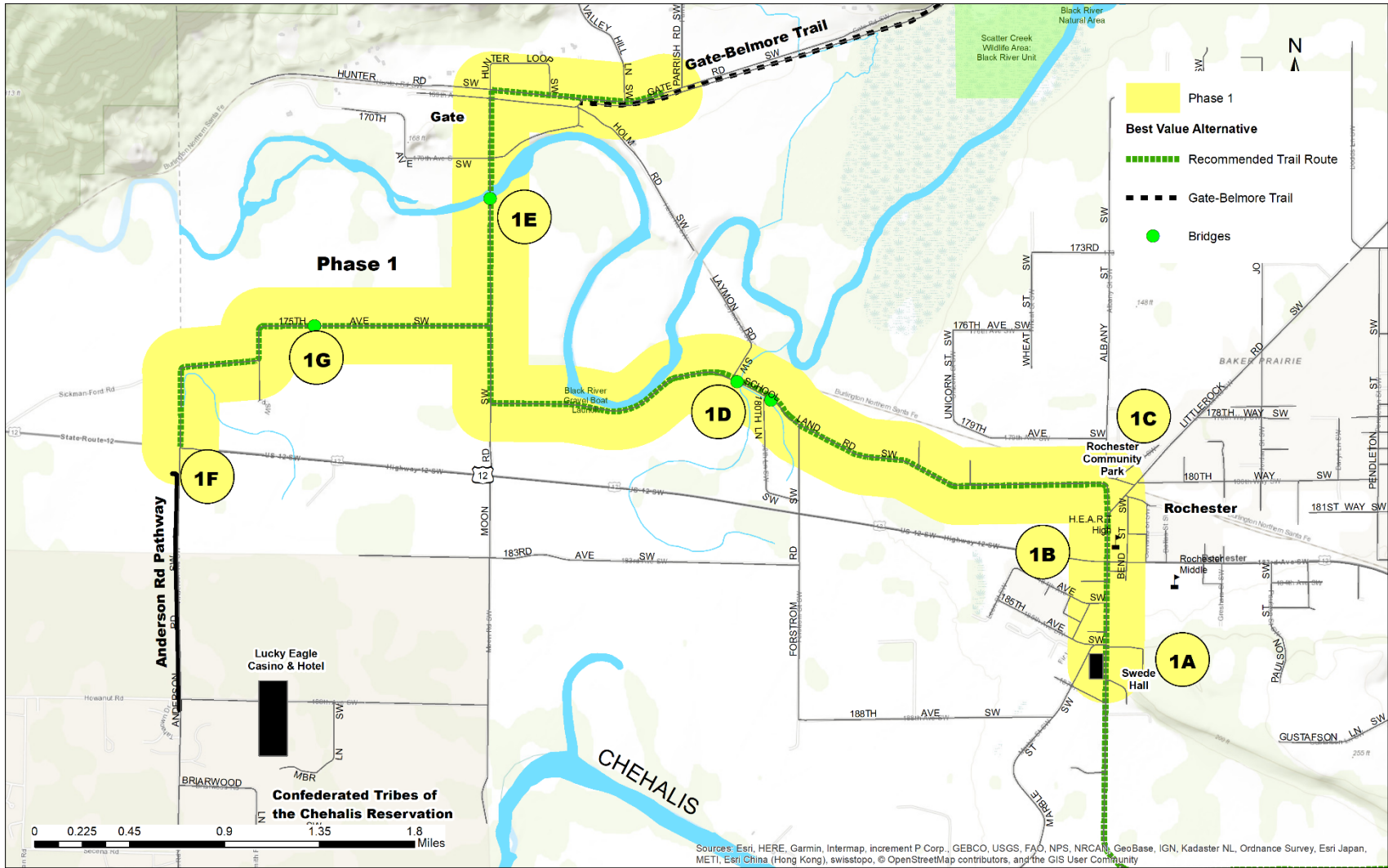
#### Route Overview

Phase 1 connects key destinations in Rochester and the Chehalis Reservation to the Gate-Belmore Trail. Rochester is a residential, social, cultural, and commercial hub, home to the Rochester Community Center, School District Office, Food Bank, Community Park, Swede Hall, Post Office, Middle School, and multiple businesses. The Confederated Tribes of the Chehalis Reservation houses tribal members, provides key tribal government and health care services, and the Lucky Eagle Casino and Hotel, a major regional destination.

To support implementation flexibility, Phase 1 is divided into two segments that could be pursued in separate stages:

- **Rochester to Gate-Belmore Trail** | 4 miles | \$7,071,586  
Route Alignment: Albany St SW (at Swede Hall) → School Land Rd SW → Moon Rd SW → Hunter Rd SW → South Terminus of Gate-Belmore Trail
- **Chehalis Reservation to Moon Road** | 2 miles | \$4,152,240  
Route Alignment: Anderson Rd SW at US 12 → McCormack St SW → Taylor Rd SW → 175th Ave SW → Moon Rd SW

**Map 3-2: SWTCT – Phase 1 Route and Planning and Design Considerations**





Swede Hall, Rochester. Photo by TRPC.

## **Phase 1 Planning and Design Considerations (see Map 3-2)**

### **1A: Swede Hall Eastern Terminus**

The trail's alignment along Albany Street should prioritize convenient and direct access to Swede Hall. It is a cultural landmark and central event space in downtown Rochester. Phase 1 construction should start here, improving pedestrian and bicycle access for nearby neighborhoods (184th–185th Avenues) to downtown Rochester and the trail corridor.

### **1B: US 12 Crossing**

The Main Street Rochester Multimodal Transportation Plan recommends evaluating improvements at the US 12/Albany Road intersection to support multimodal safety. Any future frontage improvements or intersection traffic control measures (e.g., a roundabout) should incorporate a shared-use path or wide sidewalk crossing that supports long-term trail use and multimodal connectivity.

### **1C: Rochester Community Park Trailhead**

Rochester Community Park is well suited to serve as a formal trailhead, as identified in the Main Street Rochester Transportation Plan (Action C2). The park offers existing amenities—including vehicle parking, a playground, and proximity to the Community Center—that could support trail users.

A more detailed assessment is recommended to ensure that trail user parking demand does not interfere with community events or regular use of the Community Center. Additional features such as a trail map kiosk, trail and park use guidelines, bike parking, and restrooms should be included in the initial trailhead design or planned for future phased improvements.



The S2 Bridge on School Land Road.

### 1D: School Land Road Bridges (S2 & S3)

School Land Road SW crosses two overflow channels near 180th Lane SW via culverted bridges (S2 and S3). Guardrails and jersey barriers border both sides of the bridges.

New bridge construction for a separated shared-use trail was not included in this study's cost estimate. Instead, a traffic engineering assessment is recommended to evaluate low-cost solutions that could improve non-motorized access through these narrow segments.

Design alternatives may include:

- Advisory bike lanes (a.k.a. advisory shoulders)
- Speed reduction measures
- Pavement markings and signage

Such treatments may be applicable, at least as interim treatment for this low-volume road (posted speed limit 35 mph; ADT: 37 westbound / 71 eastbound near Forstrom Rd SW). Advisory bike lanes, which use dashed lines to delineate shared travel space, require approval from the Federal Highway Administration (FHWA) and are considered experimental infrastructure.<sup>4, 5</sup>



An Advisory Bike Lane in Hanover, NH. Photo from Alta Planning.

<sup>4</sup> Guide for the Development of Bicycle Facilities, 5<sup>th</sup> Edition. 2024. AASHTO. Chapter 12, p 12.

<sup>5</sup> Advisory Bike Lanes in North America: Lessons Learned. Alta Planning. 2017. [https://altago.com/wp-content/uploads/Advisory-Bike-Lanes-In-North-America\\_Alta-Planning-Design-White-Paper.pdf](https://altago.com/wp-content/uploads/Advisory-Bike-Lanes-In-North-America_Alta-Planning-Design-White-Paper.pdf)

### 1E: Moon Road Black River Bridge (M-7)

The Moon Road bridge over the Black River has a wide shoulder on the southbound lane and a jersey barrier-protected narrow shoulder on the northbound lane.

This northbound shoulders current width is too narrow to accommodate bi-directional multi-use trail traffic. A design assessment is recommended to explore options for increasing usable shoulder width and improving safety.

Options to evaluate:

- Reconfiguring the jersey barriers to dedicate a multi-use pathway
- Adding advisory bike lanes/shoulders
- Exploring other low-cost temporary improvements to accommodate trail users including signage, pavement markings, and speed reduction measures



*Moon Road SW Bridge at the Black River.*



*McCormick Bridge, 175th Ave SW*

### **1F: 175th Avenue Bridge (McCormick Bridge MC-2)**

The McCormick Bridge on 175th Avenue SW crosses a Black River overflow channel and lacks dedicated pedestrian or bicycle facilities.

To improve trail connectivity along this segment, the bridge should be assessed to evaluate low-cost, safety-enhancing features.

Potential interim improvements include:

- Advisory bike lanes/shoulders
- Advisory speed reduction
- Reallocation of roadway width
- Signage and pavement markings to increase visibility and alert drivers to trail users

## 1G: SR 12 and Anderson Road Crossing and Anderson Road Trail Route Restoration

The route alternatives analysis supports advancing a trail connection along the alignment identified in the Gate-Belmore Connectivity Study's Priority Expansion Route 1—from Anderson Road to Moon Road. This alignment links with an existing paved multi-use path operated by the Confederated Tribes of the Chehalis Reservation along the southbound lane of Anderson Road (from 188th Ave SW to the Trails End fuel station at US 12).

To extend this trail connection, three key improvements are recommended:

### 1. Convert the Decommissioned Anderson Road Entrance

- Reuse the closed vehicle entrance at Anderson Road and US 12 by converting it into a shared-use path segment.
- Align and connect the trail north of the barriers to prevent motorized access and protect trail users.

### 2. Extend the Existing Anderson Road Pathway

- Continue the paved trail north to connect to US 12 with the existing south leg splitter island crossing at the US 12 roundabout.
- Ensure that the connection is direct, accessible, and safely accommodates both bicyclists and pedestrians.



*The Anderson Road pedestrian crossing near the US 12 Roundabout and End of the Trail Fuel Station.*

### 3. Evaluate US 12 Crossing for Trail Safety and Performance

- Assess the current splitter island crossing on the eastern leg of the US 12 roundabout for safety and suitability for trail users.
- A similar configuration is used on the Karen Fraser Woodland Trail on the Pacific Avenue roundabouts in the City of Lacey.
- Recommended safety enhancements could include:
  - Trail crossing signage on approaches to the roundabout
  - Pedestrian-activated rectangular rapid flashing beacons (RRFBs) at the Anderson Road and US 12 crossings
  - Other high-visibility traffic control devices, as needed

*“We need recreation trails out here! I’m so excited to see that this may actually happen!”*

*“Separate bike trails can really improve the makeup of a community. They can improve safety in commuting, give children appropriate places to learn to bicycle, provide opportunities for exercise, and mini adventures for families.”*

*“The James Rd. route would connect 3 schools and Swede Hall to downtown Rochester. This also would provide a safe way to get to Rochester Middle School. This would provide families and community groups to travel between the areas in a safe way when they do not have vehicles.”*

*“I’m a horseback rider and don’t know if most of this route would draw many horseback riders. But, the Gate-Belmore trail plans to allow horseback riding and will be a draw, so a link to your trail may draw horseback riders further. The important things for both trails is to provide a soft surface trail well separated from the paved trail for the horses, and sufficient parking for our long rigs.”*

-Southwest Thurston County Feasibility Study Community Survey participants’ comments

## Phase 2 – Grand Mound to Rochester

**Total Length:** 5 miles

**Estimated Cost:** \$6,046,087

**Lead Agency:** Thurston County

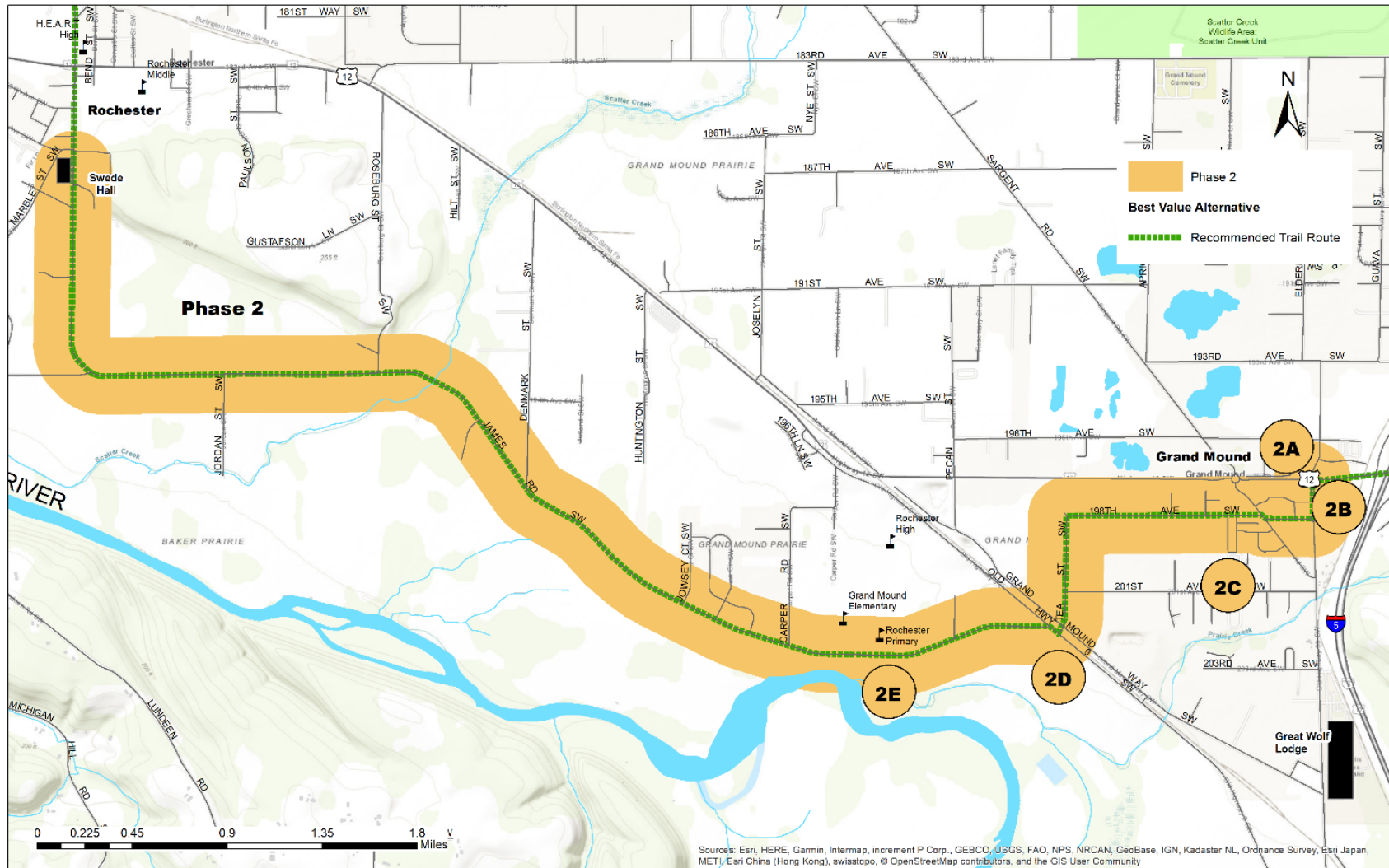
**Partners:** Confederated Tribes of the Chehalis Reservation, WSDOT, and Rochester School District

### Route Overview

Phase 1 would establish vital community links to the Gate-Belmore Trail. Phase 2 builds on this foundation by extending the corridor into Grand Mound and expanding active transportation options to neighborhoods, safe routes to schools, and access to Grand Mound businesses. Phase 2 extends the trail from the intersection of Elderberry Street SW and US 12 to Swede Hall in Rochester. The corridor would also create linear open space and recreational opportunities with pastoral views of the Chehalis River Valley.

**Route Alignment:** Elderberry St SW at US 12 → Old Hwy 99 SW → 198th Way SW → Tea St SW → James Rd SW → Albany St SW at 187<sup>th</sup> Ave SW.

**Map 3-3: SWTCT – Phase 2 Route and Planning and Design Considerations**



6/6/2025 | P:\Transportation\SWTCT\_TrailMap\_Images\Final Report\Phase 2 Detail.mxd

## **Phase 2 Planning and Design Considerations (see Map 3-3)**

### **2A: Grand Mound Trailhead**

The intersection of Elderberry Road SW and US 12 is centrally located within Grand Mound’s growing commercial core and presents a strategic access point to the future trail corridor. While the study includes cost estimates for constructing a paved shared-use path on this segment, the existing bicycle lanes and sidewalks could serve as an interim solution for trail connectivity. This approach reduces near-term capital costs and allows the corridor to be activated sooner, using existing right-of-way.

With no county-owned parcels at or near the intersection to support a full trailhead, planning efforts should consider a basic placemaking strategy with the installation of wayfinding amenities such as a trail map kiosk and wayfinding signage. These features would help orient visitors arriving via nearby businesses and improve visibility of the trail within the community. As redevelopment occurs, opportunities to establish a formal trailhead with expanded amenities may emerge.

### **2B: Elderberry and US 12 Crossing**

The signalized intersection at US 12 and Elderberry Road currently includes marked pedestrian crosswalks on all four legs, pedestrian signal push buttons, sidewalks, and bike lanes. This existing infrastructure provides a functional, if basic, multimodal crossing that could support initial phases of trail development.

Leveraging this established crossing allows the trail to proceed without immediate large-scale investment in new crossing treatments. However, future planning could explore enhancements such as improved wayfinding, widened curb ramps, and high visibility crossing treatments to enhance trail user safety. As trail demand increases and surrounding development intensifies, phased upgrades to the crossing – such as protected signal timing or trail-specific crosswalk design—could further enhance user safety and comfort.



*The intersection of Elderberry St SW and US 12 is signalized with marked pedestrian crossings.*

## **2C: Powerline Trail Connectivity**

The planning and design of the SWTCT alignment along 198th Way SW should evaluate opportunities to connect with the proposed Powerline Trail—identified in the Grand Mound Transportation Study (Recommendation C13). This north-south multi-use path is envisioned as both a transportation corridor and a recreational greenway for surrounding neighborhoods.

The Powerline Trail would generally follow the electric utility corridor located just west of and parallel to Old Hwy 99 SW, extending between 198th Way SW and Grand Mound Way SW (see the Roadway Conditions Map in Appendix 1).

### **Connectivity Benefits**

Coordinating SWTCT design with this potential trail connection would:

- Enhance local and regional trail network integration
- Create more direct and attractive active transportation options within Grand Mound
- Support non-motorized access to nearby neighborhoods and destinations

### **Next Steps**

To advance future trail connections, planners should:

- Initiate early coordination with the utility provider
- Assess feasibility and any right-of-way use limitations
- Identify opportunities to align SWTCT project goals with utility infrastructure management needs

## 2D: Grand Mound Way, Puget Sound and Pacific Railroad, and Old Hwy 9 Crossings

The SWTCT alignment on Tea Street SW will require coordinated planning to safely and effectively cross three key transportation corridors before reaching James Road SW:

### 1. Grand Mound Way SW

The Grand Mound Transportation Study (Recommendation M1) identifies multimodal enhancements along 198th Way, Tea Street SW, and Grand Mound Way SW that may benefit trail users. Design considerations should evaluate:

- Intersection visibility and turning movements
- Signage or crossing treatments for trail users
- Potential signal improvements

### 2. Old Highway 99 SW

Trail crossing of Old Hwy 99 will require a thorough assessment of:

- Traffic volumes and travel speeds
- Sight lines and crash history
- Appropriate signalization or crossing control enhancements

### 3. Puget Sound and Pacific (PSAP) Railroad

This single-track, low-traffic rail line poses the most complex crossing challenge. Key planning steps include:

- Early coordination with PSAP
- Evaluation of at-grade crossing upgrades with warning and safety treatments
- Feasibility analysis of a grade-separated crossing if future rail activity increases
- Securing permits and complying with federal/state railroad safety standards

Given the concentration of crossings in a short corridor segment, planners should:

- Develop an integrated corridor crossing strategy that balances cost, user safety, and long-term functionality
- Consider phased or interim treatments that allow trail segments to open while more complex improvements are planned and funded



*The Tea Street crossing at Grand Mound Way, PSAP Railroad, and Old Hwy 99 (looking north).*

*“The James Rd. route would connect 3 schools and Swede Hall to downtown Rochester. This also would provide a safe way to get to Rochester Middle School. This would provide families and community groups to travel between the areas in a safe way when they do not have vehicles.”*

*“This area desperately needs paved trails and sidewalks, especially on the stretch of highway in front of Great Wolf Lodge and the food spots nearby.”*

*“How will trail upkeep, repair and maintenance, be funded? What about the litter and trash that will surely accumulate on the trails?”*

Southwest Thurston County Feasibility Study Community Survey participants' comments

## **2E: Rochester Schools Access**

The SWTCT alignment along James Road SW presents an impactful opportunity to improve pedestrian and bicycle access to a major civic and educational hub in Southwest Thurston County. Rochester Primary School, Grand Mound Elementary School, and Rochester High School are co-located north of James Road and connected internally by Carper Road. Ensuring that the trail alignment provides safe, direct, and convenient access to these schools is a top planning priority.

Coordination between Thurston County and the Rochester School District will be essential to evaluate and plan the design of the trail crossings at the four existing driveways that access the campus from James Road (see Figure 3-1). Consideration should be given to establish separate pathways for trail users to connect to the schools' existing walking and biking paths to school entrances, and to address access management, circulation, and safety near pick-up and drop-off zones.

Additionally, the Primary and Elementary School parking lots may offer potential trail access points for community members during non-school hours. Joint-use agreements or signage could help formalize this access while maintaining safety and security during school operations. Establishing these shared access points would enhance the trail's utility as a community asset and support broader goals for safe routes to school and neighborhood connectivity.

**Figure 3-1: SWTCT Concept Rendering for James Road at Rochester Schools**



*Conceptual view and alignment of the SWTCT on James Road near Rochester schools. Concept by SCJ Alliance.*

### **Phase 3 – I-5 Park and Ride Lot to Grand Mound**

**Total Length:** 0.5 miles

**Estimated Cost:** \$310,000

**Lead Agency:** WSDOT

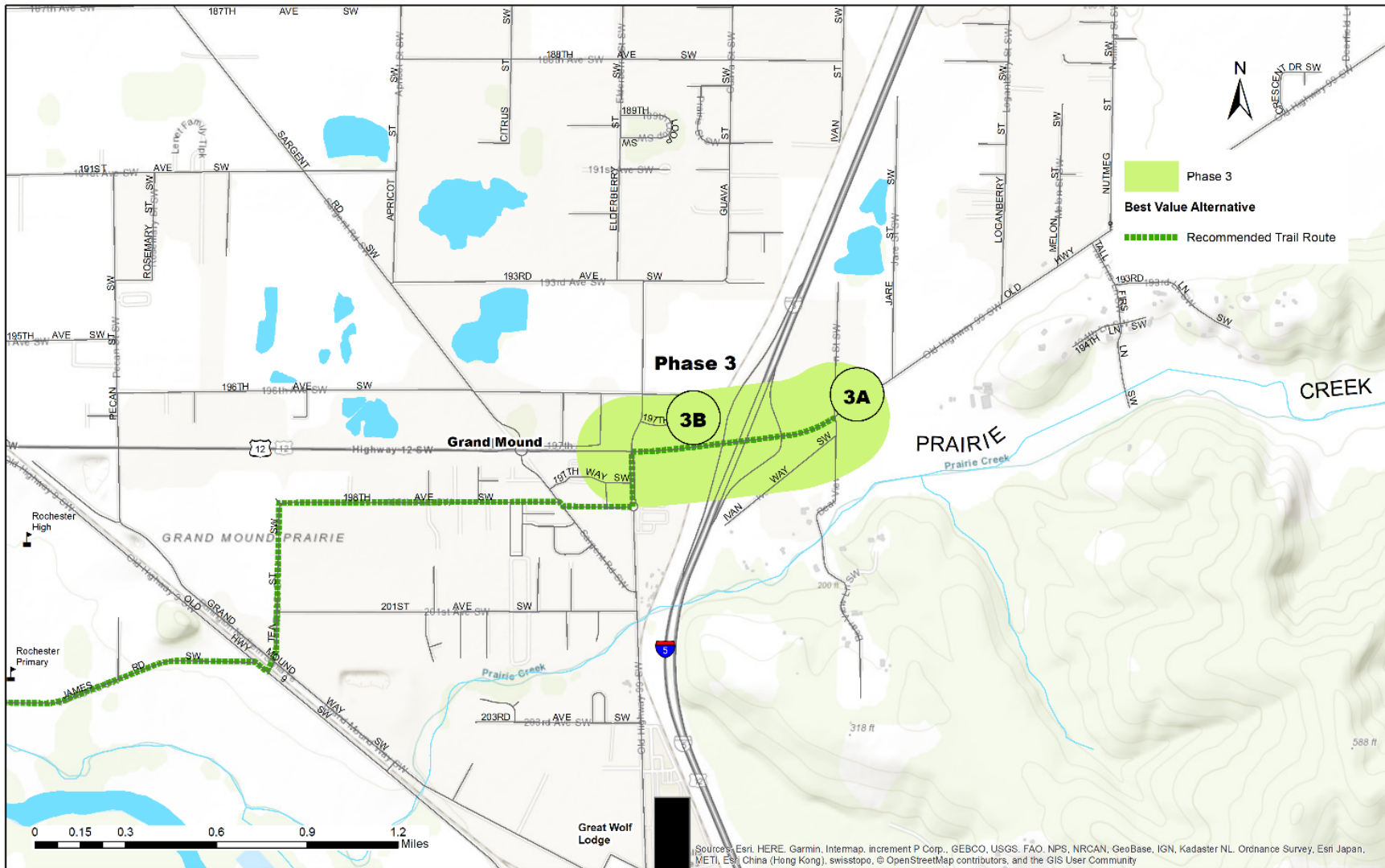
**Partners:** Thurston County, Confederated Tribes of the Chehalis Reservation

#### **Route Overview**

Phase 3 extends the trail approximately 0.5 miles from the WSDOT I-5 Park and Ride to Elderberry Street SW. Integrating the Park and Ride into the trail corridor provides valuable multimodal benefits—allowing trail users to connect directly with transit, carpooling, or rideshare services for travel beyond the local area. This connection enhances regional mobility, supports first- and last-mile access to public transportation, and offers a flexible, low-carbon travel option for residents and visitors.

**Route Alignment:** WSDOT I-5 Park and Ride Lot → Old Hwy 99 SW → US 12 → Elderberry Steet SW

**Map 3-4: SWTCT – Phase 3 Route and Planning and Design Considerations**



6/18/2025 | P:\Transportation\SWTC\_Trail\Map\_Images\Final Report\Phase 3 Detail.mxd

## **Phase 3 Planning and Design Considerations (see Map 3-4)**

### **3A: WSDOT I-5 Park and Ride**

The WSDOT Park and Ride located just east of the I-5 northbound on-ramp along Old Hwy 99 is a logical eastern terminus for the proposed best value shared-use path connecting Grand Mound and Rochester. The site offers existing parking and good vehicle access, making it a strong candidate for an unimproved trailhead. Basic trailhead features such as a trail map kiosk, rules signage, and wayfinding could be installed to orient users and establish a clear trail presence.

However, the Park and Ride presents security concerns. According to the Thurston County Undersheriff, the Park and Ride lacks natural surveillance and has a documented history of vehicle break-ins. Regardless of whether the lot is formally designated for trail use, planning efforts should explore opportunities to deter criminal activity. Enhanced site security would benefit both trail users and existing Park and Ride users.

### **3B: I-5 Park and Ride to Elderberry Street SW**

The segment connecting the Park and Ride to Elderberry Street SW currently includes bike lanes and sidewalks along Old Hwy 99 SE and the west side of the US 12 Bridge over I-5. These facilities offer a functional interim alignment for the shared-use trail, with signalized intersections and pedestrian push buttons at key ramp crossings along Old Hwy 99 and US 12. This configuration provides controlled, if basic, multimodal access to Grand Mound's commercial core and the planned trail connection at Elderberry Street.

While leveraging this infrastructure would minimize near-term capital costs and enable early implementation, the existing facilities may not meet long-term trail user needs and design standards for a fully separated, family-friendly shared-use path. Sidewalk widths, buffer zones, and traffic exposure should be carefully evaluated to identify potential user conflicts or safety concerns.

Planners should consider a phased improvement strategy, which could include:

- Widening sidewalks or constructing a separated multi-use path
- Enhancing visibility at intersections and crossings
- Installing wayfinding and safety signage
- Constructing a protected bike lane

As development intensifies and trail usage grows, this segment could be prioritized for upgrades that establish a continuous, high-quality, and safe active transportation route on the north side of US 12 between the Park and Ride and Elderberry Street SW.

## Recommendations

Successful implementation of the SWTCT will require sustained efforts involving planning, investment, coordination, and stewardship. There are 23 recommendations divided into six categories to complement and emphasize the Planning and Design Considerations. The recommendations will help guide Thurston County and its partners' to pursue the development and long-term management of the shared-use trail corridor.

### Align and Implement Relevant Plans

#### 1. Prioritize the Construction of the Gate-Belmore Trail

Adhere to the objective of Thurston County Parks, Open Space, and Trails Plan and the strategy of the Gate-Belmore Connectivity Study to prioritize the phased construction of the 14-mile Gate-Belmore Trail from Kennydell Park to Gate over the next 10 years.

#### 2. Continue Planning and Investment in a shared-use trail in Southwest Thurston County

Use the findings of this study to pursue development of the SWTCT to connect Grand Mound, Rochester, and the Confederated Tribes of the Chehalis Reservation to the Gate-Belmore Trail.

#### 3. Integrate the SWTCT Study's Key Outcomes into Strategic Plans

Embed the findings of this study into local and regional plans and investment documents to ensure consistency, elevate trail development as a priority, and strengthen competitiveness for future funding. Recommended updates include:

- **Rochester and Grand Mound Subarea Plans** – Integrate the SWTCT corridor and connectivity priorities into land use and transportation elements.
- **Parks, Open Space, and Trails Plan** – Include the SWTCT as a priority trail corridor with phased implementation strategies.
- **Capital Facilities Element of the Thurston County Comprehensive Plan** – Program SWTCT improvements into future capital programming as funding allows.

- **Thurston Regional Trails Plan and Regional Transportation Plan (TRPC)** – Align SWTCT implementation with regional goals for mobility, access, and safety to support grant eligibility and include the corridor in the Thurston Regional Trails Network.

#### **4. Implement Main Street Rochester Investments that Support Connectivity to the SWTCT**

Implement the recommendations of the Main Street Rochester Multimodal Transportation Plan to improve multimodal mobility and safety along the US 12 corridor and ensure designs allow for connectivity with the proposed trail alignment on Albany St SW.

## **Funding**

#### **5. Secure Grants and Local Revenues Strategically**

Seek transportation, recreation, and environmental funding from sources such as WSDOT’s Pedestrian and Bicycle Program, Safe Routes to Schools Program, and the Sandy Williams Connecting Communities Program, Federal Highway Administration Surface Transportation Block Grant and Transportation Alternatives programs, Federal Lands Access Program, Conservation Futures Funding, and Real Estate Excise Tax. Tailor applications to align with grant priorities such as recreation, safety, mobility, equity, and climate resilience.

#### **6. Leverage Local Contributions and In-Kind Support**

Engage local partners—including Rochester School District, the Confederated Tribes of the Chehalis Reservation, and community organizations—to identify opportunities for cost sharing, matching funds or in-kind support (e.g., easements, labor, trail signage and seating donations), and letters of support to strengthen grant applications.

#### **7. Pursue Phased Funding for Early Wins**

Focus on securing funding for high-visibility, lower-cost segments—such as those with existing right-of-way or interim facilities—to demonstrate early progress and build public and political support for continued investment.

## Planning and Partnerships

### 9. Formalize Interagency Collaboration

Establish a standing interagency working group or Memorandum of Understanding (MOU) between Thurston County, WSDOT, the Confederated Tribes of the Chehalis Reservation, the Rochester School District, and other partners to coordinate trail project planning, permitting, and implementation.

### 10. Coordinate with Utility Providers and Railroads Early

Engage with utility companies and railroad operators in the early planning stages to assess the feasibility of crossings, easements, and co-located infrastructure to avoid future delays.

### 11. Center Equity and Community Engagement

Prioritize inclusive outreach methods to engage traditionally underrepresented communities in design, safety, and access decisions. Use community input to guide trailhead placement, crossing improvements, and connections to public destinations.

### 12. Integrate Trail Planning into Local Development Reviews

Coordinate with planners and permitting agencies to incorporate future trail segments, trailheads, easements, or connections into land use decisions, especially in Grand Mound's developing urban area.

---

## Design and Engineering

### 13. Advance Preliminary Design for High-Priority Segments

Complete preliminary engineering and cost estimates for trail segments with the highest potential for near-term construction, such as those with existing right-of-way, fewer barriers, or strong community support.

### 14. Evaluate Interim and Low-Cost Solutions

Where full trail construction is not immediately feasible, use existing facilities or interim solutions such as wayfinding, sidewalk improvements, advisory bike lanes/shoulders, or traffic calming to establish early functionality and visibility of the corridor.

### 15. Prioritize Safe and Accessible Crossings

Design intersections and crossings with safety features such as Rapid Rectangular Flashing Beacons, high-visibility markings, and signal timing improvements that accommodate users of all ages and abilities.

### 16. Design for Long-Term Adaptability

Ensure the trail corridor can accommodate upgrades—such as parallel natural surface equestrian trails, widening, lighting, or surfacing improvements—as demand and usage increase over time.

### 17. Evaluate Trailhead Opportunities on Public Lands

Identify and assess opportunities to develop trailheads on existing Thurston County-owned parcels and explore joint-use agreements or coinvestment in trailhead facilities with other public partner, such as schools, community centers, and utility-owned lands.

---

## Maintenance and Operations

### 18. Establish Trail Maintenance Agreements

Seek opportunities to share responsibilities for routine maintenance and seasonal upkeep of trail segments where it aligns with the partners' jurisdictional boundaries.

### 19. Design for Durability and Resilience

Select materials and design standards that can withstand seasonal flooding, heavy use, tree root mitigation, and long-term wear while minimizing lifecycle maintenance costs.

### 20. Promote Safety through Trail Stewardship

Partner with local law enforcement, volunteers, and trail advocacy groups to monitor safety, support trail clean-ups, and provide a visible community presence.

---

## Community Engagement

### 21. Partner with Local Institutions and Community Organizations

Collaborate with Rochester School District, Chehalis Tribal Departments, public health and private health care providers, business organizations, and cultural organizations to share information and invite input, especially from historically underserved or marginalized groups.

### 22. Solicit Input on Design Features and Amenities

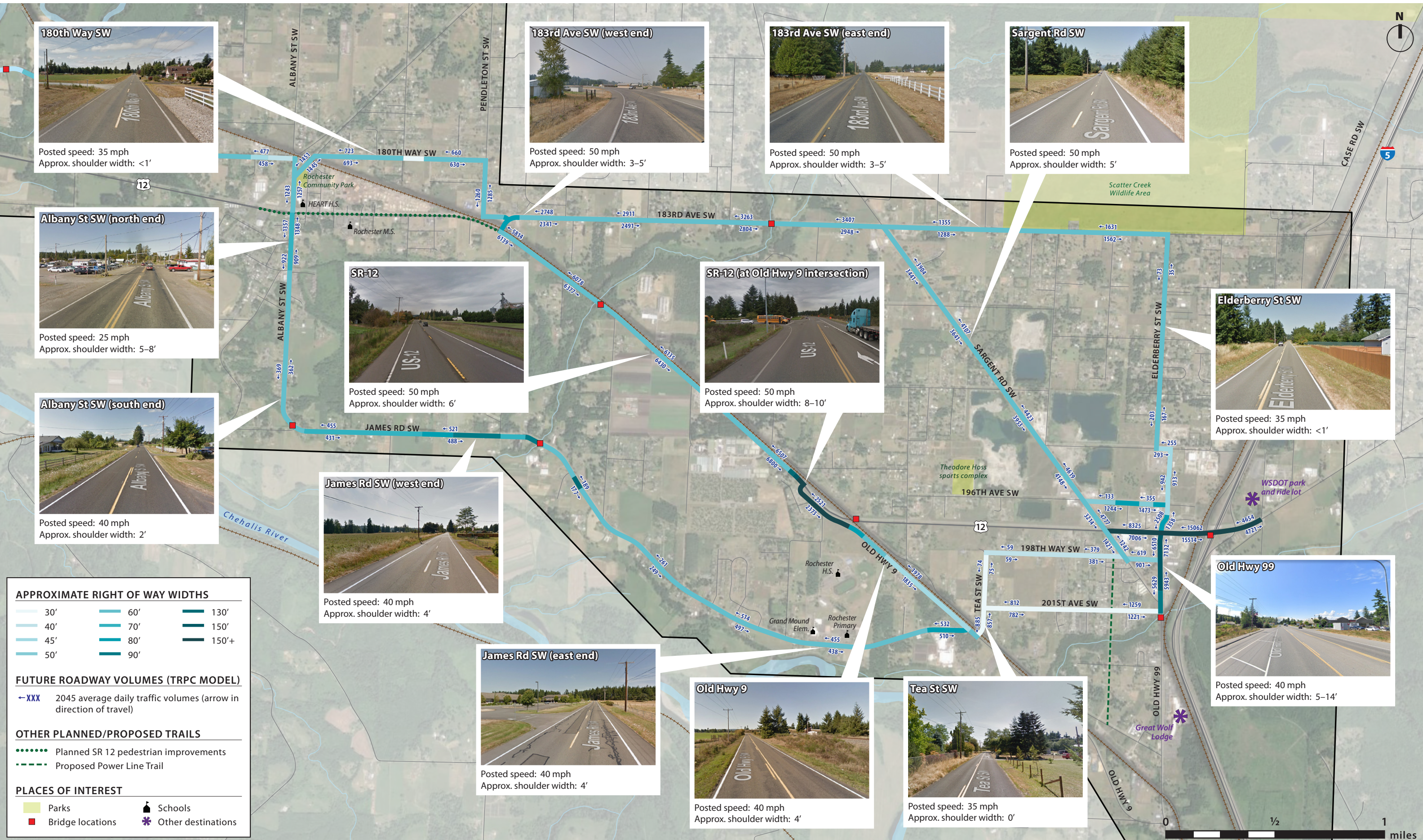
Use visual preference surveys and site visits to gather community feedback on design elements like wayfinding, surface materials, trailhead features, public art, and seating.

### 23. Engage Local Artists and Storytellers

Integrate community art, interpretive signage, or storytelling installations that reflect the history, values, and cultural identity of the Confederated Tribes of the Chehalis Reservation and Southwest Thurston County generational family farms.

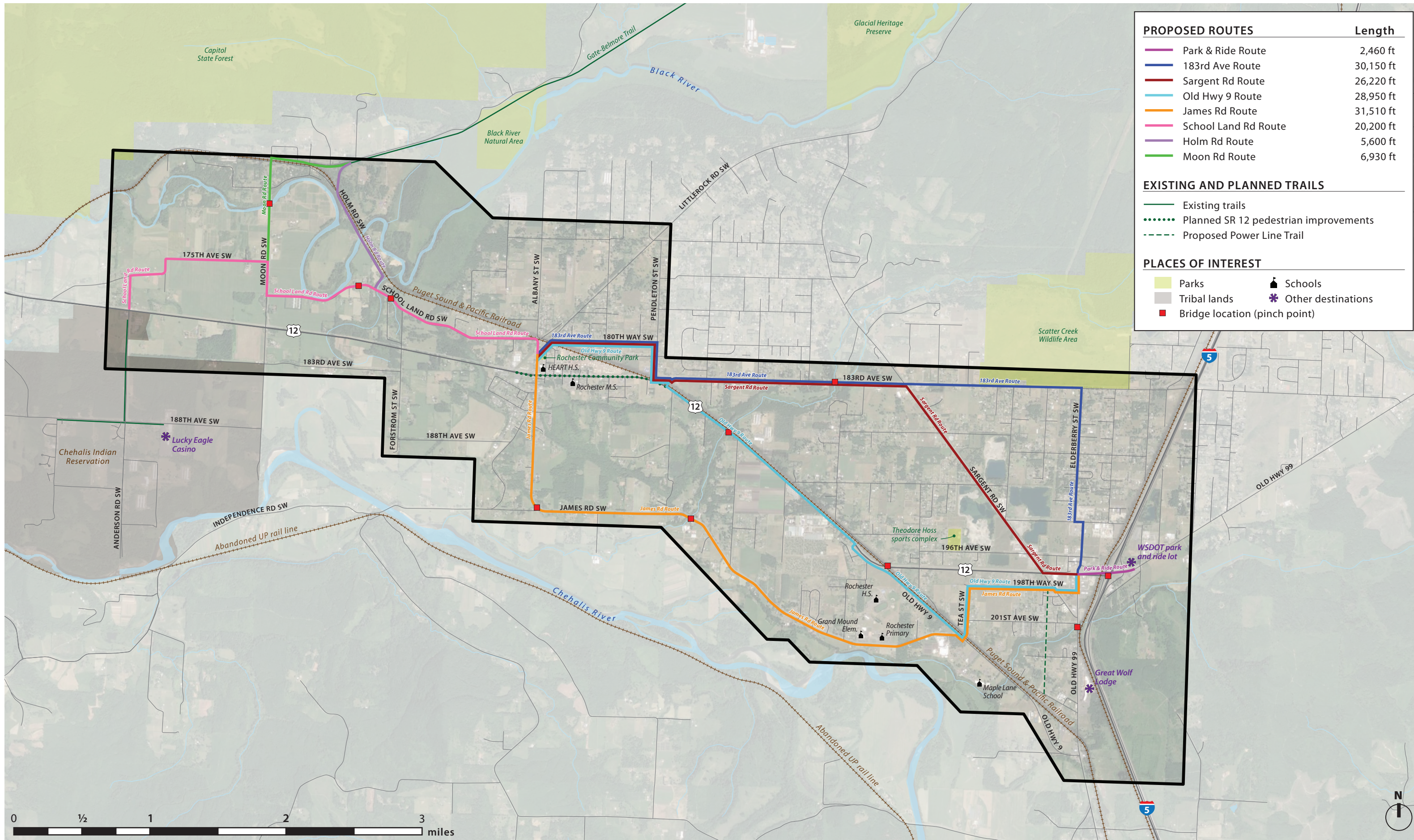
# Appendix 1 Road Conditions and Trail Exhibits

This page left intentionally blank.



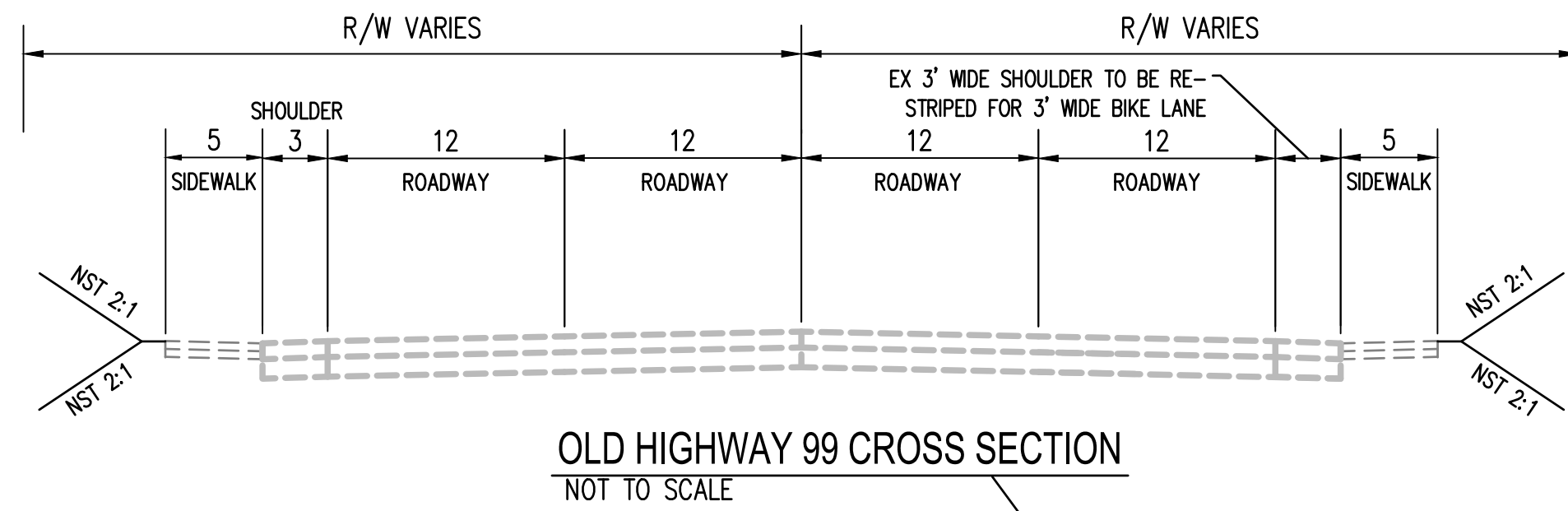
# ROCHESTER – GRAND MOUND TRAIL FEASIBILITY STUDY

Roadway Conditions | July 2022



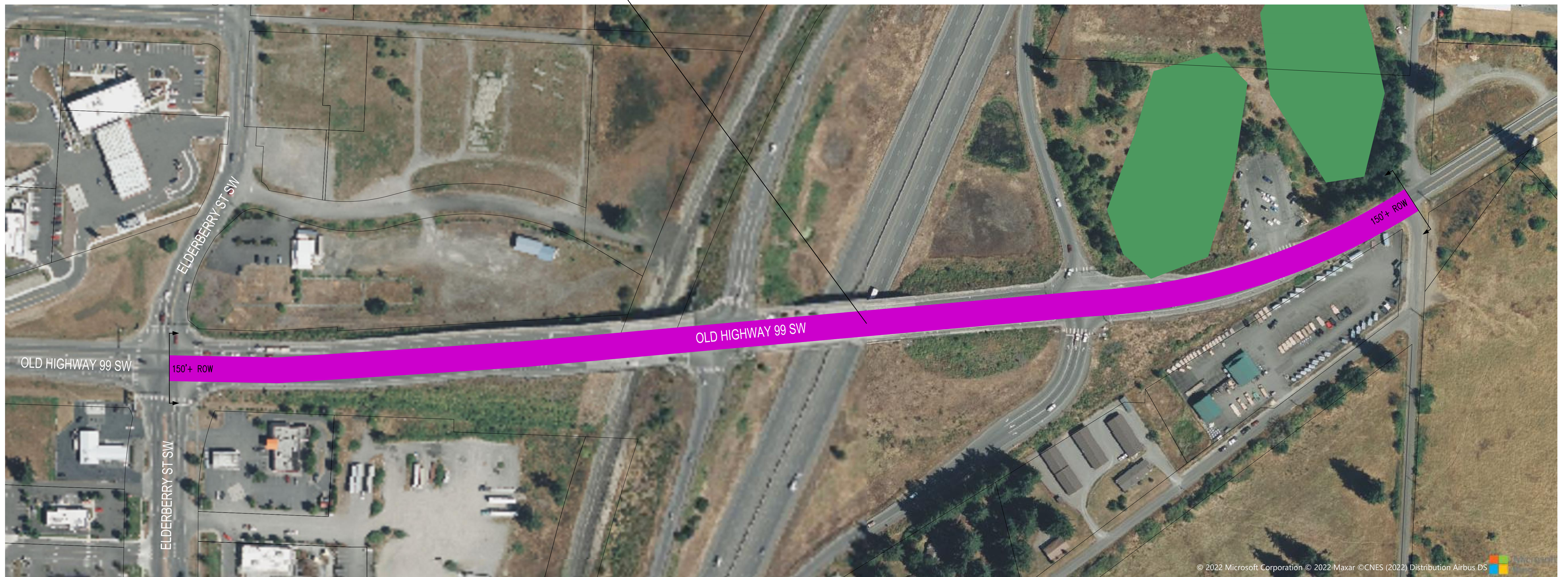
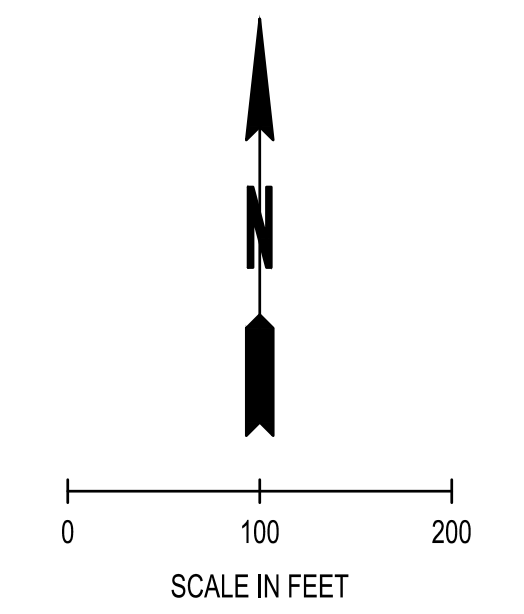
# ROCHESTER – GRAND MOUND TRAIL FEASIBILITY STUDY

Proposed Routes | September 2023



**LEGEND**

- ROUTE OPTION 1
- STREAMS & WATERBODIES
- NATIONAL WETLAND INVENTORY



Dec 20, 2022 10:35:25 AM User: lal@scj.com  
 W:\PROJECTS\0850\_TUGSTON COUNTY\08-085021 TO 14 ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY\CADD\EXHIBITS\2022-0822 OR EXHIBITS\CADD\ROCHESTER - GROUND MOUND TRAIL EXHIBIT.DWG

**SCJ ALLIANCE**  
CONSULTING SERVICES

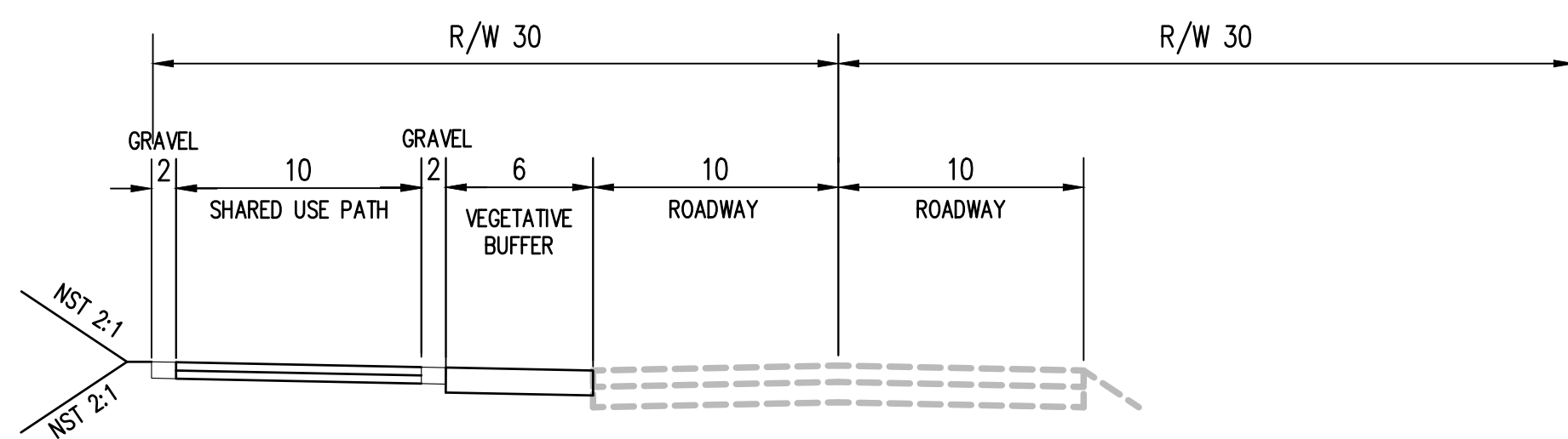
8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516  
P: 360.352.1465 F: 360.352.1509  
SCJALLIANCE.COM

HORIZONTAL SCALE: 1"=100'
DATE: DECEMBER 19, 2022
JOB No.: 00-065021
DRAWING FILE No.: ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

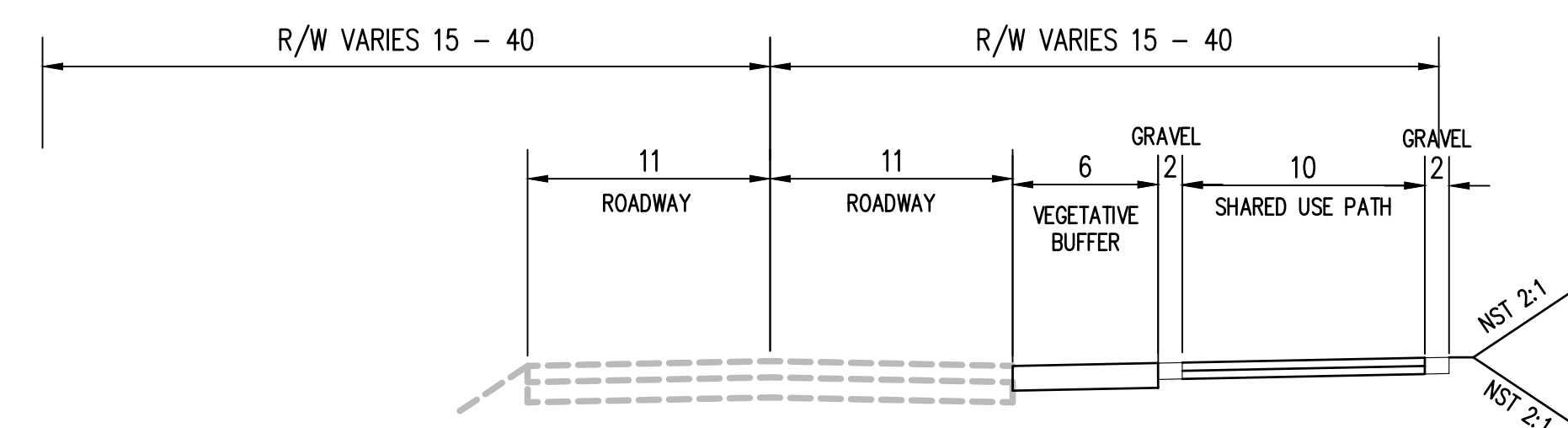
ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY  
ROUTE OPTION 1

EXHIBIT No.:  
**EX-01**

SHEET No.:  
**1 OF 15**

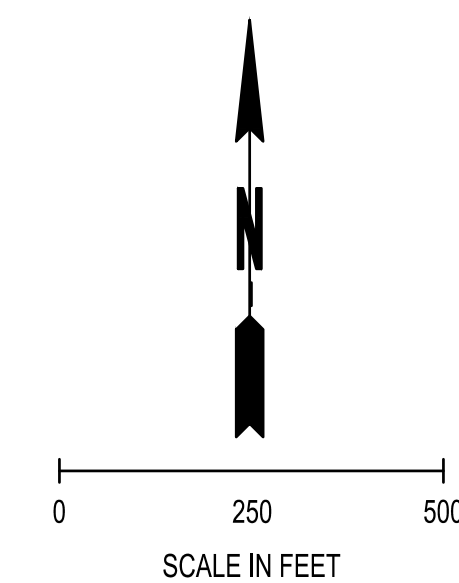


LITTLE ROCK RD SW  
NOT TO SCALE



180TH WAY SW / PENDLETON ST SW / 183RD AVE SW  
NOT TO SCALE

- LEGEND**
- ROUTE OPTION 2A
  - STREAMS & WATERBODIES
  - NATIONAL WETLAND INVENTORY



BREAK LINE - SEE SHEET EX-03

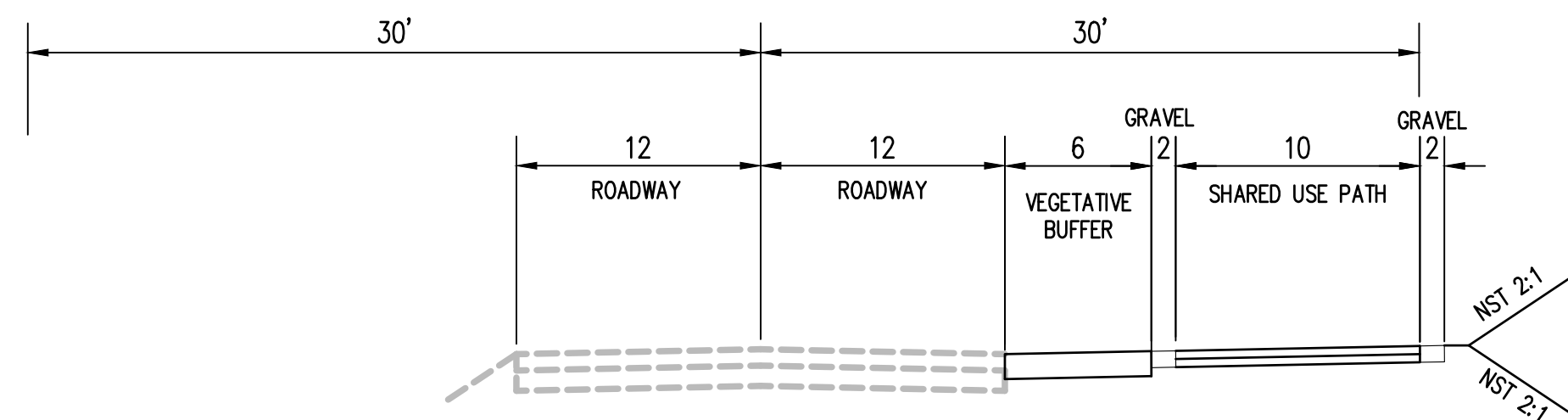
Dec 20, 2022 10:35:05 AM User: jhicks\jphicks  
 W:\PROJECTS\0850 THURSTON COUNTY\08-085021 TO 14 ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

  
**SCJ ALLIANCE**  
 CONSULTING SERVICES  
 8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516  
 P: 360.352.1465 F: 360.352.1509  
 SCJALLIANCE.COM

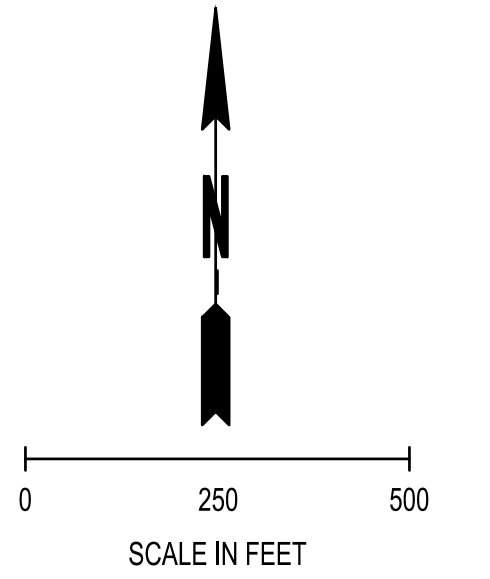
HORIZONTAL SCALE:  
 1"=250'  
 DATE:  
 DECEMBER 19, 2022  
 JOB No.:  
 00-065021  
 DRAWING FILE No.:  
 ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY  
 ROUTE OPTION 2A

EXHIBIT No.:  
**EX-02**  
 SHEET No.:  
**2 OF 15**



- LEGEND**
- ROUTE OPTION 2A
  - STREAMS & WATERBODIES
  - NATIONAL WETLAND INVENTORY



Dec 20, 2022 10:35:34am User: lchick@scj.com  
 \\s-proj\proj\0850\_HOUSTON COUNTY\0850-065201 TO 14 ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY\CADD\EXHIBITS\2022-2022 GR EXHIBITS\CADD\ROCHESTER - GROUND MOUND TRAIL EXHIBIT.DWG  
 BREAK LINE - SEE SHEET EX-02

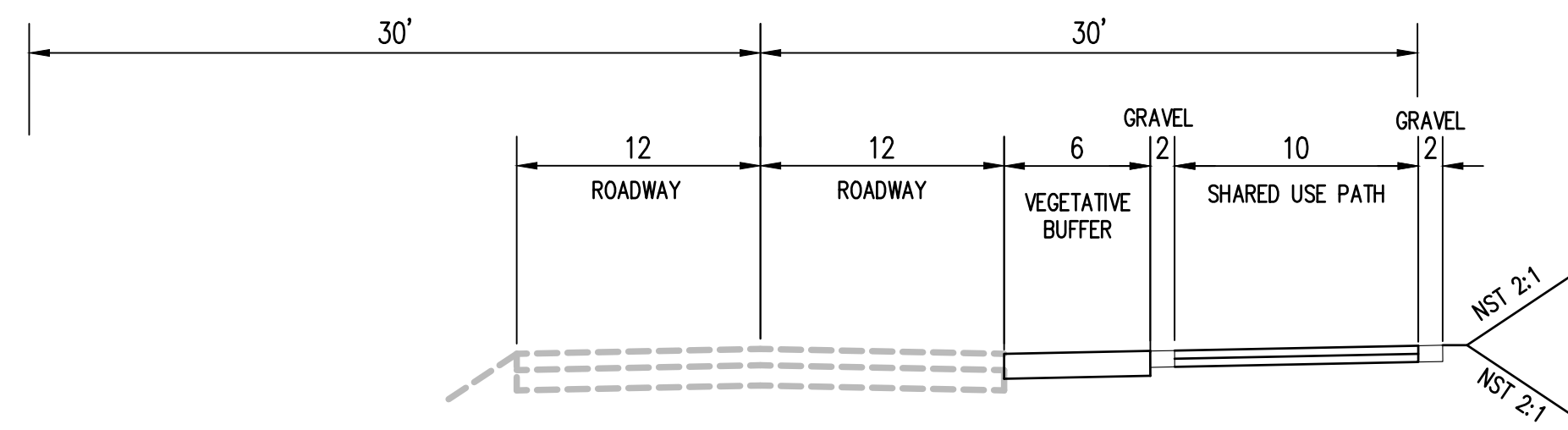
BREAK LINE - SEE SHEET EX-04

  
**SCJ ALLIANCE**  
 CONSULTING SERVICES  
 8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516  
 P: 360.352.1465 F: 360.352.1509  
 SCJALLIANCE.COM

HORIZONTAL SCALE:  
 1"=250'  
 DATE:  
 DECEMBER 19, 2022  
 JOB No.:  
 00-065021  
 DRAWING FILE No.:  
 ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY  
 ROUTE OPTION 2A

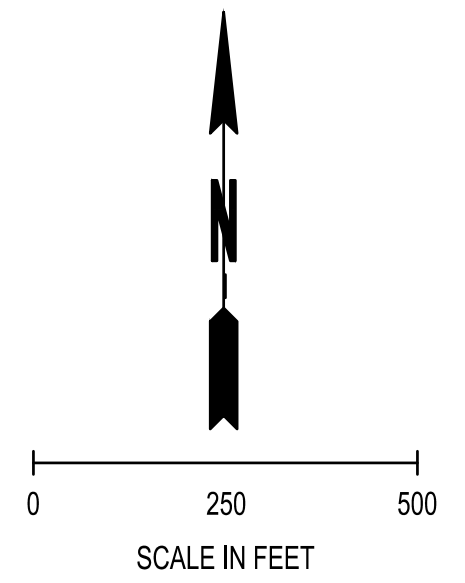
EXHIBIT No.:  
**EX-03**  
 SHEET No.:  
**3 OF 15**



183RD AVE SW  
NOT TO SCALE

**LEGEND**

- ROUTE OPTION 2A
- STREAMS & WATERBODIES
- NATIONAL WETLAND INVENTORY



Dec 20, 2022 10:35:45am User: lalala\lpholts  
 W:\PROJECTS\0850 THURSTON COUNTY\08-065021 TO 14 ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY\CADD\EXHIBITS\2022-0822 GR EXHIBITS\CADD\ROCHESTER - GROUND MOUND TRAIL EXHIBIT.DWG  
 BREAK LINE - SEE SHEET EX-03

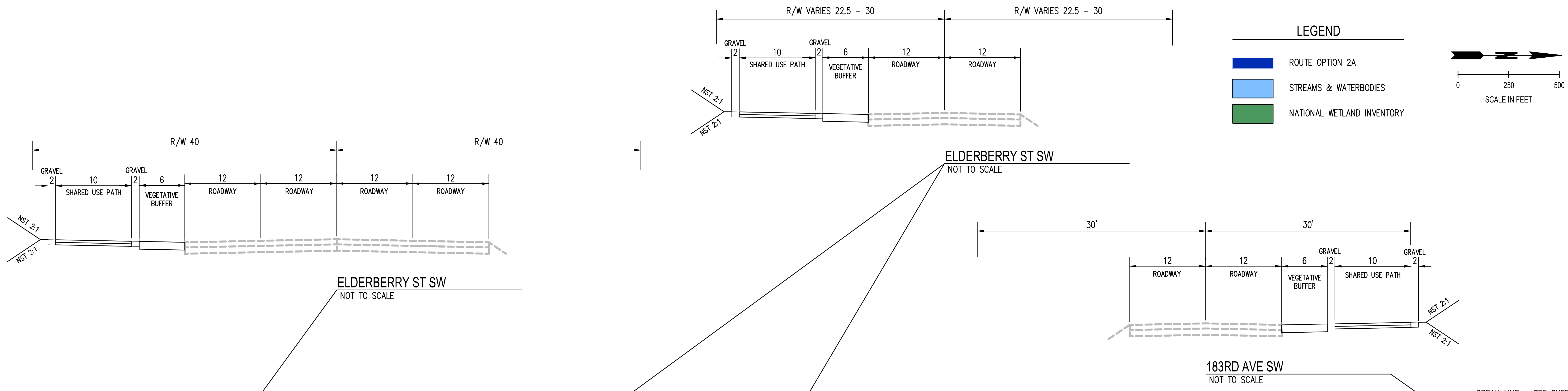
  
**SCJ ALLIANCE**  
 CONSULTING SERVICES  
 8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516  
 P: 360.352.1465 F: 360.352.1509  
 SCJALLIANCE.COM

HORIZONTAL SCALE:  
 1"=250'  
 DATE:  
 DECEMBER 19, 2022  
 JOB No.:  
 00-065021  
 DRAWING FILE No.:  
 ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY  
 ROUTE OPTION 2A

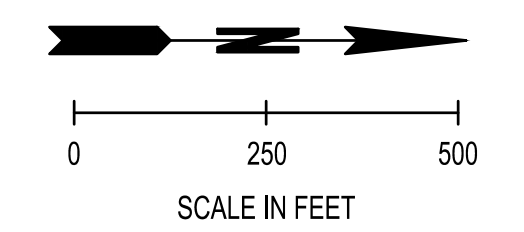
EXHIBIT No.:  
**EX-04**  
 SHEET No.:  
**4 OF 15**

Dec 20, 2022 10:35:52am User: lchick@scj.com  
 W:\PROJECTS\0850 - HOUSTON COUNTY\0850-0000\0850-0000\14 ROCHESTER - GROUND MOUND TRAIL EXHIBIT.DWG



**LEGEND**

- ROUTE OPTION 2A
- STREAMS & WATERBODIES
- NATIONAL WETLAND INVENTORY



BREAK LINE - SEE SHEET EX-04

**SCJ ALLIANCE**  
CONSULTING SERVICES

8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516  
P: 360.352.1465 F: 360.352.1509  
SCJALLIANCE.COM

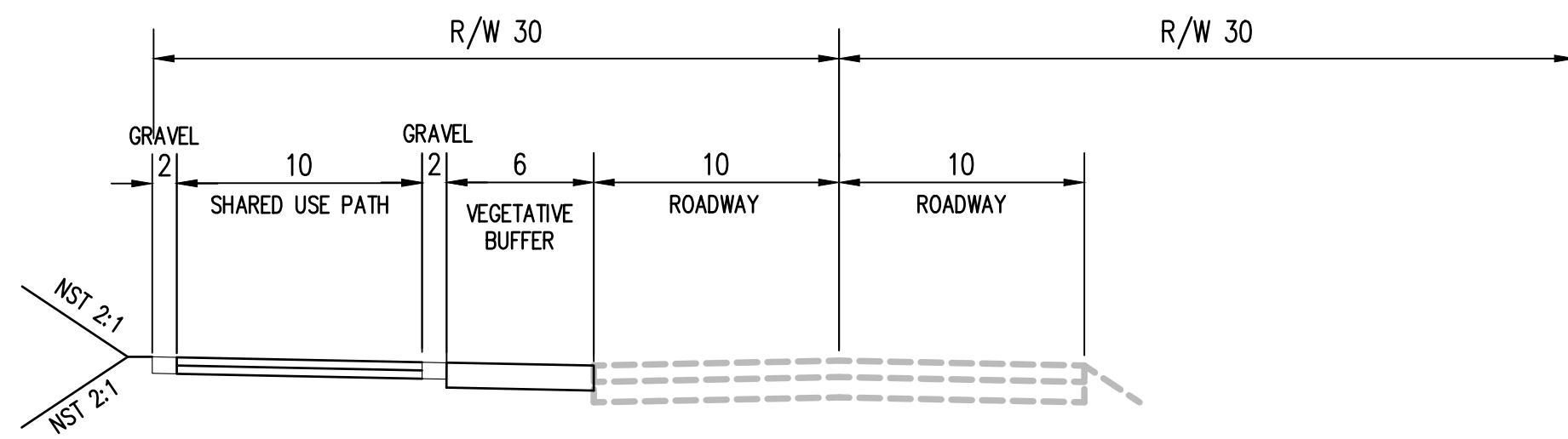
HORIZONTAL SCALE: 1"=250'
DATE: DECEMBER 19, 2022
JOB No.: 00-065021
DRAWING FILE No.: ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY  
ROUTE OPTION 2A

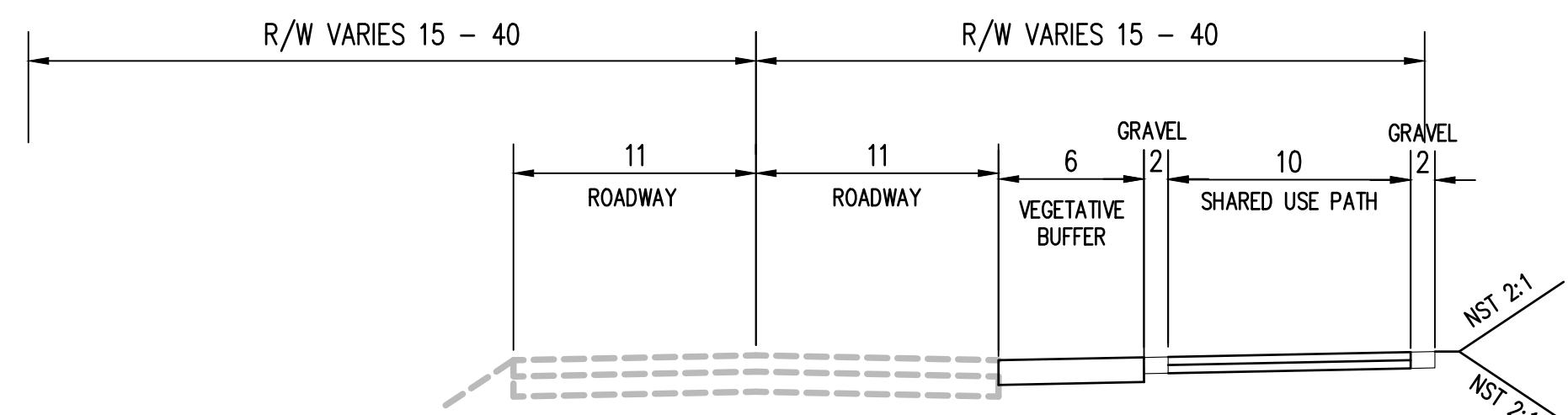
EXHIBIT No:  
**EX-05**

SHEET No:  
**5 OF 15**

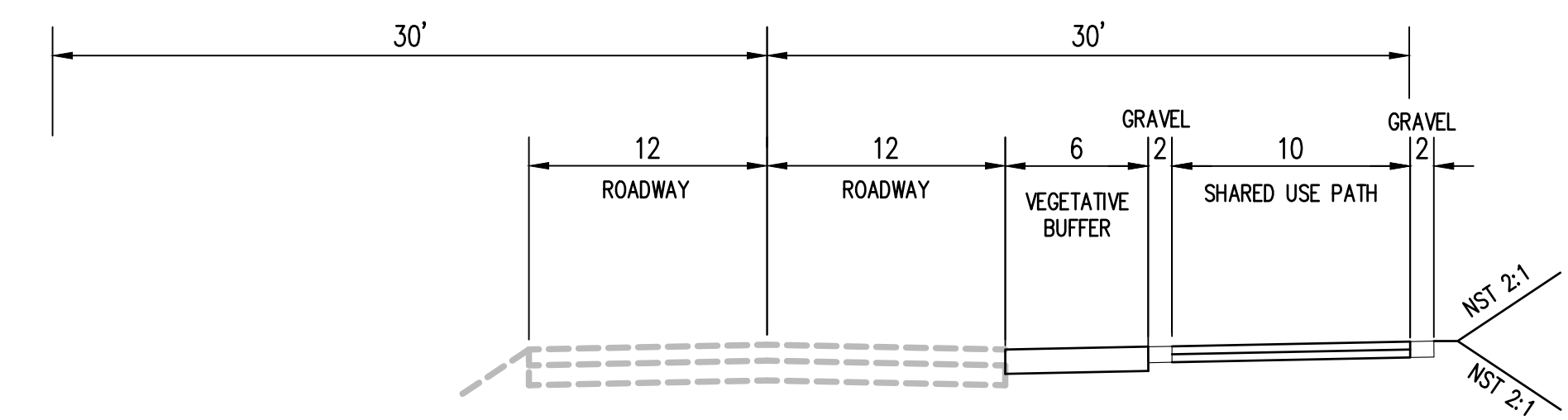
Dec 20, 2022 10:35:55 AM User: jh4141\jph4141  
 W:\PROJECTS\0650 THURSTON COUNTY\06-065021 TO 14 ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg



LITTLE ROCK RD SW  
NOT TO SCALE



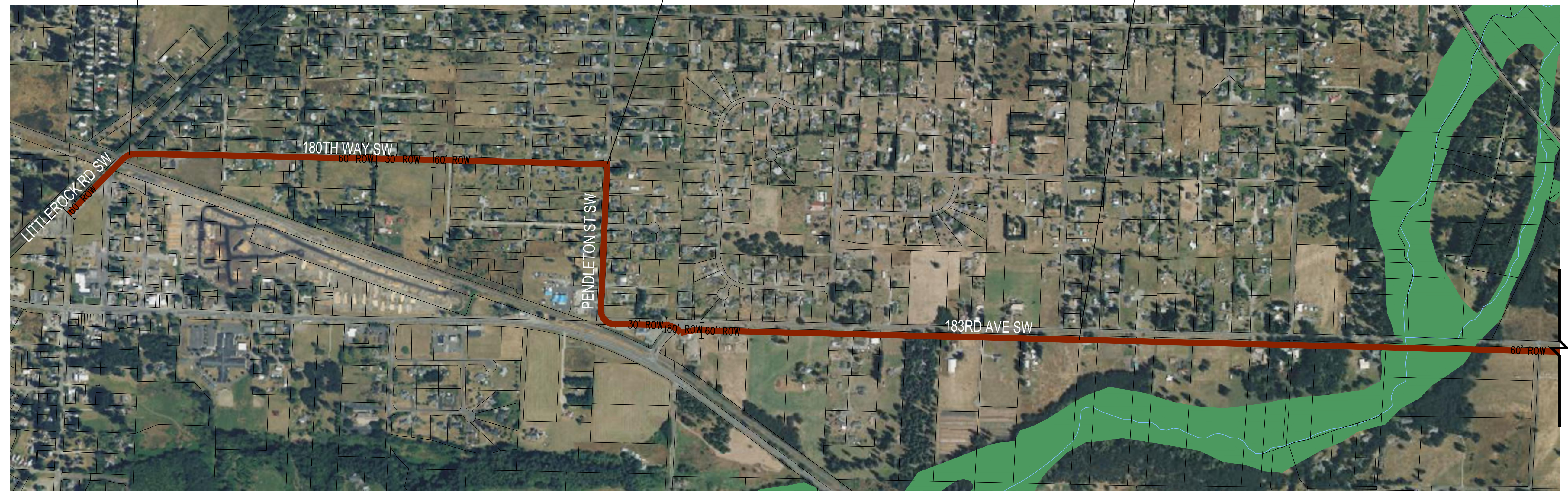
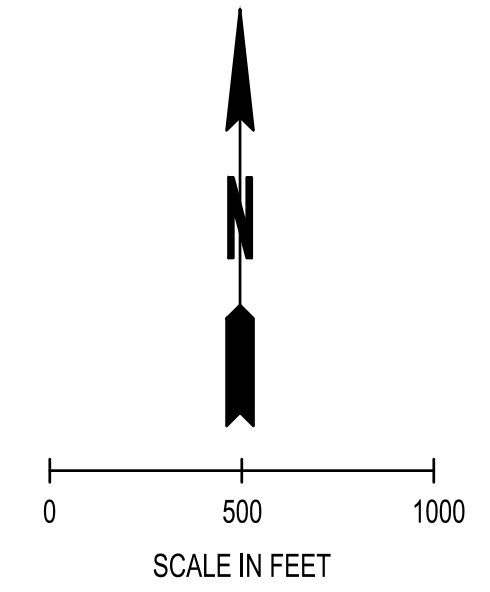
180TH WAY SW / PENDLETON ST SW / 183RD AVE SW  
NOT TO SCALE



183RD AVE SW  
NOT TO SCALE

**LEGEND**

- ROUTE OPTION 2B
- STREAMS & WATERBODIES
- NATIONAL WETLAND INVENTORY



BREAK LINE - SEE SHEET EX-07

  
**SCJ ALLIANCE**  
 CONSULTING SERVICES  
 8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516  
 P: 360.352.1465 F: 360.352.1509  
 SCJALLIANCE.COM

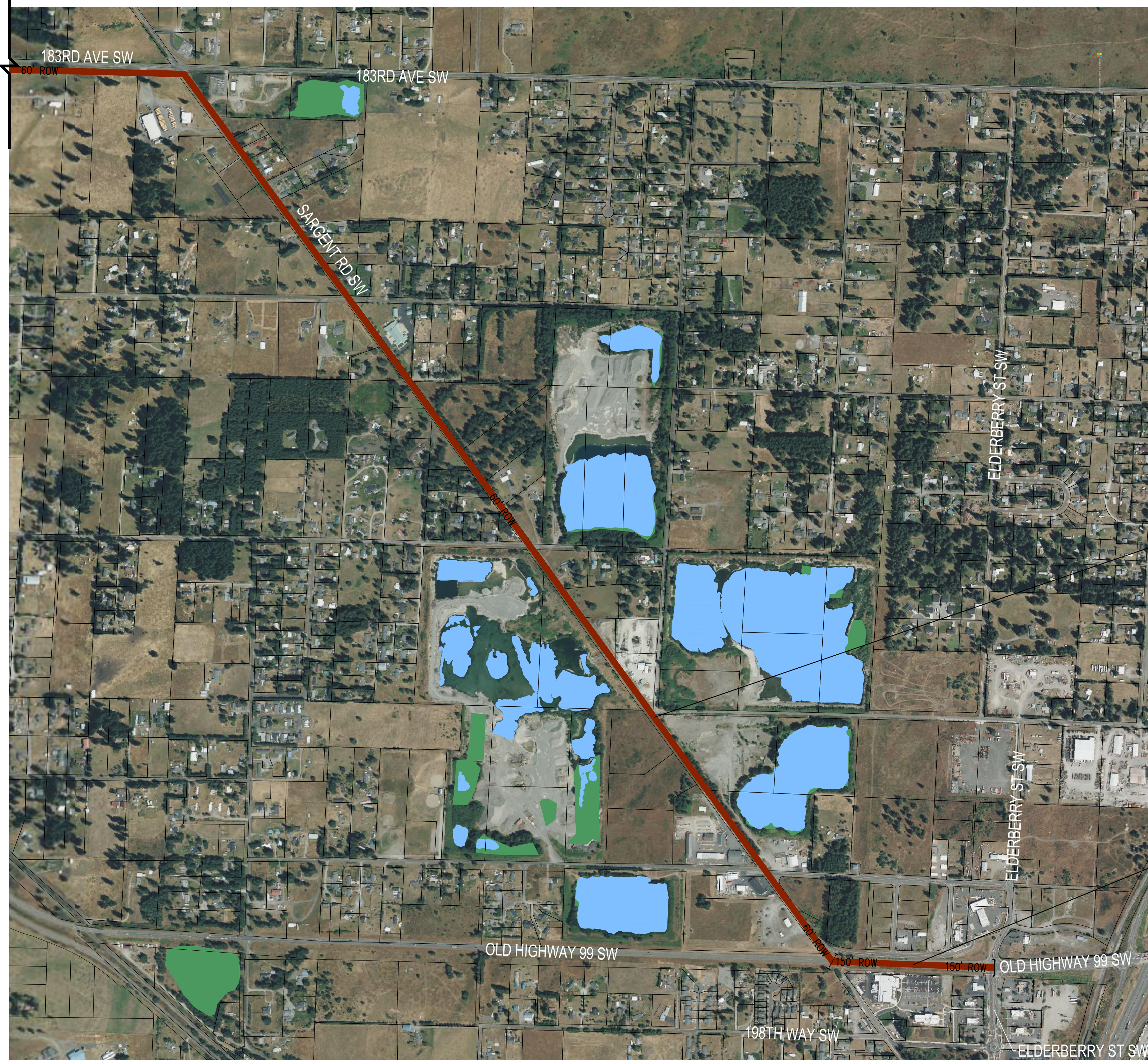
HORIZONTAL SCALE: 1"=500'
DATE: DECEMBER 19, 2022
JOB No.: 00-065021
DRAWING FILE No.: ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY  
 ROUTE OPTION 2B

EXHIBIT No.:  
**EX-06**  
 SHEET No.:  
**6 OF 15**

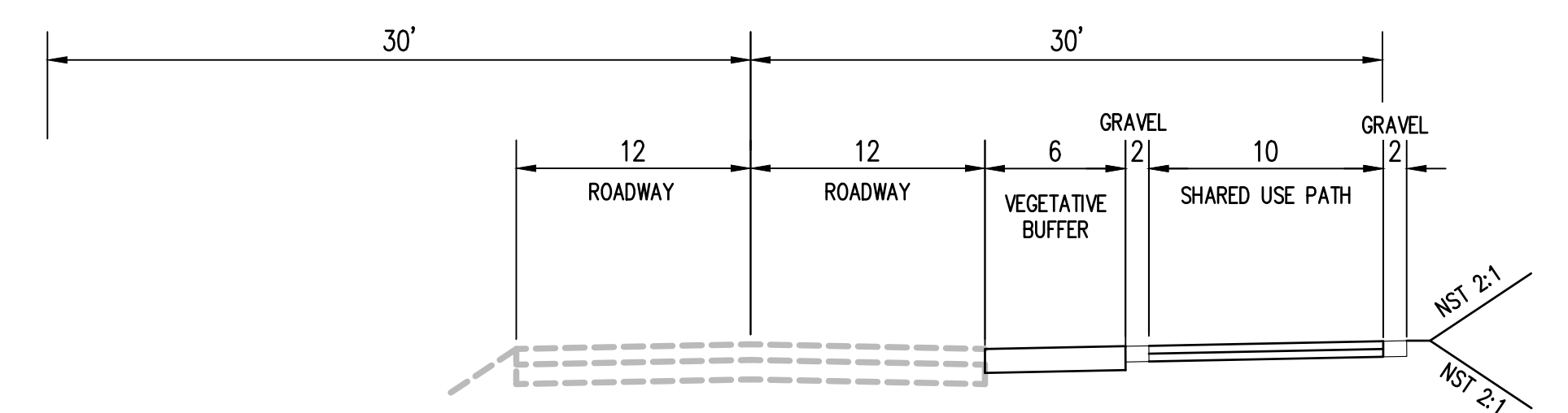
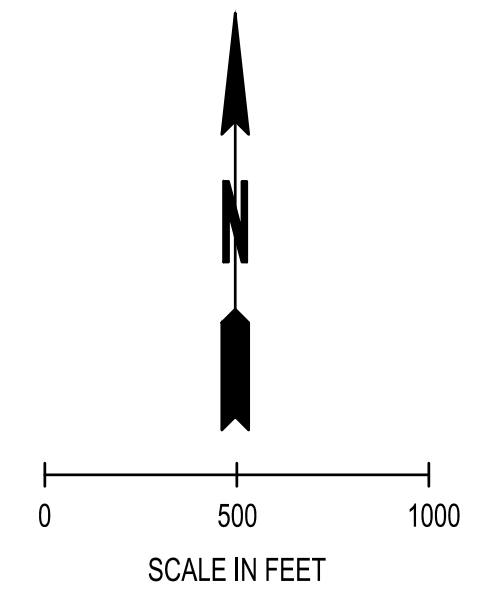
Dec 20, 2022 10:39:01am User: lchick@scj.com  
 W:\PROJECTS\0850 THURSTON COUNTY\08-065021 TO 14 ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

BREAK LINE - SEE SHEET EX-06

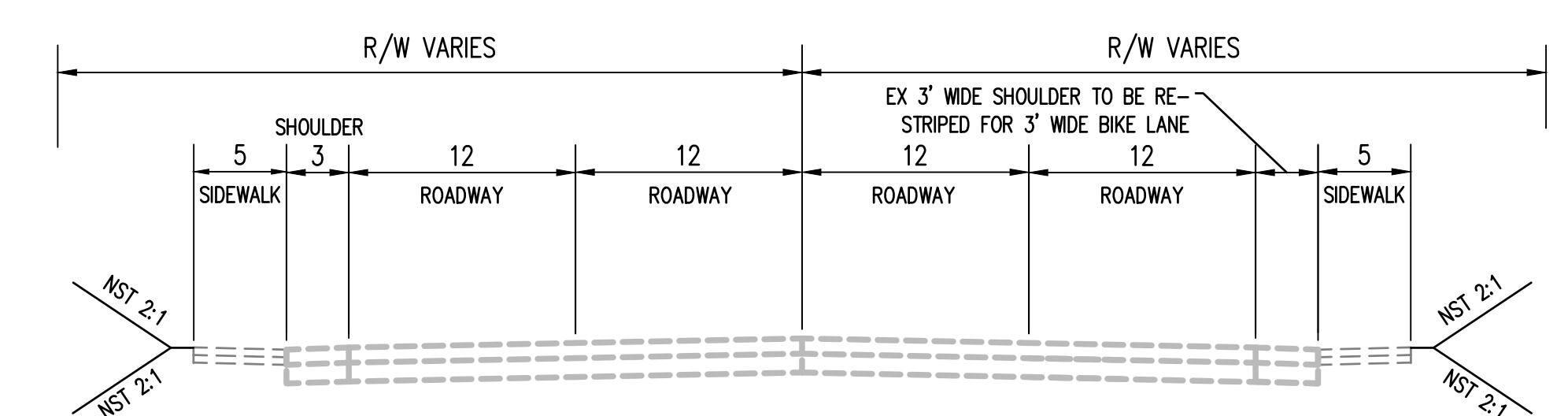


**LEGEND**

- ROUTE OPTION 2B
- STREAMS & WATERBODIES
- NATIONAL WETLAND INVENTORY



SARGENT RD / 183RD AVE SW  
NOT TO SCALE

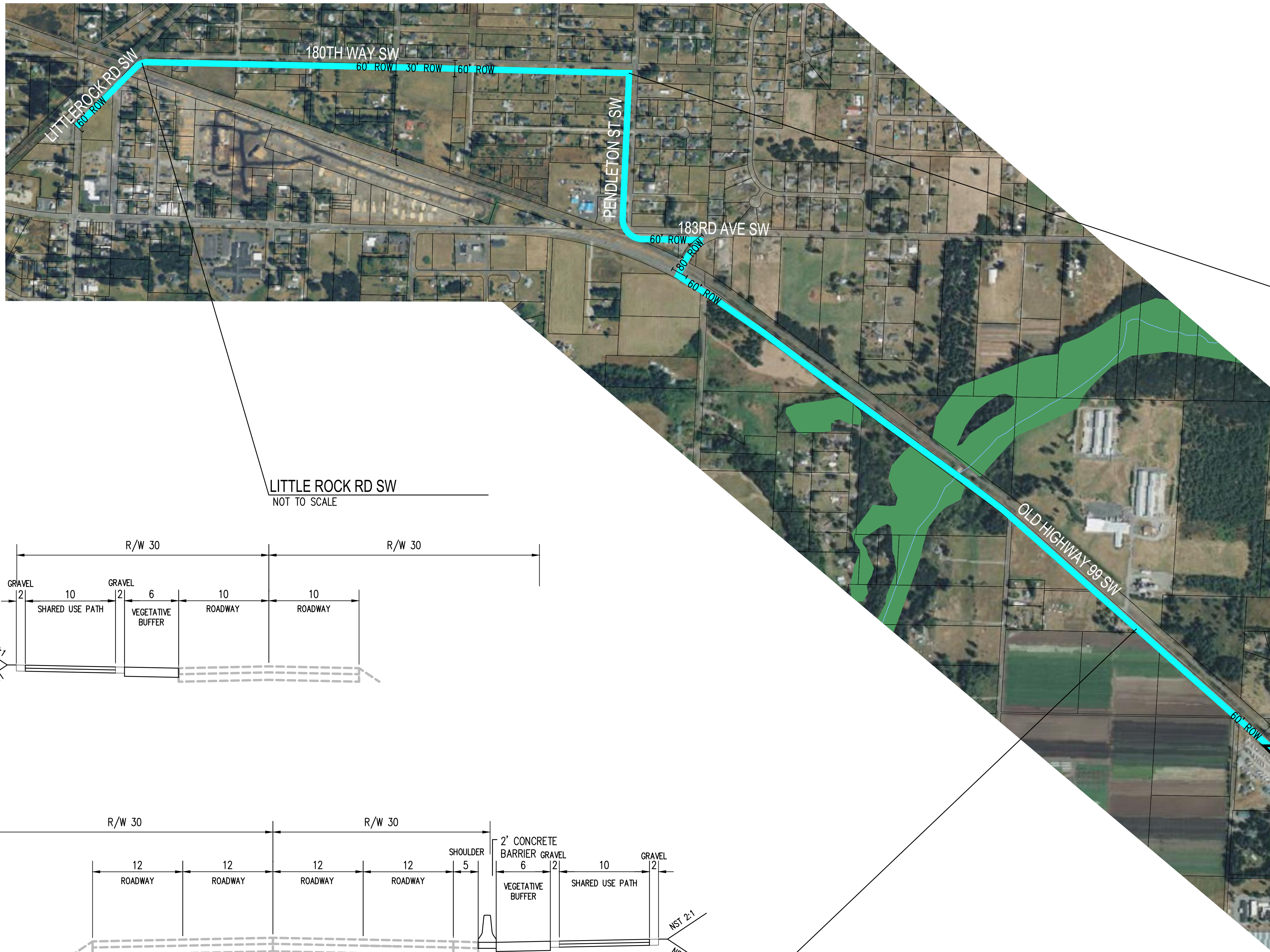


OLD HIGHWAY 99 CROSS SECTION  
NOT TO SCALE

  
**SCJ ALLIANCE**  
 CONSULTING SERVICES  
 8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516  
 P: 360.352.1465 F: 360.352.1509  
 SCJALLIANCE.COM

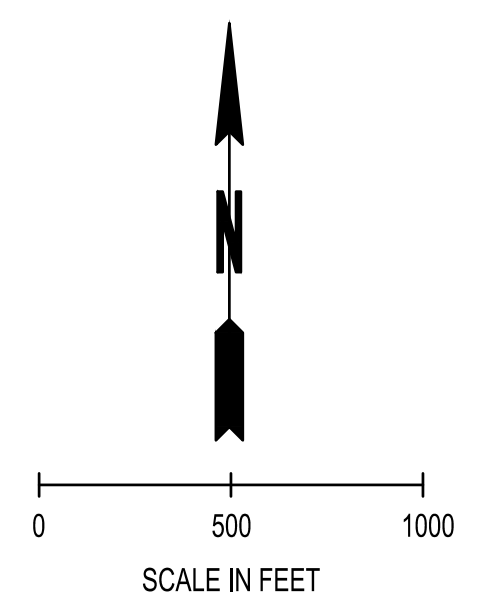
HORIZONTAL SCALE: 1"=500'
DATE: DECEMBER 19, 2022
JOB No.: 00-065021
DRAWING FILE No.: ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY  
ROUTE OPTION 2B

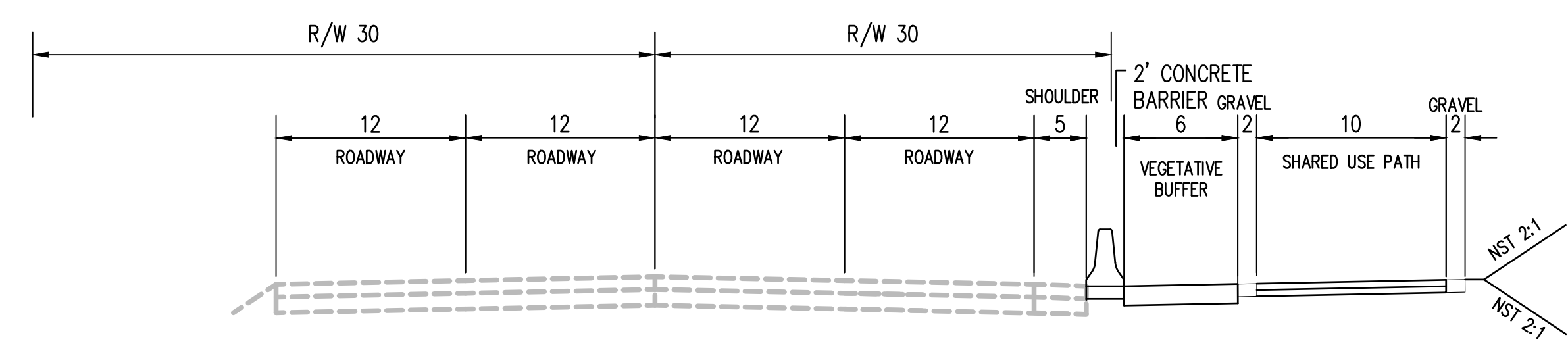
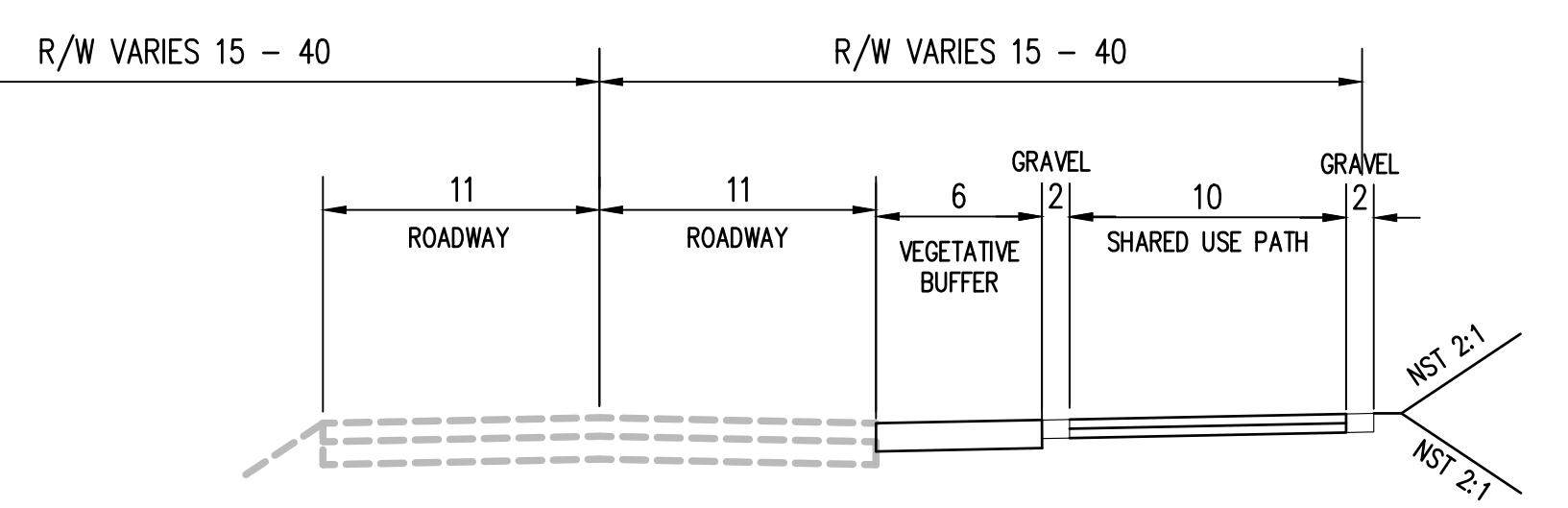
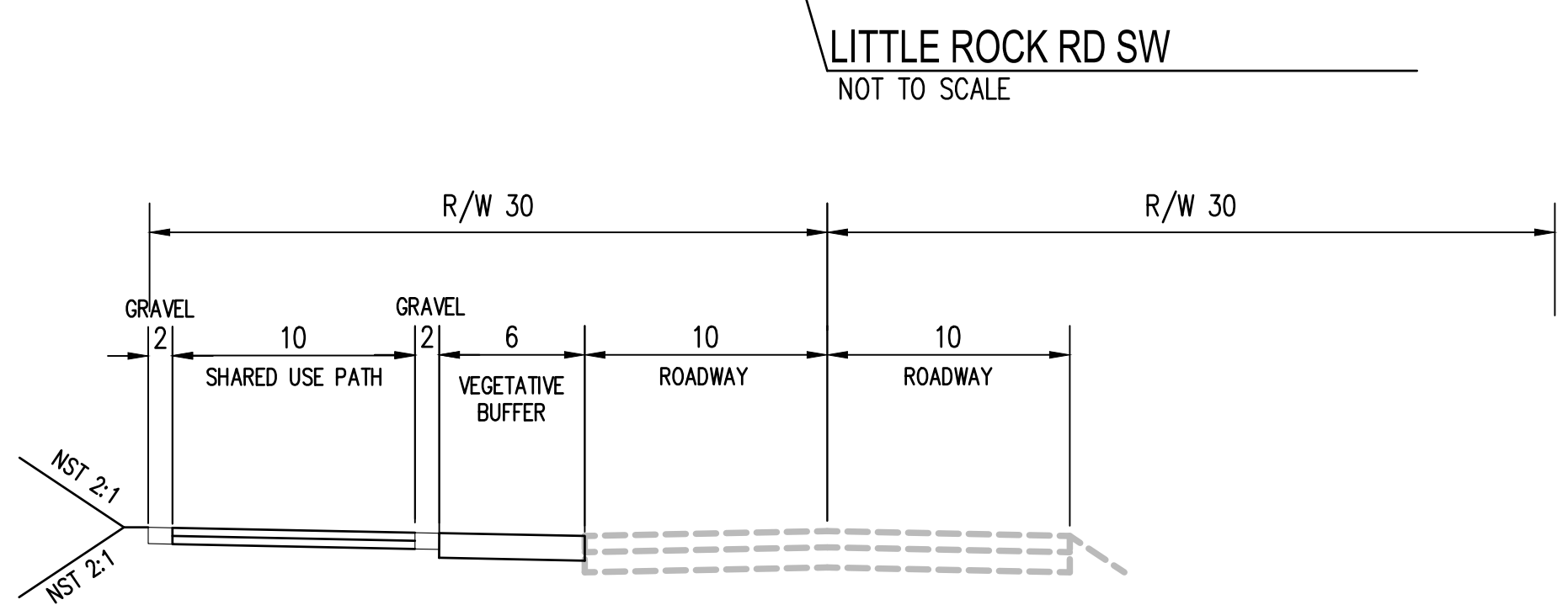


**LEGEND**

- ROUTE OPTION 3
- STREAMS & WATERBODIES
- NATIONAL WETLAND INVENTORY



180TH WAY SW / PENDLETON ST SW / 183RD AVE SW  
NOT TO SCALE



BREAK LINE - SEE SHEET EX-09

Dec 20, 2022 10:39:04am User: lal@scj.com  
 W:\PROJECTS\0850 THURSTON COUNTY\08-085021 TO 14 ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516  
 P: 360.352.1465 F: 360.352.1509  
 SCJALLIANCE.COM

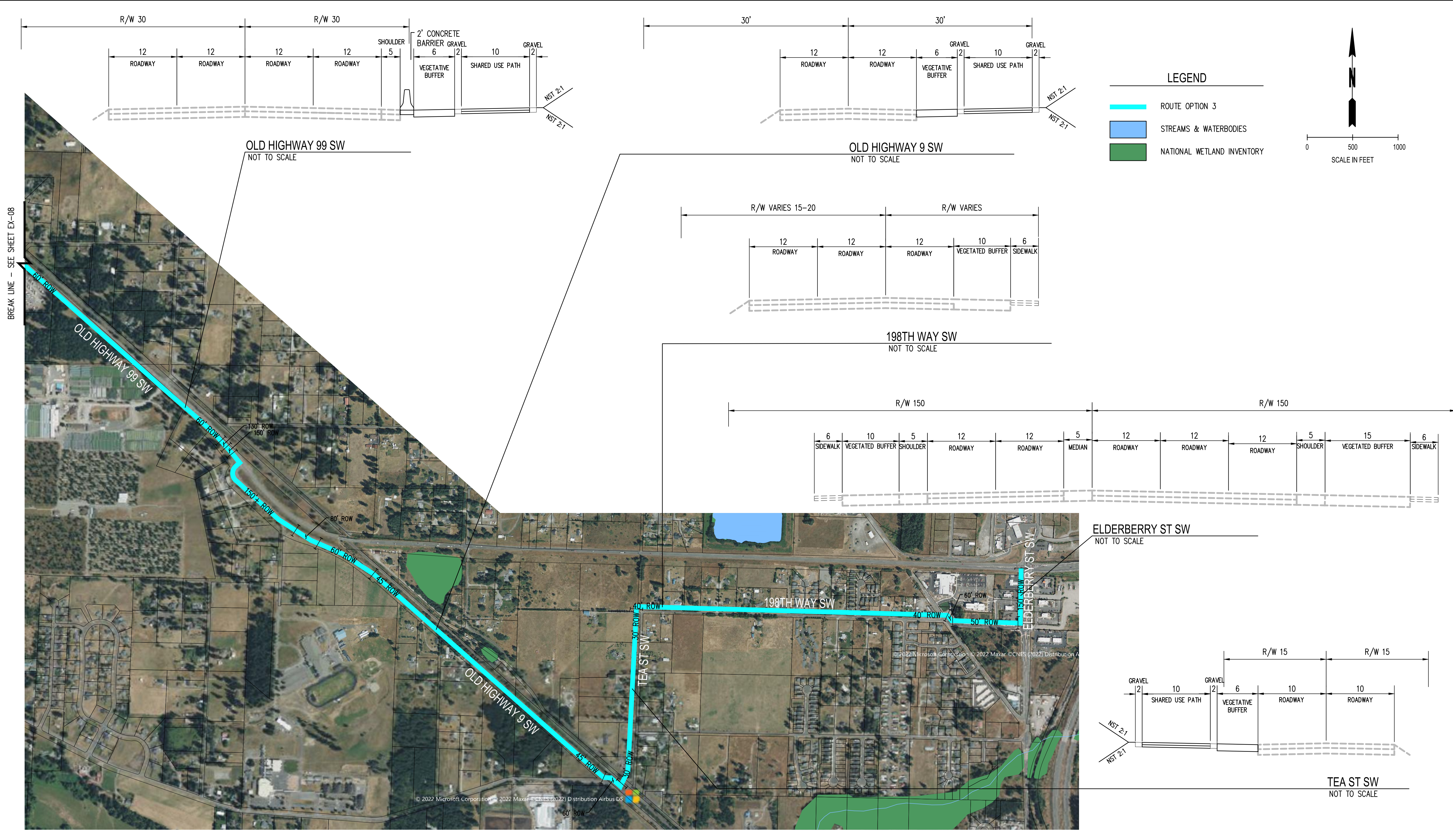
HORIZONTAL SCALE: 1"=500'
DATE: DECEMBER 19, 2022
JOB No.: 00-065021
DRAWING FILE No.: ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY  
 ROUTE OPTION 3

EXHIBIT No.:  
**EX-08**

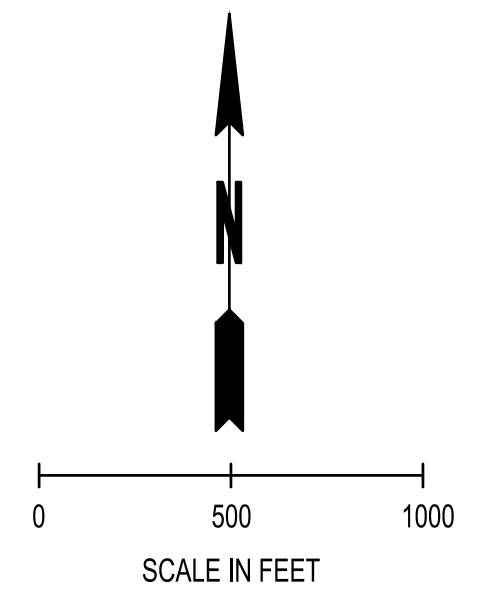
SHEET No.:  
**8 OF 15**

Dec 20, 2022 10:39:11 AM User: jacob.hopkins  
 W:\PROJECTS\0650 THURSTON COUNTY\06-065021 TO 14 ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg



**LEGEND**

- ROUTE OPTION 3
- STREAMS & WATERBODIES
- NATIONAL WETLAND INVENTORY



**SCJ ALLIANCE**  
 CONSULTING SERVICES  
 8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516  
 P: 360.352.1465 F: 360.352.1509  
 SCJALLIANCE.COM

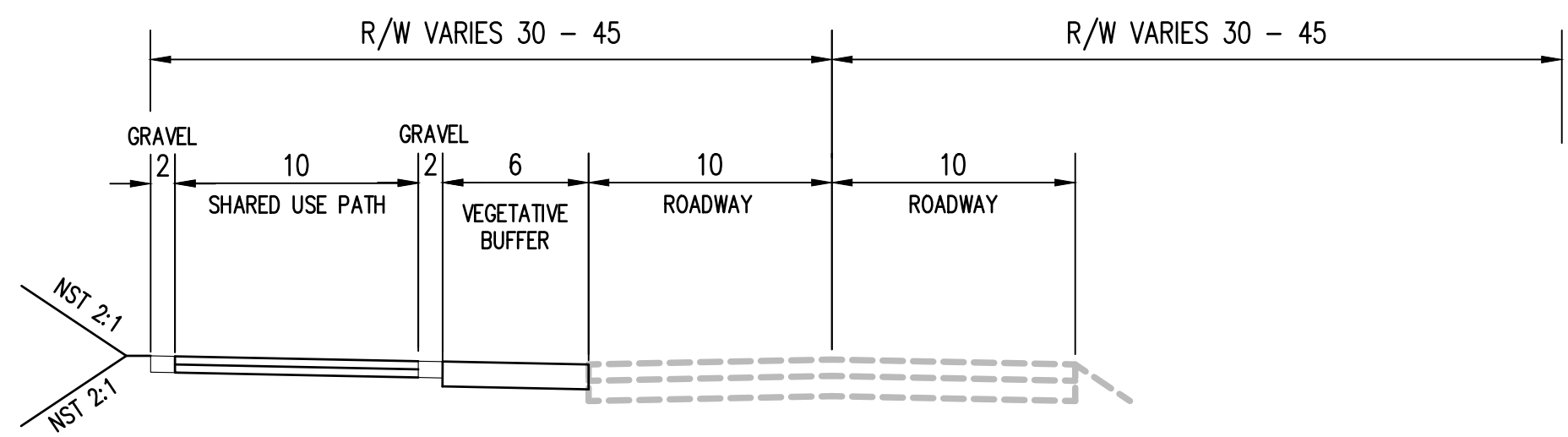
HORIZONTAL SCALE:  
 1"=600'  
 DATE:  
 DECEMBER 19, 2022  
 JOB No.:  
 00-065021  
 DRAWING FILE No.:  
 ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

**ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY**  
**ROUTE OPTION 3**

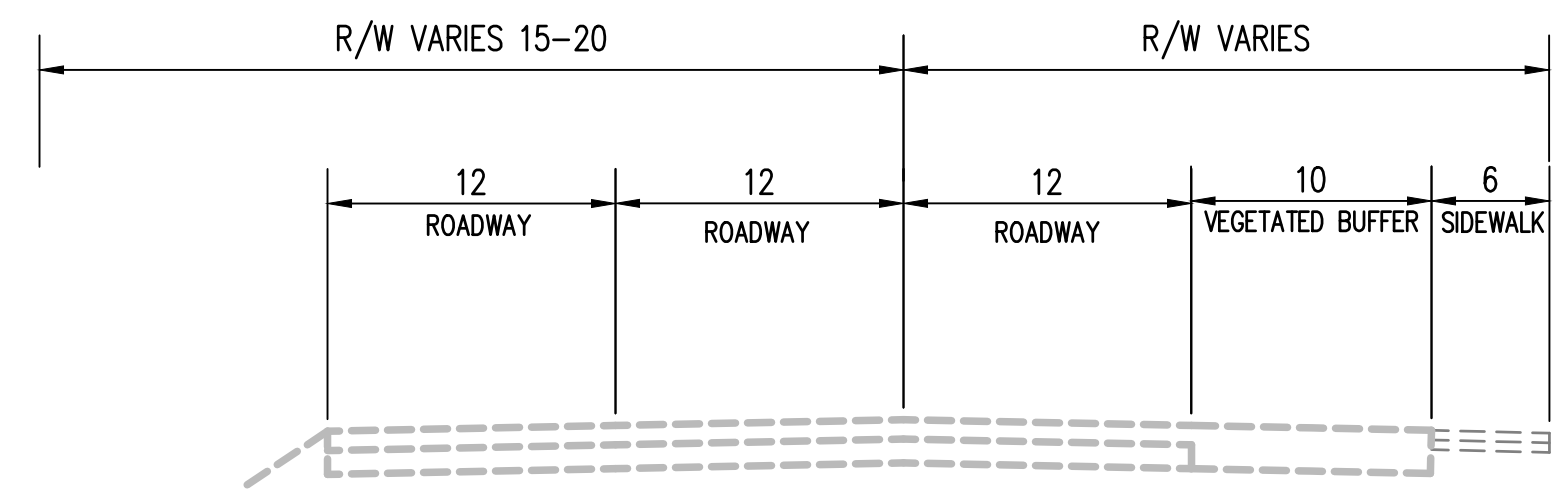
EXHIBIT No.:  
**EX-09**  
 SHEET No.:  
**9 OF 15**







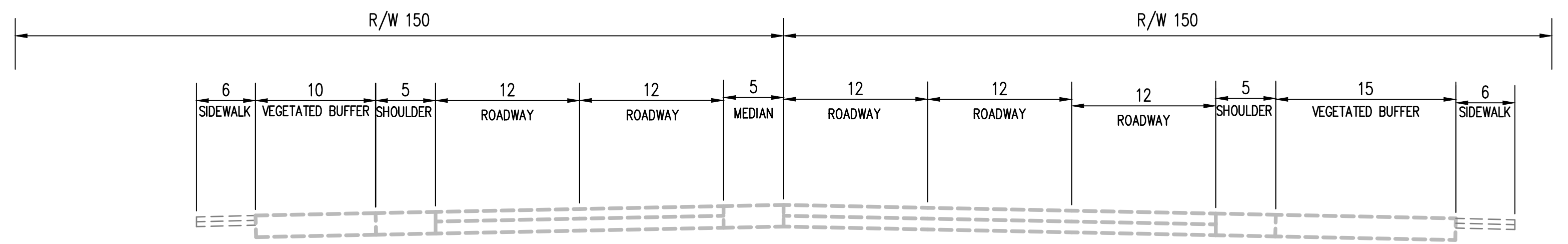
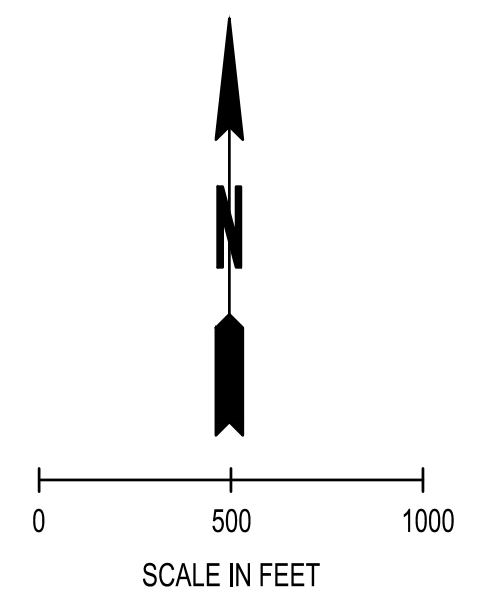
JAMES RD SW / ALBANY ST SW  
NOT TO SCALE



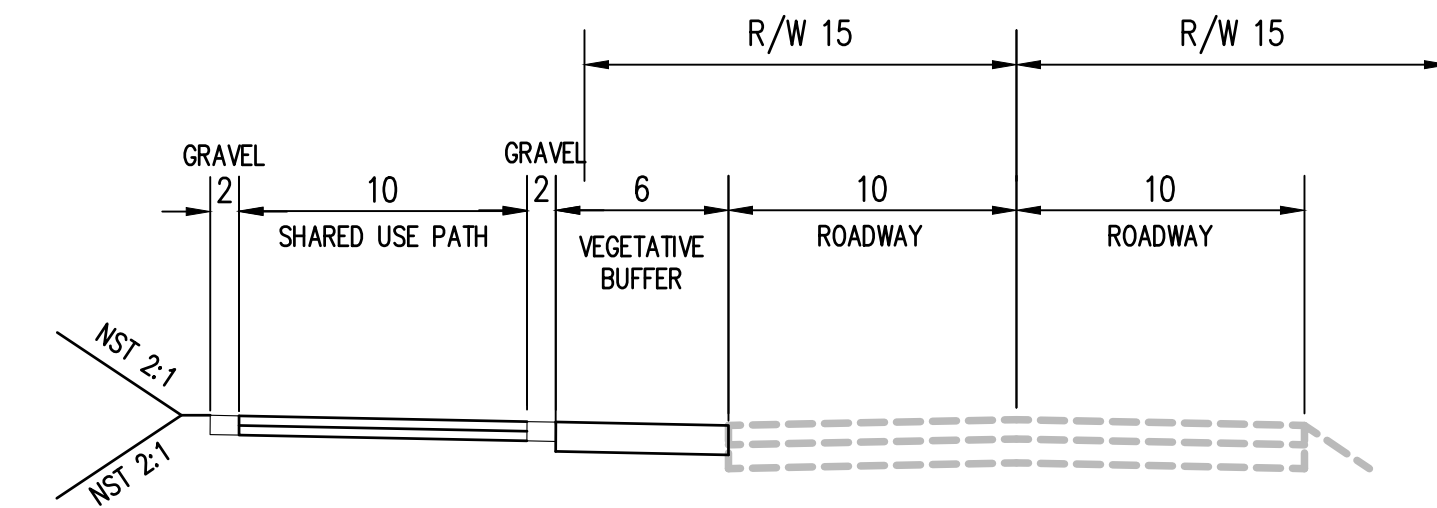
198TH WAY SW  
NOT TO SCALE

**LEGEND**

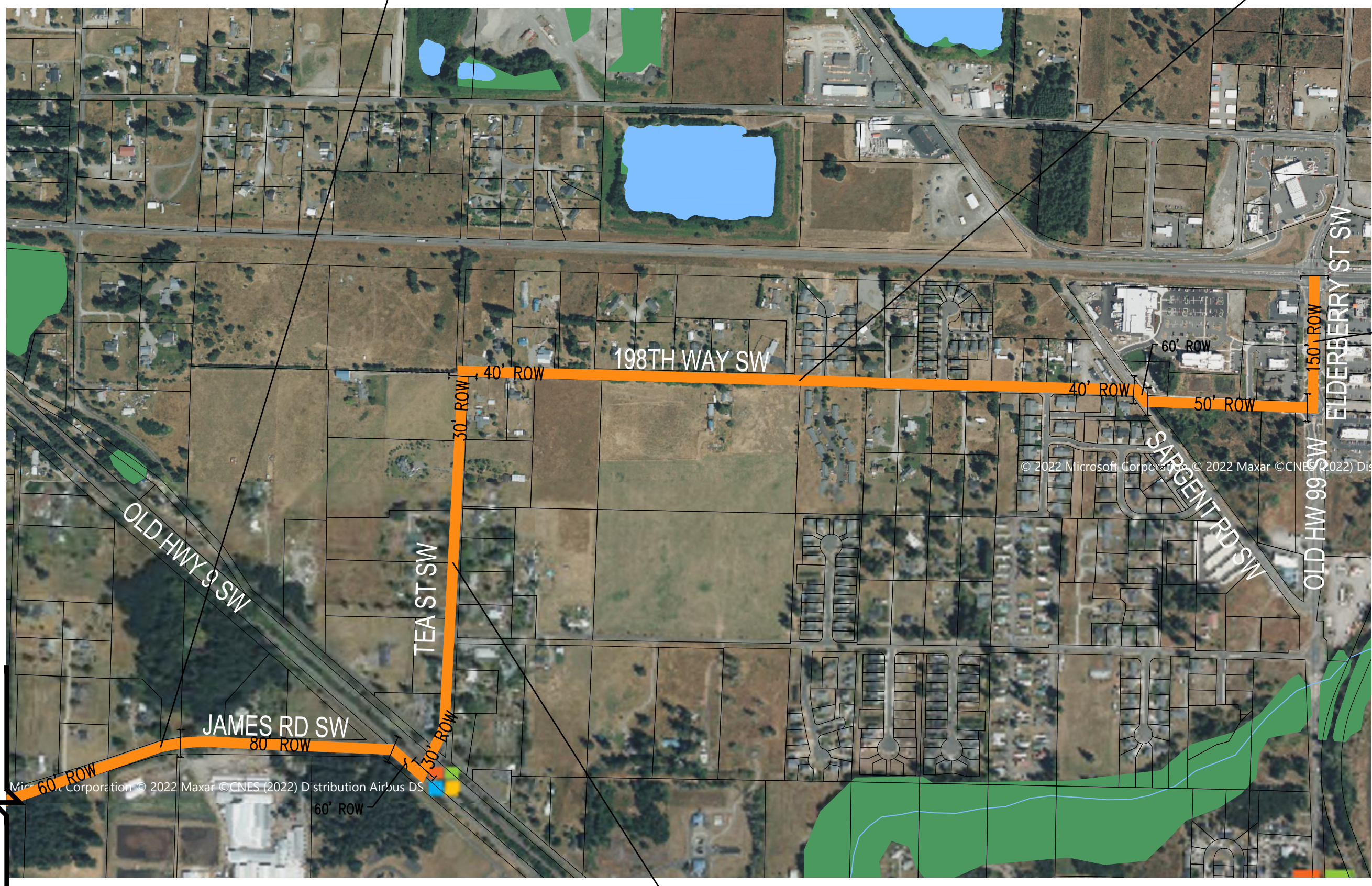
- ROUTE OPTION 4
- STREAMS & WATERBODIES
- NATIONAL WETLAND INVENTORY



ELDERBERRY ST SW  
NOT TO SCALE



TEA ST SW  
NOT TO SCALE



BREAK LINE - SEE SHEET EX-11

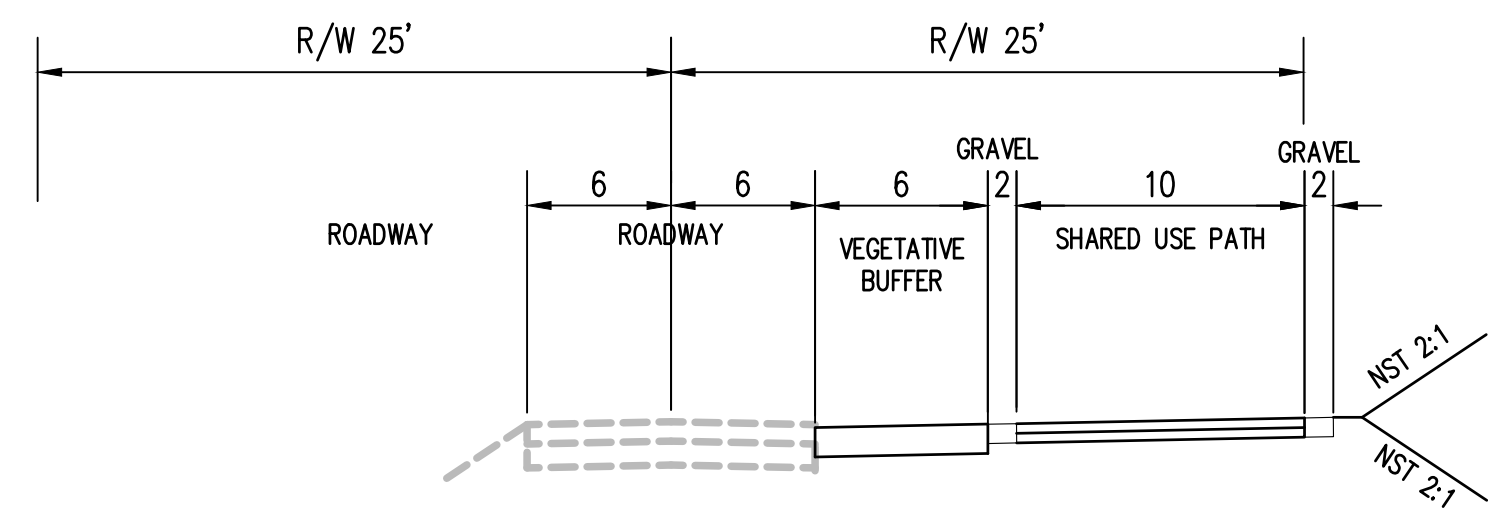
**SCJ ALLIANCE**  
CONSULTING SERVICES

8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516  
P: 360.352.1465 F: 360.352.1509  
SCJALLIANCE.COM

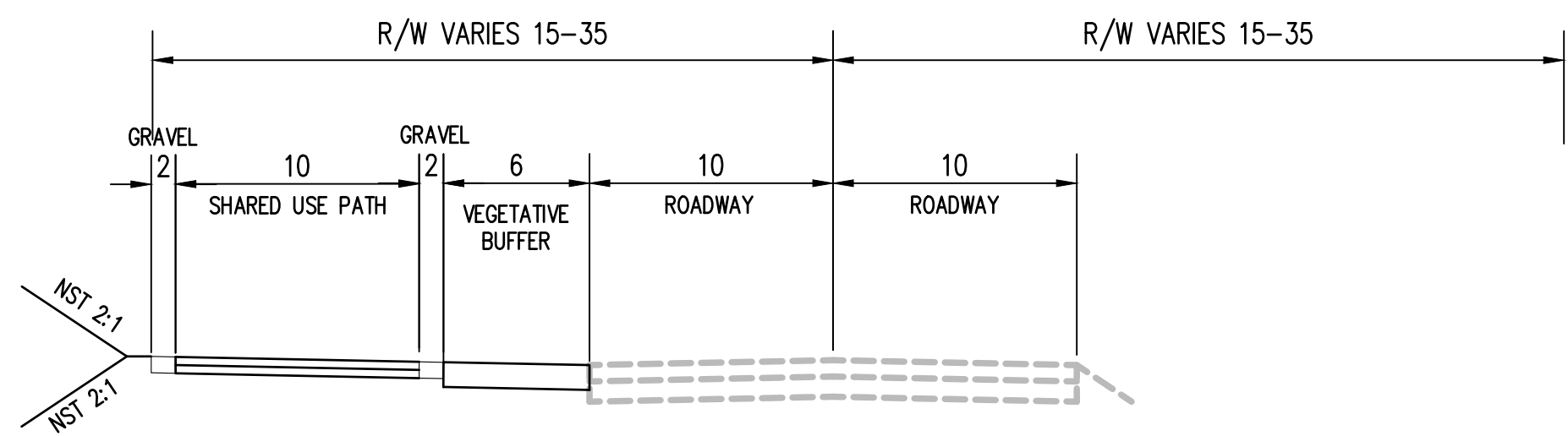
HORIZONTAL SCALE: 1"=500'
DATE: DECEMBER 19, 2022
JOB No.: 00-065021
DRAWING FILE No.: ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY  
ROUTE OPTION 4

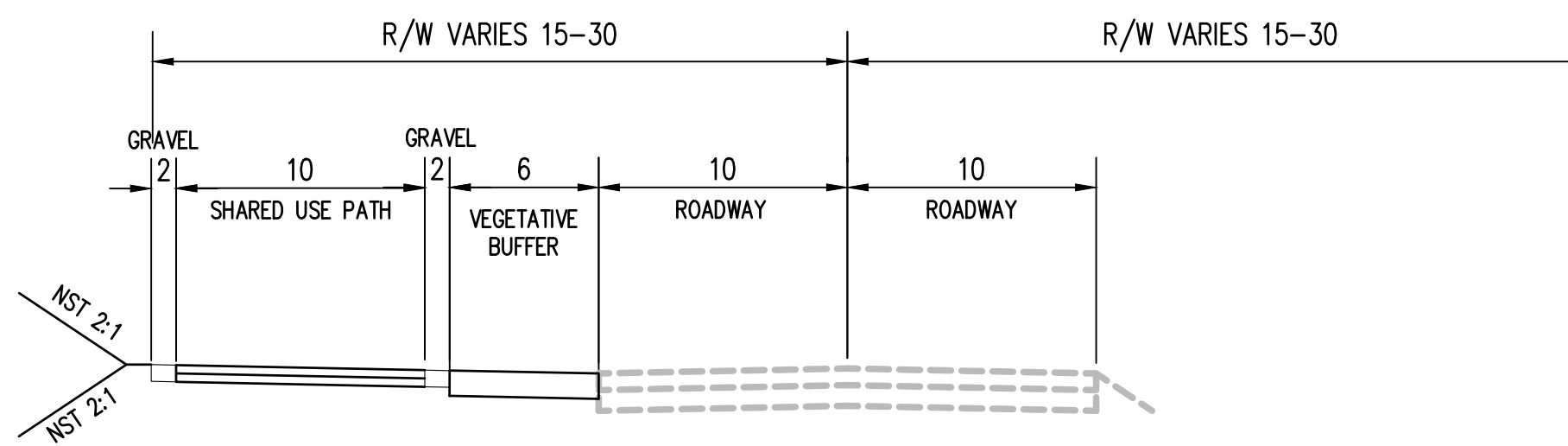
Dec 20, 2022 10:39:05 AM I:\scj\alliance\rochester\12\12-065021\12-065021.dwg  
 PROJECTS\0650 TRUSTON COUNTY\06-065021 TO 14 ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY\CADD\EXHIBITS\2022-0822 GR EXHIBIT\SCJ\065021\12-065021.dwg



ANDERSON RD SW  
NOT TO SCALE



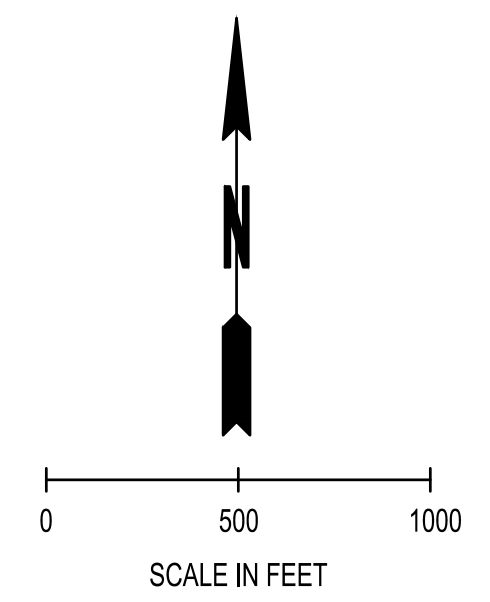
MCCORMICK RD SW / 175TH AVE SW / MOON RD SW  
NOT TO SCALE



SCHOOL LAND RD SE  
NOT TO SCALE

**LEGEND**

- ROUTE OPTION
- STREAMS & WATERBODIES
- NATIONAL WETLAND INVENTORY



Dec 20, 2022 10:39:05am User: lchris\_hughes  
 W:\PROJECTS\0650\_TROUTMAN COUNTY\06-065021 TO 14 ROCHESTER - GROUND MOUND TRAIL EXHIBIT.DWG

**SCJ ALLIANCE**  
CONSULTING SERVICES

8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516  
P: 360.352.1465 F: 360.352.1509  
SCJALLIANCE.COM

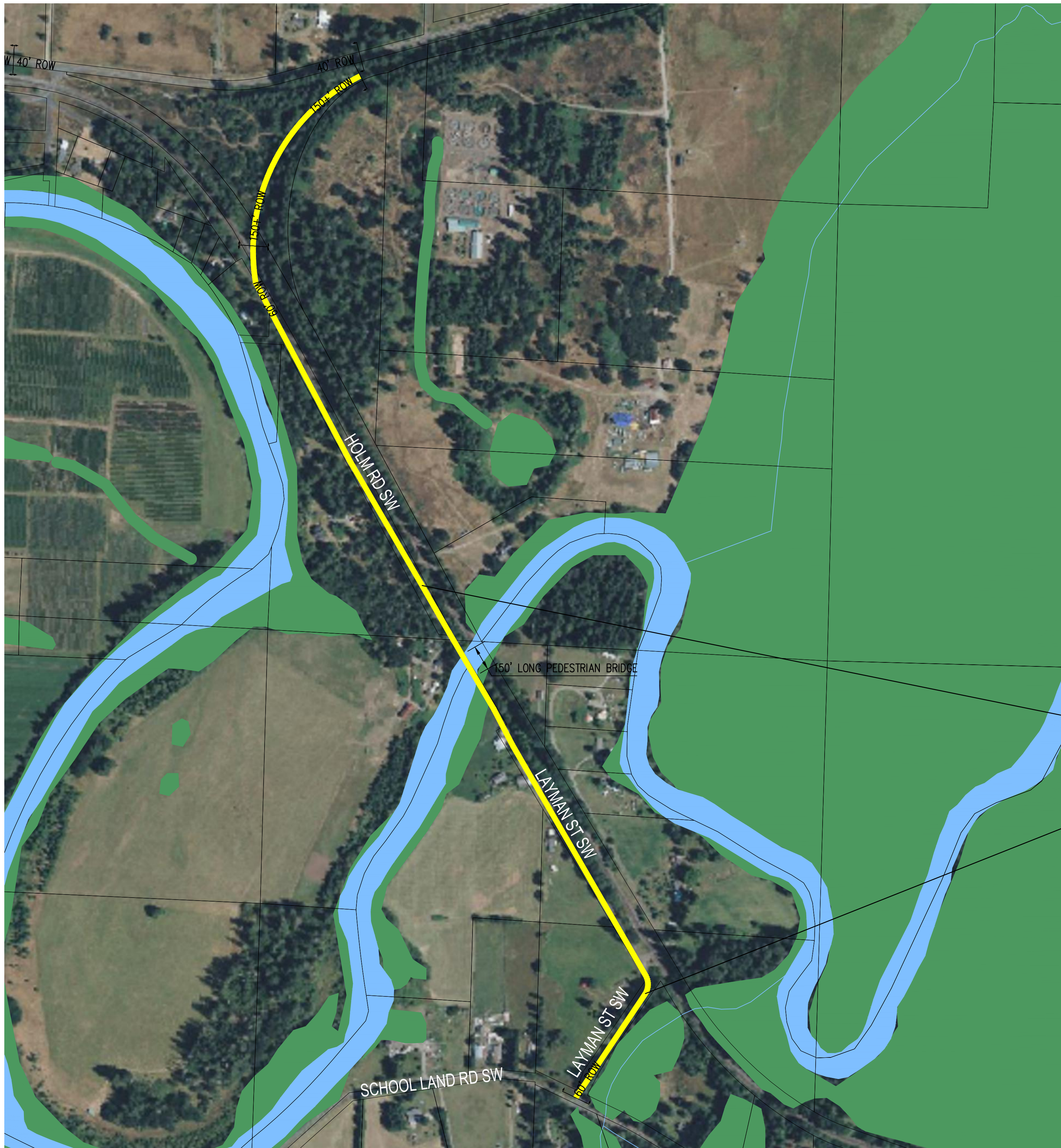
HORIZONTAL SCALE: 1"=500'
DATE: DECEMBER 19, 2022
JOB No.: 00-065021
DRAWING FILE No.: ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY  
ROUTE OPTION 5

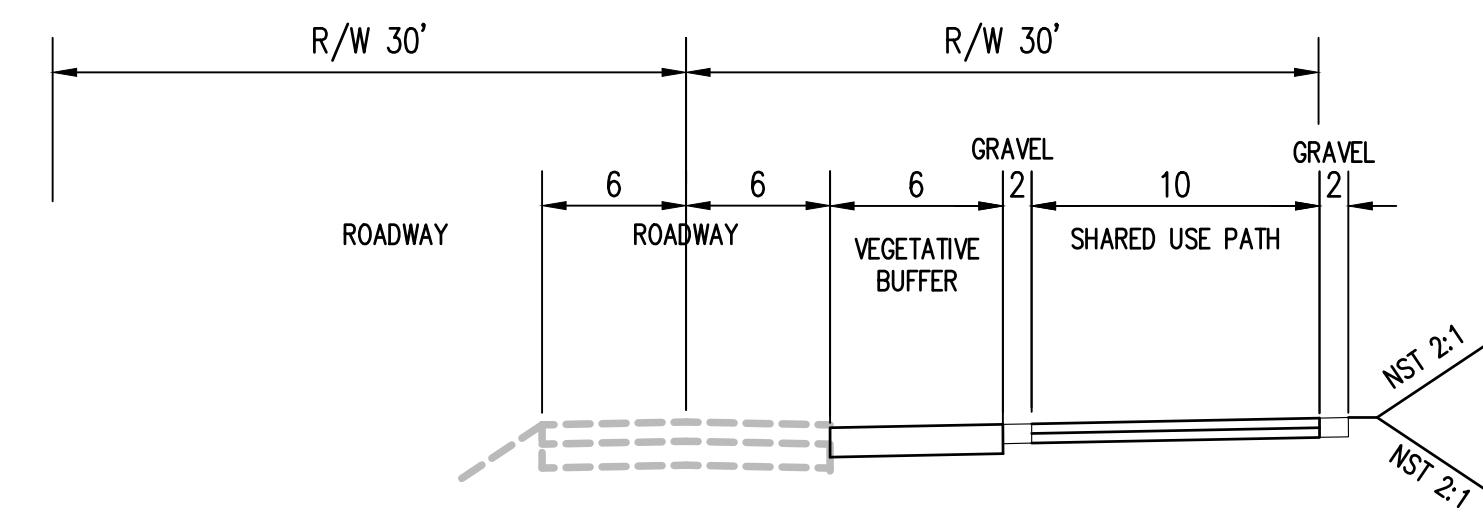
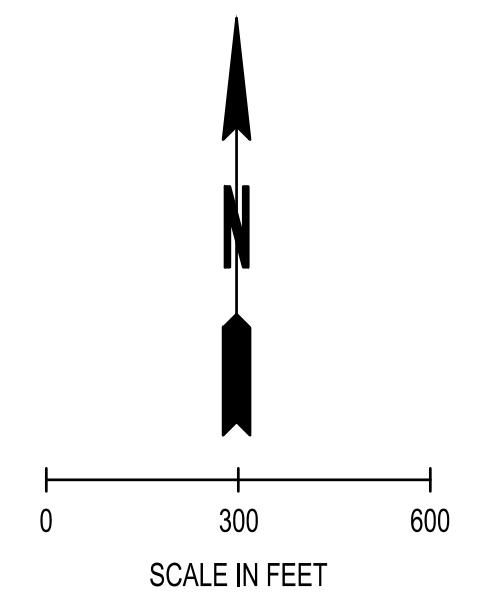
EXHIBIT No.:  
**EX-13**

SHEET No.:  
**13 OF 15**

Dec 20, 2022 10:39:33am User: h44444444  
 W:\PROJECTS\0650\_TIRUSTON COUNTY\06-065021 TO 14 ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY\CADD\EXHIBITS\2022-0622 GR EXHIBIT(S)\CAD\ROCHESTER - GROUND MOUND TRAIL EXHIBIT.DWG



- LEGEND**
- ROUTE OPTION - 6A
  - STREAMS & WATERBODIES
  - NATIONAL WETLAND INVENTORY



LAYMAN ST SW / HOLM RD SW  
NOT TO SCALE

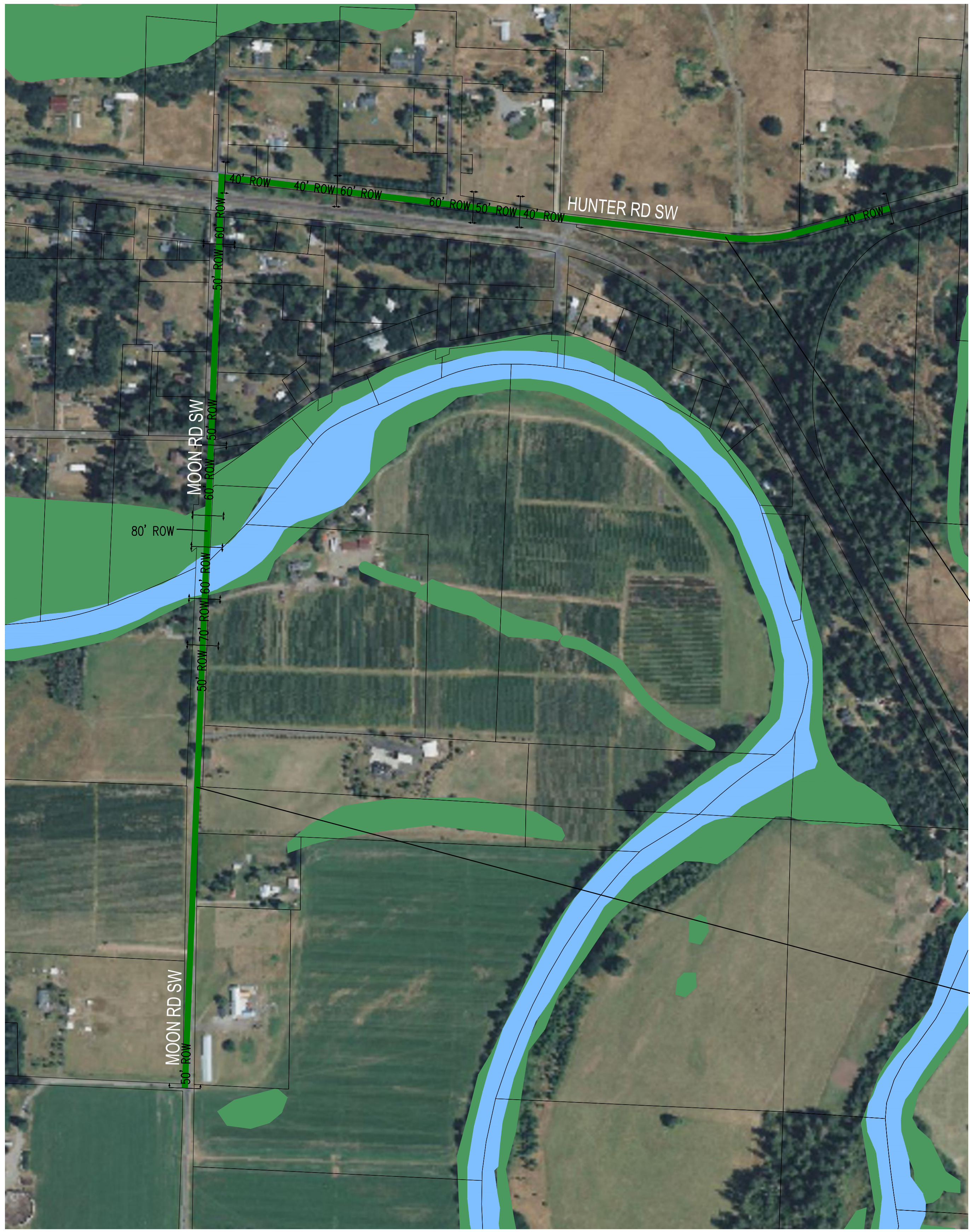
  
**SCJ ALLIANCE**  
 CONSULTING SERVICES  
 8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516  
 P: 360.352.1465 F: 360.352.1509  
 SCJALLIANCE.COM

HORIZONTAL SCALE:  
 1"=300'  
 DATE:  
 DECEMBER 19, 2022  
 JOB No.:  
 00-065021  
 DRAWING FILE No.:  
 ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

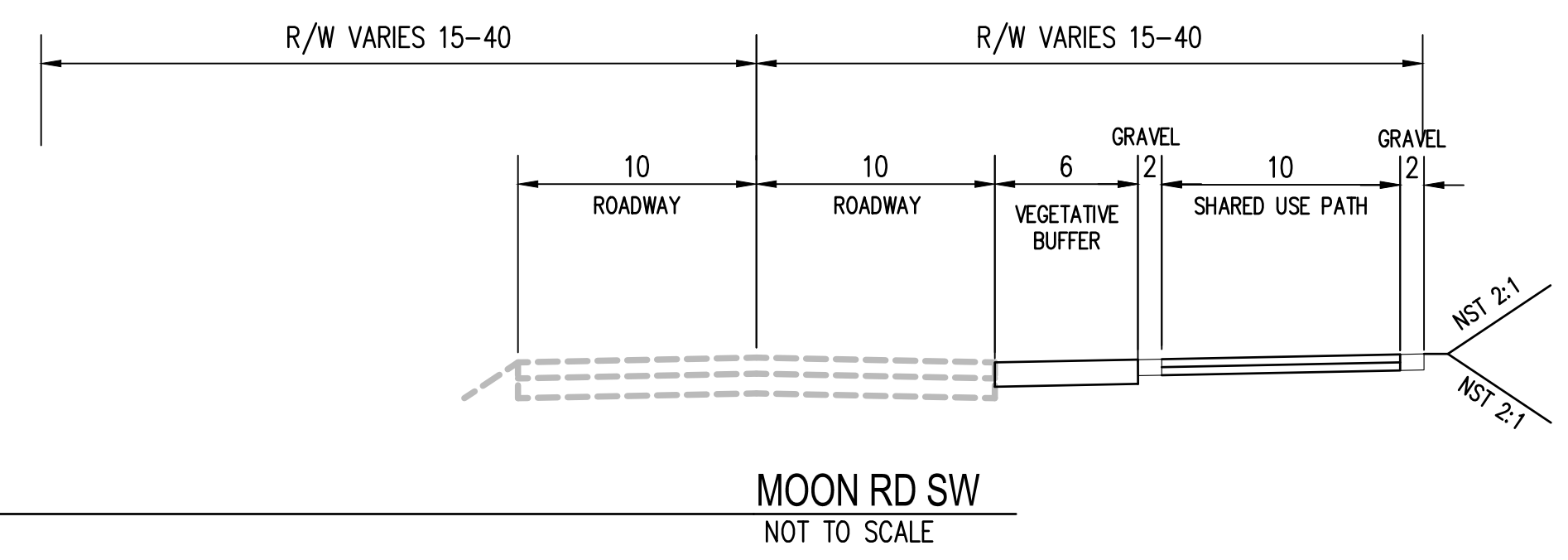
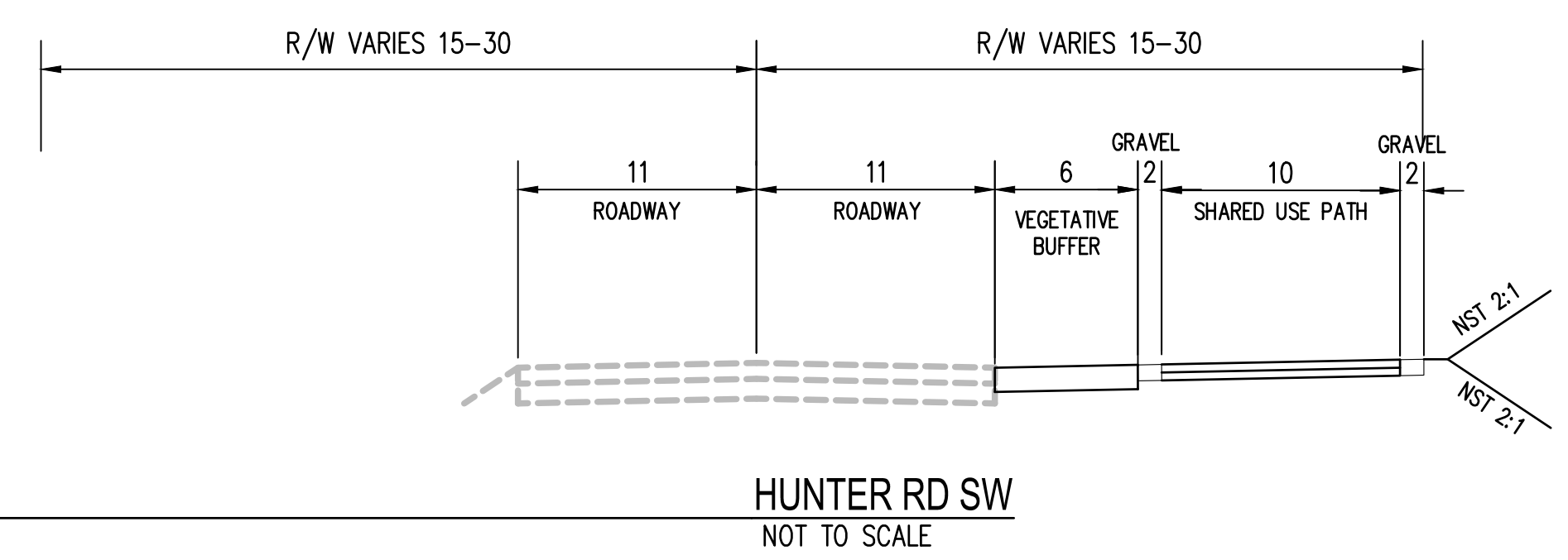
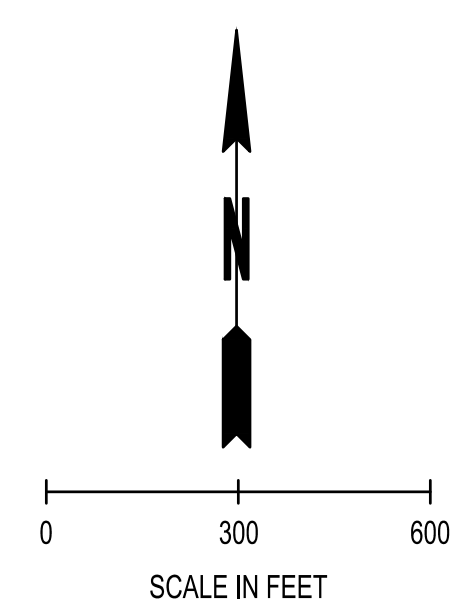
ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY  
 ROUTE OPTION 6A

EXHIBIT No.:  
**EX-14**  
 SHEET No.:  
**14 OF 15**

Dec 20, 2022 10:39:35am User: jchris Topographic  
 W:\PROJECTS\0650 THURSTON COUNTY\06-065021 TO 14 ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg



- LEGEND**
- ROUTE OPTION - 6B
  - STREAMS & WATERBODIES
  - NATIONAL WETLAND INVENTORY



  
**SCJ ALLIANCE**  
 CONSULTING SERVICES  
 8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516  
 P: 360.352.1465 F: 360.352.1509  
 SCJALLIANCE.COM

HORIZONTAL SCALE:  
 1"=300'  
 DATE:  
 DECEMBER 19, 2022  
 JOB No.:  
 00-065021  
 DRAWING FILE No.:  
 ROCHESTER - GROUND MOUND TRAIL EXHIBIT.dwg

ROCHESTER - GROUND MOUND TRAIL FEASIBILITY STUDY  
 ROUTE OPTION 6B

EXHIBIT No.:  
**EX-15**  
 SHEET No.:  
**15 OF 15**

This page left intentionally blank.

## **Appendix 2 Conceptual Cost Estimate Summary**

This page left intentionally blank.



# TRPC

## Rochester-Ground Mound Trail Feasibility Study

### Conceptual Level Cost Estimate Summary

Concept Description	Total	Length (feet)
Park & Ride Route	\$310,000	2,500
183rd Ave Route	\$8,870,000	30,400
Sargant Rd Route	\$7,400,000	26,280
US 12 Route	\$11,830,000	29,210
James Rd Route	\$7,130,000	31,660
School Land Rd Route	\$7,660,000	20,200
Holm Rd Route	\$6,090,000	5,600
Moon Rd Route	\$2,480,000	7,020





**SCJ ALLIANCE**  
CONSULTING SERVICES

**Rochester - Ground Mound Trail  
Feasibility Study  
183rd Ave Route**

Element	Element Based Upon	Unit	Unit Cost	Estimate Measurement	
<b>Trailwork</b>	<b>Estimated Quantities</b>				<b>\$ 5,064,424</b>
	Mobilization	LS	8%	1	\$ 542,617
	Clearing and Grubbing	ACRE	\$30,000	2.00	\$ 60,000
	Roadway Excavation Incl Haul	CY	\$70	4,729	\$ 331,022
	Shared Use Path HMA	TON	\$200	3,924	\$ 784,770
	Shared Use Path CSBC	TON	\$40	7,290	\$ 291,615
	Erosion Control	LF	\$22	30,400	\$ 668,800
	Vegetated Buffer	SF	\$5	182,400	\$ 912,000
	ROW	SF	\$10.00	147,360	\$ 1,473,600.00
<b>Engineering</b>	<b>25%</b>				<b>\$ 1,266,106</b>
	Design and Permitting		15%	1	\$ 759,664
	Construction Management		10%	1	\$ 506,442

<b>Subtotal</b>	\$ 6,330,530
<b>Miscellaneous/Contingency (50%)</b>	\$ 2,532,212
<b>Total</b>	<b>\$ 8,870,000</b>



**SCJ ALLIANCE**  
CONSULTING SERVICES

**Rochester - Ground Mound Trail  
Feasibility Study  
Sargent Rd Route**

Element	Element Based Upon	Unit	Unit Cost	Estimate Measurement	
<b>Trailwork</b>	<b>Estimated Quantities</b>				<b>\$ 4,223,280</b>
	Mobilization	LS	8%	1	\$ 443,880
	Clearing and Grubbing	ACRE	\$30,000	2.50	\$ 75,000
	Roadway Excavation Incl Haul	CY	\$70	4,088	\$ 286,160
	Erosion Control	LF	\$22	26,280	\$ 578,160
	Shared Use Path HMA	TON	\$200	3,392	\$ 678,413
	Shared Use Path CSBC	TON	\$40	4,502	\$ 180,067
	Vegetated Buffer	SF	\$5	157,680	\$ 788,400
	ROW	SF	\$10.00	111,280	\$ 1,112,800
	Paint	LF	\$60.00	1,340	\$ 80,400
<b>Engineering</b>	<b>25%</b>				<b>\$ 1,055,820</b>
	Design and Permitting		15%	1	\$ 633,492
	Construction Management		10%	1	\$ 422,328
	<b>Subtotal</b>				<b>\$ 5,279,100</b>
	<b>Miscellaneous/Contingency (50%)</b>				<b>\$ 2,111,640</b>
	<b>Total</b>				<b>\$ 7,400,000</b>











This page left intentionally blank.

## **Appendix 3 Alternative Analysis**

This page left intentionally blank.

## PERFORMANCE ATTRIBUTES

### *Southwest Thurston County Trail*

Performance Attribute	Definition
Traffic Stress	One's perception of safety from potential traffic hazards while using a trail. This includes feeling of safety at street crossings and roadway speed.

Scales		
Rating	Rating Rationale	Rating
Unacceptable	When the route keeps users from using the trail	0
		0.5
Ideal	When the route encourages users to use the trail	1

Performance Attribute	Definition
Trail Ambience (Scenic Route)	The character and setting of a trail route and its ability to attract users. Such characteristics could include natural or bucolic views, wildlife viewing, and low traffic noise

Scales		
Rating	Rating Rationale	Rating
Unacceptable	When the views from the trail are obstructed by the surrounding landscape or structures and the noise is too loud to have a conversation.	0
	When views from the trail are partially obstructed, either natural or manmade to the surrounding landscape	0.5
Ideal	When views to surrounding landscape are free of obstructions and the trail is quite and peaceful	1

Performance Attribute	Definition
Environmental Conflicts	Limiting the negative Impact of a trail on the environment when constructing in wetlands, flood plains, and other sensitive wildlife habitat.

Scales		
Rating	Rating Rationale	Rating
Unacceptable	When 50% or more of the project length impacts wetlands and/or flood plains.	0
		0.5
Ideal	When none of the project length impacts wetlands and/or flood plains.	1

Performance Attribute	Definition
Connectivity	How well does the trail connect to desired destinations within the communities? For

Scales		
Rating	Rating Rationale	Rating
Unacceptable	It doesn't connect to enough desired community destinations.	0
		0.5
Ideal	Provides walking and biking connectivity to several destinations such as schools, parks, stores, and other areas of interest.	1


**PERFORMANCE ASSESSMENT MATRIX**  
*Southwest Thurston County Trail*

**Park & Ride Route**

Performance Attributes	Rationale	Rating
Traffic Stress	This route is along a high volume road (-.4) with little to no barrier (-.3)	0.3
Trail Ambience (Scenic Route)	Route is located along a high volume road.	0
Environmental Conflicts	This route has no conflicts with wetlands/flood plains.	1
Connectivity	This route connects the path to the park and ride.	0.6

**183rd Ave Route**

Performance Attributes	Rationale	Rating
Traffic Stress	This route is along a medium volume road (-.4).	0.6
Trail Ambience (Scenic Route)	Route is located along a medium volume road (-.4) but passes near Scatter Creek (+.1)	0.7
Environmental Conflicts	This route runs along wetlands for 950 lf and 7,000 lf of floodplain	0.4
Connectivity	This route connects to Scatter Creek and neighborhoods	0.5

**Sargent Rd Route**

Performance Attributes	Rationale	Rating
Traffic Stress	This route is along a high volume road (-.3)	0.7
Trail Ambience (Scenic Route)	Route is located along a high volume road to start and a low volume road to end (-.4)	0.6
Environmental Conflicts	This route runs along wetlands for 950 lf and 7,000 lf of floodplain	0.4
Connectivity	This route connects to Scatter Creek and neighborhoods	0.5

**Old Hwy 9 Route**

Performance Attributes	Rationale	Rating
Traffic Stress	This route is along a very high volume road (-.6)	0.4
Trail Ambience (Scenic Route)	Route is located along highway.(-.9)	0.1
Environmental Conflicts	This route runs along wetlands for 700 lf and 4,000 lf of floodplain	0.6
Connectivity	This is along the highway	0.5

### James Rd Route

Performance Attributes	Rationale	Rating
Traffic Stress	This route is along a low volume road (-.1)	0.9
Trail Ambience (Scenic Route)	Route is located along low volume road in rural setting.	0.9
Environmental Conflicts	This route runs along wetlands for 90 lf.	0.8
Connectivity	This route goes near Rochester high school and elementary school	0.7

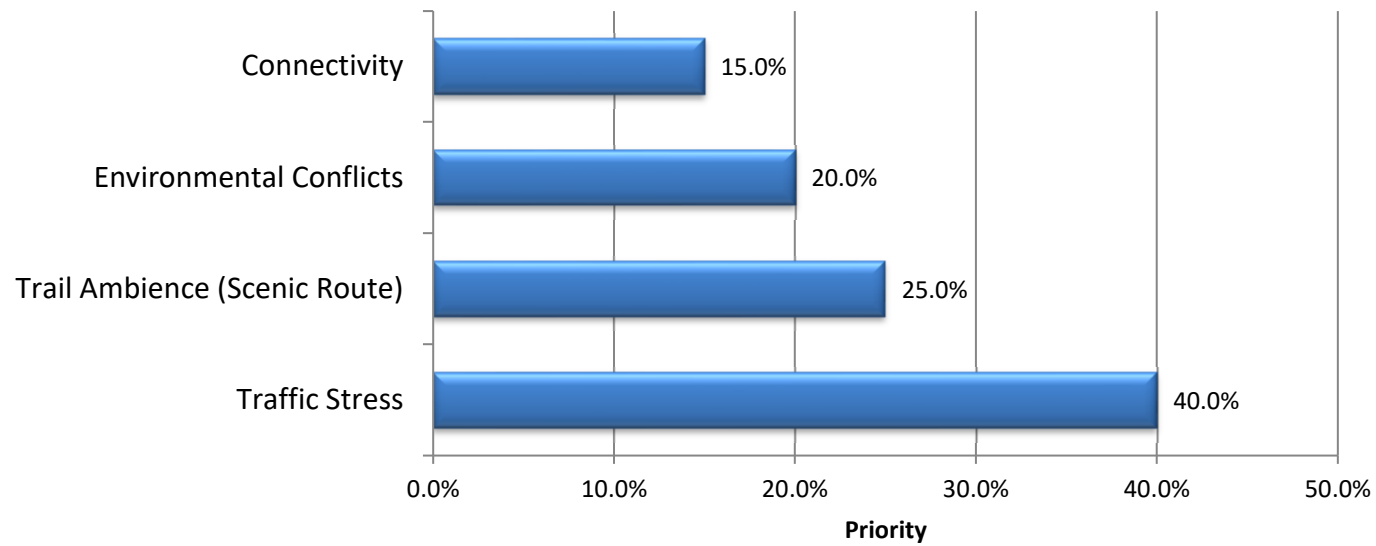
### Holm Rd Route

Performance Attributes	Rationale	Rating
Traffic Stress	This route is along a low volume road (-.1)	0.9
Trail Ambience (Scenic Route)	Route is located along low volume road in rural setting.	0.9
Environmental Conflicts	This route runs along wetlands for 350 lf.	0.6
Connectivity	Connects to the future trail but thats about it	0.3

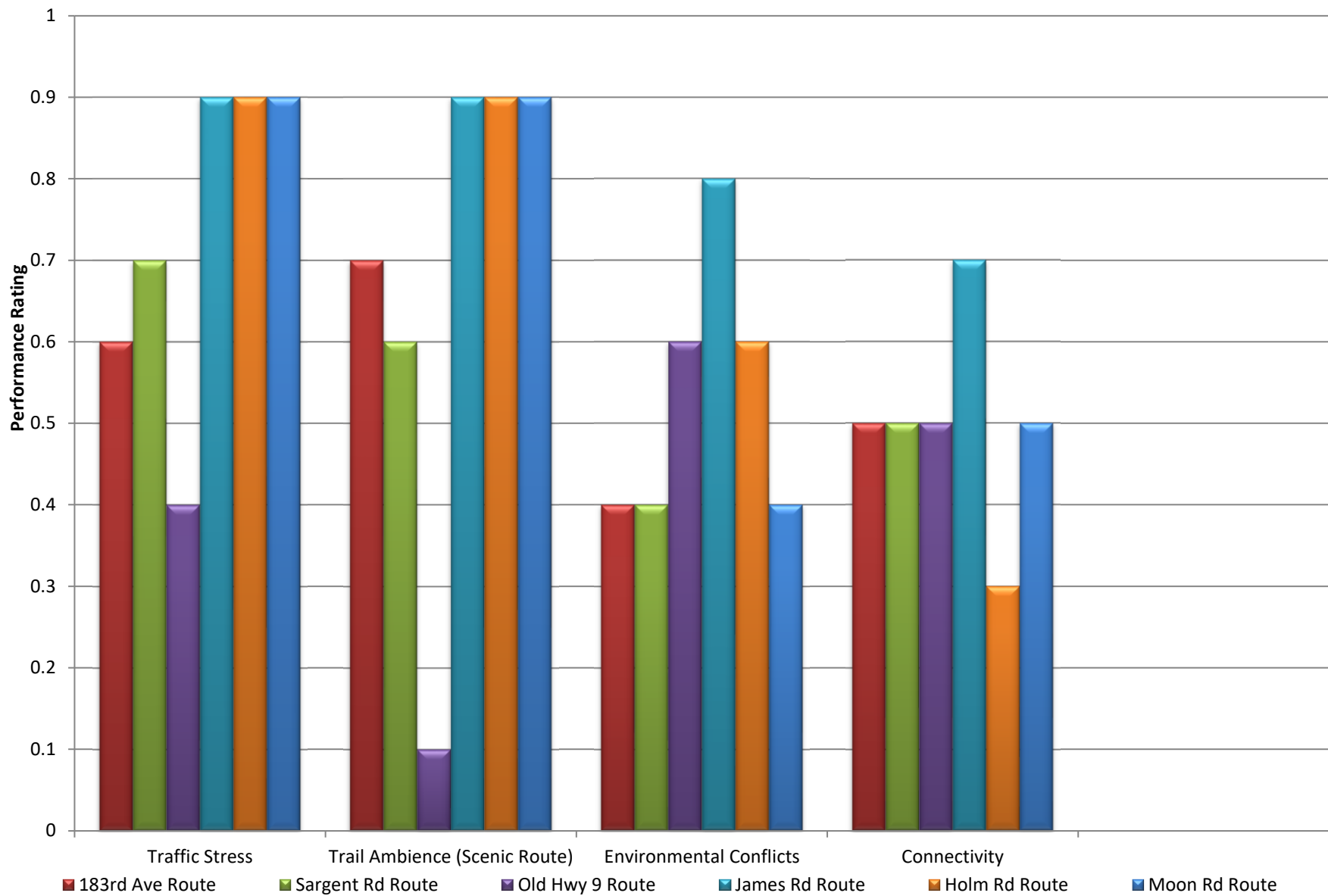
### Moon Rd Route

Performance Attributes	Rationale	Rating
Traffic Stress	This route is along a low volume road (-.1)	0.9
Trail Ambience (Scenic Route)	Route is located along low volume road in rural setting.	0.9
Environmental Conflicts	This route runs along wetlands for 580 lf.	0.4
Connectivity	Connects to more houses than 6A but not much else	0.5

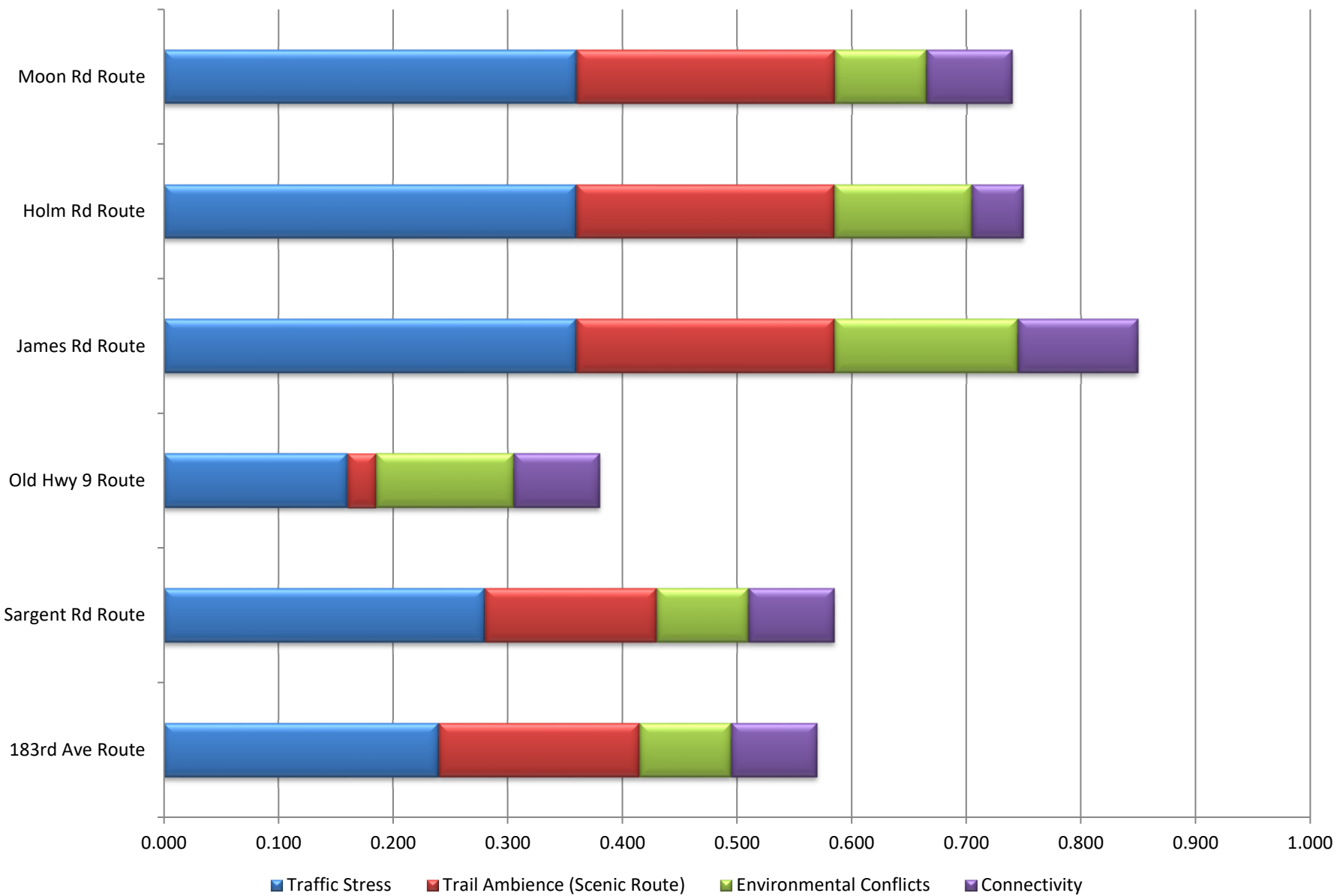
## Relative Importance of Performance Attributes



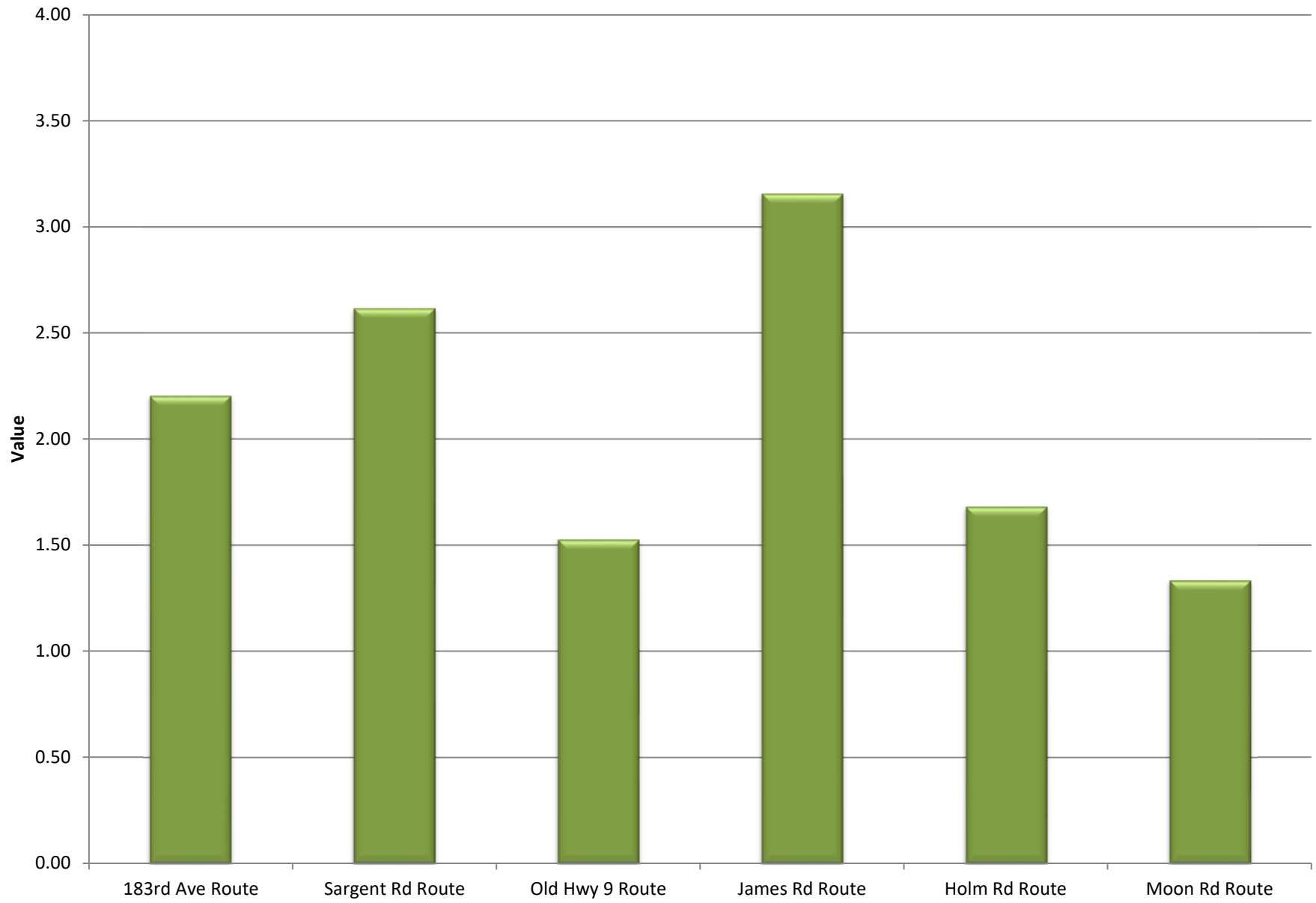
# Comparison of Performance Ratings



## Performance Profile of Alternatives



## Comparison of Value



This page left intentionally blank.

# Appendix 4 Shared-Use Path Concepts

This page left intentionally blank.



183rd Avenue SW Shared-Use Path Concept - Created by SCJ Alliance



Sargent Road SW Shared-Use Path Concept - Created by SCJ Alliance



US 12 Shared-Use Path Concept. Created by SCJ Alliance



James Road SW Shared-Use Path Concept. Created by SCJ Alliance