NORTH BEND WAY COMPLETE STREET CORRIDOR PLAN

FINAL

NORTH BEND, WA
JANUARY 2024

Passed by City Council on February 6, 2024

ACKNOWLEDGMENTS

The project team, led by staff at the City of North Bend, provided valuable insights, expertise, and support throughout the process of conducting research and field studies, analyzing data, determining optimal segment concepts, and drafting the report. We extend our thanks to the local and regional jurisdictional representatives and community members who generously shared their time, knowledge, and perspectives on the issues addressed in this report. We appreciate their dedication to improving transportation access in our state and their commitment to collaboration and partnership.

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Parametrix

TABLE OF CONTENTS

Passed by City Council on February 6, 2024

EXECUTIVE SUMMARY

The North Bend Way Complete Street Corridor Plan focuses on enhancing the accessibility and safety of North Bend Way in North Bend, Washington. The State's Complete Streets requirement, passed along with Senate Bill 5974, was used to identify best practices for mobility and facilities along the corridor. While the City of North Bend has recently implemented traffic and zoning changes to the study area, a complete streets plan further promotes the existing small-town feel of the city while also improving multimodal travel and connectivity.

This plan provides the following:

- A high-level overview of the study goals and complete streets guidelines.
- Existing conditions summary of the study area, divided into five segments consistent with the varied context and conditions along the corridor.
- An evaluation of different alternatives in each segment using five criteria. The segment alternatives show potential design options that reflect and are consistent with the different conditions in each segment. Several of the segments also include intersection concepts and trail connections.
- A community engagement overview that provides context for the community members who participated in engagement during Summer 2023.

Based on input from both the community and City Council, as well as the evaluation process, a preferred alternative for each segment was identified. Streetscape elements, such as furnishings, amenities, trees, and shrubs have also been included to further describe the proposed changes to the look and feel of the project area.

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PROJECT OVERVIEW

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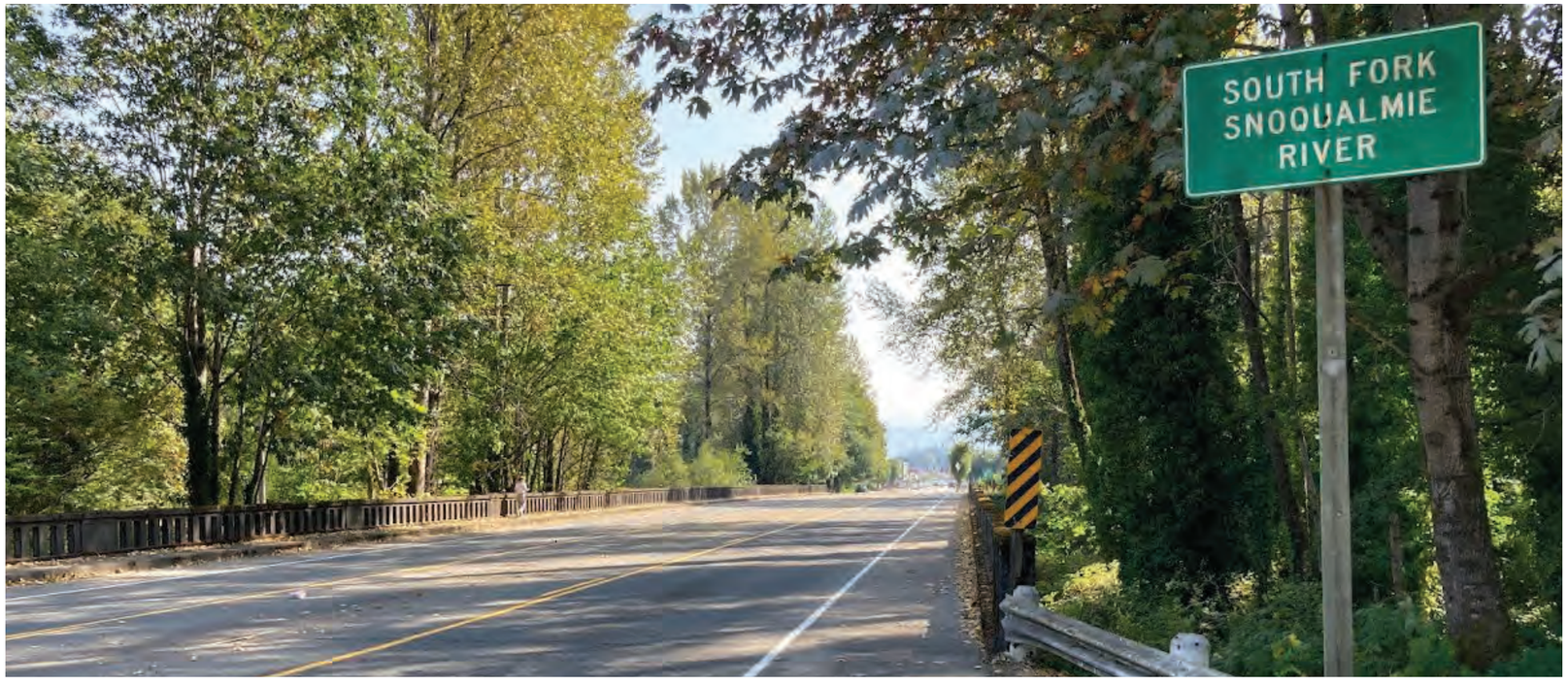
PROJECT OVERVIEW

North Bend Way is the main street in North Bend, Washington. It connects neighborhoods, parks, and civic destinations and serves as the primary route for people navigating through the town. The community takes pride in the small-town scale of North Bend, as well as its cultural and railroad heritage. Residents also value the natural setting and views of Mount Si and the Cascade foothills.

In recent years, the City of North Bend has implemented three roundabouts on North Bend Way with plans for at least two more. These have served to improve traffic flow and safety as well as provide traffic calming along the corridor. The roundabouts have also encouraged freight traffic to use alternate routes.

Pedestrians and bicyclists have limited accommodation along North Bend Way. Sidewalks and the Tanner Trail are limited to the central segments of the corridor. Pedestrians accessing Tollgate Farm Park from downtown commonly walk along the wide shoulder of North Bend Way. Residents value existing sidewalks and trails for moving around town, and support plans for the expansion of these networks for greater connectivity to destinations.

In 2021, the city updated its zoning code for downtown. A form-based code for the central business district will guide future development and maintain a scale of development that is consistent with the historic town center. The aim is to maintain the small-town feel and enhance the walkability of the central business district.



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PROJECT GOALS

1. Develop a vision for North Bend Way that guides implementation and can be used to pursue funding opportunities.
2. Enhance the livability for residents.
3. Promote economic development and improve visitor experience
4. Context sensitive approach: develop a strategy that is complementary to North Bend's form-based code, maintains the small-town feel, improves visual aesthetics, and enhances user experience.
5. Multimodal travel: Provide a variety of options for people to travel along North Bend Way, including walking, bicycling, transit, and driving.
6. Safety: Improve safety for all people using North Bend Way.
7. Connectivity: Improve and enhance access to destinations.

COMPLETE STREETS

In 2020, North Bend adopted a Complete Streets Ordinance to guide the development of future transportation projects. A Complete Streets approach aims for an integrated transportation network that is accessible, safe, and convenient for all users. This includes people of all ages and abilities walking, riding bicycles, driving private motor vehicles, taking transit, or delivering freight.

The Washington Department of Transportation (WSDOT) recently enacted a Complete Streets policy that guides the planning, design, implementation, operation, and maintenance of WSDOT facilities. Currently, this policy only pertains to WSDOT-led projects; however, it provides guidance on the development of a Complete Street corridor plan for North Bend Way. WSDOT focuses on a safe system approach to provide facilities for people walking and riding bicycles that meet a low Level of Traffic Stress (LTS). Two key strategies include reducing motor vehicles speeds in coordination with increasing separation of facilities for walking and biking.

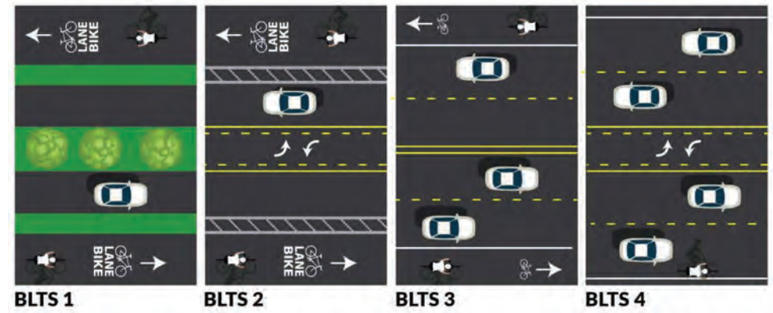
LEVEL OF TRAFFIC STRESS

Level of Traffic Stress (LTS) is a measure of the stress a person feels walking or riding a bicycle while using the transportation network. This objective process takes into account various attributes of a roadway, including speeds, volumes, number of lanes, presence of parking, presence and quality of facilities for active modes, and intersection control and accommodation.

LTS is based on extensive research that has concluded that most people walking or riding bicycles are most comfortable when physically separated from motorized traffic. As the separation increases in distance and quality, stress levels are reduced.

Bicycle Level of Traffic Stress

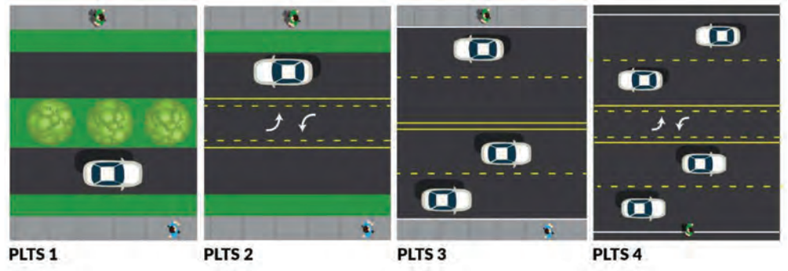
Examples of facility types and associated bicycle level of traffic stress (BLTS) is illustrated on the right. Facilities with a BLTS 1 are likely to appeal to 100 percent of people who want to ride a bicycle. Facilities with a BLTS 2 may include more separation than standard bike lines, but no physical barrier. Eighty-one percent of bicycle riders would use this facility. Facilities with a BLTS 3 may include minimal separation with about 12 percent of riders who would use this facility. Only about 1 percent of riders would use BLTS 4 facilities where no separated space is offered.



Source: WSDOT

Pedestrian Level of Traffic Stress

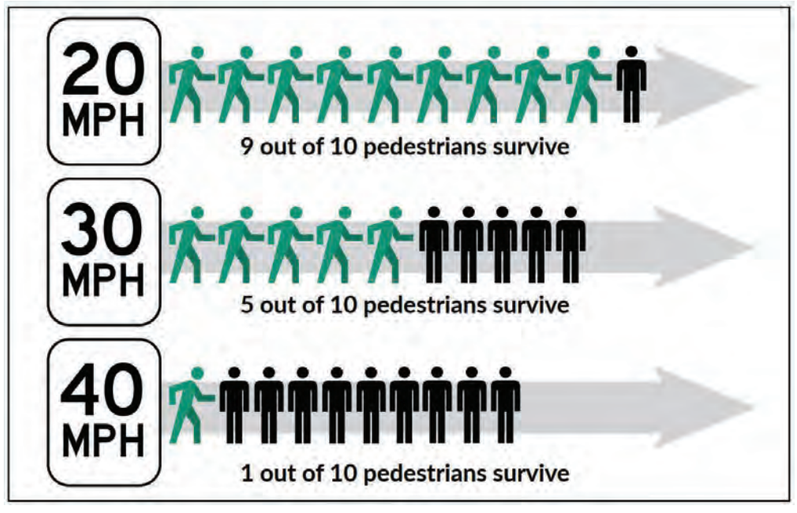
Examples of facility types and associated pedestrian level of traffic stress (PLTS) is illustrated on the right. Facilities with a PLTS 1 appeal to anyone wants to walk. Facilities with PLTS 2 appeal to a high percentage of people who want to walk. Facilities with PLTS 3 are likely to appeal to many people who want to walk, but separation from traffic is lower and there are more potential challenges, especially when it comes to crossing considerations (not illustrated). Facilities with PLTS 4 are unlikely to appeal to very many people who want to walk. There is minimal separation from traffic and there are more potential challenges associated with a complex and wide roadway, especially when it comes to crossing considerations.



Source: WSDOT

SPEED

The speed of a vehicle at the time of impact is directly correlated to pedestrian survival rate. Studies show that a 10 percent reduction in average vehicle speeds results in 19 percent fewer injury crashes, 27 percent fewer severe crashes, and 34 percent fewer fatal crashes. The risk of death at every speed is higher for older and younger pedestrians, as well as pedestrians hit by large vehicles. Vehicle speeds will continue to be an important consideration when seeking to improve safety for the most vulnerable roadway users; the average vehicle weight is continuing to climb as the transition to electric vehicles progresses.



Source: WSDOT

BENEFITS OF COMPLETE STREETS

Investing in Complete Streets provides tangible economic, safety, and health benefits. Further, investments in safe networks for people walking and biking improve quality of life for residents and visitors.

- Out of seven communities that implemented Complete Streets projects, six reported increases in businesses and two reported increased retail sales (Smart Growth America, 2015).
- Communities with walkable districts show increased tourism (Steuteville, 2011).
- Complete Streets projects create jobs: bicycle and pedestrian projects produce 9.6 to 11.4 jobs per million dollars spent compared to only 7.8 jobs created by auto-only focused projects (Smart Growth America, 2013).
- Proximity to a network of all ages and abilities infrastructure for walking and biking is associated with an increase in property values. (Portland State University, 2016).
- Crash rates for bicyclists decreased from 2.5 to 0.5 collisions per 100 bicycle trips after the implementation of Complete Streets projects (Smart Growth America, 2015).
- A $10M streetscape investment in Lancaster, CA yielded reduced speeding, fewer crashes, 50 new businesses, 800 new jobs and an increase in sales tax revenue by 26 percent (Smart Growth America, 2013)
- One year after a Complete Street implementation in Long Beach, CA bicycle volumes increased 33 percent and pedestrian activity also increased by about 13 percent (Smart Growth America, 2015)
- Complete Streets have a positive impact on public health: an individual's increased physical activity via walking and bicycling helps reduce obesity and risk of chronic disease, which leads to reduced healthcare spending (Smart Growth America, 2015).

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EXISTING CONDITIONS

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CORRIDOR CHARACTER

The character and function of North Bend Way has changed over the decades. Once serving as the primary highway leading from the Puget Sound to Snoqualmie Pass, it now functions as the main street for North Bend. The business district has also expanded beyond its compact historic center and now extends along North Bend Way. With these changes, traffic calming measures and a recently adopted form-based code for the urban center are notable efforts to create a character that is appealing to both residents and visitors.

North Bend is in the process of filling sidewalk gaps and extending trails within the city. However, there remain significant gaps along the North Bend Way corridor. Streetscape improvements to the downtown blocks have created a walkable and pleasant experience for residents and visitors to the city. The incremental implementation of these improvements has resulted in an inconsistent design throughout the downtown core and along the entire project corridor.

The consistent use of roundabouts as traffic calming measures along North Bend Way provides predictability to roadway users. These intersections can also provide a unifying theme to the corridor. At the east end of the corridor, access to private property is often poorly defined and, in some cases, the entire frontage functions as a driveway. This unmanaged access creates an inconsistent frontage to North Bend Way, as well as safety issues for drivers and pedestrians.

Appendix D includes an environmental scan, which summarizes the existing built and natural environment considerations in the corridor.

CORRIDOR-WIDE OPPORTUNITIES

- Create transitions between segments to highlight the change in character
- Develop consistent streetscape design features (furnishings, wayfinding, crosswalks, etc.)
- Develop consistent approach for road safety (intersections, access management, pedestrian crossings, etc.)
- Undergrounding of utilities along the corridor
- Identify locations for two enhanced pedestrian crossings

CORRIDOR-WIDE CHALLENGES

- Unify previous streetscape improvements

Historic building facades define the character of downtown North Bend.

For people approaching from the west, the view of Mount Si at Tollgate Farm Park provides a sense of place for North Bend at the foothills of the Cascades.

SEGMENT BOUNDARIES

For this study, North Bend Way has been divided into sections. These sections correspond to transitions in the character of the context along the corridor:

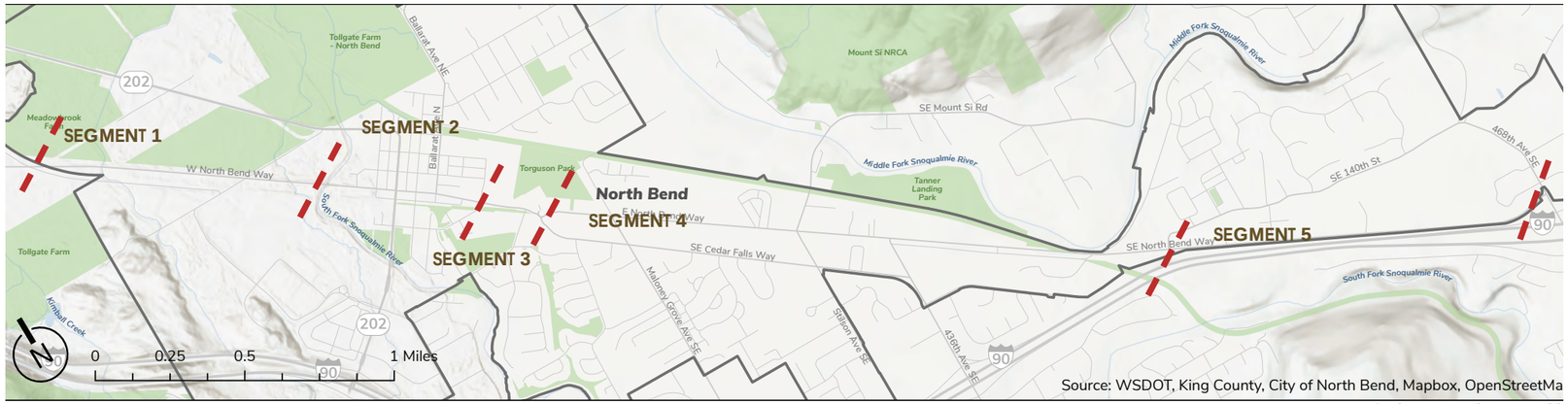
Segment 1: Western city limits to South Fork Snoqualmie River

Segment 2: South Fork Snoqualmie River to Park Street

Segment 3: Park Street to Cedar Falls Way Roundabout

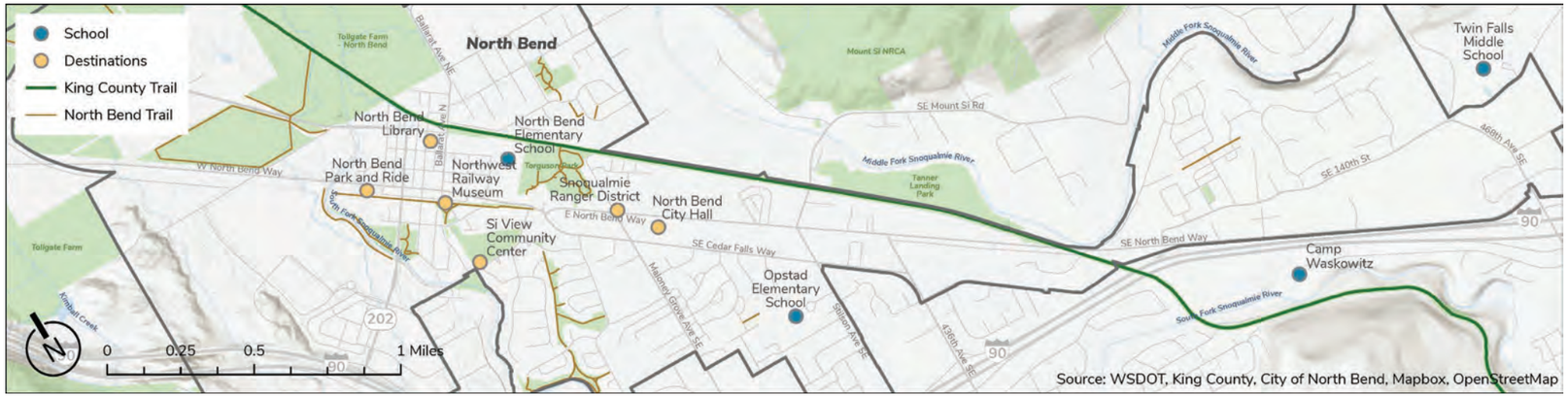
Segment 4: Cedar Falls Way Roundabout to SE 140th Street

Segment 5: SE 140th Street to 468th Ave SE



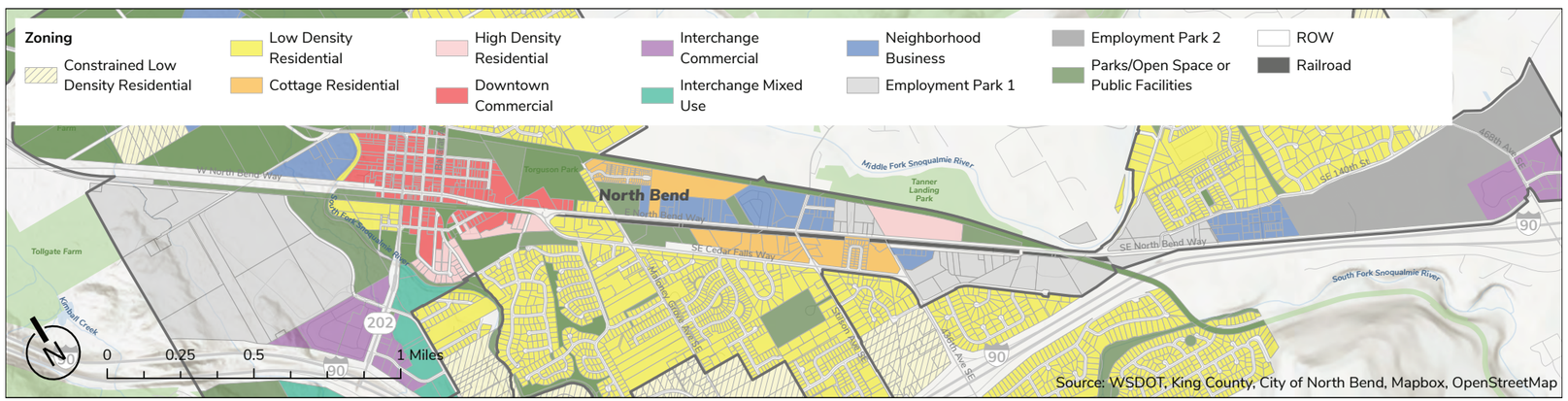
DESTINATIONS

Destinations for visitors and residents of North Bend exist both along and just outside of the North Bend Way corridor. These include schools, trails, park-and-rides, and other destinations, such as the North Bend Library and Northwest Railway Museum. These destinations support active trips and North Bend Way is critical to providing access.



ZONING

Zoning adjacent to North Bend Way varies through the entire corridor. The western portion of North Bend Way is primarily Open Space and low density Employment Park uses. Through downtown North Bend, zoning includes Downtown Commercial and High Density Residential. This transitions to Low Density Residential, Neighborhood Business, and Cottage Residential east of the downtown. In the furthest east portion of North Bend Way, zoning is Employment Park and Neighborhood Business with some Interchange Commercial.



SEGMENT OPPORTUNITIES AND CHALLENGES

See Appendix A for a detailed description of each segment as well as opportunities, challenges, and additional notes.

SEGMENT	OPPORTUNITIES	CHALLENGES
Segment 1 	• Create forested, park-like entry from the west • Upcoming roadwork creates opportunity to reallocate lanes to provide shared use path on north side of existing pavement (from west city limit to bridge across S Fork Snoqualmie River) • Maintain forested buffer within North Bend Way ROW and between rail line and North Bend Way ROW • Connect to pathway network in Tollgate Farm Park at park entry • Connect to future improved levy trail and other proposed trails to the south of North Bend Way	• Users must cross rail crossing • No safe crossing at SE 106th Place • Constrained bridge width at Ribary Creek and South Fork Snoqualmie River
Segments 2 and 3 	• Connect to future improved levy trail • Pedestrian safety improvements at intersection with Bendigo Blvd S • Reallocate existing median to increase space for parking or walking and bicycling • (Entire Segment) Establish consistent design standards for wayfinding for all modes and remove/update existing signs • Upgrade Tanner Trail between E Park St and Bendigo Blvd S from 8 ft wide to 10 ft wide to meet shared use path standards • Improve safety for all roadway users in downtown • Make connection between public access to Torguson Park and Si View Park	• Limited ROW east of South Fork Snoqualmie River to continue shared use path from Segment 1 • Safety of North Bend Way crossing at future trail connection at South Fork Snoqualmie River • Provide safe crossing of North Bend Way at bus stops west of Sydney Ave N • Inconsistent crosswalk treatments throughout central business district • High concentration of roadway crashes in downtown • Truck route on Ballarat Ave N (maintain turn radius)

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SEGMENT	OPPORTUNITIES	CHALLENGES
Segment 4 	• Improve entry to Torguson Park for people walking and riding bicycles • Pedestrian safety improvements at Thrasher Ave NE • Define street edge at parking lot for USFS office • Provide pedestrian facility on north side of North Bend Way • Consolidate driveways (multiple locations in Segment 4) • Use undeveloped portion of ROW to create an underground utility channel • Develop consistent approach to safety for all roadway users at intersections • Pave and widen Tanner Trail to 12 feet wide to match other completed sections • Use undeveloped portion of ROW to create an underground utility channel • Maintain visual buffer between North Bend Way and light industrial uses south of SE Tanner Road • Extend Tanner Trail to Snoqualmie Valley Trail • Consider trail oriented development near crossing of Snoqualmie Valley Rail Trail • Use undeveloped portion of ROW to provide high quality facility for walking and biking on north side of North Bend Way	• ROW narrows west of SE Mount Si Rd • Potential safety issue with multiple access points for small parcels east of SE Mount Si Rd
Segment 5 	• Develop consistent approach to safety for all roadway users at intersections • Visual transition where North Bend Way diverges from I-90 • Use undeveloped portion of ROW to create underground utility channel • Use undeveloped portion of ROW to provide high quality facility for walking and biking on north side of North Bend Way • Develop visual gateway to corridor at 468th Ave SE	• Excessive noise from I-90 • Limited space for buffer between North Bend Way and I-90 • Freight trucks park on North Bend Way when truck stop is at capacity

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TRAFFIC ANALYSIS

The City of North Bend recently completed a transportation needs assessment as part of an update to the Transportation Element of the Comprehensive Plan. Some observations from this effort that are relevant to this Complete Street Plan for North Bend Way include:

TRAFFIC ANALYSIS

- North Bend Way & SR 202/Bendigo Boulevard is exempt from City's LOS D standard due to limited right-of-way.
- North Bend Way/Main Avenue & North Bend Way/Ballarat Avenue forecasted to operate at LOS E/F by 2044 due to side-street stop-control for traffic along Main Ave & Ballarat waiting for gaps in traffic along North Bend Way.
- North Bend Way intersections with Bendigo Boulevard, Main Avenue, & Ballarat Avenue are highly congested.
- North Bend Way intersections with 8th Street, 140th Street, and 468th Avenue operate at LOS A & B.
- During winter months, there are sudden peak truck parking demands when Snoqualmie Pass is closed to severe weather events. Spillover truck parking on nearby streets presents hazard.

UPCOMING PROJECTS ON NORTH BEND WAY (2022-2027)

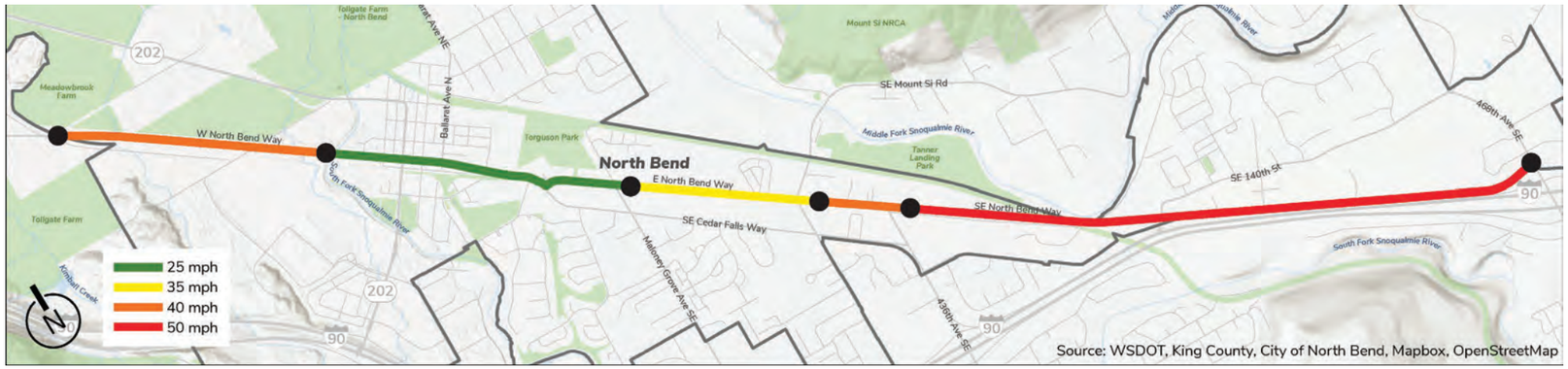
- North Bend Way & Bendigo Blvd- street widening & 1 new sidewalk installation
- North Bend Way & C&G Landscape Ballarat to Park (South Side) pedestrian & biking improvements
- North Bend Way Rechannelization, between Snoqualmie Valley Trail & Tanner Road
- Roundabout at North Bend Way/Mount Si Road
- North Bend Way/Ballarat All Way Stop or Traffic Signals
- Proposed trail & bike routes along North Bend Way
- Resurfacing and restriping of North Bend Way west of bridge over South Fork of the Snoqualmie River

UPCOMING PROJECTS ADJACENT TO NORTH BEND WAY (2022-2027):

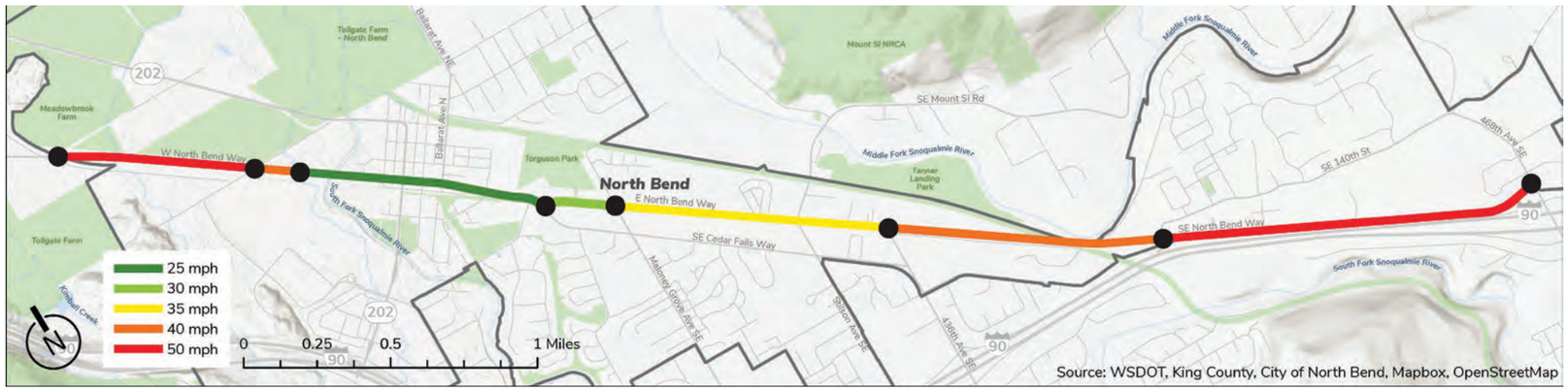
- Traffic Reconfiguration along Bendigo Blvd, 3rd Street to North Bend Way

PROPOSED SPEED LIMITS

Existing speed limits on North Bend Way range between 25 and 50 MPH. City Council recently adopted a modified speed limits for North Bend Way. The modified speed limits reduce posted speeds along most of the corridor but increase the speed at the west end of the corridor.



Existing posted speed limits along North Bend Way



Modified posted speed limits along North Bend Way

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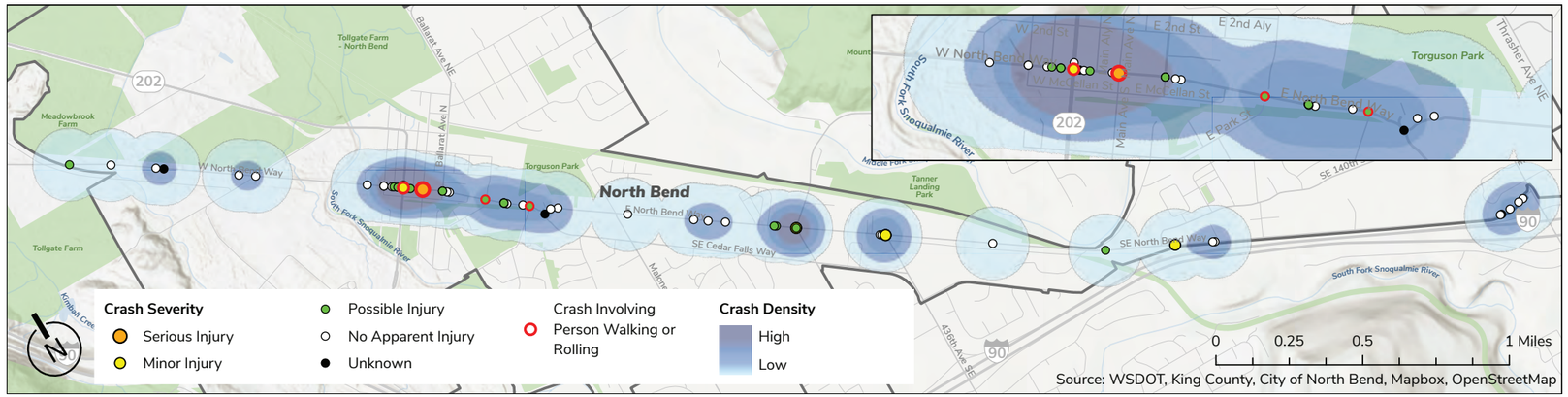
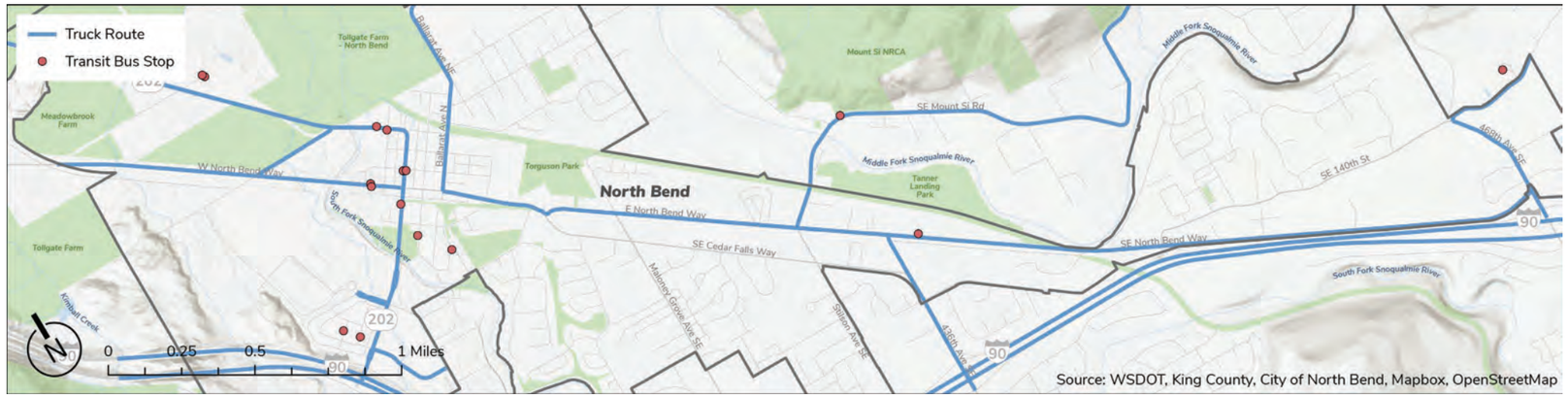


CRASH ANALYSIS

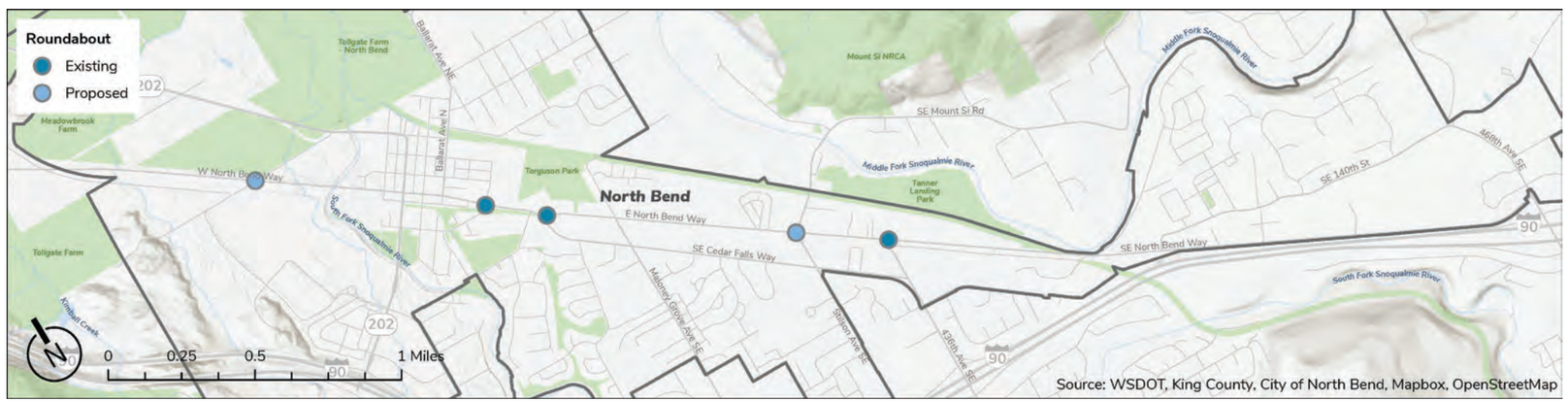
Between 2017 and 2021, 77 crashes were observed along North Bend Way within the study area, including one crash resulting in serious injuries, 5 crashes resulting in minor injuries, and 15 crashes resulting in possible injuries. Four of the 77 crashes involved people walking and rolling, including one serious injury crash at the intersection of Main Ave and one minor injury crash at Bendigo Blvd. Crashes involving people walking or rolling accounted for 19% of injury crashes observed along the corridor, while only making up 5% of crashes overall. Throughout the study area, crashes primarily occurred at intersections, with those in Segments 2 and 3 seeing the highest concentrations.



TRUCK ROUTES AND TRANSIT

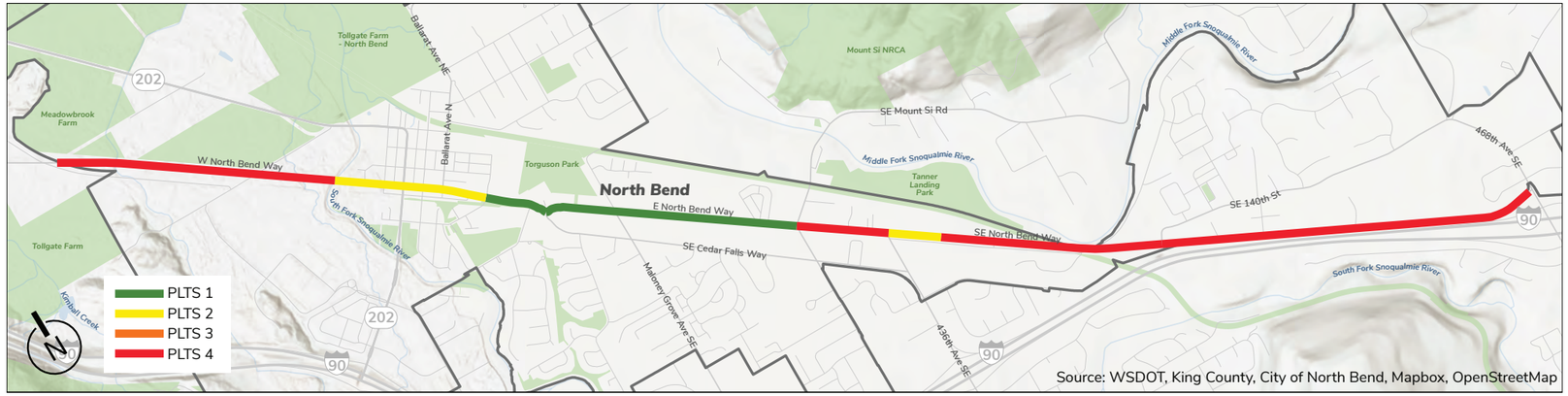
North Bend Way is a truck route in both the western and eastern portions of the corridor. A segment of North Bend Way through downtown is not considered a truck route. Connections from North Bend Way to SR 202 and I-90 are critical for freight movement.

Currently, there are two active transit stops on North Bend Way, located at the North Bend Park-and-Ride. A single west bound transit stop has been built in association with the new development east of 436th Ave SE.



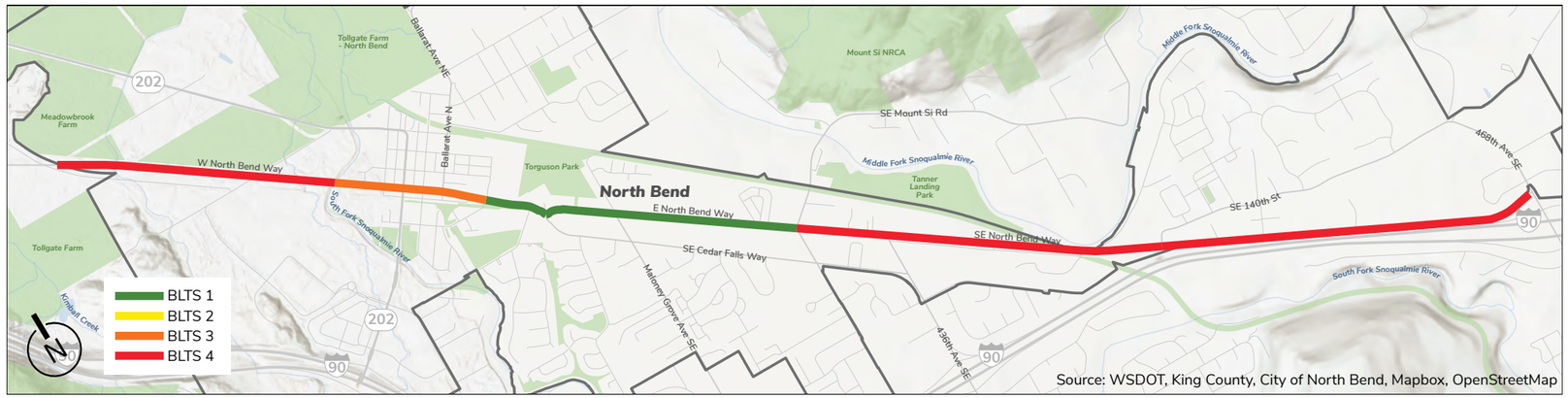
EXISTING AND PROPOSED ROUND-ABOUTS

There are existing roundabouts on North Bend Way at E Park Street, SE Cedar Falls Way, and 436th Avenue SE. Roundabouts are proposed at NW 8th Street and SE Mount Si Road.



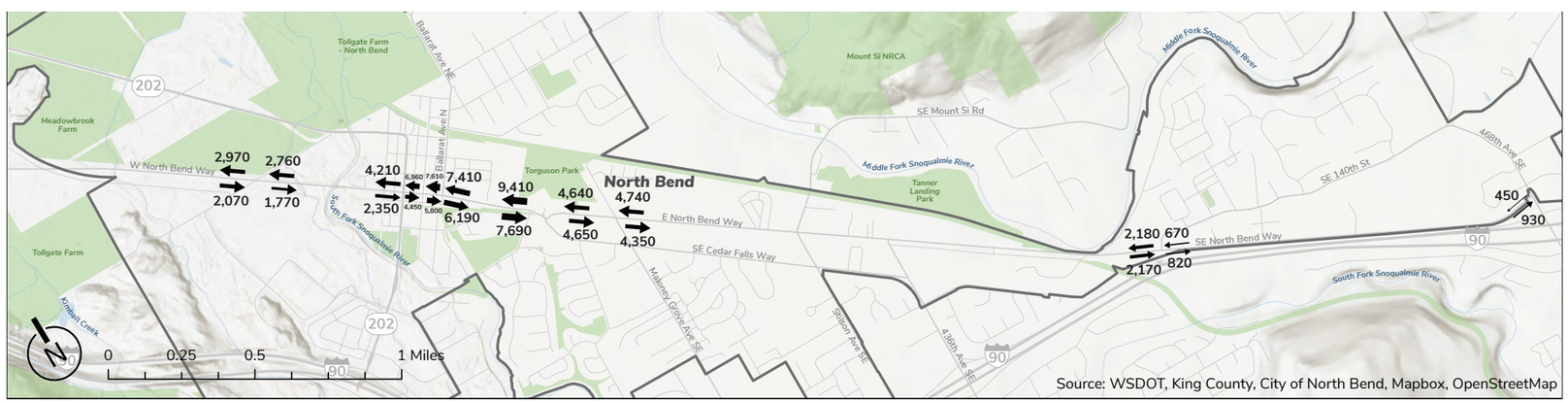
PEDESTRIAN LEVEL OF TRAFFIC STRESS

The existing PLTS for North Bend Way varies throughout the corridor. Both the western and eastern portion of the corridor is considered high stress, primarily due to a lack of dedicated pedestrian facilities. Higher vehicle volumes slightly reduce the PLTS through downtown North Bend. East of E Park Street to SE Mount Si Road have a low PLTS because the Tanner Trail is separated from traffic.



BICYCLE LEVEL OF TRAFFIC STRESS

Similar to the PLTS, the BLTS in the eastern and western portion of the corridor is high because there is a lack of facilities. Through downtown North Bend, the BLTS is slightly improved but traffic volumes still contribute to a higher stress score. The Tanner Trail between E Park Street and SE Mount Si Road is a low stress facility.



EXISTING DAILY VEHICLE VOLUMES

Existing daily vehicle volumes (approximate volumes based on recent peak hour traffic counts at intersections; assumed peak hour intersection counts are approximately 10 percent of the daily traffic volume) are highest through downtown North Bend. Vehicles leave and enter the corridor in higher volumes at Bendigo Boulevard and E Park Street. Vehicle volumes are lowest in the eastern portion of the North Bend Way corridor.

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COMMUNITY INPUT

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COMMUNITY ENGAGEMENT

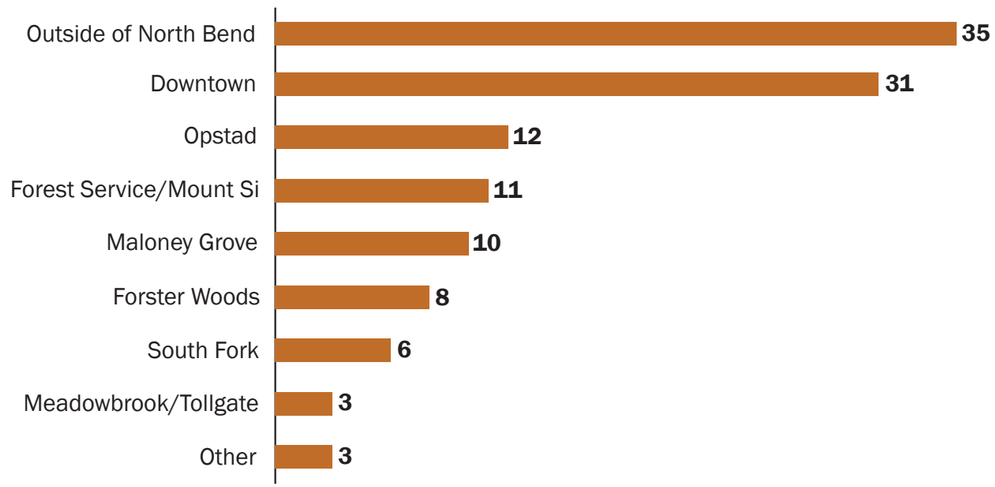
The City engaged with the community in Summer 2023 to provide information and seek input on this Complete Streets Plan. The City held in-person open houses in July. Both hard copy and online surveys were made available for community members over the course of Summer 2023. In total, over 120 responses were received.

Surveys included the following questions:

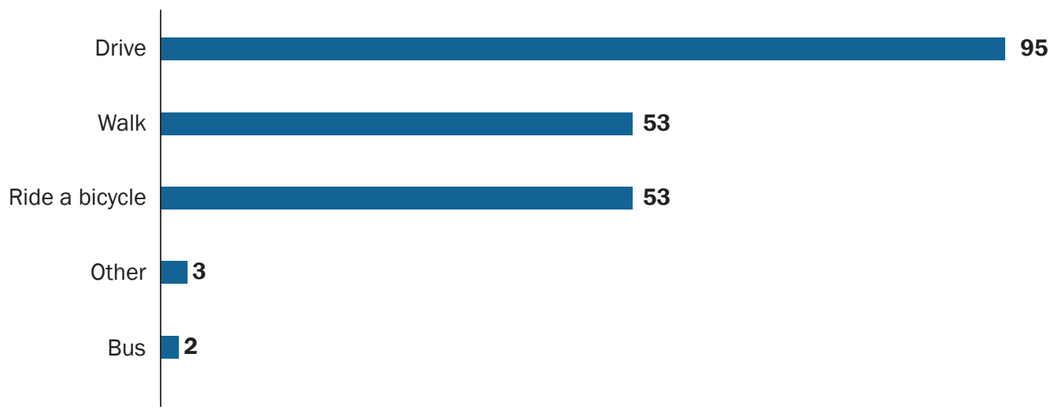
- Where do you live?
- What is your preferred way to travel for trips within North Bend?
- What type of trips do you make within North Bend?
- Is there something that prevents you from walking or riding a bicycle for trips within North Bend?
- For the North Bend Complete Street project, what goals are most important to you?
- Is there something not represented in the goals that you would like the project team to consider?

The results of the survey and community engagement are shown on the following pages.

Where do you live?



What is your preferred way to travel for trips within North Bend? (Select top 2)



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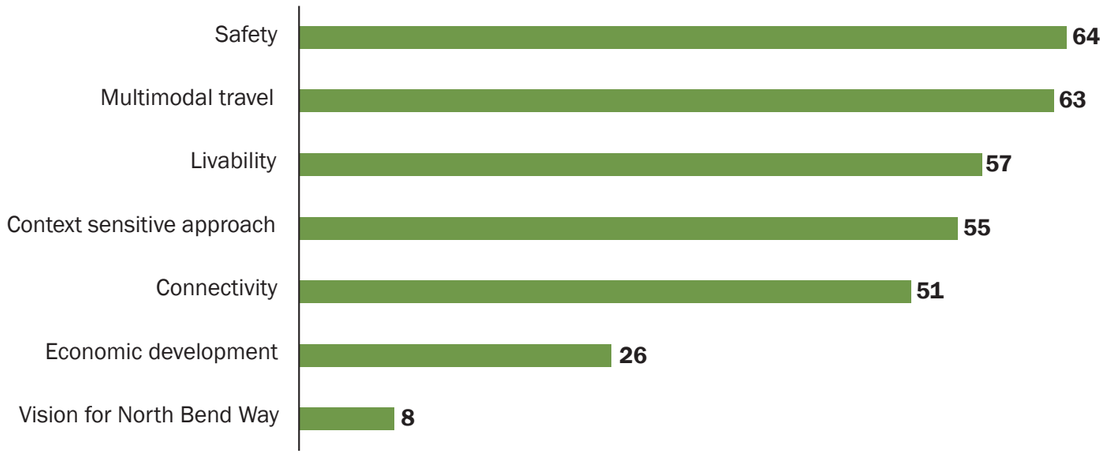
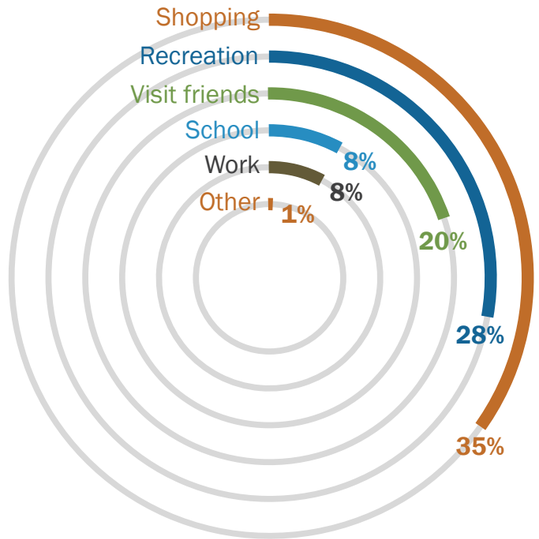
For the North Bend Complete Street project, what goals are most important to you? (Select up to 3)



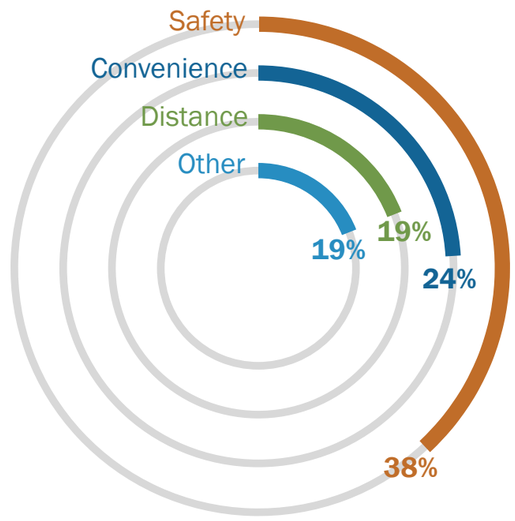
What types of trips do you make within North Bend? (Select all that apply)



Is there something not represented in the goals that you would like the project team to consider?

- "Make the bridge entering downtown a feature similar to that at lake chelan, clean off the moss, paint it and add light."
- "Left turn onto main would cause traffic back up. That needs to be addresed"
- "Slow things back down. Activity/outdoor-centric mnt town"
- "Proper infrastructure for street trees"
- "Consider new residents based on new housing development"
- "Small town feel"
- "Traffic flow impact of angle in parking(backing out)"
- "Consider one way streets on NB way and park currently have to drive multiple times on some streets because of roundabout"

Is there something that prevents you from walking or riding a bicycle for trips within North Bend? (Select all that apply)



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PREFERRED ALTERNATIVES DEVELOPMENT

Passed by City Council on February 6, 2024

ALTERNATIVES DEVELOPMENT

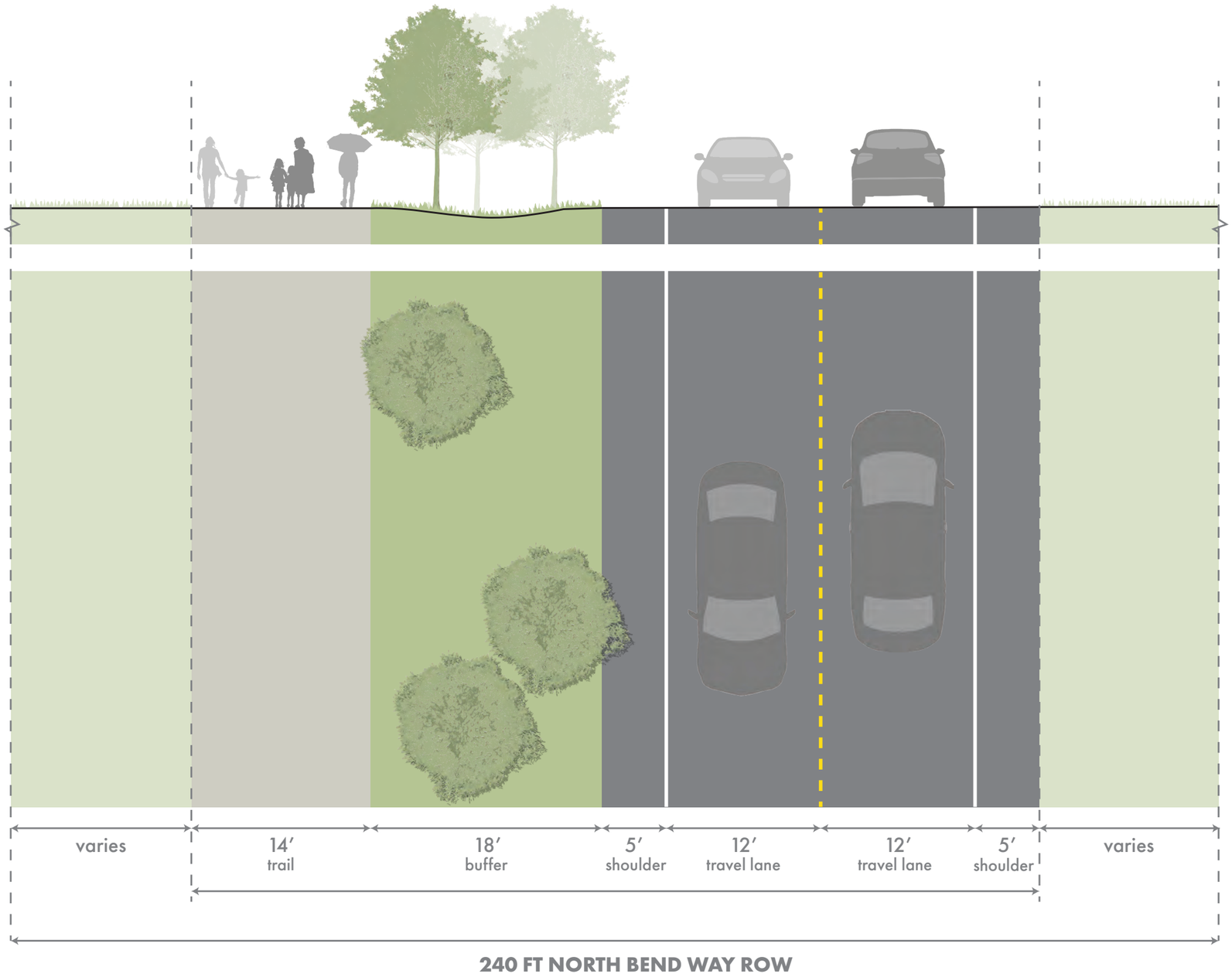
This chapter summarizes the preferred design concepts identified for North Bend Way. Concepts for each corridor segment include cross section alternatives that follow Complete Streets strategies. At the start of the study, a number of potential design concepts were identified and evaluated. Appendix B summarizes the range of alternatives considered as well as the evaluation of each of the alternatives. In conjunction with the evaluation, feedback from the community and City Council was used to identify the preferred alternative for each corridor segment. These are summarized in the following pages. An implementation plan is included in Appendix E, which identifies early implementation projects and potential funding strategies.

SEGMENT 1

The preferred alternative for Segment 1 (Alternative 1b) adds protected space for people walking and rolling within the existing paved area. Given the limited left turns along this segment, this alternative reduces the number of travel lanes in each direction and increases the buffer between the trail and the travel lanes. The wide planted buffer is at a scale to provide stormwater management and further improves the aesthetic qualities of the road with trees. Where there are left turns, the buffer can be reduced to provide left turn pockets.

Photo simulation of pedestrians and cyclists using the trail.

Photo simulation at the bridge in Segment 1.



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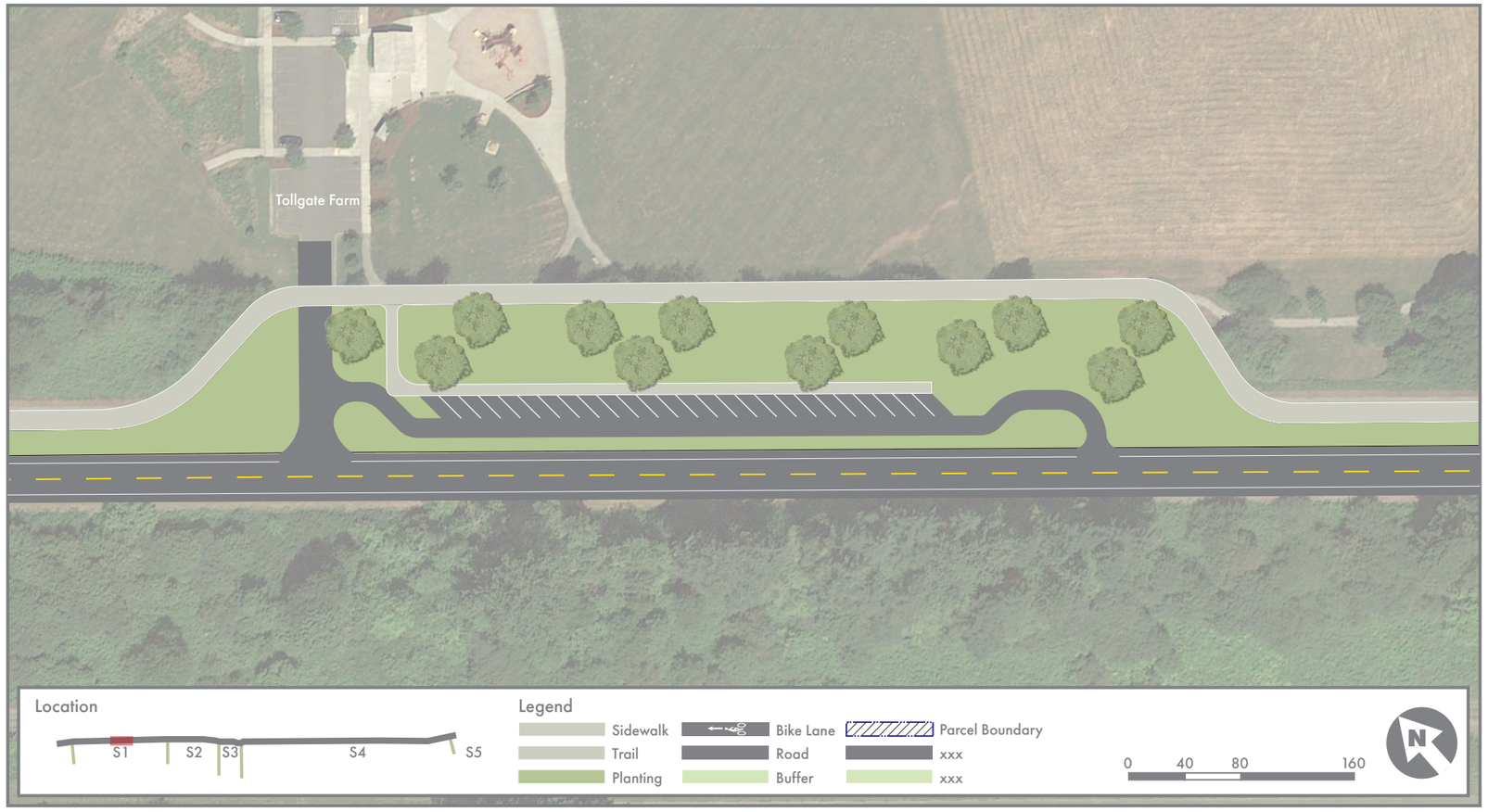
SEGMENT 1 - PLAN VIEW

This plan view enlargement depicts the parking concept for Tollgate Farm Park, located within Segment 1, which will be paired with the preferred alternative. The improvements provide additional angled parking for park visitors and maintain the existing entrance. Though there are improvements to the parking, sidewalk, and trail, the existing Heirloom Apple Trees between the sidewalk and trail will remain as-is.



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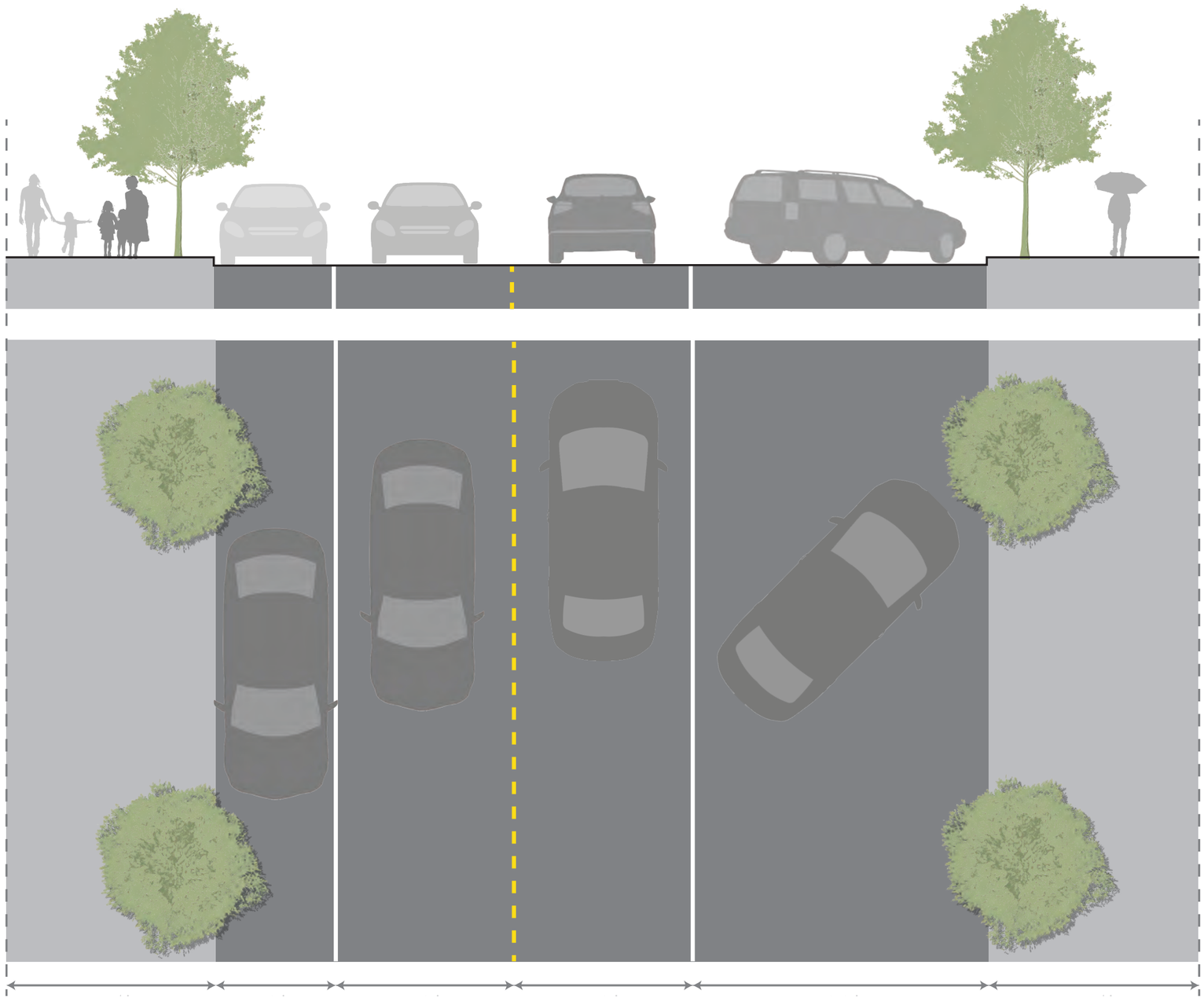
SEGMENT 2

The preferred alternative in Segment 2 (Alternative 2c) would rechannelize North Bend Way to provide angled parking on one side of the street and remove the center turn lane. This would provide traffic calming along the corridor. The alternative would enhance access for people walking or rolling by providing a trail parallel to North Bend Way along the railroad tracks approximately one block to the south between the South Fork Snoqualmie River and Bendigo Boulevard, where the trail would connect to the existing North Bend Rail Trail through downtown. Shared lane markings would also be provided in the travel lanes on North Bend Way. This alternative would provide an all ages and abilities facility parallel to North Bend Way through downtown and would connect to existing trail infrastructure.



SEGMENT 2 - PLAN VIEW

This plan view enlargement is located in the Historic North Bend Downtown area, located within Segment 2. This emphasizes the angled parking on the north side of North Bend Way, which enhances accessibility and traffic calming. The plan view captures the reduction from the current three-lane downtown (with medians present on certain blocks) to a two-lane street. Street trees will be spaced to highlight intersections, crossings, and driveways.

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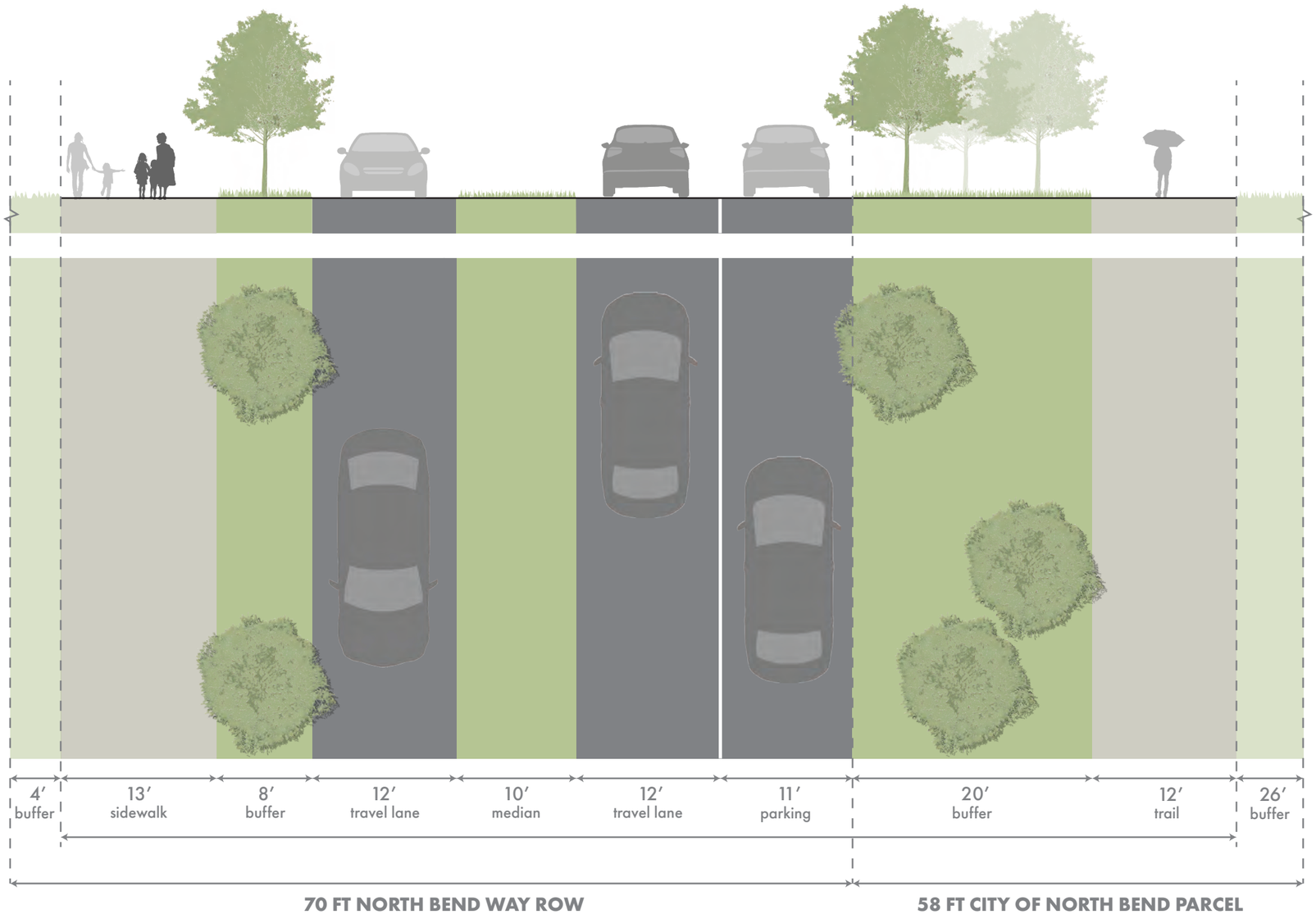
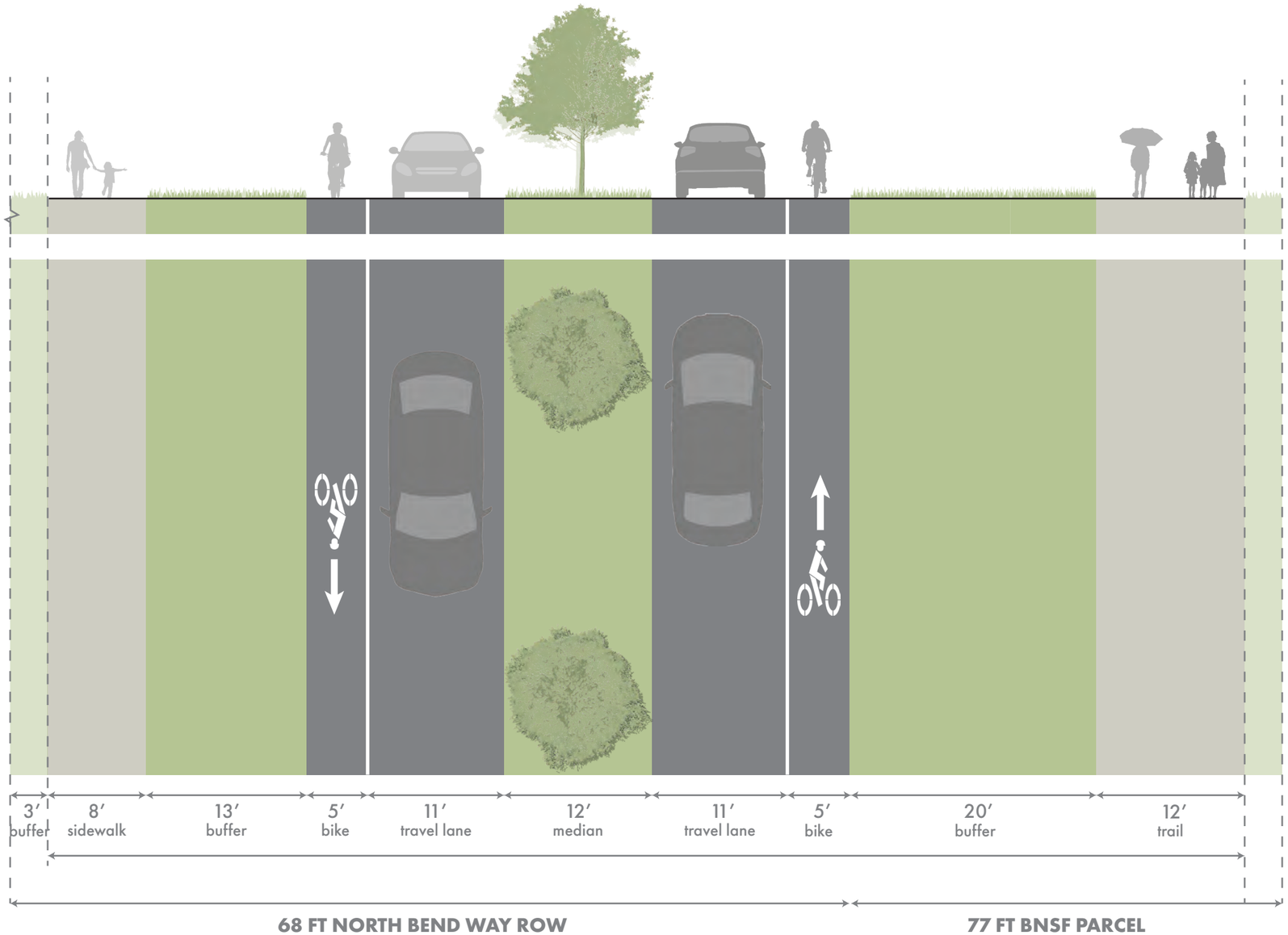
SEGMENT 3

In Segment 3, the preferred alternative (Alternative 3a) would provide additional space for people walking and rolling along North Bend Way by increasing the width of the existing trail on the south side of the roadway from 8 feet to 12 feet. The additional space would improve safety by decreasing the likelihood of conflicts between trail users. Other cross section elements would remain as they currently exist.



SEGMENT 4

The preferred alternative (Alternative 4c) for Segment 4 enhances safety for all roadway users and expands upon existing North Bend standards by adding a planted median, a painted bicycle lane in each direction, and a sidewalk on the north side, separated from the roadway by a wide bio-channel buffer. Additionally, the intermittent 10-foot trail to the south of the roadway would be completed along the length of Segment 4 and expanded to 12 feet. The planted median would enhance the roadway's aesthetic qualities and act as a traffic calming measure that would limit potential conflicts with left turning vehicles. The sidewalk on the north side of the roadway and continuous trail along the south side would provide an all ages and abilities facility for people walking and rolling throughout the segment. The painted bicycle lanes would provide travel space for people who feel comfortable cycling within the roadway, while reducing the potential for conflicts between trail users. The wide bio-channel buffer would improve stormwater management within the right-of-way, improve roadway aesthetics, and physically separate people using the sidewalk from motor vehicle traffic.



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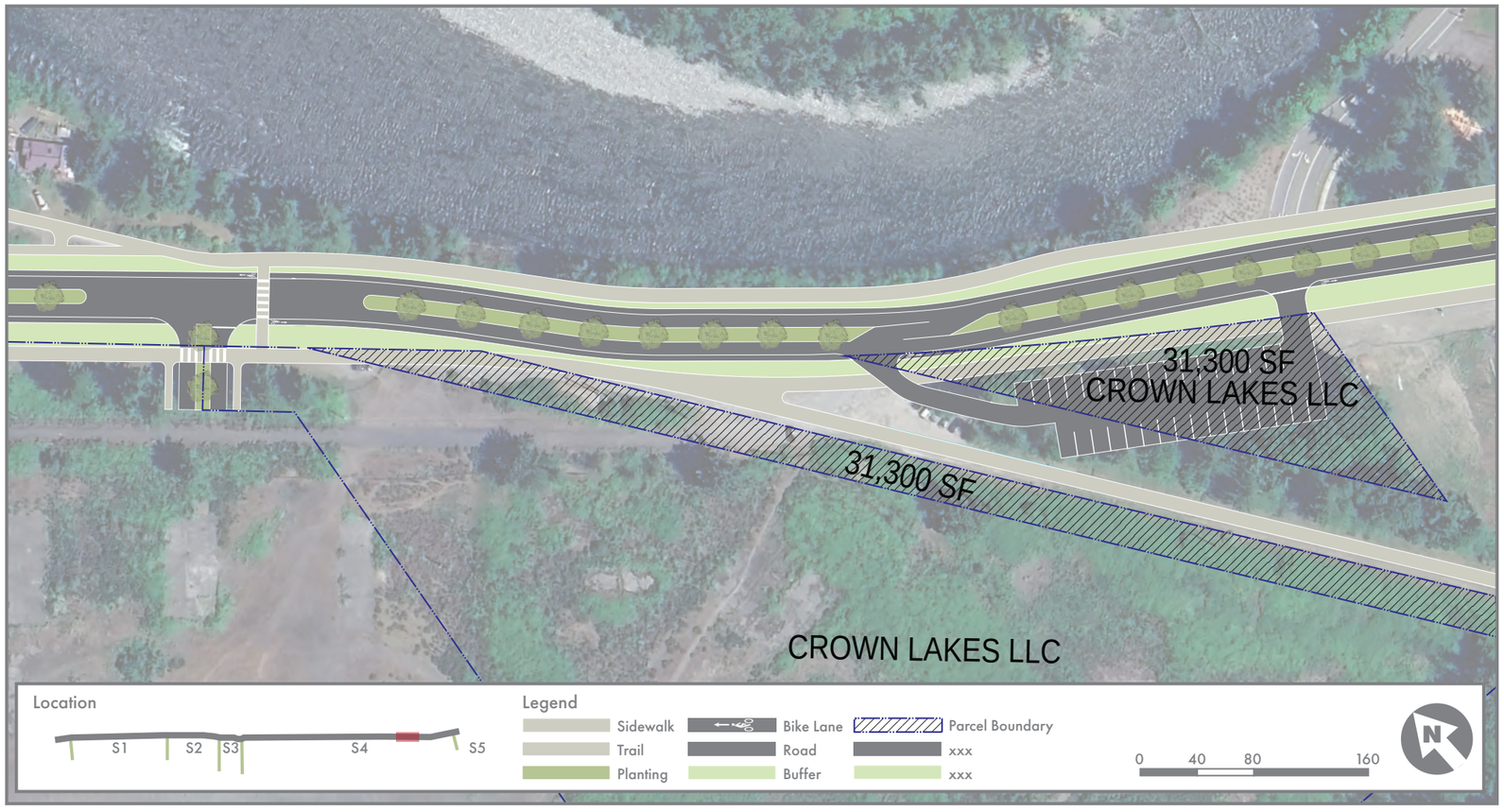
SEGMENT 4 - PLAN VIEW 1

This plan view enlargement focuses on the proposed parking improvements located within Segment 4. This shows the potential for a parcel acquisition to create more parking within the segment. There will also be street improvements such as bike lanes and trails to create a more inviting and safer experience for all roadway users, as well as a planted center median.



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SEGMENT 4 - PLAN VIEW 2.1

This plan view enlargement is a continuation of the first plan view from this segment (located on the previous page). Much like the previous plan view, it shows both bike lanes and trails to create a more inviting and safer experience for all roadway users. The continuation of the planted center median improves roadway aesthetics. Also depicted are pedestrian and bike crossings in addition to a connection to the existing Snoqualmie Valley Rail Trail.

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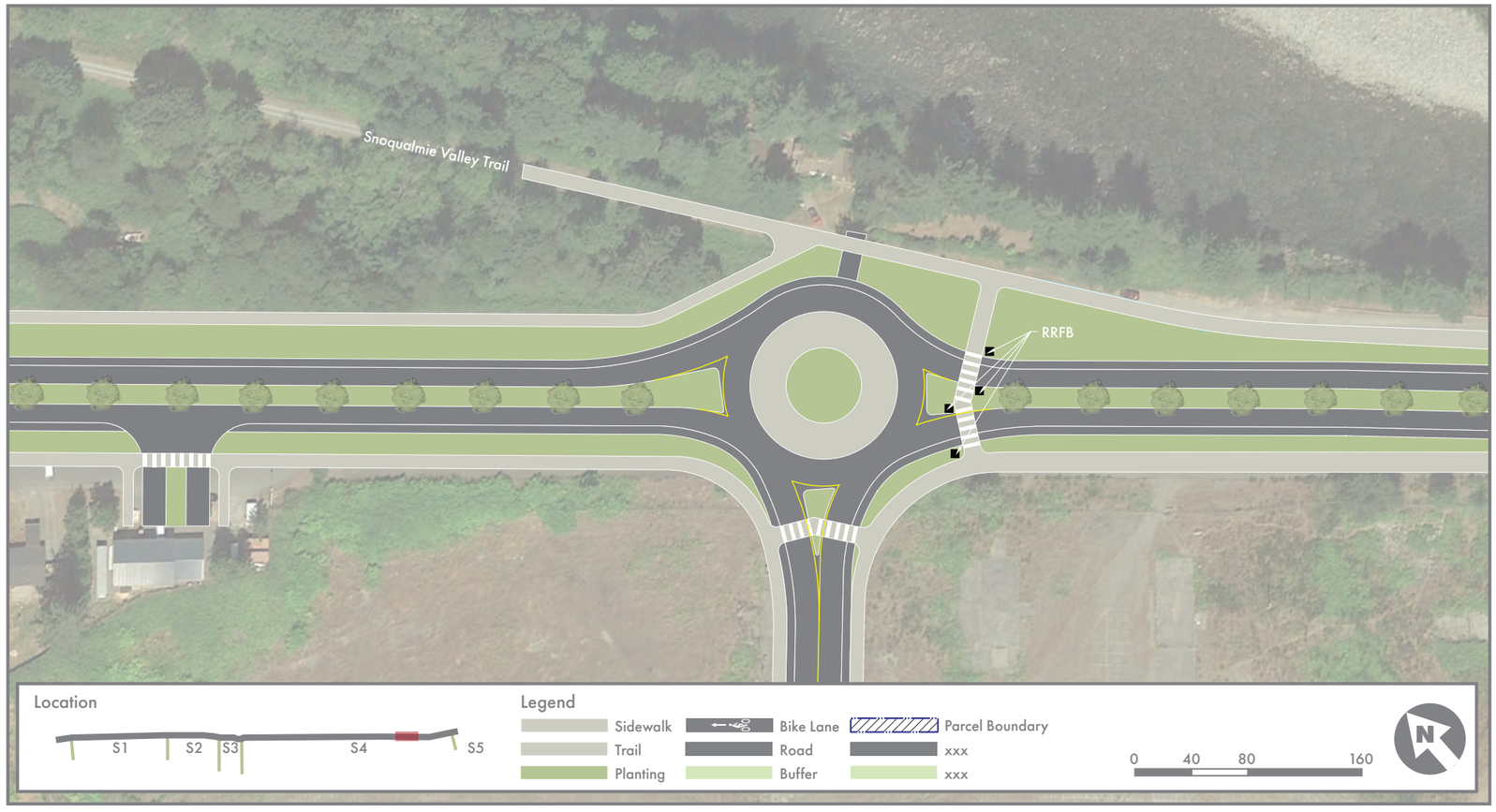
SEGMENT 4 - PLAN VIEW 2.2

This plan view enlargement also depicts the continuation of Plan View 1 from Segment 4, but it is an alternative to Plan View 2.1. Much like Plan View 2.1, this highlights the bike lanes and trails which create a more inviting and safer experience for all roadway users. The continuation of the planted center median furthers the roadway aesthetics. A roundabout is an alternative to the intersection in Plan View 2.1. There are proposed Rectangular Rapid Flashing Beacons (RRFB) east of the roundabout to increase pedestrian safety at that crossing.



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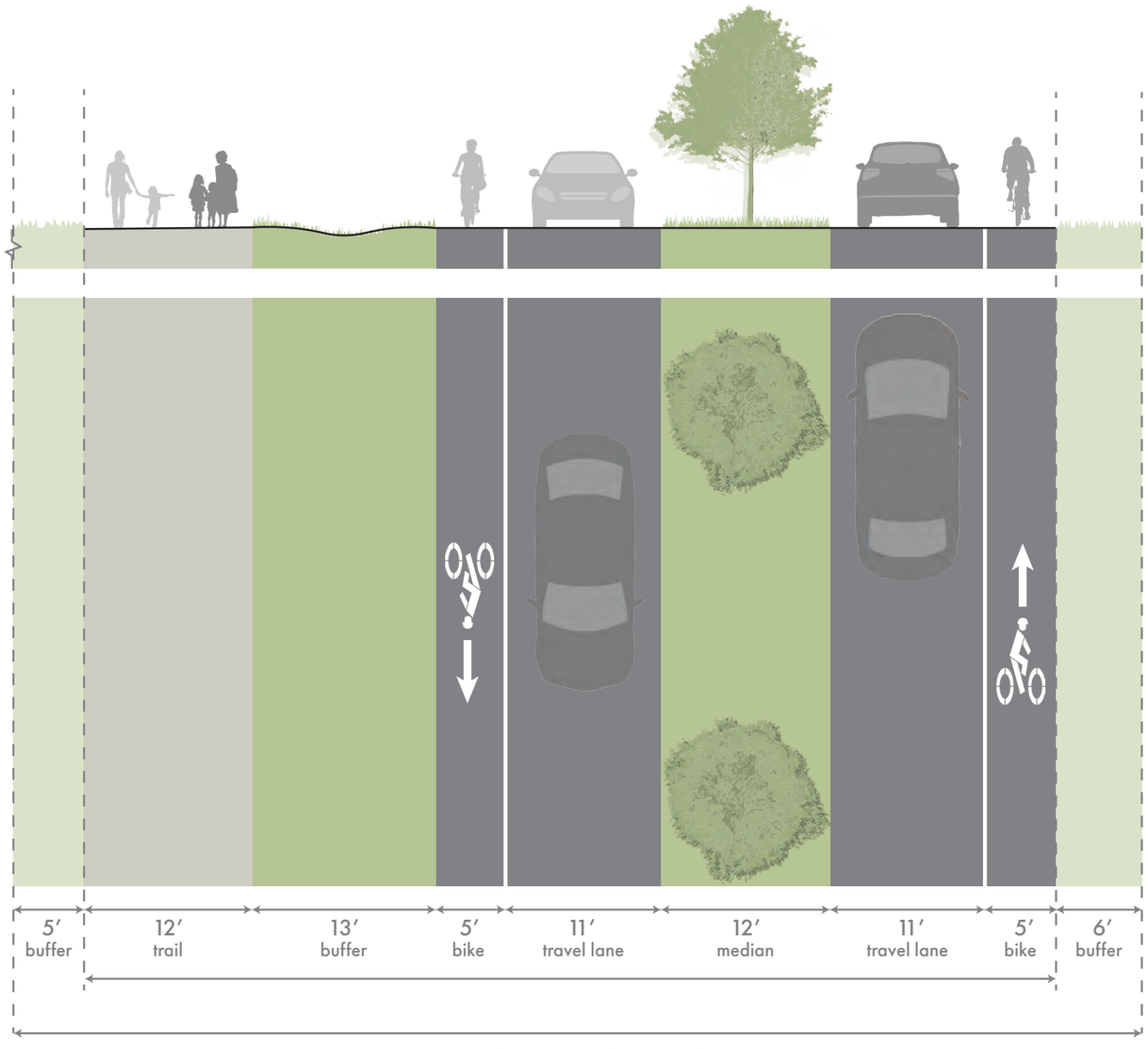
SEGMENT 5

The preferred alternative in Segment 5 (Alternative 5c) enhances safety for all roadway users and expands upon existing city standards by adding a planted median, a painted bicycle lane in each direction, and a trail on the north side, separated from the roadway by a wide bio-channel buffer. The planted median would enhance the roadway's aesthetic qualities and act as a traffic calming measure that would limit potential conflicts with left turning vehicles. The trail on the north side of the roadway would provide an all ages and abilities facility for people walking and rolling throughout the segment. The painted bicycle lanes would provide travel space for people who feel comfortable cycling within the roadway, while reducing the potential for conflicts between trail users. The wide bio-channel buffer would improve stormwater management within the right-of-way, improve roadway aesthetics, and physically separate people using the trail from motor vehicle traffic. No improvements are proposed along the south side of North Bend Way, as the I-90 right-of-way directly abuts the existing roadway.



Passed by City Council on February 6, 2024

STREETSCAPE ELEMENTS

Passed by City Council on February 6, 2024

This chapter summarizes the streetscape elements identified for each segment of North Bend Way. Streetscape improvements were identified for each segment in order to be consistent with the changing context and conditions of the corridor. Elements include furnishings and amenities (signage, wayfinding, banners, planters, bicycle parking etc), trees and plantings, and shrubs and groundcover.

Segment 3

Segment 2

Segment 4&5

Passed by City Council on February 6, 2024

FURNISHINGS AND AMENITIES

SEGMENT 1

Segment 1 serves as the western gateway to North Bend from I-90, which implies a certain treatment to defining the design characteristics of the area. Wayfinding signage includes the 'Welcome to North Bend' rock. This marks the beginning of urban roadside treatments such as street trees, lamp posts, sidewalks, and hanging baskets, which are present moving closer to the downtown area of the corridor.

Opportunities for additional furnishings and amenities include wayfinding signage, banners, seating, pedestrian rest areas, roadside plantings, trail enhancements, gateway signage, and lighting. These would create a greater sense of place and further accentuate this segment as point of entry into the City of North Bend.

Further, the development of the bridge over the South Fork Snoqualmie River is a natural gateway that can be enhanced to emphasize this transition.

SEGMENTS 2 AND 3

Segments 2 and 3 include the central Historic Downtown and areas of higher density. These segments are similar in pedestrian amenities but differ in the design styles that are implemented. Currently, Segment 2 offers bike racks, outdoor dining, pedestrian seating, lamp posts, and flower baskets. Segment 3 has walkways for pedestrians but fewer seating options and inconsistent plantings and fencing separating pedestrians from vehicles.

In these segments, there are opportunities to accentuate a sense of well-being and safety for all roadway users. This can be done to reflect the existing uses; design decisions should emphasize the needs of users in a downtown core in Segment 2 and the natural elements present in Segment 3. These might include wayfinding signage, banners, pedestrian rest areas, pedestrian-scale lighting, plantings, stormwater treatment areas, and trail enhancements. These furnishings and amenities can provide a transition between the more "urban" uses in Segment 2 and more "natural" uses in Segment 3. Furnishings and amenities, such as pedestrian seating and bicycle parking, in these segments should be provided along each block.

SEGMENTS 4 AND 5

Segments 4 and 5 are characterized by less dense, rural uses. Currently, there are few pedestrian amenities: some portions of the trail are paved while others are not. There is a minimal buffer between pedestrian facilities and roadway traffic, and a lack of cohesiveness between different portions of these segments.

Adding furnishings and amenities in these segments can create a sense of well-being and safety for all roadway users in addition to continuity between trails and sidewalk areas. These can include rest areas for pedestrians, wider buffers between vehicles and pedestrians, pedestrian-scale lighting, wayfinding, and plantings.

OPPORTUNITIES FOR PLACEMAKING

gateways

Gateways are opportunities for transition and entrance. These areas should be designed to create a user experience that is rich with placemaking and passage. wayfinding signage, welcoming signage, lighting, banners, and the potential for "pocket parks".
Changes in planting/street trees can also help to create a stronger concept.

Encouraged design elements:
- welcoming signage
- wayfinding signage
- seating
- banners
- increase in planting

trail crossings

Trail crossings are places where pedestrian trails meet and bisect vehicle traffic. These areas should be designed to enhance pedestrian safety due to the presence of automobile traffic. Lighting, signage, changes in planted areas, and the potential for areas to sit.

Encouraged design elements:
- wayfinding signage
- seating
- banners
- increase in planting

entrances

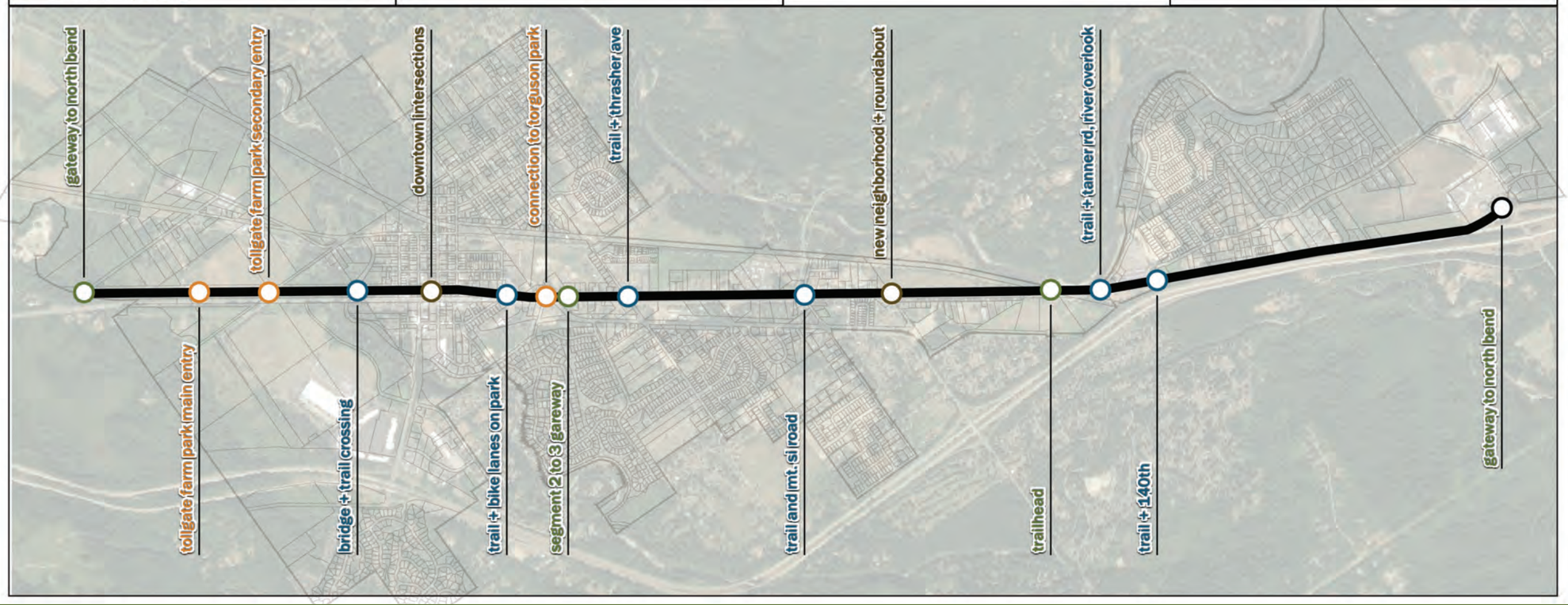
These are opportunities to create more prominent spaces out of existing entrances to parks, those being Tollgate Farm and Torguson park. These areas should be designed to advertise their location and provide greater wayfinding.

Encouraged design elements:
- wayfinding signage
- seating
- banners
- welcoming signage

intersections

Intersections seen in the map are places where two prominent roads meet, downtown and outside of downtown. These areas should be designed to highlight this convergence by having more intentional placemaking than other intersections. Increased planting, seating, pedestrian lighting, or paving patterns can help define these spaces.

Encouraged design elements:
- seating
- increase in planting
- pedestrian lighting
- paving patterns



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TREES AND PLANTINGS

TREES

Many environmental and health benefits are provided by street trees including cooling shade, habitat, improved air quality, traffic calming, seasonal color, and visual interest along the street. Selection of tree type is important to avoid problems such as disease resistance and sidewalk heaving.

Below are tree planting guidelines to consider:

- Select trees that will provide visual unity along the North Bend Way corridor and also trees that help draw attention or give distinction to points of interest along the way
- Where close to roadway, reduce potential for trees being clipped by tall trucks by selecting trees that are columnar or pyramidal in shape
- Maintain sight lines to signs of businesses and views into windows as much as possible and locate and select tree types that to keep open or enhance scenic mountain views
- Minimize maintenance by selecting trees that do not drip sap or honeydew from aphids or drop excessive berries and with small leaves to reduce clogging of drains and fall cleanup
- Use native trees with native shrubs and ground cover plants where space is available for urban habitat enhancement
- Plant deciduous trees to provide summer shade and allow winter sun
- Select trees appropriate for stormwater facilities which can tolerate wet soils and which intercept rainfall (conifer trees absorb the most)
- Select trees that provide interest and seasonal color
- Restore and define protection areas around heirloom apple trees along North Bend Way

Acer platanoides

Ulmus

Carpinus caroliniana

Betula maximowicziana

Liriodendron tulipifera

SOILS

Providing tree roots adequate soil volume is key for tree root health and for preventing heaving of pavement. A volume of uncompacted soil of 1,500 cubic feet (cuft) is recommended for large trees, 1,000 cuft for medium sized trees, and 500 cuft for small trees. Plastic soil cell structures are modular units that can be installed to support pavement, allowing roots to expand into uncompacted soil under pavement.

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SHRUBS AND GROUND COVERS

In addition to trees, various shrubs and ground covers are recommended to be planted throughout the project area. The next page shows the plant palette recommendation for the different segments

The plan palette includes many Western Washington native plants to uphold the natural characteristics of North Bend while also supplying ornamental plants and perennials for more urban areas. Segment 1,4, and 5 have more of an emphasis on low maintenance natives, while 2 and 3 bring in a wider range of plants to choose from. Different colors, textures, and bloom times were considered to bring seasonal interest to plantings.

Planting areas should contain multiple species, textures, colors, and sizes

Shrubs


Western sword fern


Harbor dwarf


Red twig dogwood


Blue star juniper


Phenomenal English lavender

Flowers


Stella D'oro daylily


Black-eyed Susan


Globemaster allium


Purple coneflower

Grasses


Blue oat grass


Karl Foerster feather reed grass


Hameln dwarf fountain grass

Ground Covers


Creeping phlox


Beach strawberry

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RECOMMENDED PLANTS PER SEGMENT

■ Recommended for Segment ■ Potential for Segment

		Segment 1	Segments 2 and 3	Segments 4 and 5
Beach Strawberry	*Fragaria chiloensis*	■	■	■
Black-eyed Susan	*Rudbeckia*		■	
Blue-oat Grass	*Heliotricton sempervirens*	■	■	
Blue-Star Juniper	*Juniperus squamata 'Blue Star'*		■	
Creeping Phlox	*Phlox*	■	■	■
Ornamental Onion	*Allium 'Globemaster'*	■	■	■
Hameln Dwarf Fountain Grass	*Pennisetum alopecuroides 'Hameln'*	■	■	■
Harbour Dwarf Nandina	*Nandina Domestica 'Harbour Dwarf'*	■	■	■
Karl Foerster Feather Reed Grass	*Calamagrostis acutiflora x 'Karl Foerster'*	■	■	
Phenomenal English Lavender	*Lavandula x intermedia 'Phenomenal'*		■	
Purple Coneflower	*Echinacea*		■	
Kelsey's Red Twig Dogwood	*Cornus sericea 'Kelseyi'*		■	
Stella D'oro Daylily	*Hemerocallis 'Stella D'oro'*	■	■	■
Western Sword Fern	*Polystichum munitum*	■	■	■
Kinnikinnick	*Arcstaphylos uva-ursi*	■	■	■
Oregon Grape	*Mahonia nervosa*	■	■	■
Salal	*Gaultheria shallon*	■	■	■
Rugosa Rose	*Rosa rugosa*	■	■	■

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Segment 1

Segment 4+5

Segment 2+3

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APPENDICES

Passed by City Council on February 6, 2024

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APPENDIX A:
Opportunities and Challenges

Passed by City Council on February 6, 2024

SEGMENT 1: OPPORTUNITIES AND CHALLENGES

The visual character of this segment of North Bend Way is that of a tree lined rural highway. The wide existing right of way (ROW) results from its history as the former highway. A historic rail corridor used for scenic train excursions parallels North Bend Way on the south side. The rail corridor and wide ROW provide a buffer to the planned development to the south. Along the north side of the corridor, Tollgate Farm Park provides scenic views of Mount Si and the Cascades across open fields. Facilities for pedestrians and bicyclists are limited to wide shoulders for the entire length of the segment.

The east end of the segment is marked by the city limit, a rail crossing, and an oblique intersection. A roundabout and traffic revision are planned for NW 8th Street to connect to a future extension of S. Fork Avenue and accommodate planned developments near Nintendo. The west end of the segment is marked with a bridge across the South Fork Snoqualmie River and scenic views of the river and a rail trestle bridge across the river.

Pedestrians commonly walk along the north side of North Bend Way between Tollgate Farm and downtown.

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OPPORTUNITY

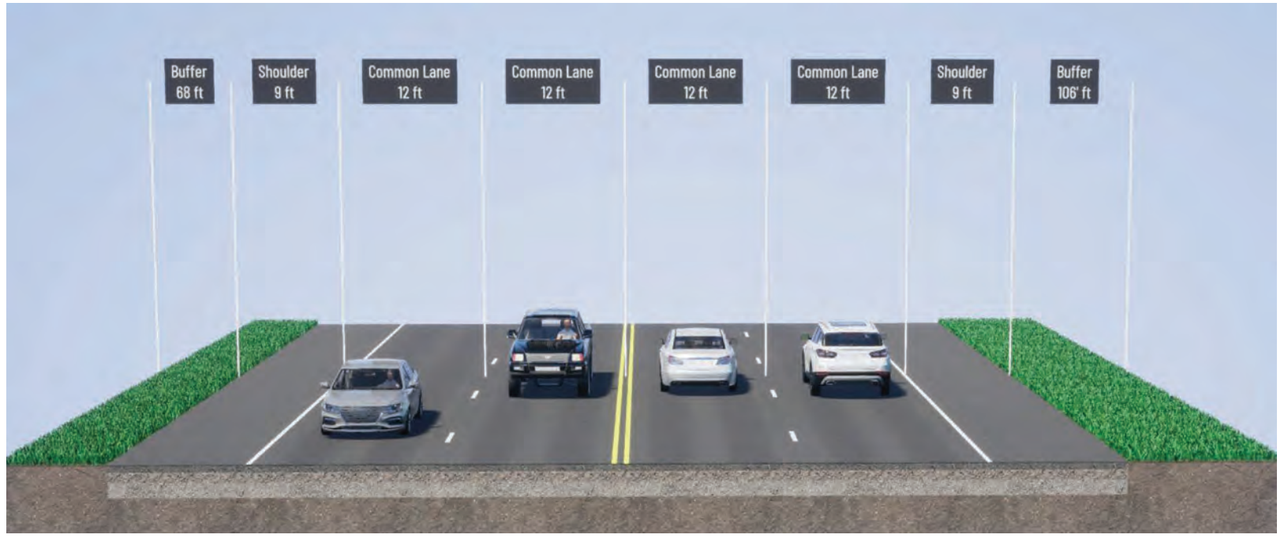
1. Forested, park-like entry from the west
2. Upcoming roadwork creates opportunity to reallocate lanes to provide shared use path on north side of existing pavement (from west city limit to bridge across S Fork Snoqualmie River)
3. Maintain forested buffer within North Bend Way ROW
4. Maintain forested buffer between rail line and North Bend Way ROW
5. Connect to pathway network in Tollgate Farm Park at park entry
6. Connect to future pathway
7. Connect to pathway network in Tollgate Farm Park at NW 8th Street
8. Connect to future improved levy trail

CHALLENGE

1. Users must cross rail crossing
2. No safe crossing at SE 106th Pl
3. Constrained bridge width
4. Constrained bridge width

NOTES

1. Roundabout planned, funding not yet secured



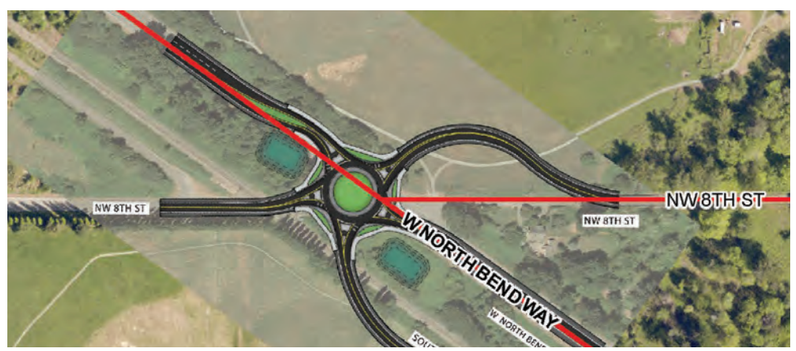
Existing cross section

The four lane cross section of this segment of North Bend Way is a relic of its previous role as a primary highway

Three bridges along this segment provide limited, or no facilities for pedestrians or bicyclists

The rail crossing marking the west end of the segment is used for an excursion train that follows a historic rail line

Tree-lined North Bend Way and the bridge over the South Fork Snoqualmie River are a natural gateway for people entering downtown from the west.



A roundabout is planned for North Bend Way, NW 8th Street, and a future extension of South Fork Road

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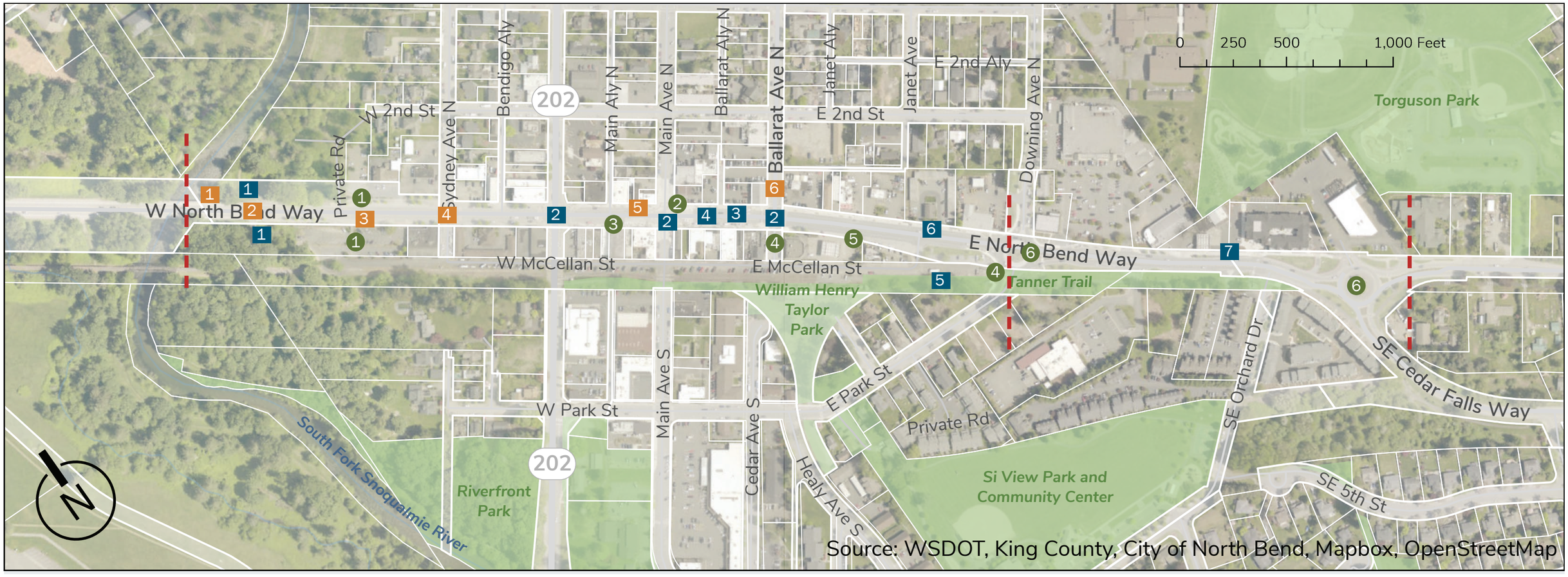
SEGMENTS 2 AND 3: OPPORTUNITIES AND CHALLENGES

Downtown North Bend has a compact street grid and is very walkable. Segments 2 and 3 of North Bend Way are flanked by a variety of commercial land uses, continuous sidewalks, and on-street parking. A designated historic district spans 1.5 blocks at the center of this section of the project corridor. The recently adopted form-based code encompasses all of Segments 2 and 3, and provides clear guidance for future development within the downtown.

The west end of this section is marked by the bridge across South Fork Snoqualmie River. The only existing transit stops and a park and ride along the entire project corridor are located at the west end of downtown in Segment 2. Starting at Bendigo Boulevard, the North Bend Rail Trail parallels North Bend Way one block to the south and meets the North Bend ROW at Park Street.

There are several significant intersections along this section of North Bend Way. Bendigo Boulevard (SR202) is the only signal-controlled intersection in the downtown. Main Avenue was recently rebuilt to be a curbless intersection to allow for flexibility during street festivals. Ballarat Avenue is a designated truck route to the north of North Bend Way. A new roundabout at Park Street/Downing Avenue marks the eastern end of the segment.



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OPPORTUNITY

1. Connect to future improved levy trail

2. Pedestrian safety improvements

3. Reallocate existing median to increase space for parking or walking and bicycling

4. (Entire Segment) Establish consistent design standards for wayfinding for all modes and remove/update existing signs.

5. Upgrade Tanner Trail between E Park St and Bendigo Blvd S from 8 ft wide to 10 ft wide to meet shared use path standards

6. Improve safety for all roadway users in downtown

7. Make connection between public access to Torguson Park and Si View Park

CHALLENGE

1. Limited ROW east of here to continue shared use path

2. Provide safe crossing of North Bend Way at future trail crossing

3. Provide safe crossing of North Bend Way at bus stops

4. Inconsistent crosswalk treatments throughout central business district

5. High concentration of roadway crashes in downtown

6. Truck route on Ballarat Ave N (maintain turn radius)

NOTES

1. Park-and-Ride Lot and only bus stops along corridor

2. Curbless intersection to accommodate street festivals

3. Recent streetscape improvements

4. Coordination with McClellan St project

5. Streetscape improvements under construction

6. Roundabouts at intersections

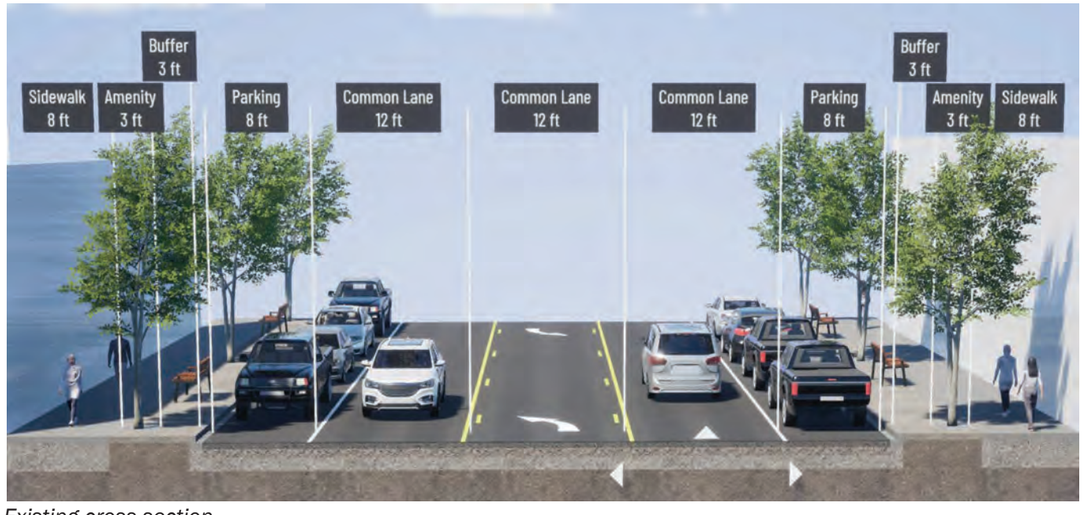
Intersection improvements at North Bend Way and Bendigo will require coordination with WSDOT.

In downtown uniform streetscape design features create a consistent experience for pedestrians.

Marked crosswalks provide a safe location for pedestrians and bicyclists to cross North Bend Way.

The curbless intersection at North Bend Way and Main Avenue provides barrier free access for pedestrians.

Median islands with plantings and pedestrian refuge islands improve safety and aesthetics.



Existing cross section

SEGMENT 4A: OPPORTUNITIES AND CHALLENGES

The land use along Segment 4 is in transition from a more rural setting to master planned developments of single-family homes, and future improvements are planned for Tanner Landing Park. North Bend City Hall was recently opened at the western end of this segment. Significant intersections along this segment include a roundabout at Cedar Falls Way, an oblique intersection at Thrasher Ave/Maloney Grove Ave, Mt Si Road, a roundabout at 436th Avenue SE, and Tanner Road. Several of the new residential developments will include new or upgraded access from North Bend Way.

The Tanner Trail currently ends just west of Stilson Avenue and is planned to follow the former BNSF corridor to connect to the Snoqualmie Valley Rail Trail, where it crosses North Bend Way at Tanner Road. Currently, there is no accommodation for pedestrians on the north side of North Bend Way. East of 436th Avenue SE, North Bend Way is separated from Tanner Road by the former BNSF corridor that provides a buffer to the light industrial land uses south of Tanner Road.

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OPPORTUNITY

1. Improve entry to Torguson Park for people walking and riding bicycles
2. Pedestrian safety improvements at Thrasher Ave NE
3. Define street edge at parking lot for USFS office
4. Provide pedestrian facility on north side of North Bend Way
5. Pave trail ROW to 10 feet wide to match other completed sections
6. (Multiple locations in Segment 4) Consolidate driveways
7. Use undeveloped portion of ROW to create an underground utility channel
8. Develop consistent approach to safety for all roadway users at intersections

CHALLENGE

1. ROW narrows
2. Potential safety issue with multiple access points for small parcels

NOTES

Tanner Trail Crossing near North Bend Public Works building

Maloney Grove Ave SE intersection with North Bend Way

USFS Office/Ranger Station on North Bend Way

Roundabout at 436th Ave SE

Undeveloped edge and pedestrian 'desire line' on north side of North Bend Way

SEGMENT 4B: OPPORTUNITIES AND CHALLENGES

SEGMENT BOUNDARY

Passed by City Council on February 6, 2024

OPPORTUNITY

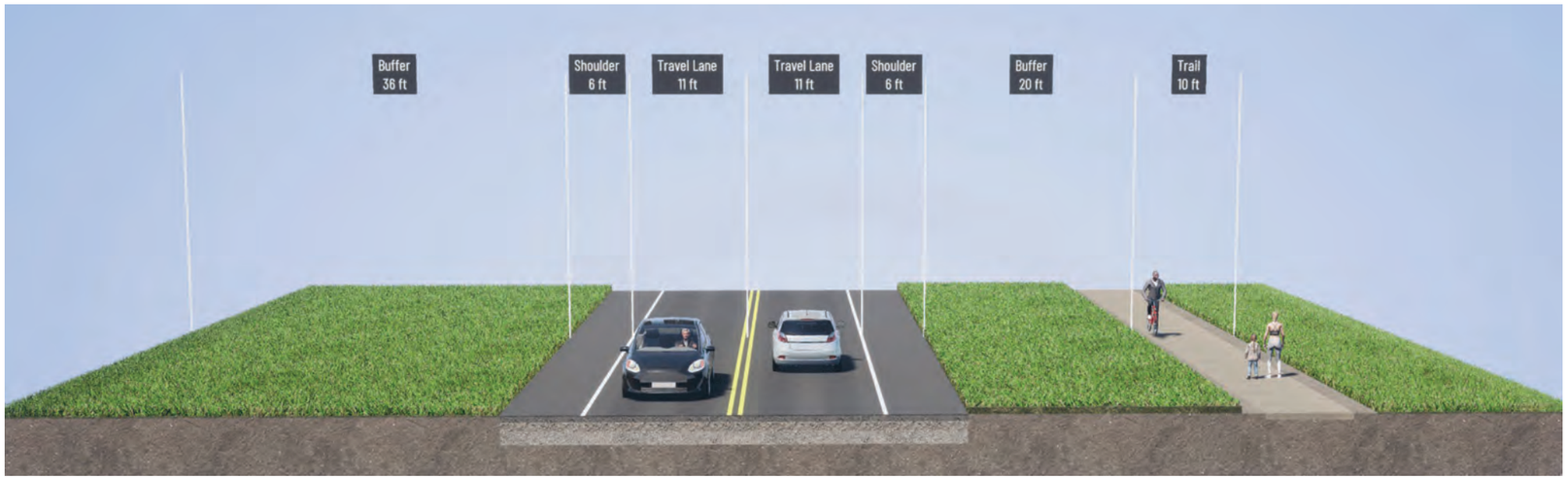
1. Pave trail ROW to 12 feet wide to match other completed sections
2. Use undeveloped portion of ROW to create an underground utility channel
3. Maintain visual buffer between North Bend Way and light industrial uses south of SE Tanner Road
4. Extend Tanner Trail to Snoqualmie Valley Trail
5. Consider trail oriented development
6. Develop consistent approach to safety for all roadway users at intersections
7. Use undeveloped portion of ROW to provide high quality facility for walking and biking on north side of North Bend Way

CHALLENGE

1. Coordination with recent street improvements

NOTES

1. Roundabout at intersection
2. New crossing of North Bend Way for Snoqualmie Valley Trail



Existing cross section

Trail crossing for Snoqualmie Valley Trail at North Bend Way

Snoqualmie Valley Trail along south side of North Bend Way

New sidewalk along North Bend Way east of 436th Ave SE

Undeveloped portion of Tanner Trail on south side of North Bend Way

SEGMENT 5: OPPORTUNITIES AND CHALLENGES

In Segment 5, the North Bend Way ROW abuts I-90 to the south. The lack of a buffer to I-90 gives North Bend Way the character of a frontage road providing access to commercial and residential land uses to the north. Several large parcels are in development or have development plans in the near future.

Several parcels along this segment have poorly defined access and, in some cases, use their entire frontage as parking access. Accommodation for pedestrians and bicyclists along this segment is limited to a wide shoulder.

At the east end of this segment, North Bend Way ends at “T” intersection at 468th Ave, which provides direct access to I-90 at Exit 34. At the junction of North Bend Way and 468th Ave, a large commercial development commonly known as Truck Town serves long-haul freight drivers. During peak times, truck drivers commonly park along the on ramps and walk across the vegetated buffer and cross North Bend Way to access the services at Truck Town.

SEGMENT BOUNDARY

OPPORTUNITY

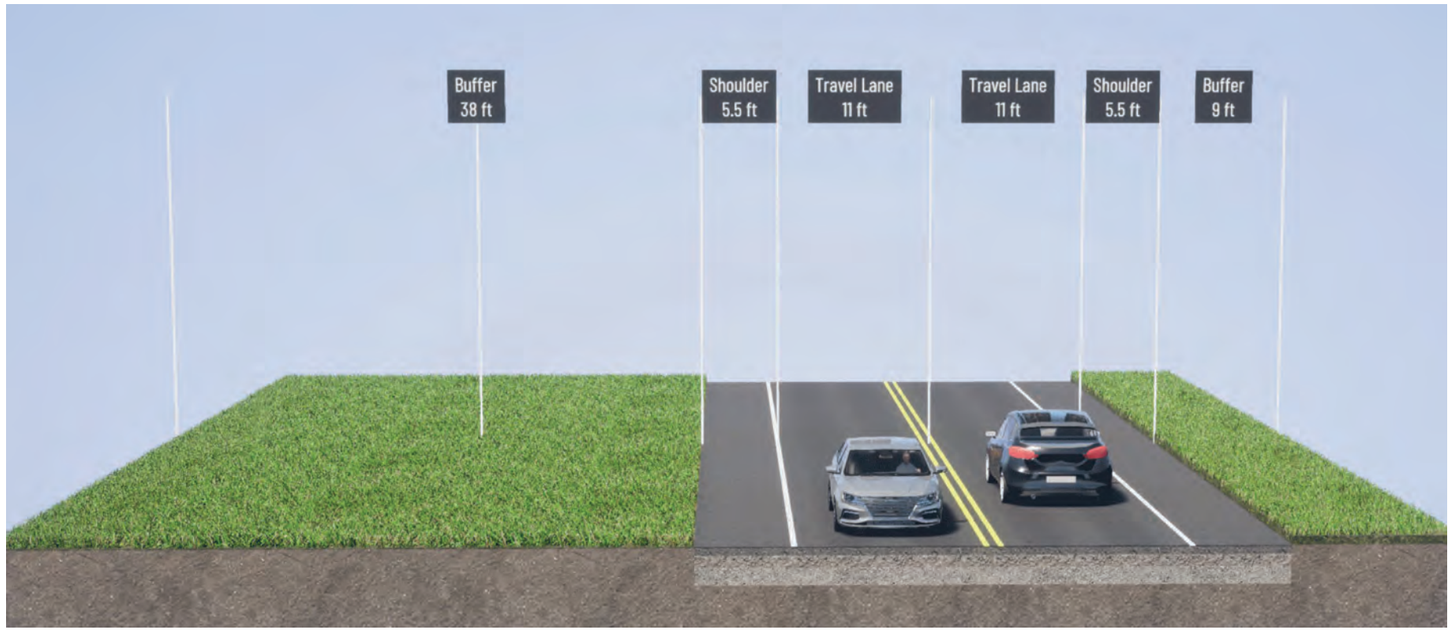
1. Develop consistent approach to safety for all roadway users at intersections
2. Visual transition where North Bend Way diverges from I-90
3. Use undeveloped portion of ROW to create underground utility channel
4. Use undeveloped portion of ROW to provide high quality facility for walking and biking on north side of North Bend Way
5. Develop visual gateway to corridor

CHALLENGE

1. Excessive noise from I-90
2. Limited space for buffer between North Bend Way and I-90
3. Freight trucks park on North Bend Way when truck stop is at capacity

NOTES

1. Potential relocation of truck stop to the east and redevelopment of large parcel



Existing cross section

Recent intersection improvements end just outside of the intersection

Utilities located in undeveloped ROW adjacent to North Bend Way

Truck parking is prohibited but some of this activity still occurs along NBW

Street frontage is currently undefined, with no curb and parking

The eastern terminus of North Bend Way sees large volumes of freight movement

APPENDIX B:
Design Alternatives and Evaluation

Passed by City Council on February 6, 2024

INTRODUCTION

This chapter summarizes the design concepts considered for North Bend Way. Concepts for each corridor segment include cross section alternatives that follow Complete Streets strategies. Segments 2, 4, and 5 also include intersection concepts and trail connections.

Each alternative was scored using the evaluation process; the methodology and criteria are summarized on this page. For detailed evaluation per segment, see Appendix B.

EVALUATION PROCESS

EVALUATION METHODOLOGY

Each of the design alternatives for North Bend Way were compared relative to each within each corridor segment. The evaluation is qualitative in nature and assigned a high, medium, or low ranking to describe performance. Higher performance is shown in dark green while lower performance is shown in light green.

EVALUATION CRITERIA

The following criteria were used to understand how each alternative compares to the other alternatives within the same corridor segment.

Safety for All Users

Does the design meet WSDOT criteria for Complete Streets? Integration of bicycle and pedestrian facilities, reducing vehicle speed, and enhancing crossings can improve corridor safety for all modes. The following areas contribute to improved corridor safety:

- WSDOT definition of Level of Traffic Stress (LTS)
- Access management
- Speed management

Environmental Impact

Does the design create environmental impacts or enhancements to the built environment? Reconfiguration of the corridor provides the opportunity for reducing the roadway's environmental impact. Integration of vegetation and stormwater management techniques can reduce the urban heat island effect and positively impact the noise levels associated with the corridor.

- Stormwater
- Integration of vegetation
- Improved aesthetics

Order of Magnitude Costs

What are the potential order of magnitude costs associated with the alternative?

Constructability/Readiness

Does the design allow for phasing? Project phasing allows for project implementation over time, providing more opportunity for funding options as well as demonstrating project benefit earlier in the process.

- Allows for implementation in phases

Connectivity

Does the design improve connectivity for active modes along the corridor?

- Reduces out of direction travel
- Connections to existing bicycle and pedestrian facilities
- Connections to destinations
- Opportunities to extend the bicycle network

Passed by City Council on February 6, 2024

ALTERNATIVES EVALUATION SUMMARY

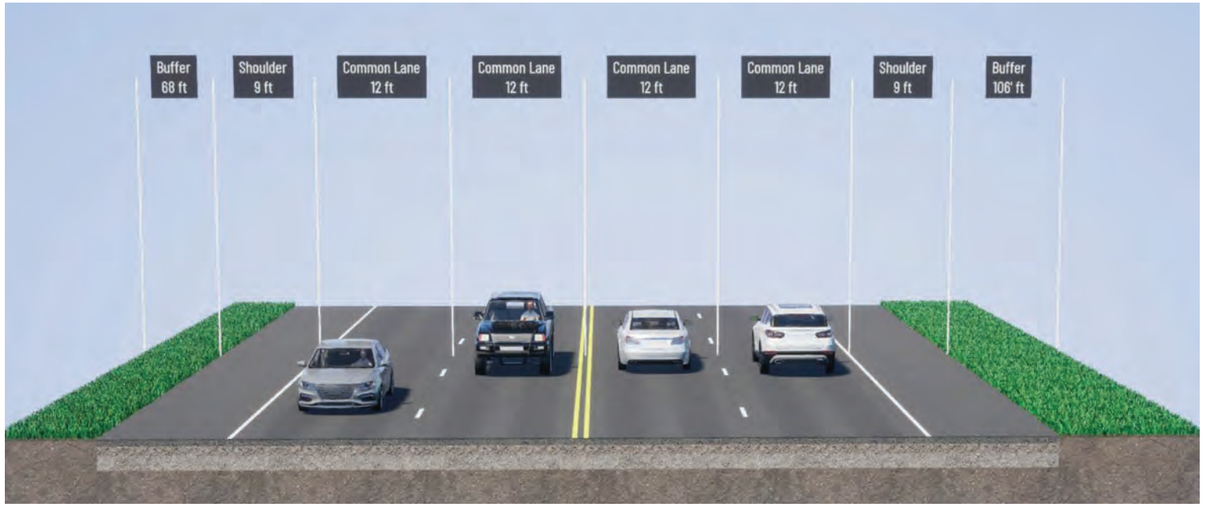
Alternative	Safety for All Users	Connectivity	Order of Magnitude Costs	Constructability/ Readiness	Environmental Impact
1a	■	■	■	■	■
1b	■	■	■	■	■
2a	■	■	■	■	■
2b	■	■	■	■	■
2c	■	■	■	■	■
2d	■	■	■	■	■
3a	■	■	■	■	■
4a	■	■	■	■	■
4b	■	■	■	■	■
4c	■	■	■	■	■
5a	■	■	■	■	■
5b	■	■	■	■	■
5c	■	■	■	■	■

Passed by City Council on February 6, 2024

SEGMENT 1: ALTERNATIVES

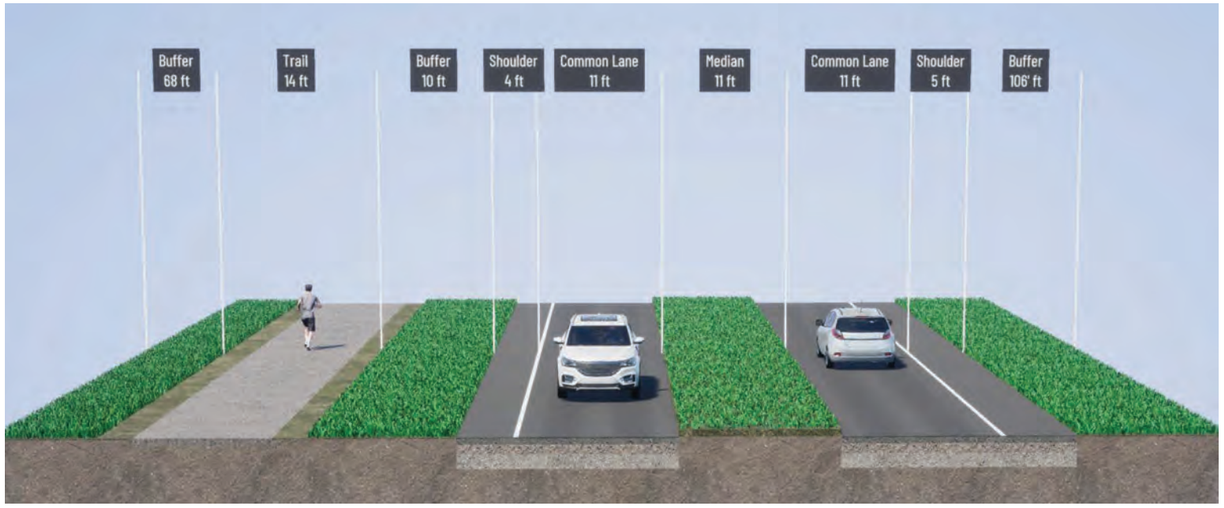
EXISTING CONDITIONS

Within Segment 1, North Bend Way sits in a 240-foot right-of-way, with the paved portion dominated by two 12-foot travel lanes in each direction. Space for people walking and rolling is limited to a 9-foot shoulder on either side, which narrow at bridge locations.



ALTERNATIVE 1a

Alternative 1a adds protected space for people walking and rolling within the existing paved area. The current AADT along this segment meets the threshold identified by the FHWA to reduce the number of travel lanes. Reducing the number of travel lanes in each direction and adding a center median (a traffic calming measure) would improve safety by reducing speed and limiting potential conflicts with left turning vehicles. The median can also be used to accommodate a left turn lane where needed. Pedestrians and bicyclists would be accommodated on a trail separated from the travel lanes by a wide planted buffer. In addition to safety benefits for all roadway users, the median and buffer enhance the roadway's aesthetic qualities. A potential interim treatment for the planted buffer and median could be accomplished using striping and flexible bollards.



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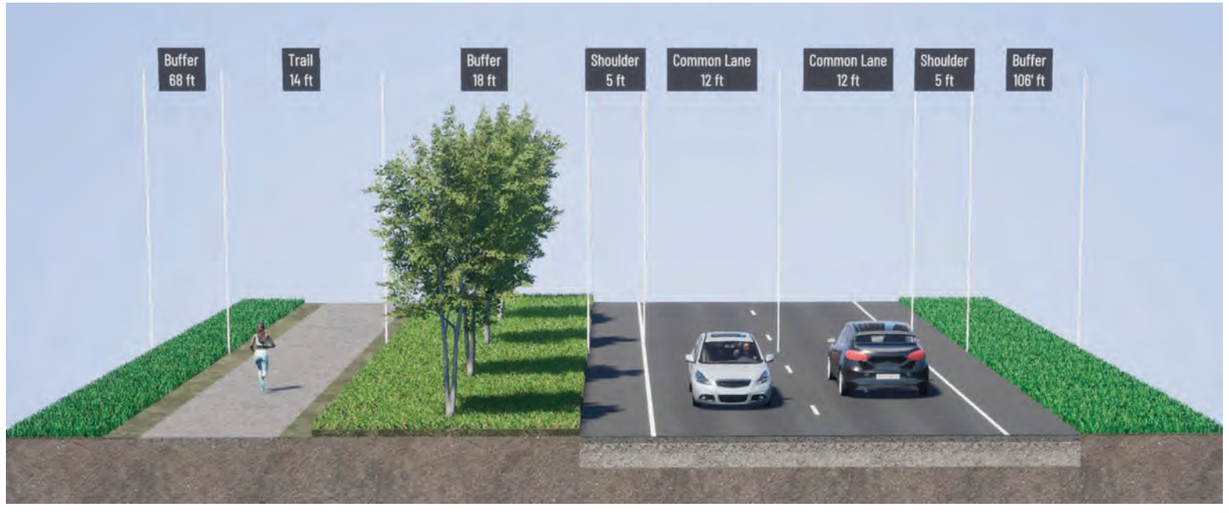
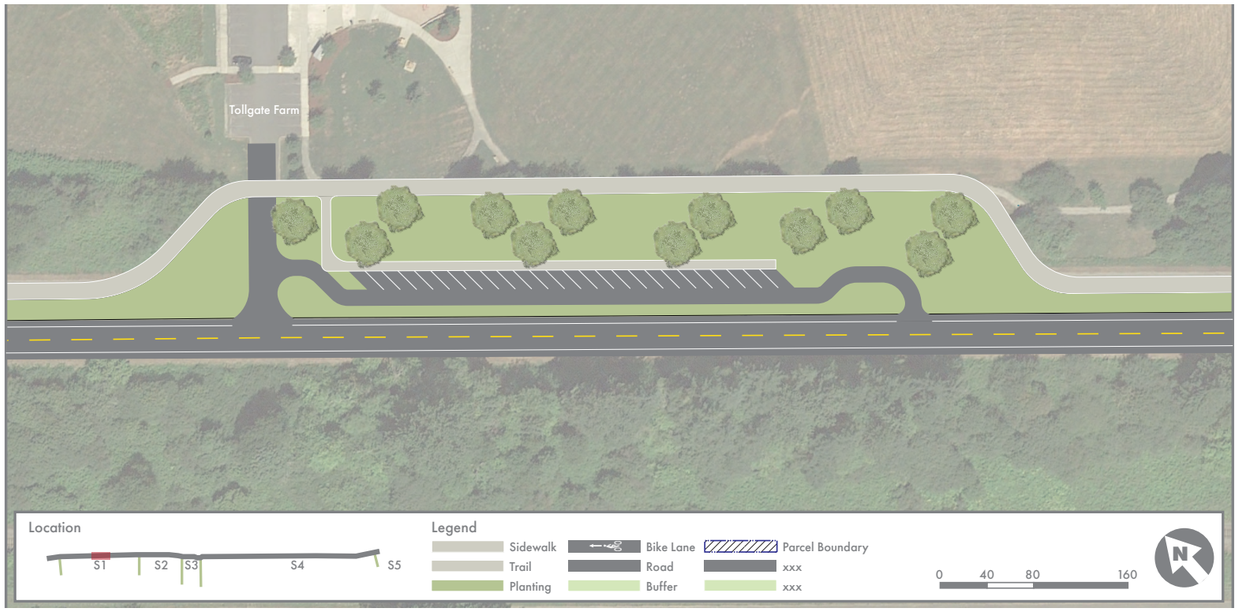
ALTERNATIVE 1b

Alternative 1b adds protected space for people walking and rolling within the existing paved area. Given the limited left turns along this segment, this alternative reduces the number of travel lanes in each direction and increases the buffer between the trail and the travel lanes. The wide planted buffer is at a scale to provide stormwater management and further improves the aesthetic qualities of the road with trees. Where there are left turns, the buffer can be reduced to provide left turn pockets.



PARKING CONCEPT FOR TOLLGATE FARM PARK

The Parking Concept would provide angled parking to serve overflow events at Tollgate Farm Park. This concept could be paired with either Alternative 1a or 1b adjacent to Tollgate Farm Park. The trail included in either Alternative 1a or 1b would shift to the north of the existing paved area to allow for angled parking and a drive aisle. A sidewalk would also be provided to the north of the angled parking, separated from the trail by a buffer.



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SEGMENT 1: EVALUATION

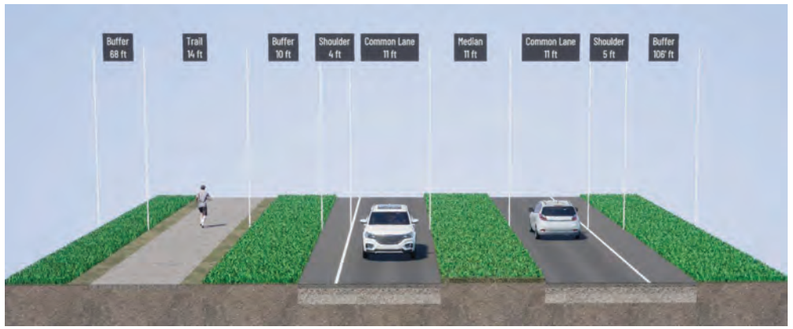

Safety for All Users


Connectivity


Order of Magnitude Costs


Constructability/ Readiness


Environmental Impact



1a

1b

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SAFETY FOR ALL USERS

Alternatives 1a and 1b enhance safety for people walking and rolling through the introduction of a trail separated from motor vehicles, and improves the BLTS and PLTS from 4 to 1. However, Alternative 1a performs better than 1b because of the inclusion of a median that provides traffic calming and limits the potential for turning conflicts.

CONNECTIVITY

Alternatives 1a and 1b perform well by providing a new active transportation facility that directly connects with corridor destinations such as Tollgate Farm Park.

ORDER OF MAGNITUDE COSTS

The median and buffer included in Alternative 1a are likely to require a relatively higher cost compared to Alternative 1b. The large, planted buffer in 1b could be implemented without curbs, possibly through a less complex construction process.

CONSTRUCTABILITY/READINESS

The improvements recommended in both Alternatives 1a and 1b could support phased implementation.

ENVIRONMENTAL IMPACT

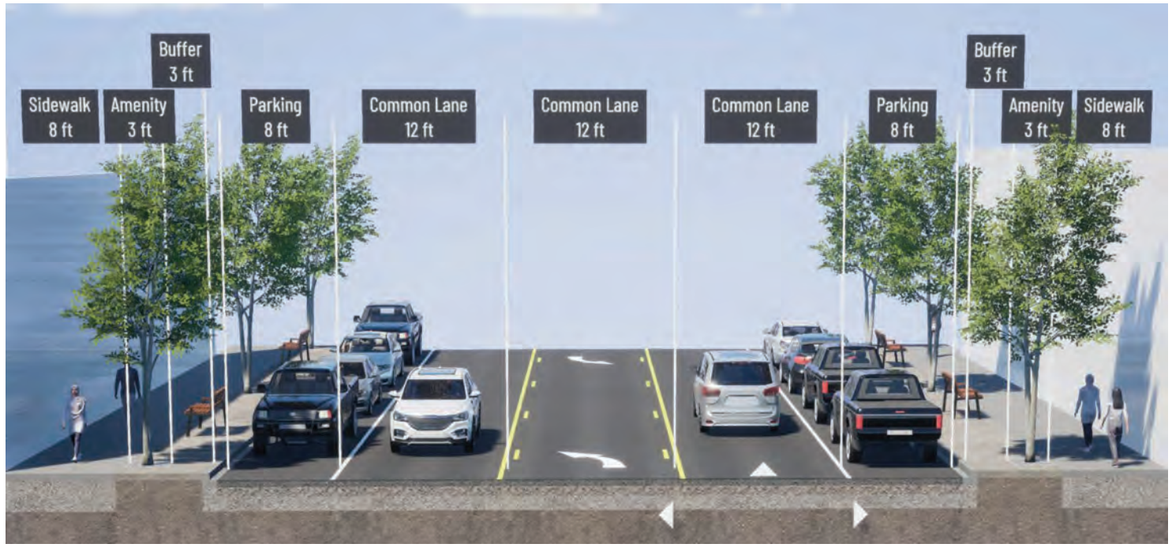
The improvements recommended in both Alternatives 1a and 1b do not extend beyond the existing paved right-of-way, limiting impacts. Depending on the median design chosen for Alternative 1a, the total corridor impervious surface area could be reduced. However, the expanded buffer in Alternative 1b has the potential to greatly reduce impervious surface area, while also creating an opportunity for the planting of larger trees.

Passed by City Council on February 6, 2024

SEGMENT 2: ALTERNATIVES

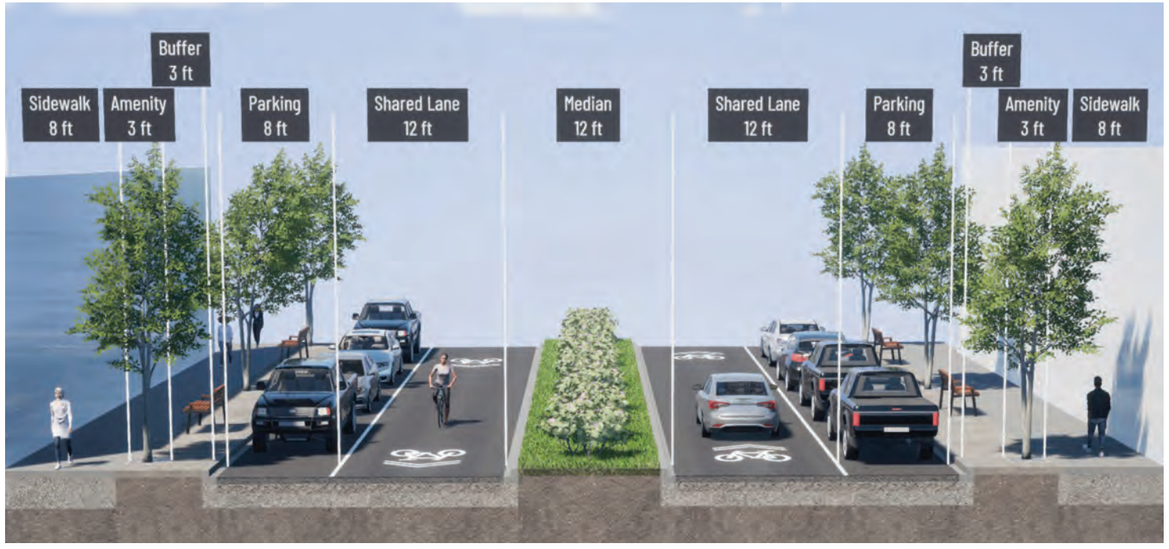
EXISTING CONDITIONS

Within Segment 2, North Bend Way sits within an 80-foot right-of-way, with a cross section comprised of one 12-foot travel lane and one 8-foot parking lane in each direction, a 12-foot center turn lane with an intermittent median, and two 8-foot sidewalks with 6 feet of buffer and amenity space adjoining the curb.



ALTERNATIVE 2a

Alternative 2a provides increased safety for all roadway users through the introduction of a planted median, replacing the existing center turn lane. The planted median would act as a traffic calming measure that would limit potential conflicts with left turning vehicles but could accommodate a left turn lane where needed at intersections. In addition to safety benefits for all roadway users, the median enhances the roadway's aesthetic qualities. Alternative 2a would enhance access for people walking or rolling by providing a trail parallel to North Bend Way along the railroad tracks approximately one block to the south between the South Fork Snoqualmie River and Bendigo Boulevard. This would provide an all ages and abilities facility parallel to North Bend Way through downtown and would connect to existing trail infrastructure. Other cross section elements would remain as they currently exist.



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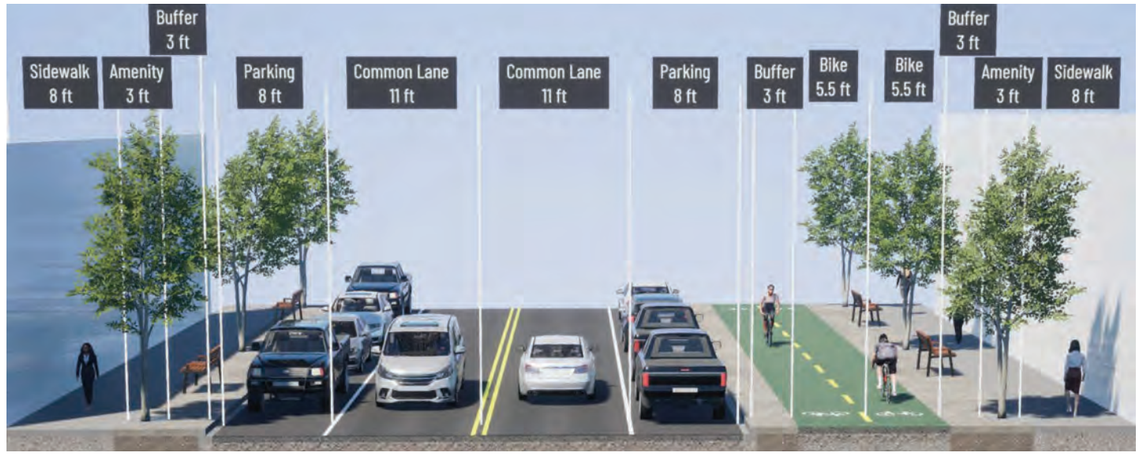
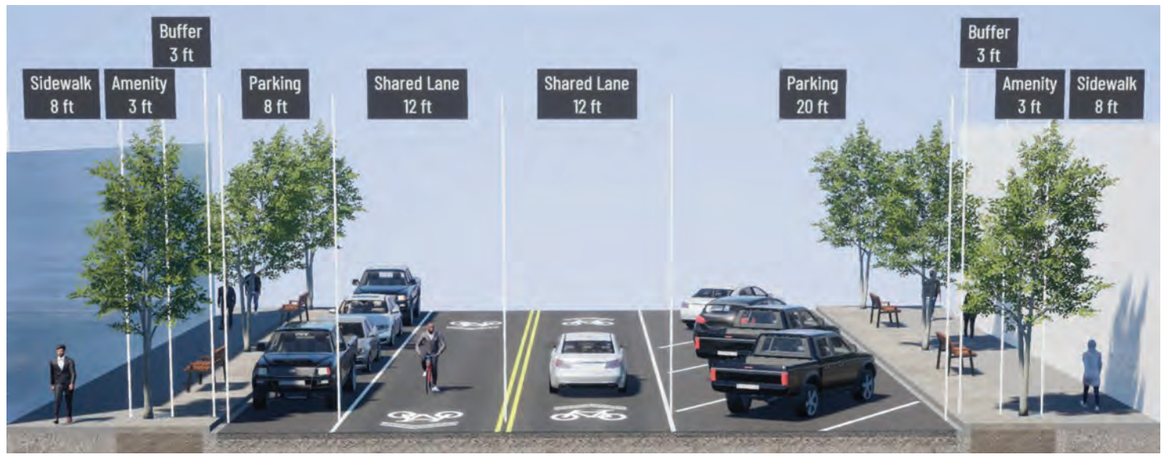
ALTERNATIVE 2b

Alternative 2b provides increased safety for all roadway users through the introduction of protected bicycle lanes on the south side of the existing paved area; the existing center turn lane would be removed to accommodate the protected bicycle lanes. This would provide an all ages and abilities facility along North Bend Way through downtown and would connect to existing trail infrastructure. Other cross section elements would remain as they currently exist.



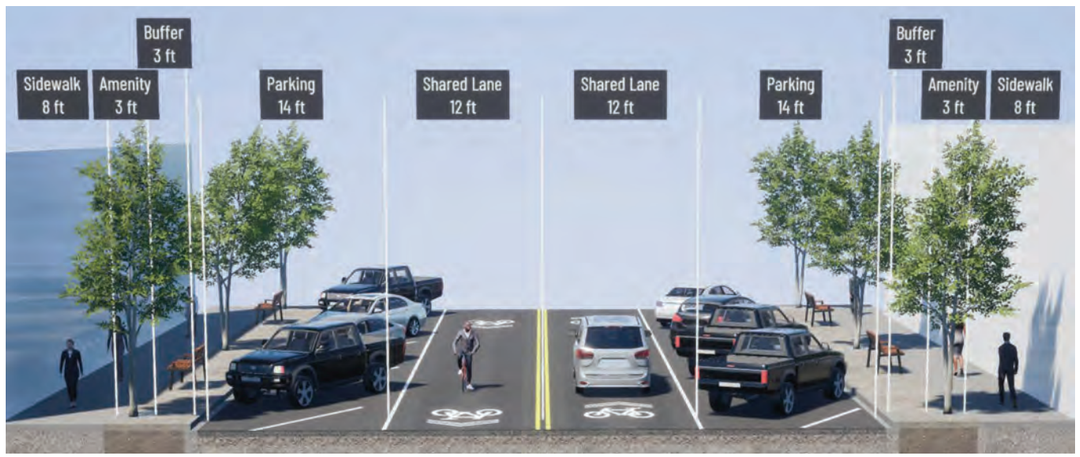
ALTERNATIVE 2c

Alternative 2c would rechannelize North Bend Way to provide angled parking on one side of the street and remove the center turn lane. This would provide traffic calming along the corridor. Alternative 2c would enhance access for people walking or rolling by providing a trail parallel to North Bend Way along the railroad tracks approximately one block to the south between the South Fork Snoqualmie River and Bendigo Boulevard, and providing shared lane markings in the travel lanes. This would provide an all ages and abilities facility parallel to North Bend Way through downtown and would connect to existing trail infrastructure.



ALTERNATIVE 2d

Alternative 2d would rechannelize North Bend Way to provide angled parking on both sides of the street and remove the center turn lane. This would provide traffic calming along the corridor. Alternative 2d would enhance access for people walking or rolling by providing a trail parallel to North Bend Way along the railroad tracks approximately one block to the south between the South Fork Snoqualmie River and Bendigo Boulevard, and providing shared lane markings in the travel lanes. This would provide an all ages and abilities facility parallel to North Bend Way through downtown and would connect to existing trail infrastructure.



SEGMENT 2: INTERSECTION CONCEPTS AND TRAIL CONNECTIONS

Intersection concepts were developed for three intersections in Segment 2: the West Downtown Trail Crossing (just east of the South Fork Snoqualmie River), Bendigo Boulevard, and Ballarat Avenue.

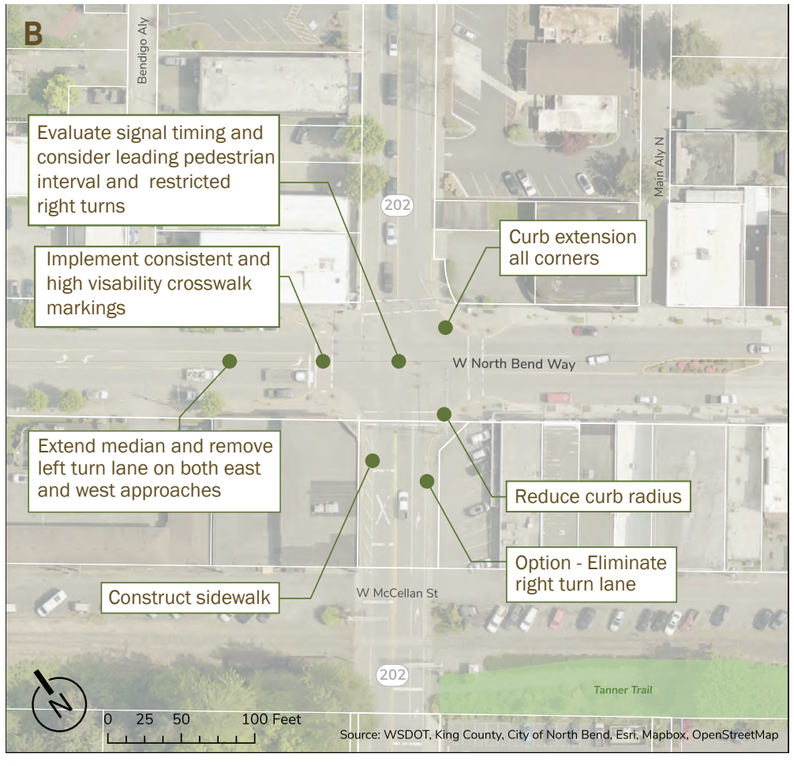
A new trail crossing between downtown and the bridge over the South Fork of the Snoqualmie River includes a Rectangular Rapid Flashing Beacon (RRFB) and other crossing improvements (high visibility markings, ADA ramps, median refuge island, etc) to provide a safe crossing for active transportation users across North Bend Way. This crossing location would connect the proposed trail concept on the north side of North Bend Way from Segment 1 to a proposed trail connection that continues from the south side of North Bend Way.

Proposed updates to the North Bend Way and Bendigo Boulevard intersection include pedestrian safety and signal improvements. This includes high visibility markings, curb extensions, curb radius reductions, and sidewalk improvements.

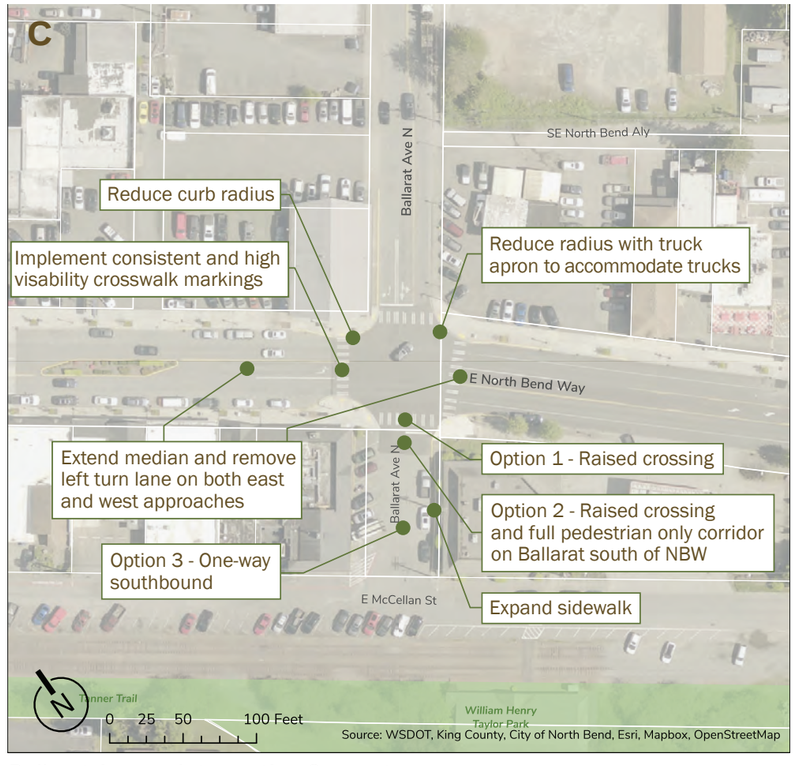
Proposed updates to the North Bend Way and Ballarat Avenue intersection include changes to traffic operations and pedestrian safety improvements. Improvements include curb radius reductions, median refuge islands, sidewalk improvements, and pedestrian safety improvements that can also accommodate trucks (Ballarat Avenue to North Bend Way east of the intersection is considered a truck route). There are also several options for treatments on Ballarat Avenue south of North Bend Way.

Improved trail connections are also proposed to connect the Segment 1 trail connection to the existing North Bend Rail Trail, just south of North Bend Way. This could be accommodated via a new trail alignment between the existing rail line and the park and ride. This proposed alignment crosses Bendigo Boulevard to connect with the current western terminus of the North Bend Rail Trail. Other options could include a range of different improvements along the north side of North Bend Way with the crossing at the Bendigo Boulevard intersection.

West Downtown Trail Crossing Intersection Concept

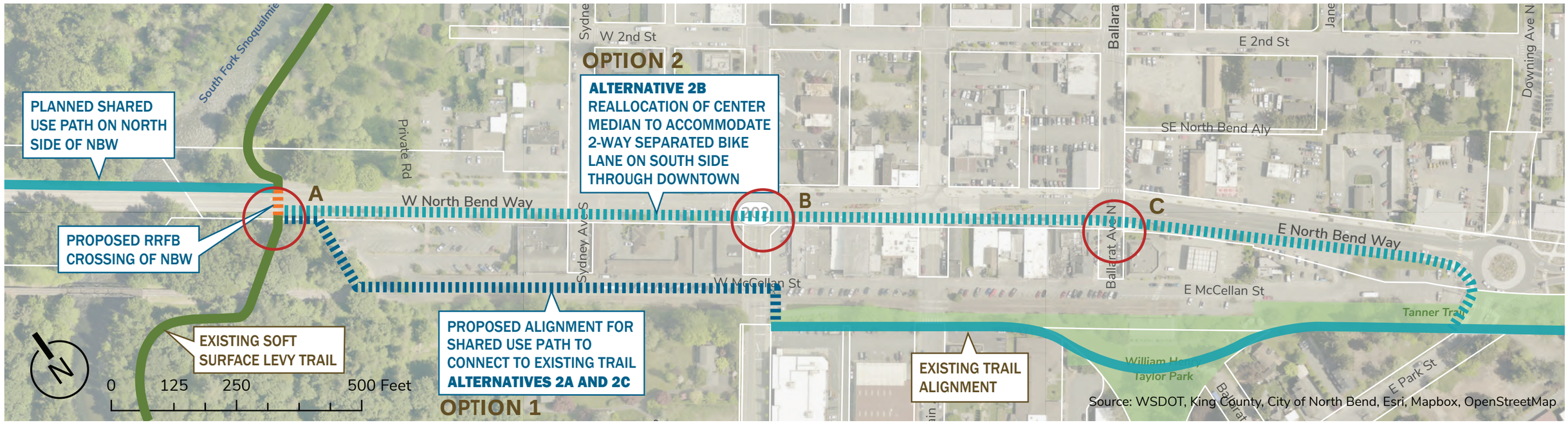


Bendigo Boulevard Intersection Concept



Ballarat Avenue Intersection Concept

Passed by City Council on February 6, 2024



Trail connections - downtown

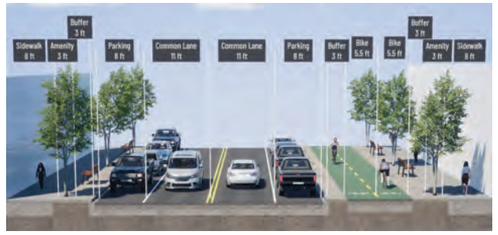
Option 1, that pairs with Alternatives 2a and 2c, greatly improves safety and connectivity by providing a separated active transportation facility that closes an existing network gap. This option also retains the existing sidewalk. Option 1 would also include opportunities for vegetation and would improve aesthetics. Option 1 performed lower for Constructibility/ Readiness because the corridor and crossing would need to be established simultaneously.

Option 2, that pairs with Alternative 2b, would perform slightly lower for Safety because there would still be the potential for conflicts with turning vehicles. Option 2 performs better for Constructibility/Readiness because it could be implemented in phases. It would have a lower performance for Environmental Impacts because it would not reduce impervious surface.

SEGMENT 2: EVALUATION

Key to Rating

Lower Performing — Higher Performing

	Safety for All Users	Connectivity	Order of Magnitude Costs	Constructability/ Readiness	Environmental Impact
2a 					
2b 					
2c 					
2d 					

Passed by City Council on February 6, 2024

SAFETY FOR ALL USERS

The trail included in Alternatives 2a, 2c, and 2d would provide a separated space for people walking and biking and improve BLTS from 3 to 1 and PLTS from 2 to 1. The median included in Alternative 2a could improve the safety of all roadway users by providing access control and limiting the potential for left turn conflicts. Alternatives 2b, 2c, and 2d would not include access control along North Bend Way via a median. The inclusion of protected bicycle lanes in Alternative 2b would provide safety benefits for cyclists within the corridor.

CONNECTIVITY

Alternatives 2a, 2c and 2d would introduce a new all ages and abilities facility for people walking and biking via the trail one block to the south of the corridor. However, connectivity would be slightly reduced since the facility is outside the corridor. Alternative 2b would also perform the highest due to new protected bicycle lanes within the corridor that provide a direct connection to destinations.

ORDER OF MAGNITUDE COSTS

Median and trail improvements would require investment. Alternative 2a would likely require the highest costs, due to the inclusion of both a full median and trail. Alternatives 2c and 2d would have the lowest costs because the improvements within the existing paved area could be accomplished through restriping. Alternative 2b would likely require a higher investment compared to Alternatives 2c and 2d to provide the protected bicycle lanes, but would be less cost than Alternative 2a.

CONSTRUCTABILITY/READINESS

The improvements recommended in all alternatives could support phased implementation. The trail included in Alternatives 2a, 2c, and 2d could be constructed as its own, separate improvement.

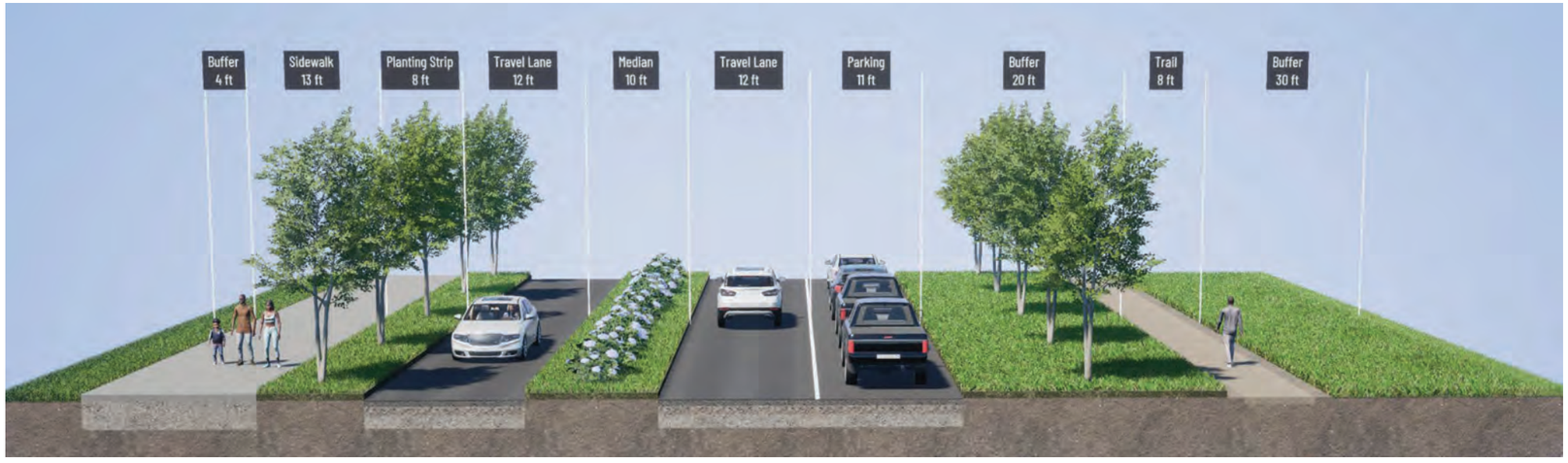
ENVIRONMENTAL IMPACT

Alternative 2a has the potential to reduce impervious surface area, depending on the chosen median design. Alternative 2b would not reduce impervious surface area but could improve aesthetics of the corridor based on the design of the buffer and protected bicycle lanes. Alternatives 2c and 2d would not reduce impervious surface area and would have a minimal impact on corridor aesthetics.

SEGMENT 3: ALTERNATIVES

EXISTING CONDITIONS

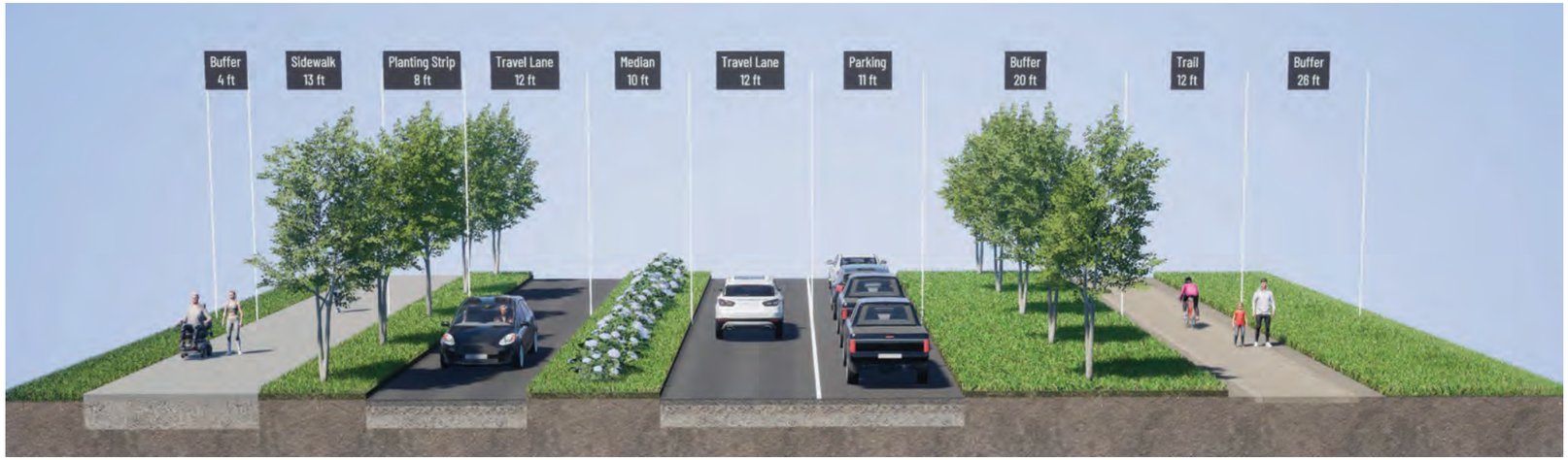
Within Segment 3, North Bend Way sits within a 70-foot right-of-way, with a cross section comprised of one 12-foot travel lane in each direction, an 11-foot parking lane on the south side, a 10-foot median, and a 13-foot sidewalk with an 8-foot planted buffer on the north side. Adjoining the right-of-way to the south is an approximately 58-foot wide parcel owned by the City of North Bend, which includes a 10-foot trail about 20 feet south of the right-of-way edge.



Passed by City Council on February 6, 2024

ALTERNATIVE 3a

Alternative 3a would provide additional space for people walking and rolling along North Bend Way by increasing the width of the trail on the south side of the roadway from 8 feet to 12 feet. The additional space provided by this improvement would improve safety by decreasing the likelihood of conflicts between trail users. Other cross section elements would remain as they currently exist.



SEGMENT 3: EVALUATION

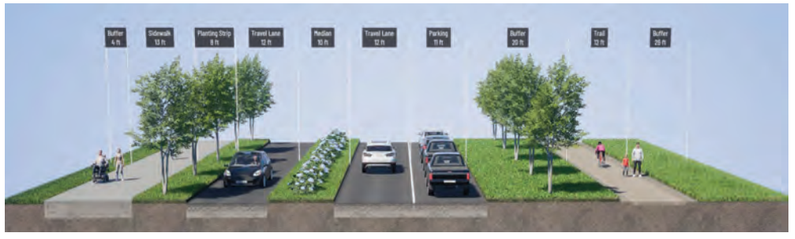
Safety for All Users

Connectivity

Order of Magnitude Costs

Constructability/ Readiness

Environmental Impact



3a

Passed by City Council on February 6, 2024

SAFETY FOR ALL USERS

The additional trail width provides more space for people walking and rolling, which could reduce the potential for conflicts between users. BLTS and PLTS scores would remain at 1.

CONNECTIVITY

Alternative 3a does not create new active transportation connections, but does expand the width of the existing trail.

ORDER OF MAGNITUDE COSTS

The trail expansion included in Alternative 3a would likely require minimal investment.

CONSTRUCTABILITY/READINESS

The improvements recommended in Alternative 3a could support phased implementation.

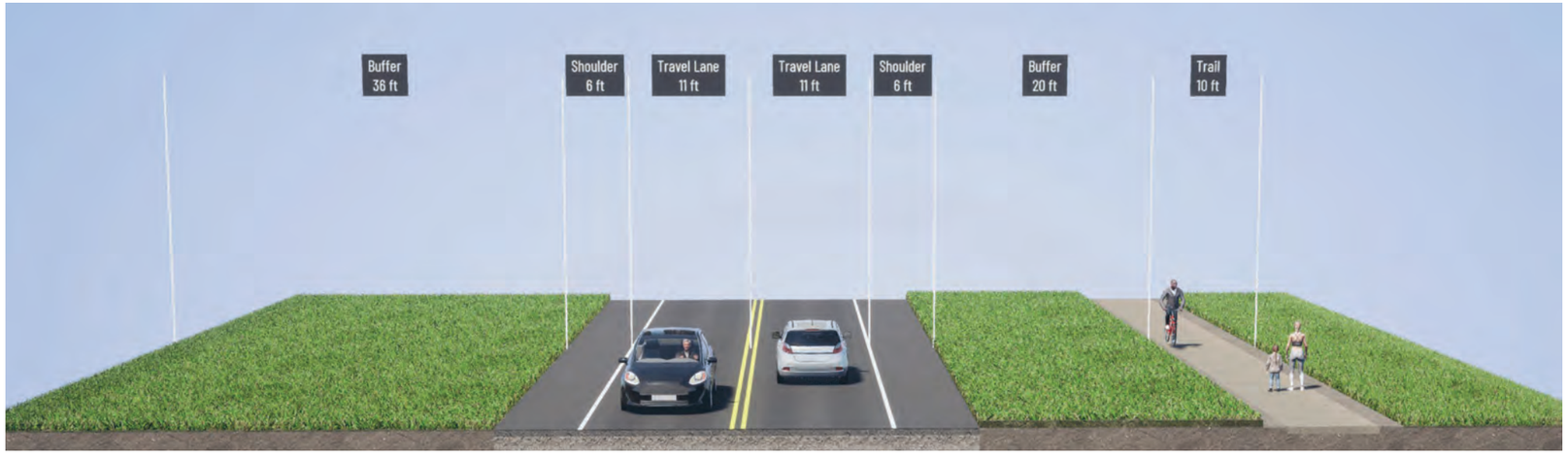
ENVIRONMENTAL IMPACT

The improvements recommended in Alternative 3a would result in minimal to no environmental impacts.

SEGMENT 4: ALTERNATIVES

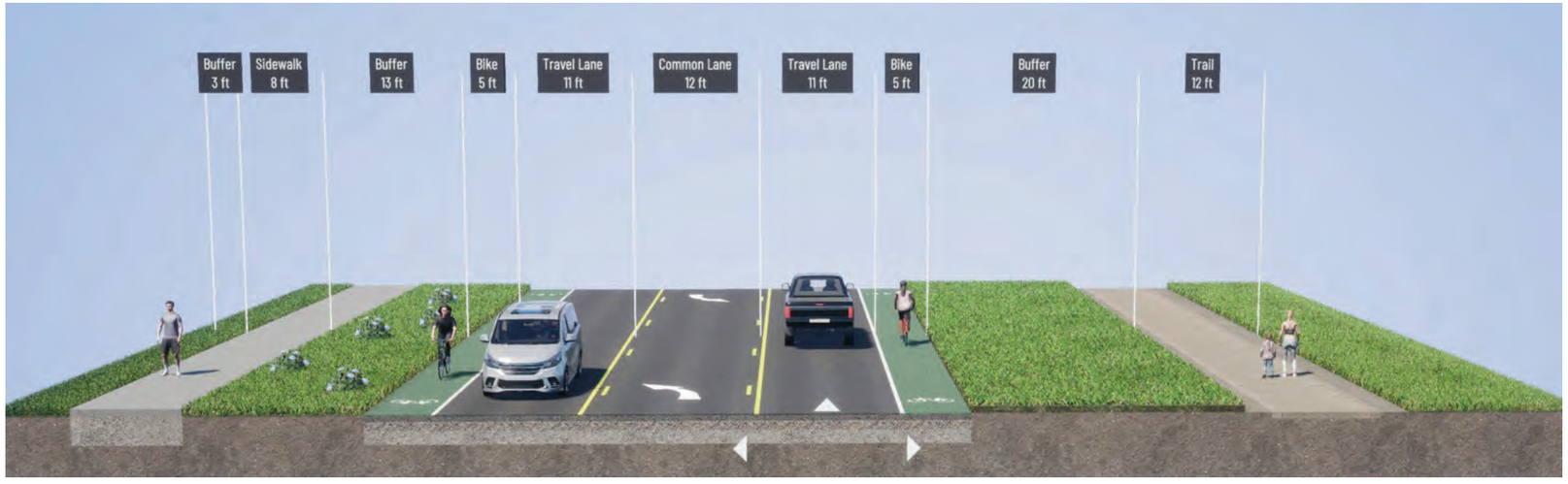
EXISTING CONDITIONS

Within Segment 4, North Bend Way sits within a 68-foot right-of-way, with a cross section comprised of one 11-foot travel lane and 6-foot shoulder in each direction. Adjoining the right-of-way to the south is an approximately 77-foot wide parcel owned by the Burlington Northern Santa Fe Railroad (BNSF), which includes a 10-foot intermittent paved and gravel trail about 20 feet south of the right-of-way edge.



ALTERNATIVE 4a

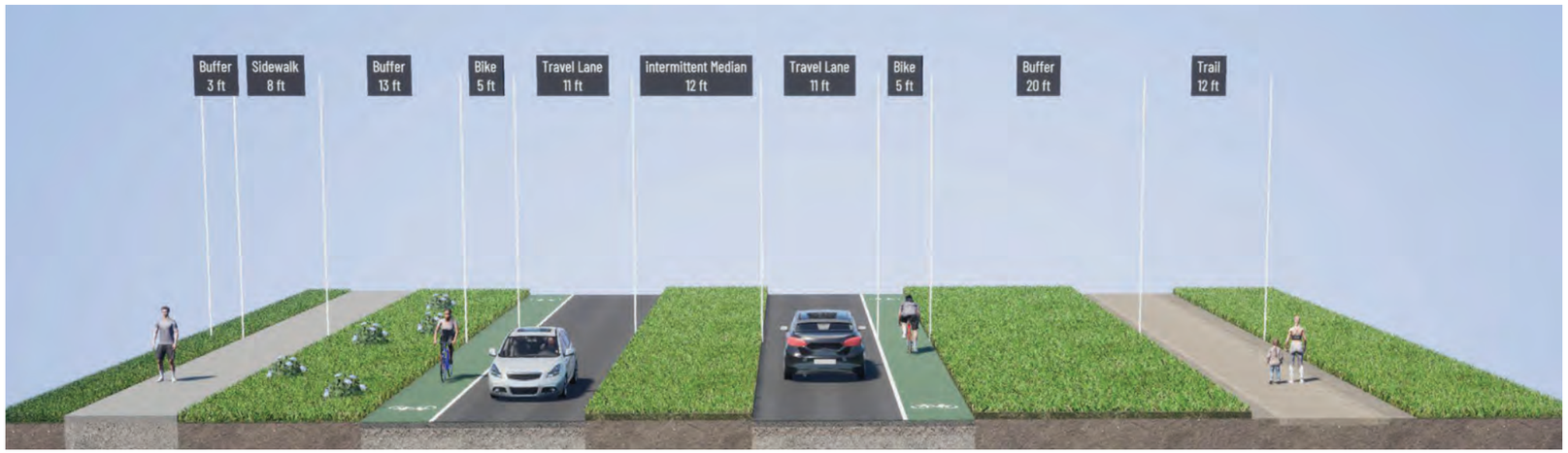
Alternative 4a enhances safety for all roadway users and meets existing City standards by adding a center turn lane, a painted bicycle lane in each direction, and a sidewalk on the north side separated from the roadway by a wide bio-channel buffer. Additionally, the intermittent 10-foot trail to the south of the roadway would be completed along the entire length of Segment 4 and expanded to 12 feet. The center turn lane would enhance safety for roadway users by reducing the potential for rear-end crashes, while the sidewalk on the north side of the roadway and continuous trail along the south side would provide an all ages and abilities facility for people walking and rolling. The painted bicycle lanes would provide travel space for people who feel comfortable cycling within the roadway, while reducing the potential for conflicts between trail users. The wide bio-channel buffer would improve stormwater management within the right-of-way, improve roadway aesthetics, and physically separate people using the sidewalk from motor vehicle traffic.



Passed by City Council on February 6, 2024

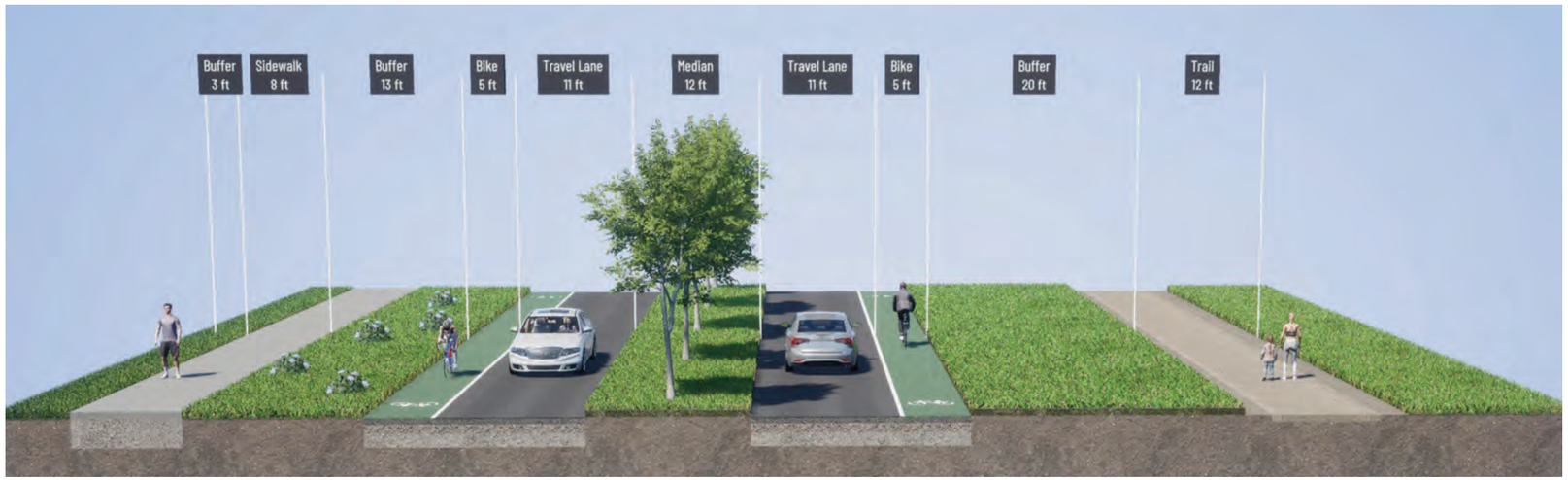
ALTERNATIVE 4b

Alternative 4b enhances safety for all roadway users and expands upon existing City standards by adding an intermittent planted median, a painted bicycle lane in each direction, and a sidewalk on the north side separated from the roadway by a wide bio-channel buffer. The intermittent 10-foot trail to the south of the roadway would be completed along the length of Segment 4 and expanded to 12 feet. The intermittent planted median would enhance the roadway's aesthetic qualities and act as a traffic calming measure to reduce potential conflicts with left turning vehicles but accommodate a left turn lane where needed at intersections and driveways. The sidewalk on the north side and continuous trail along the south side would provide an all ages and abilities facility for people walking and rolling throughout the segment. The painted bicycle lanes would provide travel space for people who feel comfortable cycling within the roadway, while reducing the potential for conflicts between trail users. The wide bio-channel buffer would improve stormwater management within the right-of-way and roadway aesthetics, and physically separate people using the sidewalk from motor vehicle traffic.



ALTERNATIVE 4c

Alternative 4c enhances safety for all roadway users and expands upon existing City standards by adding a planted median, a painted bicycle lane in each direction, and a sidewalk on the north side separated from the roadway by a wide bio-channel buffer. Additionally, the intermittent 10-foot trail to the south of the roadway would be completed along the length of Segment 4 and expanded to 12 feet. The planted median would enhance the roadway's aesthetic qualities and act as a traffic calming measure to limit potential conflicts with left turning vehicles. The sidewalk on the north side and continuous trail along the south side would provide an all ages and abilities facility for people walking and rolling throughout the segment. The painted bicycle lanes would provide travel space for people who feel comfortable cycling within the roadway, while reducing the potential for conflicts between trail users. The wide bio-channel buffer would improve stormwater management within the right-of-way and roadway aesthetics, and physically separate people using the sidewalk from motor vehicle traffic.



SEGMENT 4: EVALUATION

Key to Rating

Lower Performing — Higher Performing

	Safety for All Users	Connectivity	Order of Magnitude Costs	Constructability/ Readiness	Environmental Impact
4a					
4b					
4c					

Passed by City Council on February 6, 2024

SAFETY FOR ALL USERS

All alternatives could improve the safety of people walking through the inclusion of a separated sidewalk on the north side of the roadway. The continuation of the trail along the south side of the roadway would improve the segment's BLTS and PLTS scores from 4 to 1. The center turn lane provided in Alternative 4a could improve safety for people driving by reducing the potential for queuing associated with left turns. The intermittent median included in Alternative 4b would provide some access control, limiting the number of left turn conflicts. However, the full median included in Alternative 4c boosts its performance by providing a high degree of access control.

CONNECTIVITY

All alternatives provide improved connections along the north side of North Bend Way through the introduction of a sidewalk.

ORDER OF MAGNITUDE COSTS

All alternatives would require investment for pavement expansion, a new sidewalk, and bio-channel buffer. However, the intermittent and full median required in Alternatives 4b and 4c, respectively, would require additional investment.

CONSTRUCTABILITY/READINESS

The improvements recommended in all alternatives could support phased implementation.

ENVIRONMENTAL IMPACT

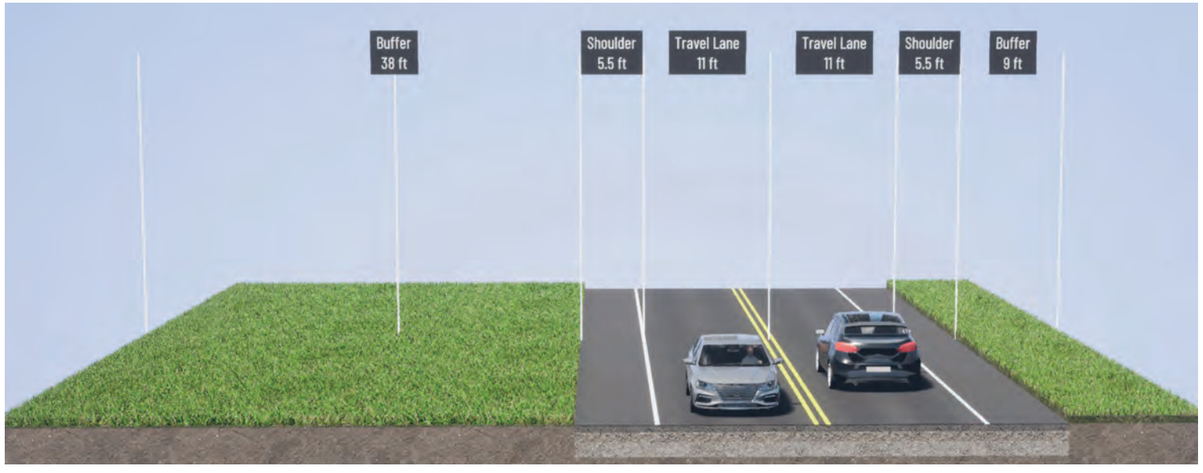
All alternatives include pavement expansion and a new sidewalk that would increase the amount of impervious surface area but would also include a bio-channel buffer that could improve stormwater conditions. Depending on the median design chosen, Alternatives 4b and 4c have the potential to reduce the impervious surface area, with the full median included in 4c having the highest potential.

Passed by City Council on February 6, 2024

SEGMENT 5: ALTERNATIVES

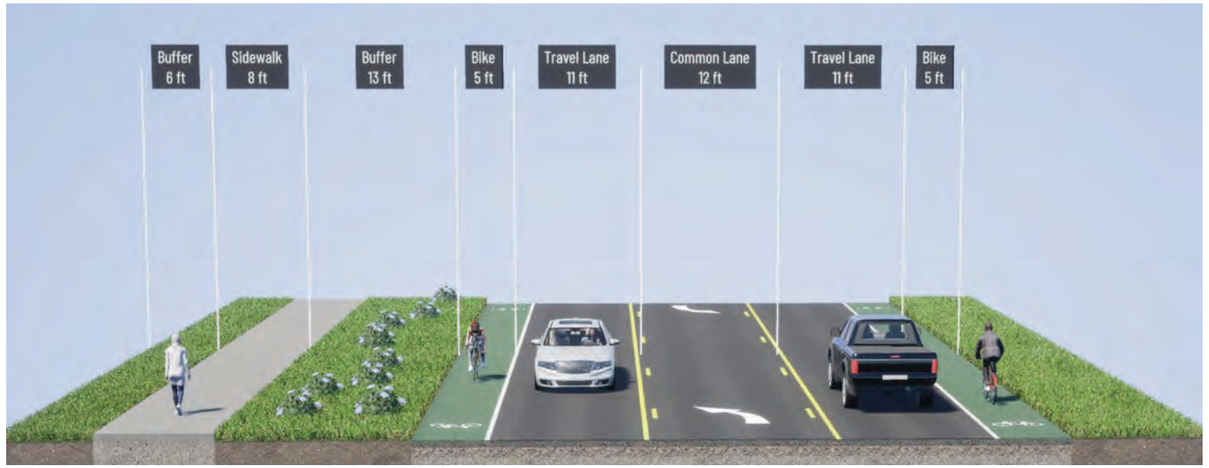
EXISTING CONDITIONS

Within Segment 5, North Bend Way sits within an 80-foot right-of-way, with the paved portion dominated by one 11-foot travel lane in each direction. Space for people walking and rolling is limited to a 5.5-foot shoulder on either side.



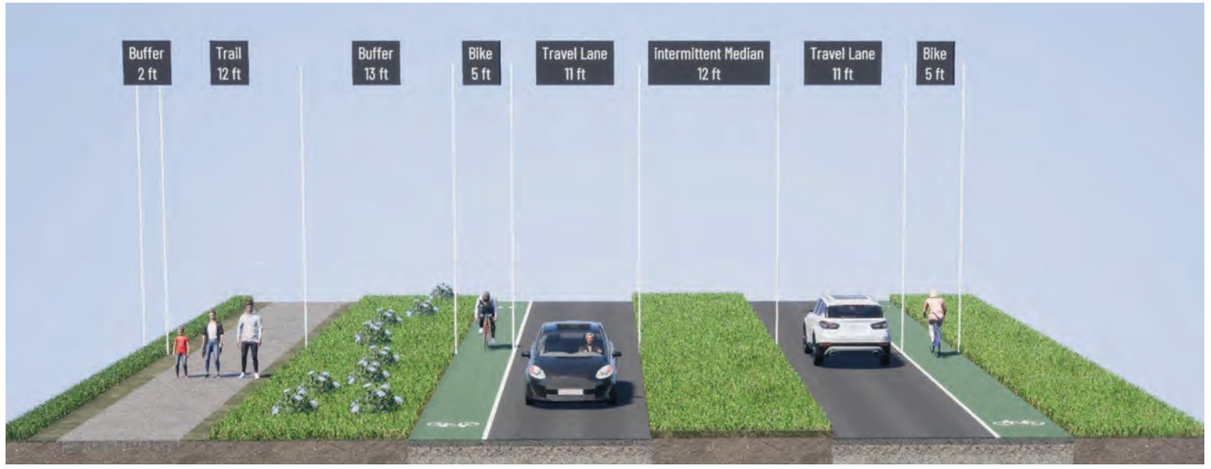
ALTERNATIVE 5a

Alternative 5a enhances safety for all roadway users and meets existing city standards by adding a center turn lane, a painted bicycle lane in each direction, and a sidewalk on the north side separated from the roadway by a wide bio-channel buffer. The center turn lane would enhance safety for roadway users by reducing the potential for rear-end crashes, while the sidewalk on the north side of the roadway would provide an all ages and abilities facility for people walking throughout the segment. The painted bicycle lanes would provide travel space for people biking but is limited to those who would feel comfortable cycling within the roadway. The wide bio-channel buffer would improve stormwater management within the right-of-way, improve roadway aesthetics, and physically separate people using the sidewalk from vehicle traffic. No improvements are proposed along the south side of North Bend Way, as the I-90 right-of-way directly abuts the existing roadway.



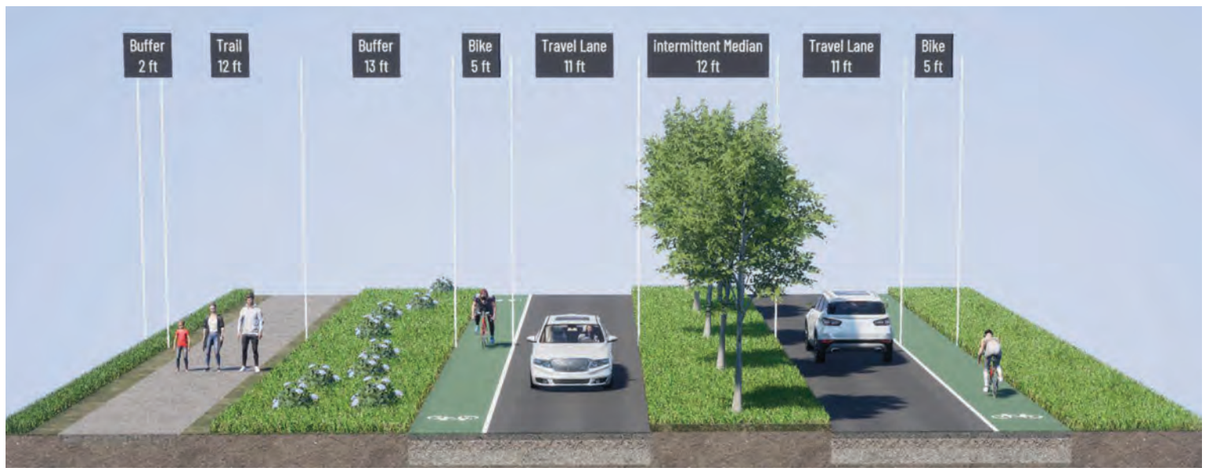
ALTERNATIVE 5b

Alternative 5b enhances safety for all roadway users and expands upon existing city standards by adding an intermittent planted median, a painted bicycle lane in each direction, and a trail on the north side separated from the roadway by a wide bio-channel buffer. The intermittent planted median would enhance the roadway's aesthetic qualities and act as a traffic calming measure that would reduce potential conflicts with left turning vehicles but could accommodate a left turn lane where needed at intersections and driveways. The trail on the north side of the roadway would provide an all ages and abilities facility for people walking and rolling throughout the segment. The painted bicycle lanes would provide travel space for people who feel comfortable cycling within the roadway, while reducing the potential for conflicts between trail users. The wide bio-channel buffer would improve stormwater management within the right-of-way, improve roadway aesthetics, and physically separate people using the trail from vehicle traffic. No improvements are proposed along the south side of North Bend Way, as the I-90 right-of-way directly abuts the existing roadway.



ALTERNATIVE 5c

Alternative 5c enhances safety for all roadway users and expands upon existing city standards by adding a planted median, a painted bicycle lane in each direction, and a trail on the north side separated from the roadway by a wide bio-channel buffer. The planted median would enhance the roadway's aesthetic qualities and act as a traffic calming measure that would limit potential conflicts with left turning vehicles. The trail on the north side of the roadway would provide an all ages and abilities facility for people walking and rolling throughout the segment. The painted bicycle lanes would provide travel space for people who feel comfortable cycling within the roadway, while reducing the potential for conflicts between trail users. The wide bio-channel buffer would improve stormwater management within the right-of-way, improve roadway aesthetics, and physically separate people using the trail from motor vehicle traffic. No improvements are proposed along the south side of North Bend Way, as the I-90 right-of-way directly abuts the existing roadway.



SEGMENTS 4 AND 5: INTERSECTION CONCEPTS AND TRAIL CONNECTIONS

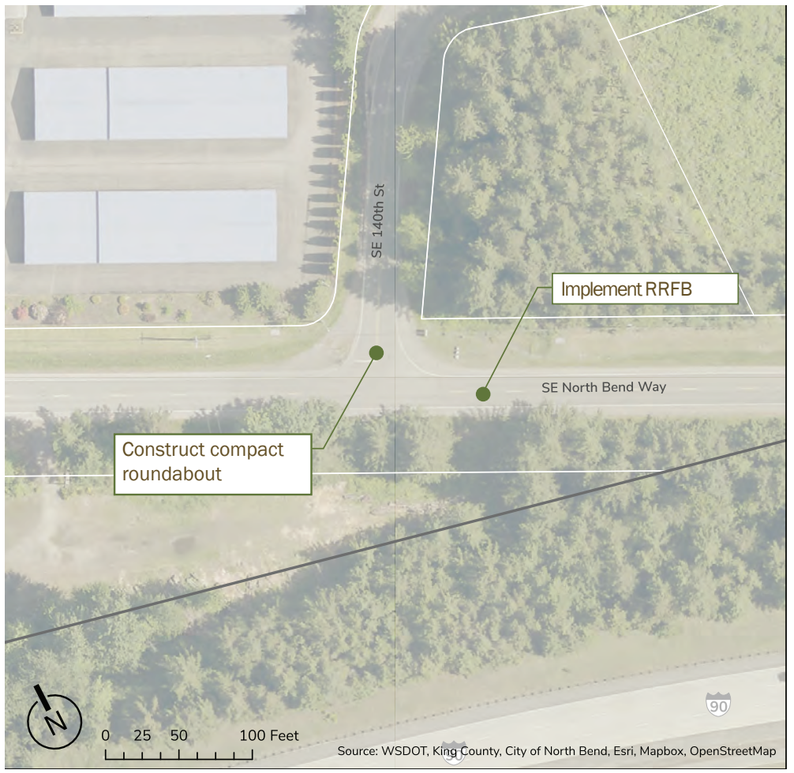
Intersection concepts were developed for three intersections in Segment 4: Maloney Grove Avenue SE/Thrasher Avenue NE, SE 140th Street, and 468th Avenue SE.

At both Maloney Grove Avenue SE/Thrasher Avenue NE and SE 140th Street, a compact roundabout is proposed. A compact roundabout is a smaller roundabout that still provides safety enhancements for pedestrians and bicyclists by slowing vehicle speeds and improving intersection angles. A compact roundabout could be traversed by heavy vehicles since it would include a mountable center island.

At the intersection of 468th Avenue SE, a standard roundabout with accommodations for freight vehicles is proposed.

Improved trail connections (two options) are proposed near the existing Snoqualmie Valley Trail crossing of North Bend Way. At this location, the proposed extension of the Tanner Trail in Segment 4 would be extended into Segment 5. The two trails would also connect in this area, joining the Tanner Trail and greater North Bend to the regional active transportation network. An existing RRFB is provided to the west of SE Tanner Road. The first option would use this crossing to connect the Tanner Trail extension from the south side of North Bend Way to the north side (in Segment 5, there is insufficient right-of-way to continue Tanner Trail on the south side of North Bend Way). However, immediately to the east of the existing RRFB, the Middle Fork Snoqualmie River curves to the northwest, which may create scouring that would make siting a trail here difficult and/or expensive. The second option would continue the Tanner Trail on the south side of North Bend Way until SE 140th Street. Here, a RRFB is proposed to cross the trail to the north side of North Bend Way, where it would continue through Segment 5.

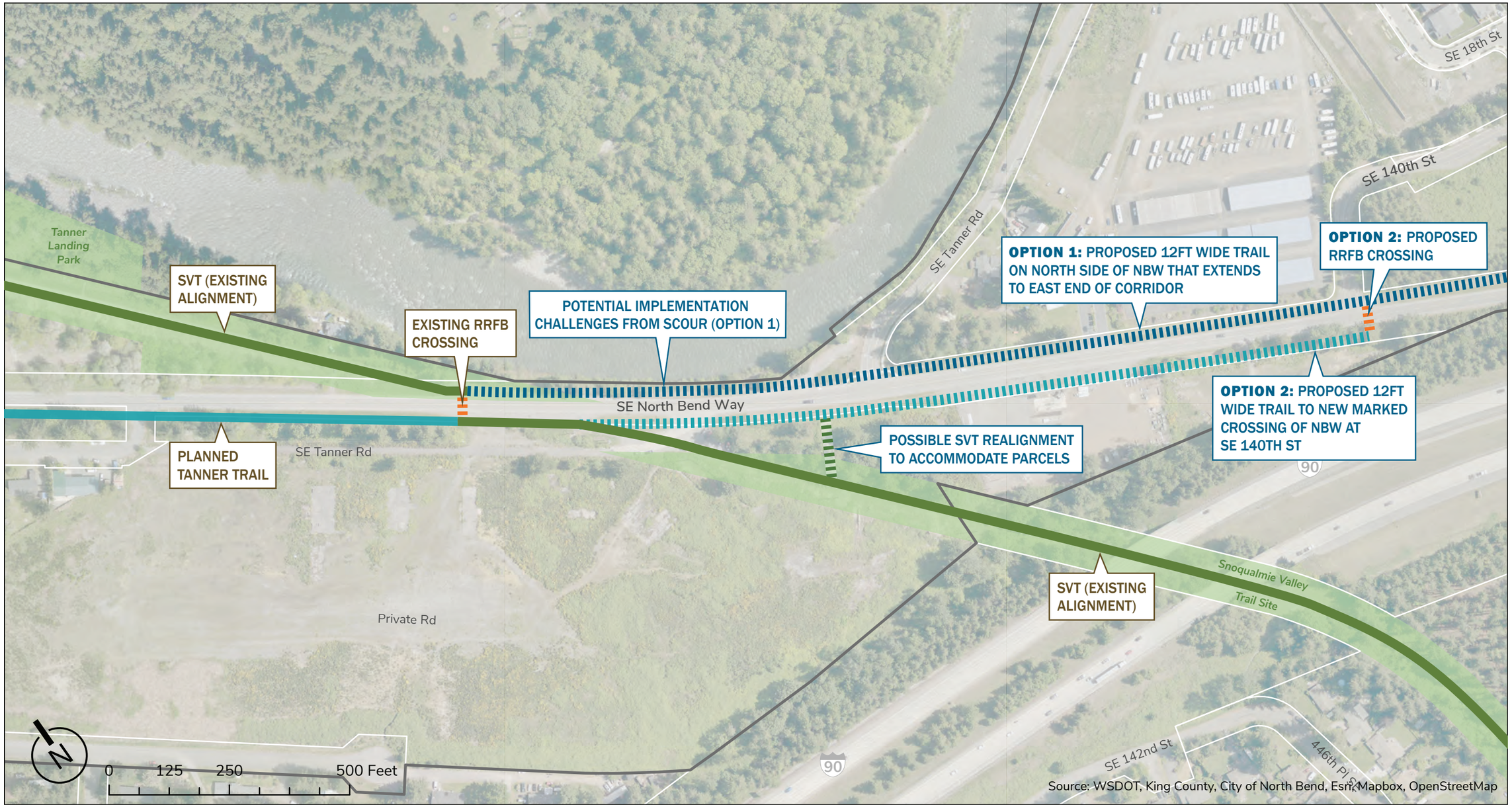
Maloney Grove Avenue SE/Thrasher Avenue NE Intersection Concept



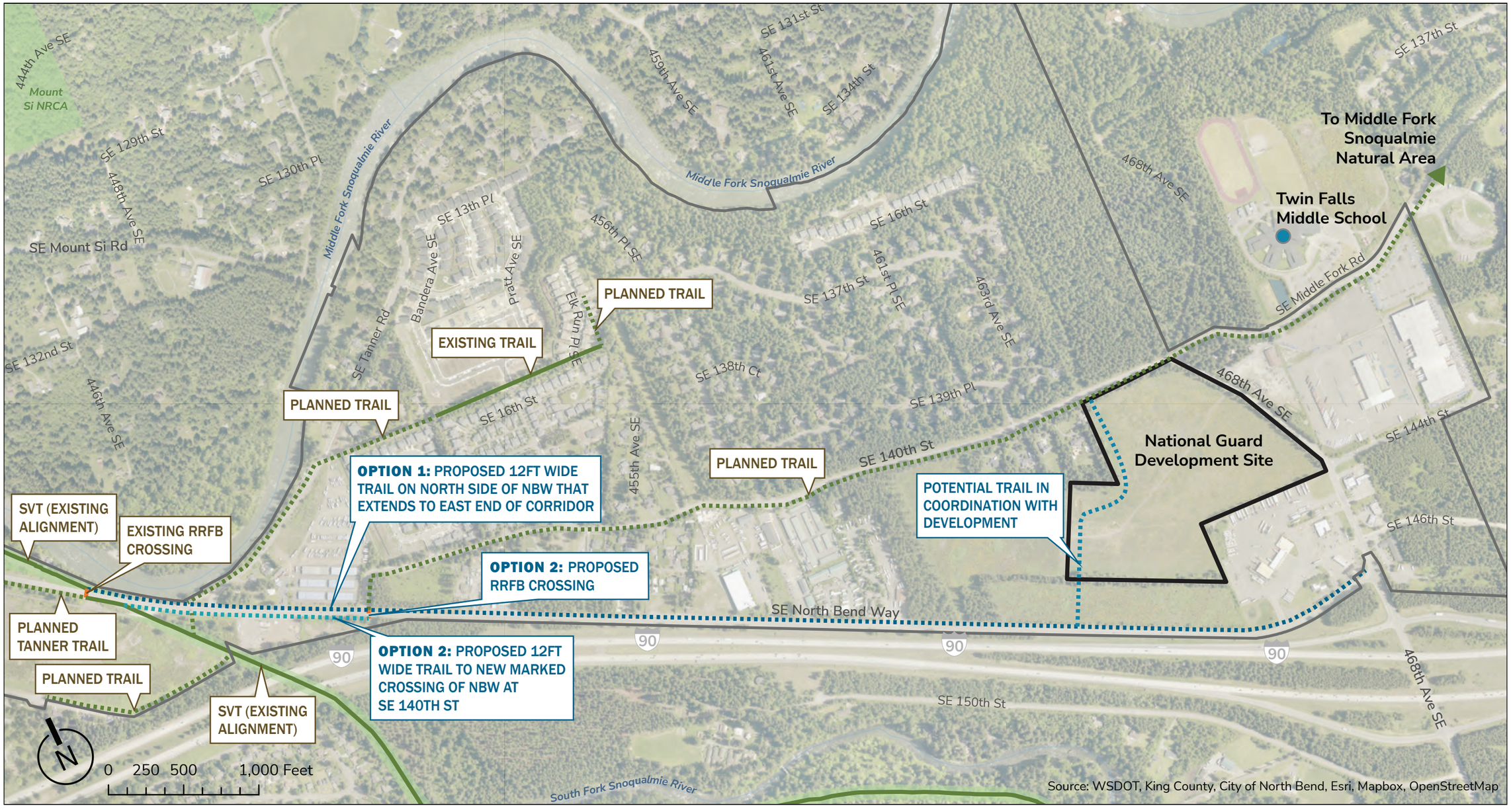
SE 140th Street Intersection Concept

468th Avenue SE Intersection Concept

Passed by City Council on February 6, 2024



Trail Connections - Snoqualmie Valley Trail and Tanner Trail

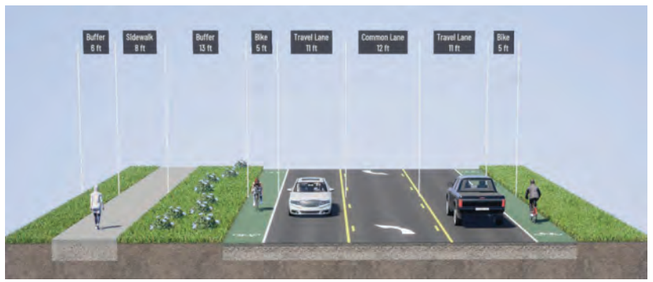


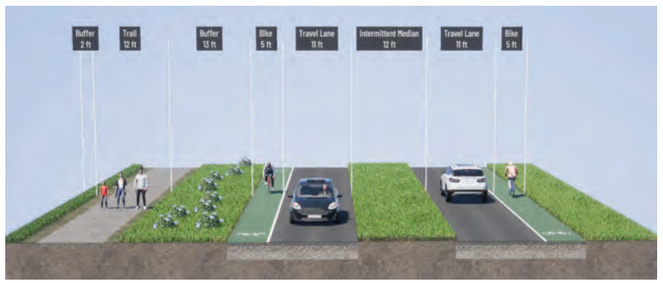
Trail Connections - Snoqualmie Valley Trail and Middle Fork Snoqualmie Natural Area

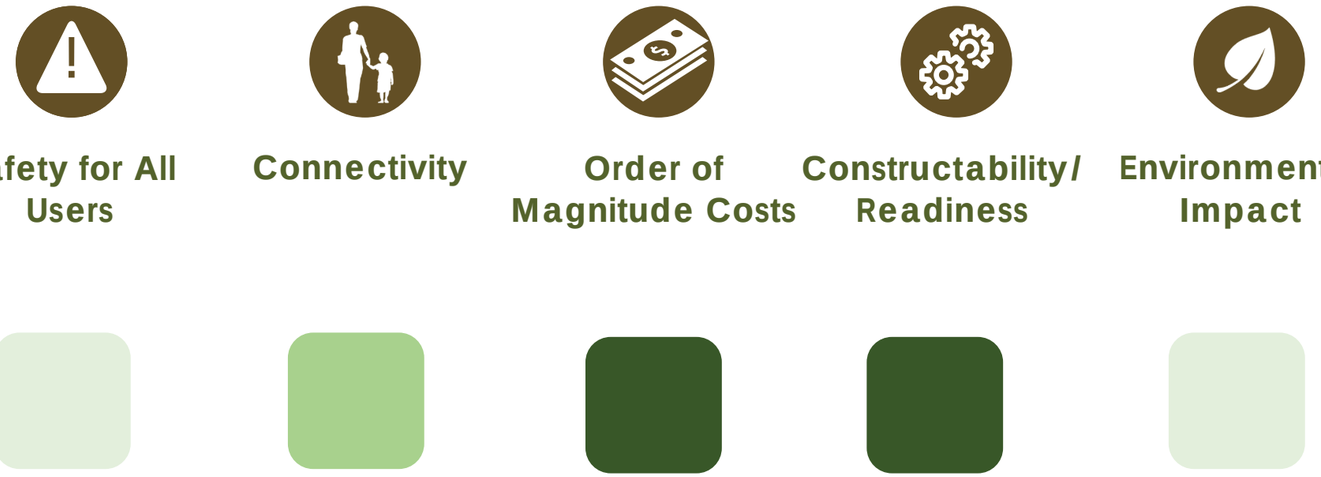
Passed by City Council on February 6, 2024

Passed by City Council on February 6, 2024

SEGMENT 5: EVALUATION







Passed by City Council on February 6, 2024

SAFETY FOR ALL USERS

All alternatives could improve the safety of people walking through the inclusion of a separated active transportation facility on the north side of the roadway. The sidewalk included in Alternative 5a would improve PLTS from 4 to 2, but BLTS would remain at 4. The trail included in Alternatives 5b and 5c would improve PLTS and BLTS scores for those alternatives from 4 to 1. The center turn lane provided in Alternative 5a could improve safety for people driving by reducing the potential for queuing associated with left turns. The intermittent median included in Alternative 5b would provide some access control, limiting the number of left turn conflicts. However, the full median and trail included in Alternative 5c boosts its performance by providing a high degree of access control and user comfort.

CONNECTIVITY

All alternatives provide improved connections along the north side of North Bend Way. However, Alternatives 5b and 5c perform better than 5a because of the inclusion of a trail that provides more space for people walking and rolling.

ORDER OF MAGNITUDE COSTS

All alternatives would require investment for pavement expansion, a new active transportation facility, and bio-channel buffer. However, the intermittent and full median required in Alternatives 5b and 5c, respectively, would require additional investment.

CONSTRUCTABILITY/READINESS

The improvements recommended in all alternatives could support phased implementation.

ENVIRONMENTAL IMPACT

All alternatives include pavement expansion and a new active transportation facility that would increase the amount of impervious surface area but would also include a bio-channel buffer that could improve stormwater conditions. Depending on the median design chosen, Alternatives 5b and 5c have the potential to reduce the impervious surface area, with the full median included in Alternative 5c having the highest potential.

APPENDIX C:
City Council Summary

Passed by City Council on February 6, 2024

CITY COUNCIL MEETING

In July 2023, City Council met to discuss and select preferred alternatives for each segment of the corridor. After hearing the results of the community engagement process and survey, City Council decided on the following alternatives:

ALTERNATIVE 1b

City Council asked if there were safety concerns and/or enough space for fire response when transitioning from four to two lanes in the first alternative. They also asked if providing two lanes is enough for detour traffic from I-90. City Council selected Alternative 1b.

ALTERNATIVE 2c

For the second alternative, City Council discussed that the bike lanes would be used for about six months out of the year due to weather, but traffic impacts associated with re-purposing the left turn lanes would be yearlong. There were some concerns about the traffic impacts associated with removing left turn pockets as well as potential traffic impact diversion to Park Street. However City Council agreed that some left turns in downtown could be eliminated, including at Main Street. A traffic study could be conducted to evaluate the potential traffic impacts associated with potentially closing Main Street to cars and converting to plaza spaces. Traffic flow through downtown is not the priority and through traffic is not preferred, although low levels of service in downtown areas are good for commerce.

While looking at Alternative 2b, City Council noted that because there is a paved trail a half block away, it would not be the best use of investment to re-purpose space on North Bend Way for separated bike lanes. City Council also discussed the option to make no improvements to North Bend Way.

Ultimately City Council selected Alternative 2c with turns at Ballarat and Bendigo as the preferred alternative with the addition of the road closure at Main Street.

ALTERNATIVE 4c

City Council noted that Alternative 4c could inspire more commercial development along the corridor, and that improvements should include pedestrian-scale lighting. They also noted that the sidewalk on the north side could meander.

ALTERNATIVE 5c

City Council discussed that Alternative 5c could create continuity in look and feel in combination with Segment 4. They selected 5c and requested landscaping be included on the south side of the ROW to reduce visual and noise impacts of I-90.

APPENDIX D:
Environmental Scan

Passed by City Council on February 6, 2024

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Technical Memorandum

DATE: October 22, 2023
TO: Tom Mohr, City of North Bend
FROM: Katheryn Seckel, Parametrix
SUBJECT: Complete Streets: Environmental Considerations
CC: Fred Young, Parametrix
PROJECT NUMBER: 554-1838-011

This memorandum summarizes the existing built and natural environmental considerations for the five segments of the City of North Bend Complete Streets project (project). This review was developed using available environmental information for the project study area (study area varies, depending on the resource considered) and supported by GIS mapping of environmentally sensitive features. No detailed site investigations, wetland delineations, or cultural resource surveys were completed, and no coordination with regulatory agencies or tribes was conducted. Environmental features documented for this effort include:

- Special Flood Hazard Areas (FEMA 2023)
- Critical Aquifer Recharge Areas (City of North Bend 2022)
- Wetlands, Streams, Waterbodies and their Regulated Buffers (City of North Bend 2022)
- Priority Habitat Species (PHS 2023)
- Toxics Cleanup Sites (Ecology 2023)
- Historic and Archaeological Resources (DAHP 2023)

This assessment emphasizes environmental disciplines that would likely be considered through local critical areas regulations, the State Environmental Policy Act (SEPA), and the National Environmental Policy Act (NEPA). Other considerations such as visual impacts, environmental justice, parks and recreational uses, and transportation were not assessed since it is expected the project would not impact or would be an overall benefit to these environmental considerations. For example, because the project would not cause displacement, and it would provide an alternative form of transportation for all populations, it is considered a benefit to environmental justice populations.

Special Flood Hazard Areas

Special Flood Hazard Areas (SFHAs) are defined by the City of North Bend as:

"…land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. It is shown on the flood insurance rate map (FIRM) as zone A, AO, AH, A1-30, AE, A99, AR (V, VO, V1-30, VE). "Special flood hazard area" has the same meaning as "area of special flood hazard."

SFHAs are regulated by the City of North Bend under NBMC 14.12 Floodplain Management. Projects that involve structures, grading, excavation, fill, and impervious surfaces in the SFHA would require a floodplain permit and a floodplain habitat assessment that meets the FEMA requirements. Other considerations for SFHA approvals are as follows:

- Would need to compensate for loss of flood storage.

Passed by City Council on February 6, 2024

- Would need to demonstrate that there will be no net increase in the rate and volume of the stormwater surface runoff or that the adverse impact is mitigated per the approved habitat mitigation assessment.
- Would require a "no-rise" certification if the proposed development is in a regulated floodway.

Of the five segments, Segment 5 is the only section of the project that is not sited in a mapped SFHA. Although not mapped as a SFHA, most of Segment 5 is mapped by the Federal Emergency Management Agency (FEMA) as zone D, which means it has the potential for moderate to high risk of flooding, but the probability has not been determined. All of Segment 2 is in a SFHA, with the majority in the 100-year floodplain and about 11 percent in the floodway. Approximately 70 percent of Segment 3 is in the 100-year floodplain. Segment 1 and 2 either maintain the amount of impervious surface or reduce the amount of impervious surface while the other three segments have varying degrees of additional impervious surface compared to existing conditions. It is expected that the project would be designed to compensate for the increase in impervious surface through the installation of a bio-channel[1] where feasible, or through other measures designed to mitigate for the loss of hydrologic storage. Table 1 and Figure 1 provide an overview of the segments relative to the mapped SFHA.

Table 1. Special Flood Hazard Areas (SFHAs)

Segment	100-Year Floodplain (linear ft/%)	Floodway (linear ft/%)	Outside Flood Zones (linear ft/%)
Segment 1	195 (4%)	85 (1.6%)	4,975 (95%)
Segment 2	2,336 (90%)	292 (11%)	0 (0%)
Segment 3	1,281 (70%)	0 (0%)	554 (30%)
Segment 4	1,888 (18%)	0 (0%)	8,696 (82%)
Segment 5	0 (0%)	0 (0%)	6,787 (100%)
Grand Total	**5,701**	**377**	**14,910**

[1] A vegetation-lined channel that uses soil and plants to reduce the volume of surface water runoff and to capture pollutants.

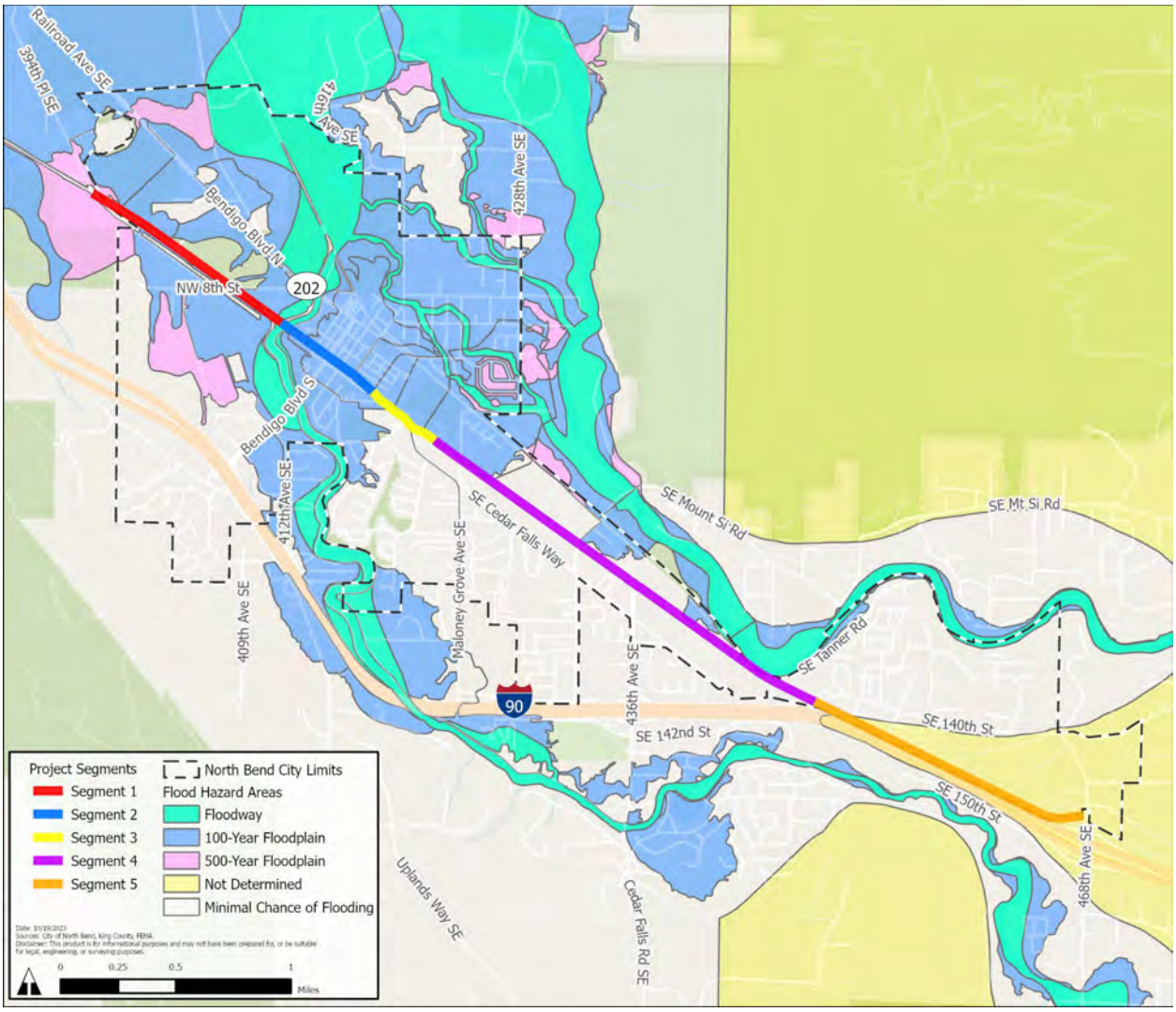

Figure 1. Mapped Special Flood Hazard Areas

Aquifer Recharge Areas

The protection of Critical Aquifer Recharge areas is important for groundwater quality and quantity of the public water supply and for maintaining hydrologic functions of surface waterbodies.

Critical Areas mapping prepared by the City of North Bend shows that all project segments are mapped as highly susceptible to groundwater contamination. All segments are in a critical aquifer recharge area, and some intersect wellhead protection areas. Per NBMC 14.07.030, as non-pollutant generating impervious surfaces and an activity that would not generate hazardous materials, trails are an allowed use in aquifer recharge areas; therefore, the project would not be prohibited, conditioned, or require a special study such as a hydrogeologic assessment. In addition, with the introduction of a bio-channel in Segment 1 (Alternative 1b), Segment 4 (all alternatives), and Segment 5 (all alternatives); water quality would likely improve.

It is possible; however, during construction, the City may require some assurance that the underlying critical aquifer recharge area is protected. During construction, typical activities associated with heavy equipment include fueling and engine maintenance activities that involve oil, grease, solvents, and other toxic engine fluids. There is the potential that these materials could leak from material

storage containers, spills from improper handling of liquids, drips from the undercarriages of vehicles, water used to clean equipment and control dust, improper disposal of waste liquids, or other miscellaneous accidents. It is expected that BMPs will be in place during construction and the construction contractor would be required to prepare a site-specific health and safety plan and spill prevention, control, and countermeasures plan to prevent hazardous materials from entering groundwater.

Wetlands, Streams, and Fish and Wildlife Habitat Areas

This section summarizes the mapped presence of wetlands and streams and other fish and wildlife habitat areas that have the potential to be in the vicinity of the corridor improvements. The City of North Bend defines streams and other fish and wildlife habitat areas as follows:

...land management for maintaining populations of species in suitable habitats within their natural geographic distribution so that the habitat available is sufficient to support viable populations over the long term and isolated subpopulations are not created. This does not mean maintaining all individuals of all species at all times, but it does mean not degrading or reducing populations or habitats so that they are no longer viable over the long term. These areas include:

a. *Areas with which state or federally designated endangered, threatened, and critical species have a primary association;*

b. *Habitats of local importance, including, but not limited to, areas designated as priority habitat by the Washington State Department of Fish and Wildlife, and fish habitat associated with resident fish species within the upper Snoqualmie Watershed, including all habitats associated with the following resident native fish species likely to occur in city rivers and streams: cutthroat trout, rainbow trout, mountain whitefish, largescale sucker, longnose dace, shorthead sculpin, mottled sculpin, western brook lamprey, and threespine stickleback.*

c. *Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish and wildlife habitat;*

d. *Waters of the state, including lakes, rivers, ponds, and streams;*

e. *State natural area preserves and natural resource conservation areas; and*

f. *Land essential for preserving connections between habitat blocks and open spaces.*

GIS data for wetlands, streams, and fish and wildlife habitat was obtained from King County, City of North Bend, and Washington Department of Fish and Wildlife. Figure 2 is a culmination of GIS data obtained from these government agencies, followed by a description for each resource category.

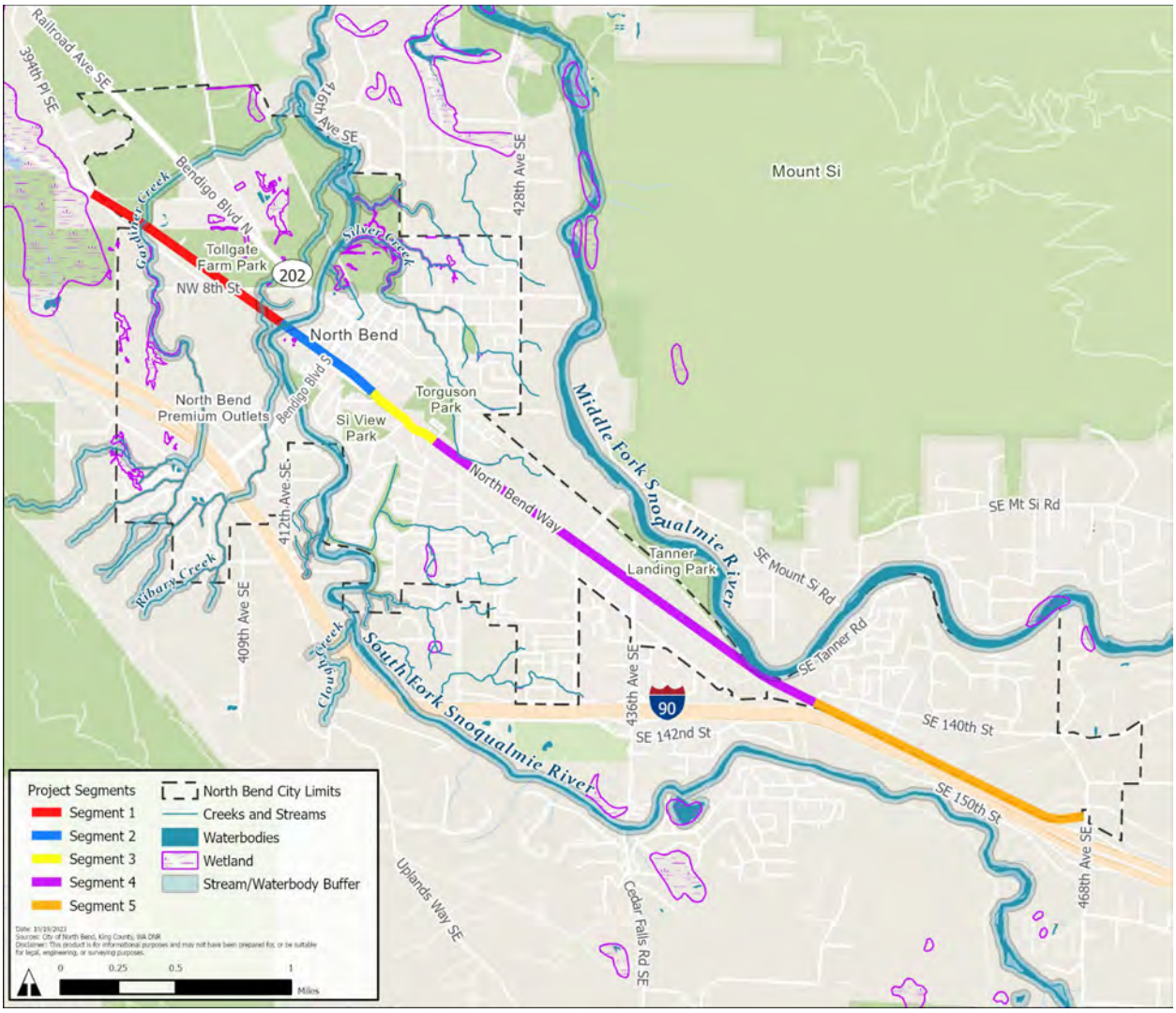

Figure 2. Mapped Waterbodies

Wetlands

This assessment considered mapped wetlands within 225 feet of the study area to accommodate for the largest potential buffer width that would be regulated under local critical areas regulations (NBMC 14.06). Several wetlands were identified within these parameters:

- Segment 1: a large forested, shrub, and emergent marsh wetland associated with Kimball Creek is just east of the segment.
- Segment 2: several small wetlands east of the South Fork Snoqualmie River and south of SE North Bend Way.
- Segment 4: a small wetland associated with Silver Creek, east of 424th Avenue SE and north of E North Bend Way.

As with all projects that involve ground disturbance, a wetland reconnaissance or delineation would need to be performed to confirm and document the presence or absence of wetlands. If work occurs in wetlands or their regulated buffer, the project would be subject to avoidance, minimization, and mitigation measures as outlined in NBMC 14.06.

Streams

Segment 1 would extend over several regulated streams: Gardiner Creek and Ribary Creek, including their regulated buffers. Segment 1 would also occur in the regulated buffer to South Fork Snoqualmie River; however, because this segment is within the existing, paved right-of-way, it is not expected to have direct impacts to streams or their buffers. Segment 2 would extend over South Fork Snoqualmie River and it's regulated buffer, but since all improvements would be within the paved right-of-way, there would be no direct impacts. Segment 4 is also shown to be in the regulated buffer to Middle Fork Snoqualmie River; however, the project would be concentrated in the existing, paved right-of-way and not expected to result in direct impacts to the river or it's regulated buffer. If work does occur in regulated buffer, the project would be subject to avoidance, minimization, and mitigation measures as outlined in NBMC 14.09.

In addition, based on their proximity to the South Fork Snoqualmie River and the Middle Fork Snoqualmie River, segments 1, 2 and 4 are regulated under NBMC 14.20 in accordance with the State of Washington's Shoreline Management Act. Segments 1, 2 and 4 are all in the mapped Commercial Conservancy environmental designation. The following uses are allowed in the Commercial Conservancy shorelines:

- Maintenance, improvement, or expansion of existing bridges, trails, roads and parking is permitted use in the shoreline.
- New trails and new roads.

Fish and Wildlife

WDFW's Priority and Habitat Species (PHS) mapping was reviewed to understand the potential presence of fish and wildlife within 500 feet of the Project. PHS mapping indicates the potential presence of the state endangered and federally threatened northern spotted owl for all segments. Segment 5 is listed for the presence of Yuma myotis, a small bat that is considered a state sensitive species. Although not considered threatened, endangered, or sensitive; elk are mapped as being present in all segments. Ribary and the South Fork Snoqualmie River are mapped with the presence of cutthroat trout, and the Middle Fork Snoqualmie River is mapped for both cutthroat trout and rainbow trout. Although PHS does not map the presence of fish in Gardner Creek, the City of North Bend critical areas mapping shows it as fish bearing.

Because the Project would work within the right-of-way, and mostly in areas that are already paved or surrounded by development, it is expected to have minimal impact to fish and wildlife. Further, proposed stormwater bio-channels are expected to improve water quality, which could have a beneficial effect to streams and rivers in the study area.

Hazardous Material Sites

Review of Ecology's public database of cleanup sites, "What's in my Neighborhood", shows Segment 5 as the only site to have a contaminant release that has not begun cleanup and segments 2, 3, and 4 show sites that have begun cleanup. This does not mean that every site identified within the corridor or on Ecology's database would impact the project. Impacts will depend on the limits of construction and potential disturbance and mobilization of contaminated soil or groundwater, risk of exposure to construction workers, and proposed property acquisitions for incurred financial risk of remediation responsibilities. Figure 3 shows the status of each cleanup site mapped within 0.25 miles of the project corridor, including those sites that are highest assessed risk and moderate risk.

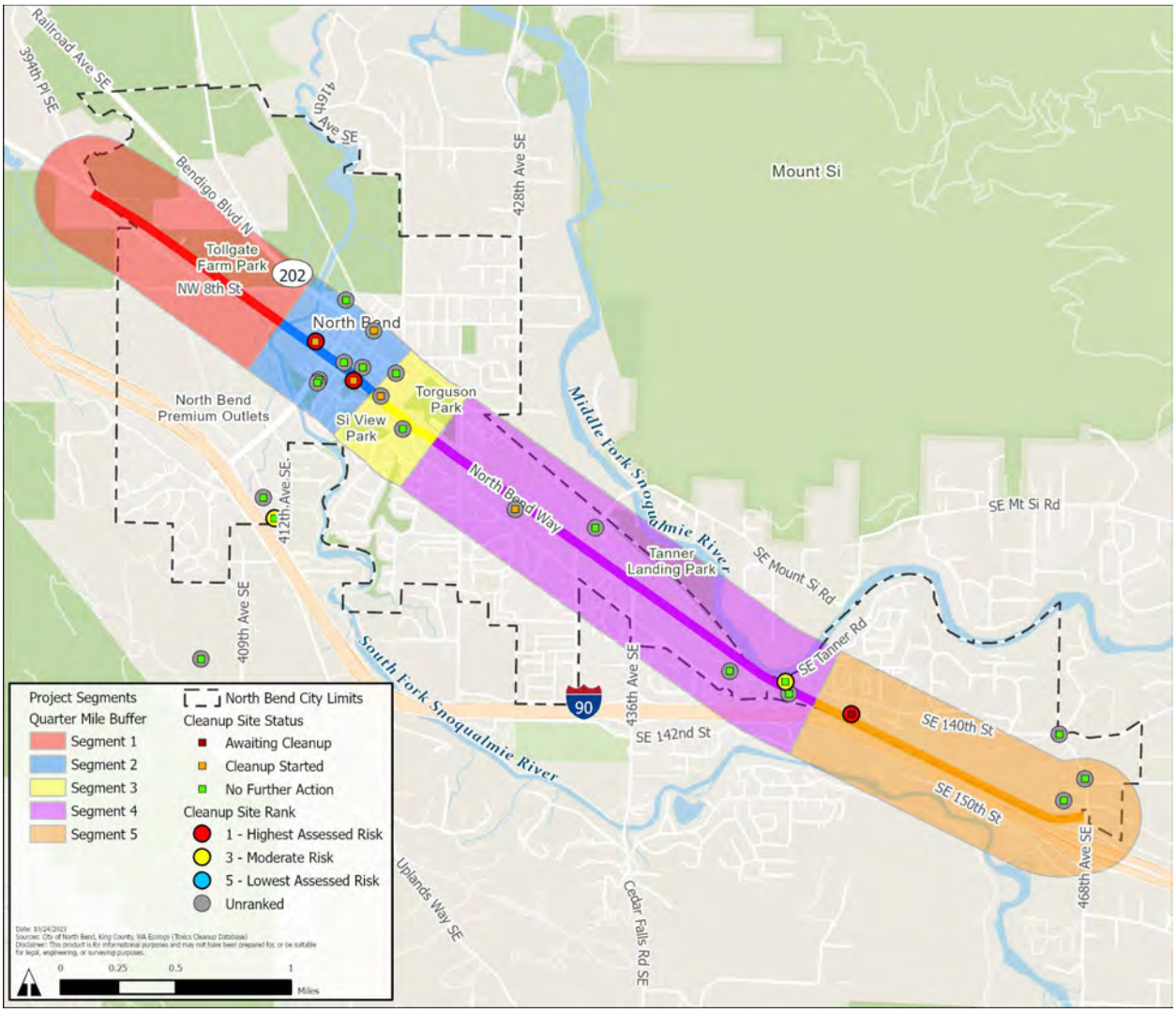

Figure 3. Hazardous Materials Sites

Historic Properties

This section discusses the mapped historic and cultural resources in the study area (Project footprint and adjacent parcels). This review was completed using DAHP's secure electronic database known as the Washington Information System for Architectural and Archaeological Data (WISAARD; DAHP 2023). This database includes recorded archaeological resources, historic property inventories, National Register of Historic Properties (NRHP) and Washington Heritage Register (WHR) properties, identified cemeteries, and previously conducted cultural resource surveys found throughout the state.

A property must be significant, be of a certain age (generally, at least 50-years old), and have integrity to meet the criteria for eligibility for the National Register. As mapped by WISAARD, Table 2 identifies resources that are within adjacent parcels to the project that are: 1) on the national register of historic properties, 2) identified as eligible for the national historic register, 3) have been identified as a potential historic property but no determination of its eligibility as a historic property has been made, and 4) properties that have been determined as not eligible as a historic property.

There are also other properties that are adjacent to the project footprint that are over the threshold of 50 years, but these properties have not been documented.

WISSARD also provides a predictive model that identifies the potential for encountering archaeological resources. Segments 1, 2, and 3 are mapped primarily as *moderate* for encountering cultural resources. Segment 4 is mapped as *moderate and high risk, and Segment 5 is mapped as high risk* and *very high risk* for encountering cultural resources (DAHP 2023).

Issues related to historic and cultural resources are unlikely to affect the project since the majority of the project would occur in existing, paved right-of-way; or areas that have already been disturbed by past activities. Actions that may adversely affect historic resources are not strictly prohibited; rather, if an alternative is likely to result in unavoidable adverse effects on historic resources, requirements to mitigate adverse effects on historic resources would be triggered. Requirements to mitigate adverse effects could influence the design of an alternative.

It is recommended a professional historian determine if the proposed project will adversely affect NRHP-listed properties within the study area. Further, DAHP's predictive model for encountering archaeological resources places the study area in a variety of different risk levels; therefore, further archaeological investigations are recommended.

Table 2. Historic Properties

Segment	Registered Properties	Determined Eligible	No Determination	Determined Not Eligible	Total
Segment 1	--	--	--	--	--
Segment 2	1	1	40	--	42
Segment 3	--	--	--	1	1
Segment 4	1	2	11	2	15
Segment 5	--	--	1	--	1
Total	**2**	**2**	**51**	**3**	**59**

Figure 4. WISARRD Property Inventory

References

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Passed by City Council on February 6, 2024

APPENDIX E:
Implementation Strategy

Passed by City Council on February 6, 2024

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Memorandum

DATE: January 16, 2024
TO: Rebecca Deming & Dan Marcinco (City of North Bend)
FROM: Fred Young & Erinn Ellig (Parametrix)
SUBJECT: Implementation Strategy
PROJECT NUMBER: 554-1838-011
PROJECT NAME: North Bend Way Complete Street Plan

Phasing factors

Determining the phasing of improvements along North Bend Way requires the consideration of several factors, including future traffic demands, ultimate ROW needs, development and redevelopment, local and regional transportation planning, and utility planning. Each of these factors and their influence on the recommended phasing is described below.

Balancing future traffic demands. North Bend Way is the primary transportation east-west spine for people traveling within North Bend. Safety and connectivity for people walking and riding bicycles were identified as important by community members participating in community engagement activities. To help improve traffic safety and minimize maintenance costs, the city has implemented and has plans for several roundabouts along the corridor. The city has plans for extending a trail along the corridor from downtown to the Snoqualmie Valley Trail. As North Bend Way improvements are implemented, opportunities to implement further traffic safety improvements and network connections for people walking and riding bicycles should be prioritized.

Right-of-Way needs. For most of the corridor, there is sufficient available publicly owned right-of-way (ROW) to construct the full corridor improvements. The only location where additional ROW will need to be acquired is in the Tanner area.

Development along the corridor. Most of the anticipated development along the corridor is located within Segments 4 and 5. As development proceeds, the city should require developers to make approved improvements to their frontage. The City may wish to consider constructing public improvements across the remaining development gaps concurrently, to both encourage development and eliminate gaps within constructed infrastructure. This anticipated development interest is a key factor in establishing the phasing plan.

Local and regional transportation and utility projects. There are several projects planned along the North Bend Way corridor:

- Roundabout at North Bend Way / SE Mount Si Road Intersection
- North Bend Way/NW 8th Street Roundabout
- NW 8th Street Widening and Sidewalk between NBW and Bendigo Blvd (includes new Ribary Creek bridge)
- North Bend Way Rechannelization between SVT and Tanner Road
- SE 140th Street Sidewalk on North Side (North Bend Way to Tanner Falls Frontage)
- Bendigo Blvd. Traffic Reconfiguration (3rd Street to NBW)
- North Bend Way / Ballarat Ave All Way Stop or Traffic Signal
- Tanner Road Improvements (north of North Bend Way)
- North Bend Way (Western City Limits to SF Snoqualmie Bridge)

Passed by City Council on February 6, 2024

- North Bend Way (SF Snoqualmie Bridge to Park Street Roundabout)
- North Bend Way (Park Street Roundabout to Cedar Falls Way Roundabout)
- North Bend Way (Cedar Falls Way Roundabout to 436th Ave SE Roundabout)
- North Bend Way (436th Ave SE Roundabout to SE 140th Street)
- North Bend Way (SE 140th Street to 468th Ave SE)
- NBW Runoff into Mt. Si Motel (could be combined with roundabout project)

Phasing recommendations

Catalyst projects

Catalyst projects provide an opportunity for the city to implement a small-scale project that helps communicate larger scale possibilities along the North Bend Way project corridor. Three potential catalyst projects have been described below.

Pedestrianization of Ballarat. The short segment of Ballarat Avenue between North Bend Way and McClellan Street provides an opportunity for placemaking that significantly improves the experience of people visiting downtown North Bend. Specific improvements could include: furniture for sitting and outdoor dining, space for playing and gathering, or new plantings and decorative paving. These improvements could be implemented using tactical urbanism approach to validate the idea with the public before more permanent improvements are implemented.

Gateway experience at west end of downtown. In coordination with proposed improvements to Segment 1, the North Bend Way bridge over South Fork Snoqualmie River provides an opportunity to create a gateway experience for people entering North Bend from the west and a gathering space for people using the proposed shared use path along the north side of North Bend Way. While maintaining the proposed 2 general purpose lanes, placemaking strategies on this bridge structure include surface treatments to designate spaces for people and using lightweight objects to provide seating or further separate pedestrian space from vehicular traffic. At the east end of the bridge, the gateway experience includes an enhanced crossing of North Bend Way that includes a marked crosswalk, RRFB, and other features to shorten the crossing distance for pedestrians and bicyclists.

Wayfinding update. Wayfinding is an important feature that provides identity to a community in addition to helping people navigate. North Bend's existing wayfinding system suffers from deferred maintenance. New powdercoat should be applied to all the existing signs. Additionally, existing signs should be updated in terms of content and additional signs should be installed.

Phasing of segments

There are many factors to consider when prioritizing the phasing for projects along a 5-mile corridor. The phasing outlined below is a starting point and should be revisited as development happens across the corridor, funding becomes available, and other projects can be leveraged. Additionally, in some cases specific components within a segment could be advanced as funding and support is available.

Phase	Segment	Supporting Rationale
1	**Segment 3:** Park Street to Cedar Falls Way Roundabout	**Balancing future traffic needs**: Along this segment, North Bend Way has recently been rebuilt. This plan calls for upgrading the Tanner Trail to meet standard and single location for undergrounding utilities. No other changes to the roadway are recommended. These improvements could be implemented at any time as funding is available. **Right-of-Way needs**: None. **Development along the segment**: Limited potential for additional new development. **Adjacent projects**: None known at this time.
2	**Segment 2:** South Fork Snoqualmie River to Park Street	**Balancing future traffic needs**: Proposed improvements along this segment are limited to reallocation of street space to eliminate a portion of the center turn lane to accommodate additional parking. Additional operational changes include limiting left turns and potentially limiting access from North Bend Way to perpendicular streets. Relative to other proposed improvements along North Bend Way, these changes are low-cost and quick to implement, however they require additional traffic modelling. **Right-of-Way needs**: None. **Development along the segment**: Limited potential for new development. **Adjacent projects**: Planned intersection improvements
3	**Segment 1:** Western city limits to South Fork Snoqualmie River	**Balancing future traffic needs**: Future traffic volumes are not expected to change significantly along this segment. Proposed improvements along this segment include a reallocation of the existing roadway to right-size the road to safely accommodate people walking and riding bicycles while still providing adequate space for the low volumes of traffic. These improvements could be implemented in phases: a near-term reconfiguration of the road space could be as simple as restriping the roadway; long-term improvements include removing portions of the existing roadway to create a vegetated buffer. **Right-of-Way needs**: None. **Development along the segment**: None. **Adjacent projects**: Intersection improvements at NW 8th Street.
4	**Segment 4:** Cedar Falls Way Roundabout to SE 140th Street	**Balancing future traffic needs**: Approximately 20% of this segment has been upgraded in conjunction with the development of Timberstone. Proposed improvements closely match these recent improvements with the inclusion of a center median island to limit where left turns can occur. Additional traffic studies may provide intersection specific needs as new developments are identified. Completion of the Tanner Trail and other active transportation improvements will reduce demand on limited roadway space. **Right-of-Way needs**: Limited amount needed for the realignment of North Bend Way at the crossing of Snoqualmie Valley Trail. **Development along the segment**: Significant potential for redevelopment along most of the segment. Opportunity to coordinate improvements to North Bend Way with future developments. **Adjacent projects**: Intersection and corridor improvements.
5	**Segment 5:** SE 140th Street to 468th Ave SE	**Balancing future traffic needs**: As development progresses along this corridor, demand is expected to increase. Additional traffic studies may provide further insights as new developments are identified. Extending a trail to the east end of the corridor paired with other active transportation improvements will reduce demand on limited roadway space. **Right-of-Way needs**: None identified. **Development along the segment**: Significant potential for redevelopment along most of the segment. Opportunity to coordinate improvements to North Bend Way with future developments. **Adjacent projects**: Intersection and corridor improvements.

Funding sources and strategies

The availability of funding is critical to the phasing of improvements along North Bend Way. A variety of funding sources and strategies can be used to pay for the proposed improvements.

Funding sources

Developer contributions. As development occurs along North Bend Way, developers can be required to make certain improvements to the roadway. Developers can only be required to pay for the portion of the improvement that is proportionate to their impact on the facility. As an alternative, the City can charge a "fee-in-lieu" which is intended to cover the developer's share of the costs. However, requiring developers to construct improvements is preferable, as it results in greater certainty that the improvements will be made.

Special assessments. Special assessments allow local jurisdictions, with the agreement of property owners, to put into place additional property taxes to pay for specific capital projects or ongoing costs. A variety of special assessments are available to fund a range of improvements, including sidewalks, curbs, gutters, street lighting, parking structures, and downtown or commercial zone transportation improvements.

Local Improvement District (LID). This tool is typically used to pay for infrastructure improvements in a specific geographic area which collectively benefit people or property owners in that area. LIDs are particularly well-suited for projects that have a more localized special benefit and where property owners have sufficient resources, anticipated benefits and motivation to agree to participate in the LID. Segments 4 and 5 are ideal for this type of funding.

Bonding. Bonding is a method of financing construction projects by borrowing money and paying the borrowed sum with interest back over time. Funds could be obtained by general obligation bonds approved by voters, revenue bonds, or other debt financing. This method requires smaller regular payments than the full cost of the project, but increases the total cost of the project due to interest.

Coordination with other projects. There are other public projects planned along or adjacent to the North Bend Way corridor. Coordination with these projects may provide opportunities to share costs.

Grant Programs. Several grant programs from federal, state, and regional agencies can be used for improvements along North Bend Way, including:

Federal

Agency/Office	Program Name	Description	URL
USDOT / Federal Highway Administration (FHWA)	Active Transportation Infrastructure Investment Program (ATIIP)	The Active Transportation Infrastructure Investment Program (ATIIP) is a new competitive grant program created by Section 11529 of the Bipartisan Infrastructure Law (enacted as the Infrastructure Investment and Jobs Act (Pub. L. 117-58) to construct projects to provide safe and connected active transportation facilities in active transportation networks or active transportation spines.	https://www.fhwa.dot.gov/environment/bicycle_pedestrian/atiip/
USDOT / Federal Highway Administration (FHWA)	Advanced Transportation Technologies and Innovative Mobility Deployment	The Advanced Transportation Technologies and Innovative Mobility Deployment program, also known as ATTAIN, supports the implementation and operation of mobility-focused transportation technologies.	https://www.transportation.gov/rural/grant-toolkit/advanced-transportation-technologies-and-innovative-mobility-deployment

USDOT / Federal Highway Administration (FHWA)	Federal Lands Access Program (FLAP)	The Federal Lands Access Program (Access Program) was established in 23 U.S.C. 204 to improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands. The Access Program supplements State and local resources for public roads, transit systems, and other transportation facilities, with an emphasis on high-use recreation sites and economic generators.	https://highways.dot.gov/federal-lands/programs-access
USDOT / Office of the Secretary of Transportation (OST)	Rebuilding American Infrastructure with Sustainability and Equity (RAISE)	The Rebuilding American Infrastructure with Sustainability and Equity (or RAISE) program funds capital investments in surface transportation that will have a significant local or regional impact, especially in areas of persistent poverty or historically disadvantaged, overburdened, or underserved communities.	https://www.transportation.gov/rural/grant-toolkit/rebuilding-american-infrastructure-sustainability-and-equity-raise
USDOT / Office of the Secretary of Transportation (OST)	Reconnecting Communities Pilot (RCP) Program	The Reconnecting Communities Pilot Program (RCP) funds planning and construction to remove, retrofit, or mitigate transportation facilities such as highways and rail lines that create mobility, access, or economic barriers to community connectivity.	https://www.transportation.gov/rural/grant-toolkit/reconnecting-communities-pilot-rcp-program
USDOT / Office of the Secretary of Transportation (OST)	Rural and Tribal Assistance Pilot Program	The Rural and Tribal Assistance Pilot Program aims to advance transportation infrastructure projects in rural and Tribal communities by providing early planning financial, technical, and legal advisory services and direct grants to eligible project sponsors.	https://www.transportation.gov/rural/grant-toolkit/rural-and-tribal-assistance-pilot-program
USDOT / Office of the Secretary of Transportation (OST)	Safe Streets and Roads for All (SS4A) Grant Program	The Safe Streets and Roads for All (SS4A) program funds a range of initiatives to prevent death and serious injury on multimodal roads and streets involving all roadway users.	https://www.transportation.gov/rural/grant-toolkit/safe-streets-and-roads-all-ss4a-grant-program
USDOT / Office of the Secretary of Transportation (OST)	Thriving Communities Program (TCP)	TCP funds organizations ("Capacity Builders") to provide technical assistance, planning, and capacity building support to disadvantaged and under-resourced communities, enabling them to advance transportation projects that support community-driven economic development, health, environment, mobility, and access goals.	https://www.transportation.gov/grants/thriving-communities
USDOT / Federal Transit Administration (FTA	Pilot Program for Transit-Oriented Development (TOD) Planning	The Pilot Program for Transit-Oriented Development (TOD) Planning funds the integration of land use and transportation planning, economic development, accessibility, and multimodal connectivity, and mixed-use development in new capital projects.	https://www.transportation.gov/rural/grant-toolkit/pilot-program-transit-oriented-development-tod-planning

State

Agency/Office	Program Name	Description	URL
Transportation Improvement Board (TIB)	Active Transportation Program (ATP)	The Active Transportation Program provides funding to improve pedestrian and cyclist safety, enhanced pedestrian and cyclist mobility and connectivity, or improve the condition of existing facilities.	http://www.tib.wa.gov/grants/grants.cfm
WSDOT	First Mile/Last Mile Connections grants	This program supports projects that help people connect with fixed-route public transportation services, including buses, ferries, rail, water taxis, tribal transit and rideshares.	https://wsdot.wa.gov/business-wsdot/grants/public-transportation-grants/grant-programs-and-awards/first-mile-last-mile-connections-grants
WSDOT	Pedestrian and Bicycle Program	The Pedestrian and Bicycle program objective is to improve the transportation system to enhance safety and mobility for people who choose to walk or bike.	https://wsdot.wa.gov/business-wsdot/support-local-programs/funding-programs/pedestrian-bicycle-program

WSDOT	Safe Routes to School Program	The purpose of the Safe Routes to Schools Program (SRTS) is to improve safety and mobility for children by enabling and encouraging them to walk and bicycle to school. Funding from this program is for projects within two-miles of primary, middle and high schools (K-12).	https://wsdot.wa.gov/business-wsdot/support-local-programs/funding-programs/safe-routes-school-program
Washington State Department of Commerce	Traditional Financing	The Public Works Board (Board) is authorized by state statute (RCW 43.155). Its purpose is to loan and grant money to counties, cities, and special purpose districts to repair, replace, or create infrastructure.	https://www.commerce.wa.gov/building-infrastructure/pwb/pwb-financing/
WSDOT	Transportation Alternatives	Transportation Alternatives (TA) projects and activities encompass smaller-scale transportation projects such as pedestrians and bicycle facilities, historic preservation, safe routes to school and other transportation-related activities.	https://wsdot.wa.gov/business-wsdot/support-local-programs/funding-programs/transportation-alternatives
Transportation Improvement Board (TIB)	Urban Arterial Program (UAP)	The Urban Arterial Program funds projects in one of the following bands: Safety, Commercial Growth and Development, Mobility, and Physical Condition.	http://www.tib.wa.gov/grants/grants.cfm

Regional

Agency/Office	Program Name	Description	URL
Puget Sound Regional Council (PSRC)	Transportation Improvement Program (TIP)	PSRC helps communities secure federal funding for transportation projects. PSRC conducts project selection processes for almost $300 million each year in federal transportation dollars, and tracks awarded projects via a robust Project Tracking Program. Projects funded from a variety of sources are included in a rolling 4-year document called the Regional Transportation Improvement Program (TIP)	https://www.psrc.org/our-work/funding

Funding strategies

Require developers to fund frontage improvements. As parcels redevelop along the corridor, require developers to pay for approved frontage improvements.

Consider the implementation of a LID along the corridor. Property owners may be willing and motivated to approve a LID to fund completion of segments or specific components (utility undergrounding) where other funding sources are not available. The timing of use of LIDs will depend on the overlap of property owner willingness and gaps in other funding sources.

Pursue grant funding. Grants from a variety of sources can be used opportunistically to leverage or supplement other local funding sources.

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