

TECHNICAL MEMORANDUM #9 (DRAFT)

DATE: February 11, 2025

TO: Project Management Team

FROM: Garth Appanaitis, PE & Emily D'Antonio | DKS Associates

SUBJECT: Task 5.1 Sweet Home TSP Preferred Alternatives

Project #20020-15

INTRODUCTION

This memorandum summarizes the preferred transportation projects to address the deficiencies and needs of Sweet Home's transportation network. The preferred alternatives include two primary components based on anticipated implementation mechanisms:

- A financially constrained or "cost-constrained" project list are high-priority projects that are reasonably likely to be funded within the projected available revenue streams over the 20-year planning horizon (2045).
- An aspirational project list is provided for additional projects that have been identified and meet the City's needs but are not anticipated to be completed during the planning horizon due within the existing transportation revenue streams.

These projects were selected from the broader list of future needs identified in *TM #6 Future Alternatives and Funding Opportunities*.

Although the TSP identifies priorities for the investments, the City does not have to implement the projects in that order. The projects on the Financially Constrained list do not limit the City, County, or ODOT from advancing other projects in the City's TSP in response to changes in development patterns and funding opportunities that are not known at the time of this plan. Future circumstances could allow or require the City to fund projects not on the Financially Constrained project list to address an unanticipated transportation need or take advantage of opportunities as they arise.

FUTURE TRANSPORTATION FUNDING PLAN

Based on existing revenue sources of the state gas tax and local transportation System Development Charges (SDC), Sweet Home is estimated to have approximately \$3.1 million available for transportation improvements over the 20-year planning horizon, as summarized in Table 1. The state gas tax provides revenue for the city's Transportation Fund (Fund 206), which after covering the combined expenditures for Personal Services and Materials and Services leaves approximately \$37,000 per year remaining for capital improvements¹. The city's SDC is currently projected to generate approximately \$120,000 per year based on the city budget, but increased development levels would increase this amount.

TABLE 1. EXISTING AND PROJECTED TRANSPORTATION REVENUE SOURCES

REVENUE SOURCE	ESTIMATED ANNUAL REVENUE	TOTAL REVENUE THROUGH 2045 (20 YEARS)
STATE GAS TAX	\$37,000*	\$740,000
SYSTEM DEVELOPMENT CHARGES	\$120,000**	\$2,400,000
TOTAL	\$157,000	\$3,140,000

Note: * Revenue remaining after covering other anticipated costs in Transportation Fund including Personal Services and Materials and Services.

** SDC revenue is estimated based on the City budget, but could increase with additional development.

Based on the requirements within Oregon Administrative Rules (OAR) 660-012 (Transportation Planning Rule) the cost of the financially-constrained project list should not exceed 125 percent of the available funding, or \$3.93 million².

If Sweet Home implements other revenue sources (e.g., local gas tax or street utility fee programs) that could increase the amount of transportation revenue available for new capital projects and programs.

¹ The city budget estimates approximately \$777,000 per year from the state gas tax with approximately \$740,000 per year in costs related to Personal Services and Materials and Services, leaving \$37,000 per year to cover capital improvements.

² 125% * \$3,140,000 = \$3,930,000

ASPIRATIONAL PROJECT LIST IMPLEMENTATION OPPORTUNITIES

Other implementation opportunities exist that could support funding and construction of other aspirational projects. These opportunities vary, but were reviewed along with the preferred project list to identify other potential implementation opportunities:

- **SDC Improvements** – Capacity projects that would be needed to support future development and, depending on level of development, could be candidate projects for SDC resources.
- **Partner Funding** – Projects that are located on a County or State facility and may be opportunities for joint funding and/or incorporating into related projects along the facility.
- **Development Frontage** – Projects that could be implemented through frontage improvements as adjacent properties redevelop.
- **Active Transportation Grant** – Projects that would improve the active transportation system and may be future candidates for various state or other active transportation grant programs.
- **Safety Grant** – Projects that would improve safety of the transportation system and may be future candidates to consider for various state or other safety grant programs.

FINANCIALLY CONSTRAINED PROJECT LIST

The Oregon Transportation Planning Rule (OAR 660-012) requires that local agencies identify a financially constrained list of projects within the TSP. The financially constrained project list identifies the \$3.1 million in projected transportation funding to the highest priority projects. The financially constrained project list includes the highest priority projects for the City to pursue:

- C1 – Main Street / Pleasant Valley Road Intersection Improvement – this location currently is a two-way stop control and does not meet mobility targets, is an identified safety concern by the public due to the intersection geometrics and sight distance, and is generally identified as the location of highest interest for an improvement in the city. Preliminary evaluation was conducted that indicated a roundabout may provide additional benefits to reducing speed on Main Street and providing a gateway treatment for the western edge of the City. However, additional processes would be required to select a control type for implementation, including intersection control evaluation and approval by ODOT’s State Traffic Engineer (due to location on the state highway system), and coordination and approval from the mobility advisory committee (due to location on a reduction review route). Due to the unknown treatment type, the intersection cost is listed as a range.
- R5 – 24th Avenue Rail Crossing Improvements – this location had a rail crossing order³ that allows future improvements at the crossing to support future growth including gates and lights, cantilevers for additional flashing lights, and pedestrian gates for sidewalks with a roadway having four lanes with medians and bike lanes. However, the crossing order requires that “Construction of crossing No. 3S-029.33 shall be substantially in progress

³ Order No 51372, ODOT Crossing No 938945S

within five years from the entered date of the Final Order. Otherwise, the authority expires on that date.” It is noted that the final order date is September 30, 2021, with a five-year period ending on September 30, 2026 for construction to be “substantially in progress”.

The financially constrained project list is listed in Table 2. The total cost of the project list is shown as a range of \$1.4 million to \$6.55 million due to the unknown treatment and intersection cost that will result from additional review of the Main Street/Pleasant Valley Road intersection improvement. A traffic signal at this location would result in a lower cost than a roundabout treatment.

TABLE 2. FINANCIALLY CONSTRAINED PROJECT LIST (2022 DOLLARS)

PROJECT ID	PROJECT NAME	COST ESTIMATE
C1	Main Street/Pleasant Valley Road Intersection Improvement	\$600,000-\$5,750,000
R5A	24 th Avenue Rail Crossing ROW and Signing	\$204,000
R5B	24 th Ave Rail Crossing Installation	\$600,000
	Total	\$1.4-\$6.55 Million

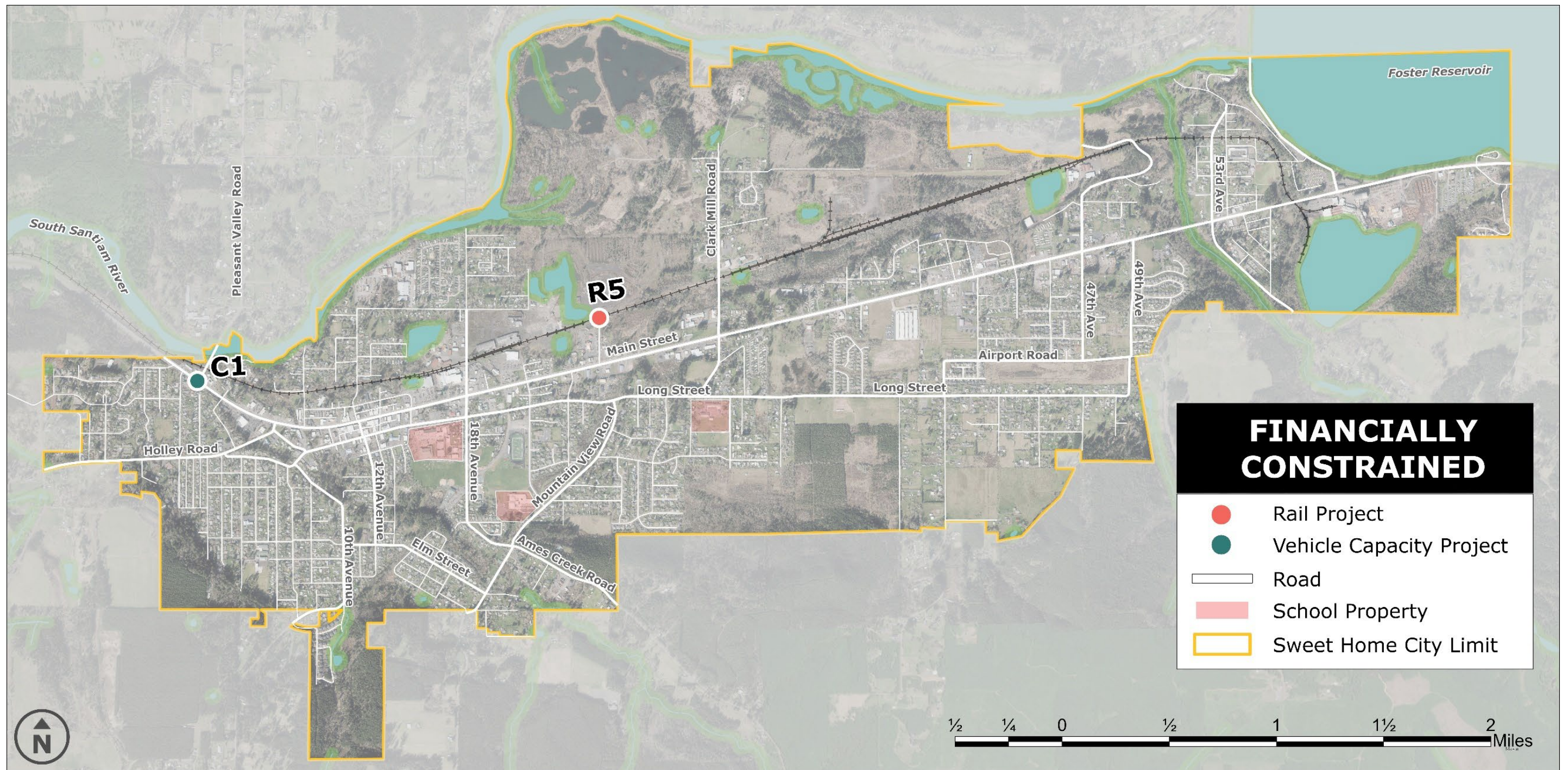


FIGURE 1. FINANCIALLY CONSTRAINED PROJECT LIST




ASPIRATIONAL PROJECTS

The following section summarizes the remaining “aspirational” preferred plan projects that are important for Sweet Home but are not included in the financially constrained list. These projects are not considered reasonably likely to be funded by 2045.

The aspirational projects are grouped by category for organization purposes. The order of the categories does not represent an order of prioritization nor does the order of the projects within the tables. Projects within the aspirational project list should be constructed as funding becomes available or priorities within the city are changed. As noted previously, several potential implementation opportunities are flagged for each project, depending on the type, location, and potential benefits.

The aspirational vehicle capacity projects are listed in Table 3 and shown in Figure 2.

TABLE 3. ASPIRATIONAL VEHICLE CAPACITY PROJECTS^A

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^B	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
 C2	Main Street/24 th Avenue Signal	Construct a traffic control upgrade at Main Street (US 20)/22nd Avenue. Location may be a candidate for a traffic signal.	 \$ 600,000	X	X			
 C3	Main Street/Clark Mill Road Signal	Construct a traffic control upgrade at Main Street (US 20)/Clark Mill Road. Location may be a candidate for a traffic signal.	\$ 600,000	X	X			
C4	Main Street/47 th Avenue	Construct a traffic control upgrade at Main Street (US 20)/47th Avenue. Location may be a candidate for a traffic signal.	\$ 600,000	X	X			
Total			\$1,800,000					

A. Projects that propose changing an intersection’s traffic control on ODOT’s system would require additional study as part of an Intersection Control Evaluation (ICE) to be conducted before design per ODOT standards to determine the appropriate control treatment, including consideration for traffic signal warrants.

B. All cost estimates are based on 2022 dollars

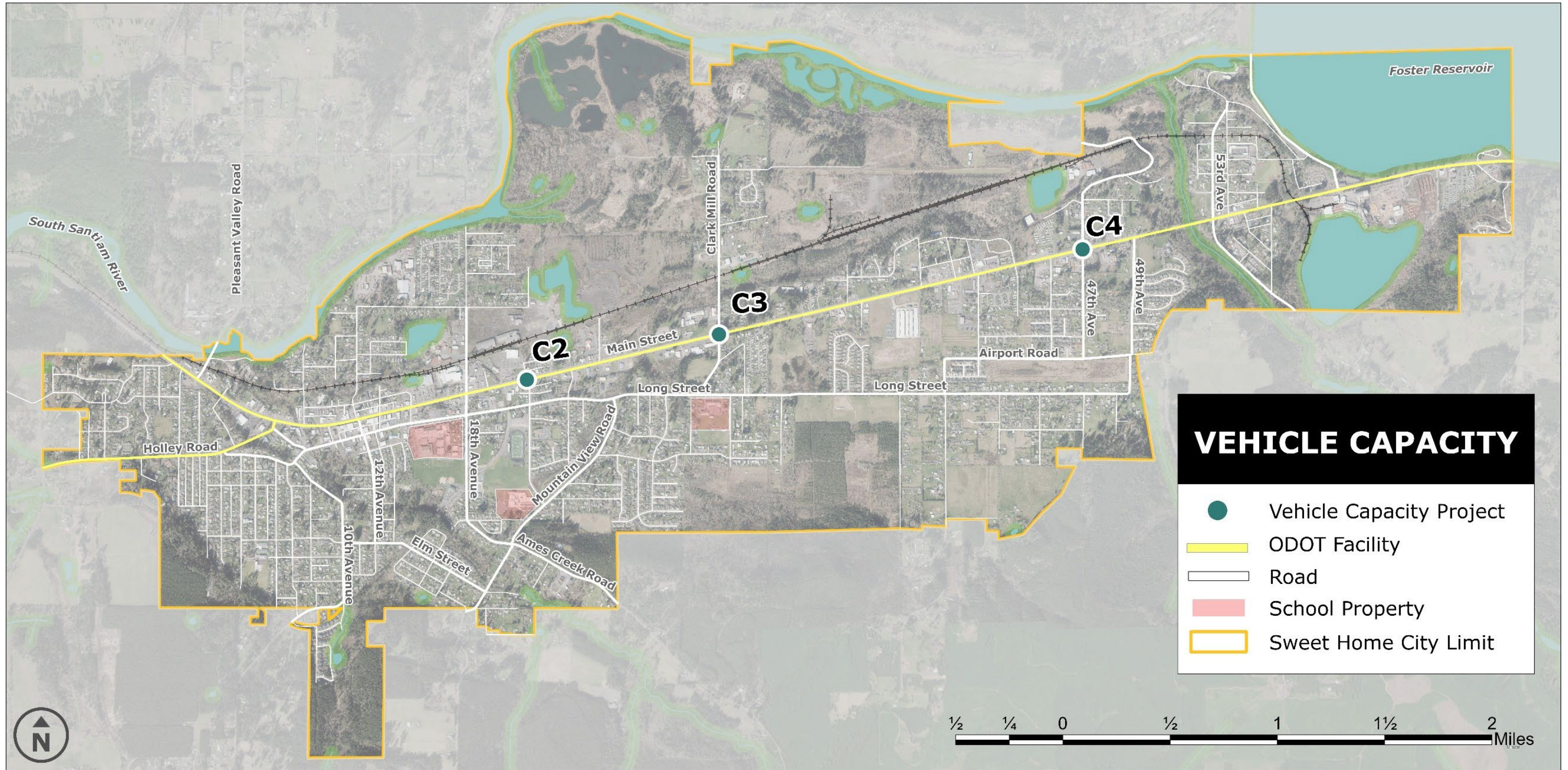




FIGURE 2. VEHICLE CAPACITY PROJECTS

The Aspirational Active Transportation Projects are listed in Table 4 through Table 7 and are shown in Figures 3 and 4.

TABLE 4. ASPIRATIONAL PEDESTRIAN FOCUSED PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^B	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
A1	Clark Mill Road Sidewalk Infill	Infill existing sidewalk gaps (8,000 ft) on Clark Mill Road. Update stormwater infrastructure to current standards where necessary.	\$9,700,000	X		X	X	X
A3	Mountain View Road Sidewalk Infill	Infill existing sidewalk gaps on Mountain View Road (8,000 ft). Update stormwater infrastructure to current standards where necessary.	\$9,700,000	X		X	X	
A5	53rd Avenue Sidewalk Infill	Infill existing sidewalk gaps on 53rd Avenue (8,700 ft). Update stormwater infrastructure to current standards where necessary.	\$10,400,000	X		X	X	
Total			\$29,800,000					

TABLE 5. ASPIRATIONAL BICYCLE FOCUSED PROJECTS^A

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^B	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
	Main Street Bike Lanes	Construct 6' wide bike lanes on Main Street (US 20) west of 18th Avenue; consider buffered bike lanes on Main Street (US 20) east of 18th Avenue	\$54,350,000		X		X	
A7	Holley Road Bike Lanes	Construct 6' shoulder bike lanes on Holley Road from Main Street (US 20) to the western city limits within the current right of way.	 \$200,000		X		X	
A8	Long Street Bike Lane Infill	Add 6' shoulder bike lanes from Holley Road to 22nd. Consider buffered bike lanes with parking removal.	\$200,000				X	X
A9	Airport Road Bike Lanes	Construct 6' shoulder bike lanes on Airport Road from 43 rd to 49 th within the existing right of way.	\$150,000			X	X	
A11	49th Avenue Bike Lanes	Construct 6' shoulder bike lanes on 49th Avenue from Long Street to Main Street (US 20) within the existing right of way.	\$100,000			X	X	

A12	53rd Avenue and Wiley Creek Drive Bike Lanes	Construct 6' shoulder bike lanes on 53rd Avenue and Wiley Creek Drive. Widen Wiley Creek Road where necessary to maintain the bike lane.	\$6,900,000	x	x	
A13	18th Avenue/Ames Creek Road Bike Lanes	Construct 6' shoulder bike lanes from south city limit to Tamarack Street along 18 th and Ames Creek Rd. Install greenway treatment along 18 th north of Tamarack.	\$500,000	x	x	
A14	Mountain View Road Bike Lanes	6' Construct shoulder bike lanes on Mountain View Road from Long Street to Cedar Street. Remove parking where necessary.	\$200,000		x	x
Total			\$62,600,000			

A. Projects aim to decrease Bike Level of Traffic Stress (BLTS) to a 1 or 2. A BLTS of 1 represents a low stress and comfortable facility while a BLTS of 4 is a high stress facility that may be dangerous to cyclists and only utilized by aggressive cyclists.

TABLE 6. ASPIRATIONAL MULTI-MODAL PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE ^B	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
A39	Elm Street Greenway	Designate a neighborhood greenway on Elm Street; install speed humps, signage, and striping	\$700,000	X		X	X	X
A40	Long Street Roadway Modernization	Installation of Sidewalk and 6' bike lanes east of 35th Street. Updating of drainage with sidewalk improvements. Consider lowering the speed limit and implementing Greenway treatment for bike facilities if bike lanes are infeasible	\$15,800,000	X		X	X	
A41	47th Greenway	Designate a neighborhood greenway on 47th Street; install speed humps, signage, and striping. Infill missing sidewalk on both sides of the road. Lower speed limit to 30 MPH	\$400,000	X		X	X	
Total			\$16,900,000					

TABLE 7. SAFE ROUTES TO SCHOOL PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE^B	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
A16	22nd Avenue Sidewalk	Improve sidewalks and install curb ramps along 22nd Avenue	\$5,600,000				X	X
A17	22nd Avenue/Mountain View Road Crossings	Install striping upgrades and curb extensions at 22nd Avenue/Mountain View Road intersection	\$150,000				X	X
A18	22nd Avenue/Ironwood Street Crossings	Install curb ramps, upgrade signage and striping, and install lighting at 22nd Avenue/Ironwood St intersection	\$264,000				X	X
A19	22nd Avenue/Juniper Court and 22nd Avenue/Kalmia Street Crossings	Install curb ramps, upgrade striping, and install lighting at 22nd Avenue/Juniper Court and 22nd Avenue/Kalmia Street	\$289,000				X	X
A20	22nd Avenue/Long Street Crossings	Install curb ramps, upgrade striping, and install lighting at 22nd Avenue/Long Street	\$269,000				X	X

A21	22nd Avenue/Main Street Crossing	Upgrade striping, install RRFB, and install lighting at 22nd Avenue across Main Street (US 20)	\$299,000	X	X	X
A22	22nd Avenue Multiuse Path	Remove parking and construct multimodal path on 22nd Avenue between Mountain View Road and Long Street	\$1,850,000		X	X
A23	Main Street Sidewalk Enforcement	Enforce sidewalk clearance code on Main Street		X	X	X
A24	Main Street Crossings	Upgrade striping on Main Street from 18th Avenue to 23rd Avenue; install curb ramps and lighting at Main Street/18th Avenue	\$269,000	X	X	X
A25	18th Avenue Sidewalks	Improve sidewalks and install curb ramps on 18th Avenue between Main Street (US 20) and Ames Creek Road	\$1,950,000		X	X
A26	High School Driveway Crossing	Install RRFB, upgrade signage and striping, and install lighting at the high school driveway on 18th Avenue	\$299,000		X	X
A27	18th Avenue/Grape Court Crossing	Upgrade striping and install curb ramps at 18th Avenue/Grape Court	\$30,000		X	X
A28	Mountain View Road/Ames Creek Road Crossings	Upgrade striping, install curb ramps, and install lighting at Mountain View Road/Ames Creek Road	\$269,000		X	X

A29	Mountain View Road/Elm Street Crossing	Upgrade striping and install lighting at Mountain View Road/Elm Street	\$239,000	x	x
A30	Mountain View Road Multiuse Path (South)	Construct a 10-foot wide shared use path and northbound shared roadway bicycle markings between Ames Creek Road and school property	\$950,000	x	x
A31	Mountain View Road Multiuse Path (North)	Construct a 10-foot wide shared use path and curb ramps at intersections between 22nd Avenue and Long Street	\$3,400,000	x	x
A32	Ames Creek Road Restriping	Restripe Ames Creek Road to narrow travel lanes, shift centerline, and provide more pedestrian space between Mountain View Road and Surrey Lane; explore 25 mph speed limit	\$100,000	x	x
A33	Ames Creek Road Sidewalk	Install sidewalk on the south side of Ames Creek Road from Mountain View Road to Surrey Lane	\$950,000	x	x
A35	Juniper Street Sidewalk	Install sidewalk on the north side of Juniper Street from Mountain View Road to Ashbrook Park	\$950,000	x	x
A36	Juniper Street Greenway	Designate a neighborhood greenway on Juniper Street from Mountain View Road to 35th Avenue; install speed humps, signage, and striping	\$350,000	x	x

A37	Harding Street Sidewalk	Install sidewalk on the south side of Harding Street from Mountain View Road to 27th Avenue	\$1,600,000	x	x
A38	Kalmia Street Sidewalk	Install sidewalk on the south side of Kalmia Street from Mountain View Road to 29th Avenue	\$1,250,000	x	x
Total			\$21,327,000		

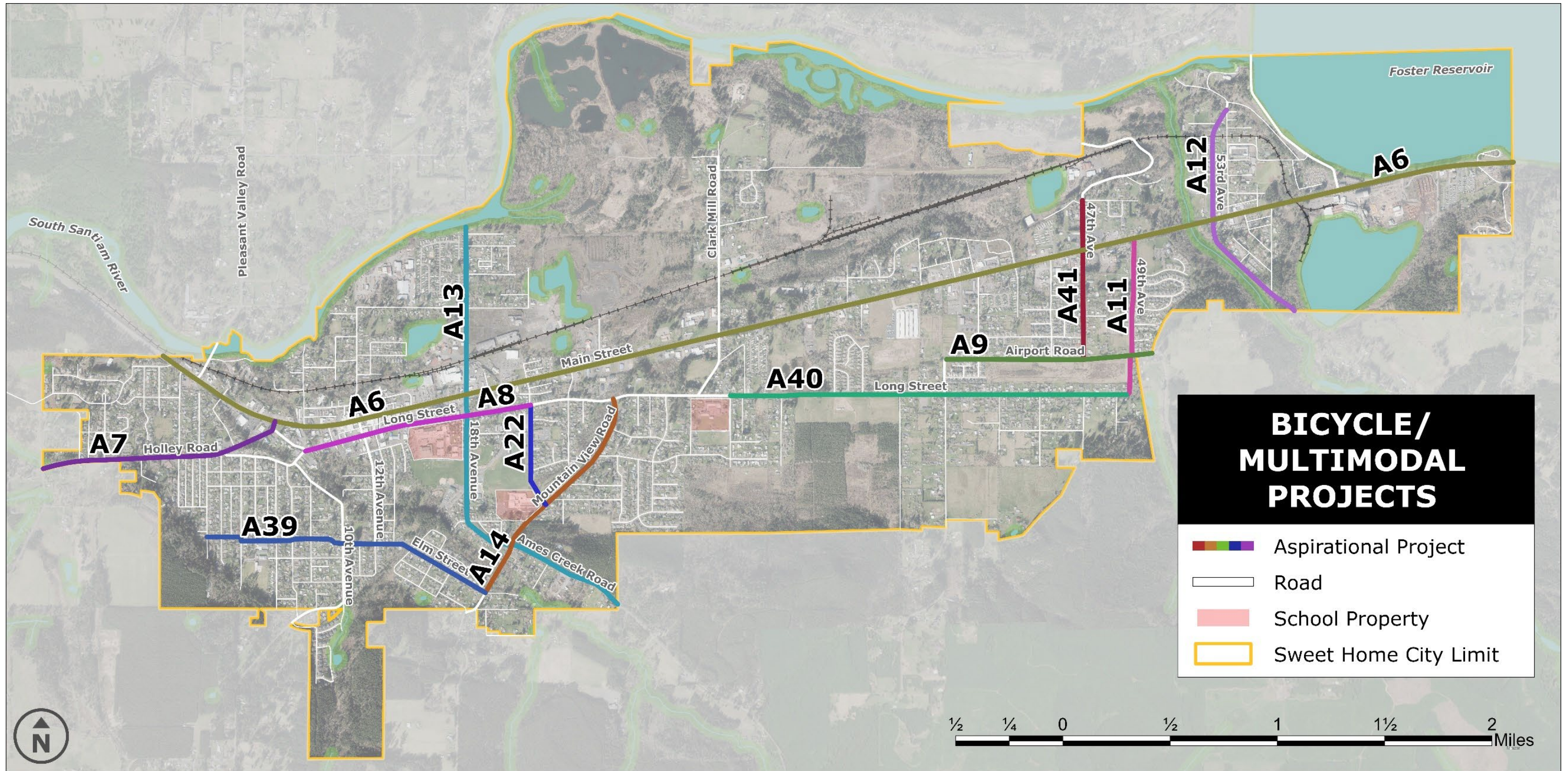


FIGURE 3. BICYCLE AND MULTIMODAL PROJECTS

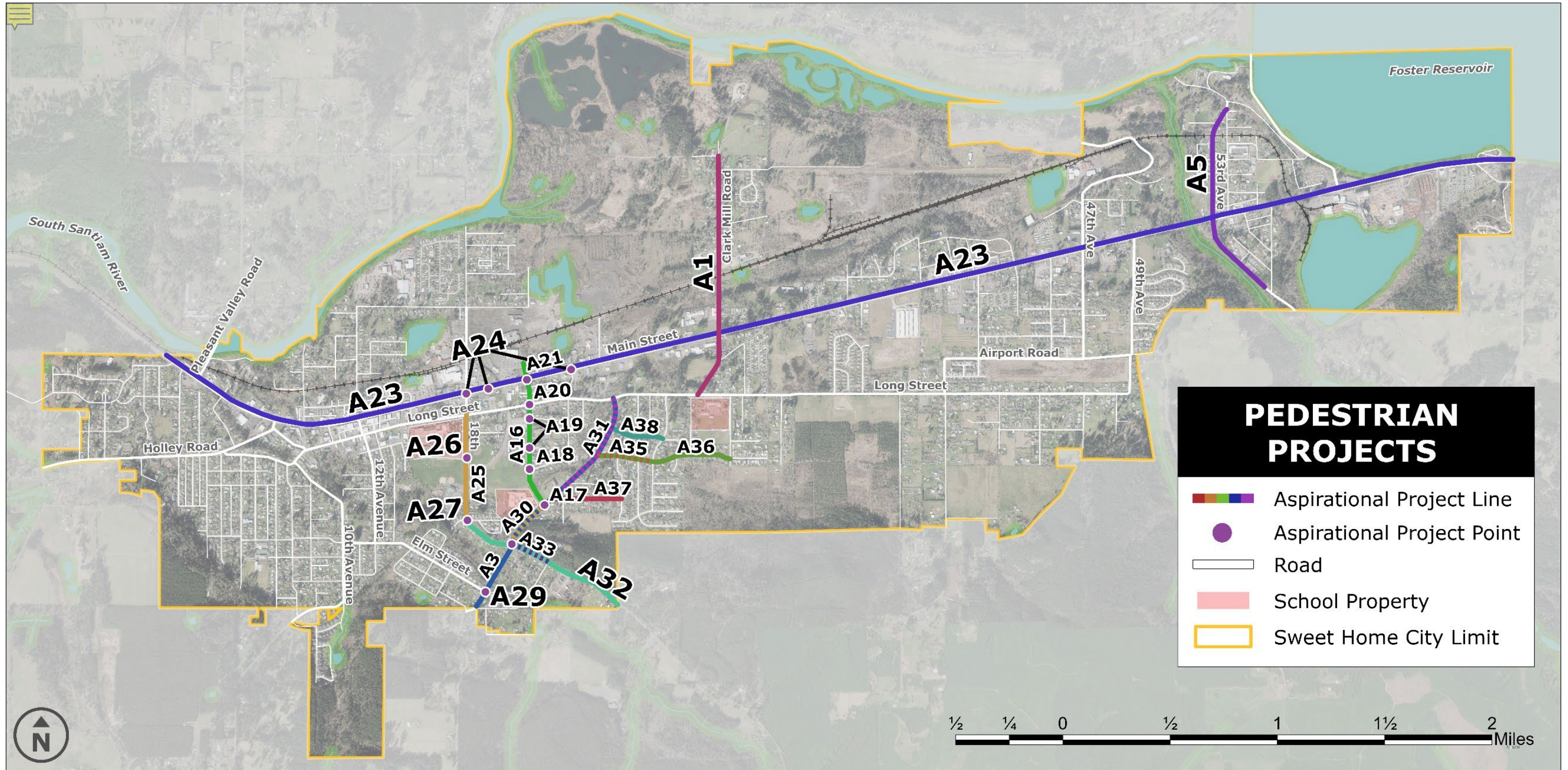


FIGURE 4. PEDESTRIAN PROJECTS (INCLUDES SS4A)

Other aspirational projects are shown in the following tables, including Downtown Streetscape (Table 8), Railroad (Table 9), Safety (Table 10), and Smart Mobility (Table 11) and are mapped in Figure 5.

TABLE 8. ASPIRATIONAL DOWNTOWN STREETScape PROJECTS


PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
P1	Long Street Sidewalk Buffer	Provide landscaping along the sidewalk edge and remove on-street parking to add a landscape buffer.	\$481,000					X
P2	Long Street Pedestrian Island	Add a pedestrian island or curb bulb-outs to shorten crossing distance at key intersections	\$1,500,400					X
P3	Long Street Parking Restriping	Revise lane striping to add parking in areas where narrowing the travel lanes results in additional width for on-street parking	\$81,400					
 P5	Parking Management Policy	Implement a policy for Downtown that limits parking to 2-hours on-street and 4-hour off street. Increase level of enforcement to ensure turn over occurs.						
P6	Long Street Modification 10 th to 18 th	Maintain 11' sidewalks, 8' parking lanes and 11' travel lanes from 10 th Ave to midway between 15 th and 18 th . Include bulb-outs at the intersections	\$4,114,300					X
P7	Main Street Modification	Addition of bulb-outs along the corridor which will provide spaces for lighting, streetscape amenities and trees. Add a median and remove pedestrian lighting from the existing median. From 9 th to 18 th	\$2,477,100		X			X
Total			\$8,735,600					

TABLE 9. ASPIRATIONAL RAILROAD PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
R1	Pleasant Valley Road Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000		X			X
R2	9th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000		X			X
R3	12th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000		X			X
R4	18th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000		X			X
R6	Clark Mill Road Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000		X			X
R7	47th Avenue (West) Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000		X			X

R8	47th Avenue (East) Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000	x	x
R9	53rd Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000	x	x
R10	54th Avenue Rail Crossing	Upgrade signing and striping, install railroad crossing gates, and install ADA-accessible improvements to align with current railroad safety guidelines	\$600,000	x	x
R11	Main Street Railroad Bridge	Replace damaged trestle bridge	\$20,000,000	x	x
	Total		\$25,400,000		

TABLE 10. ASPIRATIONAL SAFETY PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE	SDC	PARTNER FUNDING	ACTIVE TRANSPORT GRANT	SAFETY GRANT
S1	Long/18 th intersection improvements	Monitor intersection to determine if additional improvements are needed to reduce crash frequency. Improvements may include adding signing upgrades and potential on-street parking reductions to improve visibility and alert drivers of pedestrian activity and traffic control.	\$70,000				X
S2	Shea Viewpoint / Riggs Hill Road	Install safety enhancements to the eastern gateway. These may include signing, striping, lighting, and/or traffic control to decrease speed of traffic entering urban area and allow safe pedestrian crossings.	\$200,000		X		X
S3	Long St/ Holley Rd Right in Right Out	Restrict left turn movements at the intersection to reduce vehicle conflicts that occur near Main Street. Add signage as well as well as barriers to prevent left turns from Long Street to OR 228 and from OR 228 to Long Street. These improvements would also improve the traffic flow from Main Street to Holley Road making the route more attractive and decreasing traffic cutting through on 1 st Avenue to avoid the intersection.	\$400,000				X
S4	Main Street Reservoir Crossing	Install a pedestrian crossing near the Foster Reservoir	\$500,000		X		X
Total			\$1,170,000				

TABLE 11. ASPIRATIONAL SMART MOBILITY PROJECTS

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE^B	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
E1	EV Charging Stations	Install electric vehicle charging stations at key destinations, such as downtown and at parks	\$150,000	X	X	X		

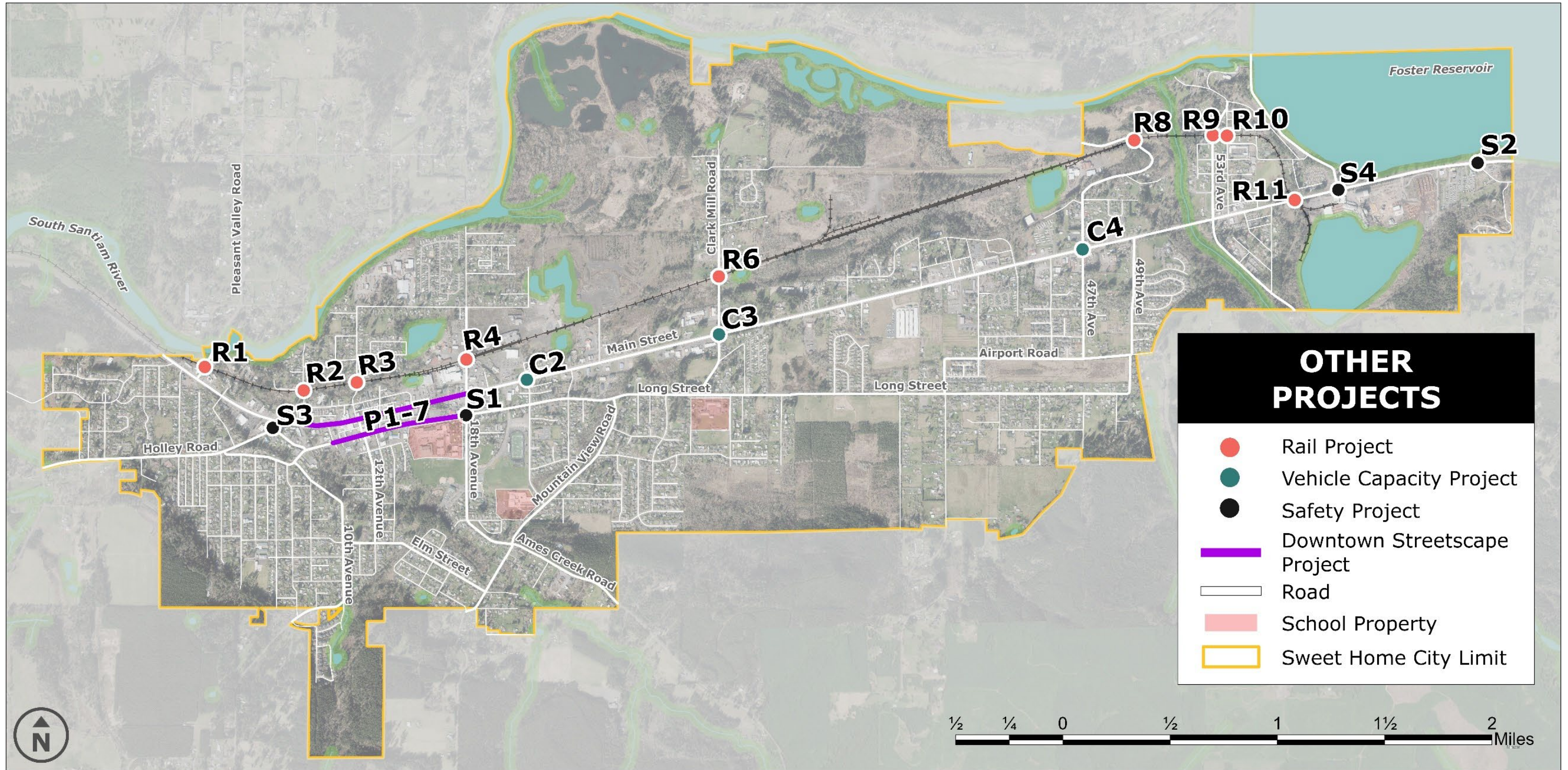


FIGURE 5. OTHER ASPIRATIONAL PROJECTS

NORTH SWEET HOME AREA PLAN PROJECTS

In conjunction with the update to the Sweet Home TSP, a refinement plan for the North Sweet Home Area (NSHA) has also been developed. The NSHA is the area north of the Albany and Eastern Railroad which includes over 500 acres of undeveloped land, including natural resource amenities. The following projects have been recommended through the development of this plan depending on final plan outcomes. These new street improvements would include pedestrian and cyclist connectivity improvement within the area.

TABLE 12. NSHA ASPIRATIONAL PROJECTS (PLACEHOLDER PENDING DEVELOPMENT OF NSHA PLAN)

PROJECT ID	PROJECT NAME	DESCRIPTION	COST ESTIMATE	SDC	PARTNER FUNDING	DEVELOPMENT FRONTAGE	ACTIVE TRANSPORT GRANT	SAFETY GRANT
N1	Street Network Scenario 2	24 th Avenue is designated as the framework street and serves as the primary connection into the NSHA.		X	X	X		
N2	New East West Connection	Provide a future connection that improves east-west connectivity between Clark Mill Road and 47 th Street.		X	X	X		

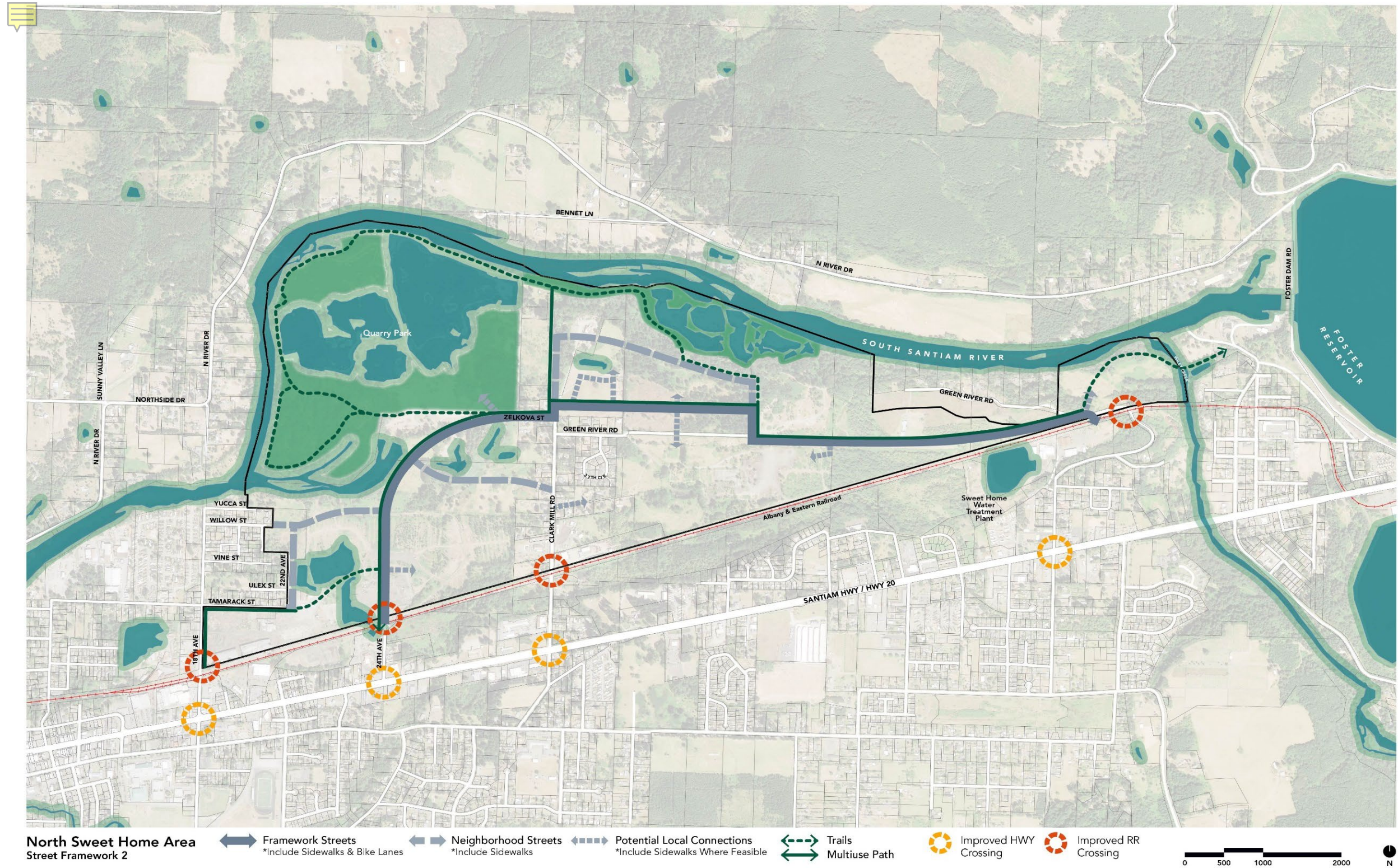


FIGURE 6. STREET NETWORK SCENARIO 2

APPENDIX

CONTENTS

SECTION 1: TITLE

SECTION 2: TITLE

SECTION 3: TITLE

SECTION 4: TITLE

SECTION 1: TITLE

SUBTITLE