

Appendix C

SILVERDALE TRANSPORTATION IMPLEMENTATION STRATEGY



Silverdale Transportation Implementation Strategy

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INTRODUCTION

The Silverdale Transportation Implementation Strategy (TIS) is a technical analysis project to identify a prioritized project delivery strategy for Silverdale to be implemented via the County's Transportation Improvement Process. The technical analysis is based on the growth assumptions identified in the 2016 Kitsap County Comprehensive Plan Update and does not include alternatives to the Comprehensive Plan land use assumptions.


The intent of the Silverdale TIS is to:

- Validate and/or refine prior “existing and future” transportation circulation and performance analysis and refine or rework analysis, as needed, to support multimodal strategies and project development.
 - Validate prior design/engineering concepts and identify/analyze alternative strategies and projects.
 - Identify strategies and projects for detailed operational and circulation analysis, engineering/design, and cost estimating.
 - Explore financial strategies to support implementation.
 - Select a prioritized Transportation Implementation Strategy for Silverdale that will:
 - Support multimodal connectivity and the Regional Center;
 - Provide specific scope, design, phasing, and estimates to support program management, systems management, and project delivery;
 - Be financially implementable and directly applied to the County's short-term (1-6 years), mid-term (7-12 years), and long-term transportation implementation plans;
 - Identify requirements to support amendments to Silverdale's development regulations and roadway design standards; and
 - Support development and potential implementation of identified funding strategies.
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- | |
|--|
| Expected Project Outcomes |
| ✓ Validate and/or refine existing multimodal strategies and projects |
| ✓ Identify/analyze alternate strategies and projects |
| ✓ Identify priorities |
| ✓ Develop implementation and financial strategies |
-

SILVERDALE TRANSPORTATION IMPLEMENTATION STRATEGY

The Silverdale TIS laid out a set of potential transportation improvements for the Silverdale Regional Center. Potential improvement ideas were developed from multiple sources including public comments at three open houses, ideas from prior studies and a project working group composed of local Silverdale residents, Kitsap Transit and Kitsap County staff. A technical analysis was performed to evaluate the benefits, potential impacts and costs of proposed improvements, including safety benefits, roadway circulation benefits, non-motorized benefits and project implementation costs. The outcome of this analysis was the development of a prioritized list of improvements with a phased implementation strategy that allows for funding discrete stand-alone projects as funding becomes available. Some key needs from the study process that informed the implementation strategies identified in this document are listed in Table 1.

Table 1. Key Silverdale TIS Needs

Key Needs 		
Non-Motorized Improvements	Roadway Improvements	Transit
Protected Intersections: Provide protected intersections that improve visibility and shield cyclists and pedestrians from conflicting traffic movements.	Roadway Capacity: Improve high growth corridors that provide circulation within Silverdale.	Transit Center: Provide improved connectivity to Kitsap Transit’s new transit center for all modes.
Low Stress Bike Lanes: Provide low stress bike lanes that allow less experienced cyclists to ride and enjoy Silverdale streets.	Safety: Improve safety by reducing conflicts and easing congestion.	Transit Corridors: Give priority to improvements in the key transit corridors (Ridgetop Boulevard and Silverdale Way)
Internal Connections: Provide better connectivity and continuity east-west and north-south through Silverdale.	Access: Manage access to adjacent properties and businesses to improve throughput and reduce conflicts.	Non-Motorized Access: Improve non-motorized access to transit at bus stops and transit facilities.
Connections to Existing: Connect to existing trails, pathways and non-motorized facilities.	Prior Investments: Implement improvements that build on or connect to prior investments.	
Complete Gaps: Complete gaps in the existing pedestrian and bike network.	Complete Streets: Implement improvements that deliver the vision of complete streets.	

IMPLEMENTATION GOALS

Past transportation investments in Silverdale have included an array of multi-modal projects that address the diverse transportation needs within Silverdale. Currently planned investments, including those under construction, are depicted in Figure 1.

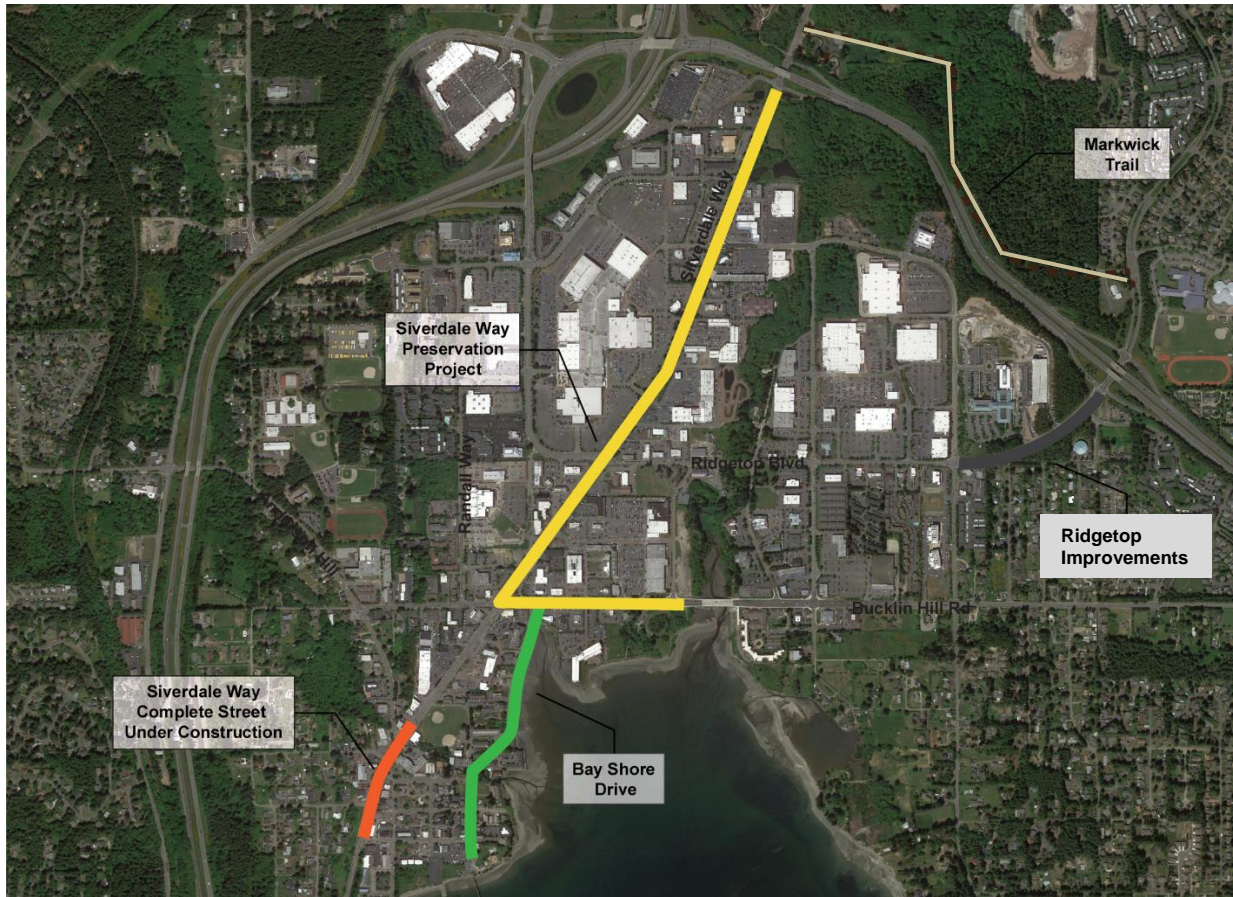


Figure 1. Currently Planned Projects in Silverdale

Silverdale’s currently funded and planned transportation system improvements illustrated in Figure 1 include the following improvements:

Silverdale Way Preservation Project - This project provides ADA remediation and pavement overlay on Silverdale Way from SR 303 to Bucklin Hill Road. It also includes a portion of Bucklin Hill Road from Silverdale Way to Blaine Avenue.

Markwick Trail – This project provides a new non-motorized multi-use trail connection from Ridgetop Boulevard to Silverdale Way.

Ridgetop Improvements – As part of planned development, Ridgetop Boulevard will be widened to 5 lanes from the entrance to Harrison Hospital to SR 303. The improvements will include a new eastbound general purpose lane, sidewalk and a new signal at the realigned Sid Uhnick Drive intersection with the Harrison Hospital entrance.

Silverdale Way Complete Street Improvements – Silverdale Way from 300 feet south of Byron Street to Anderson Hill Road will be widened to 5 lanes with bike lanes, sidewalks, landscaping, and ADA-compliant curb ramps.

Bay Shore Drive Non-Motorized Improvements – Bay Shore Drive from Bucklin Hill Road to Washington Avenue will receive new sidewalk and ADA compliant curb ramps. The project also includes new sidewalk and ADA curb ramps on Washington Avenue from Bay Shore Drive to Silverdale Waterfront Park.

Implementation and project delivery strategies were developed for new projects to guide investment beyond the projects currently planned and funded. The investment goals and guidelines developed from public input and the project working group include:

- Invest in the transportation corridors with the highest needs for additional multi-modal capacity, circulation, mobility and safety improvements
- Provide multi-modal capacity for the expected growth
- Prioritize improvements that address immediate short term needs and provide the foundation for longer term improvements that address expected growth
- Provide strategies that move projects forward and allow flexibility to deliver different sized projects that provide incremental benefits
- Provide a list of projects and priorities that can be carried forward into the County’s Transportation Improvement Program (TIP)
- Provide strategies that implement the vision of complete streets within Silverdale

The implementation strategies presented are guided by these goals and identify discrete projects that could be funded by Kitsap County in varying sizes (small and large projects). The implementation strategies direct investment into key transportation corridors and address the highest priorities for connectivity, safety, and circulation for all modes.



Figure 2. Silverdale Transportation Implementation Strategy Project Outcomes

PRIORITIZED LIST OF PROJECTS

The prioritized list of projects for Silverdale fall into four broad categories:

Ridgetop Boulevard Corridor Improvements: This category provides improvements in the Ridgetop Boulevard corridor from SR 303 to Silverdale Way.

Silverdale Way Corridor Improvements: This category provides improvements in the Silverdale Way corridor from SR 303 to Anderson Hill Road.

Spot Improvements: This category provides spot improvements at locations throughout Silverdale but are not necessarily focused on corridor-wide needs.

Opportunity Improvements: This category identifies projects that could be funded as redevelopment occurs and/or through funding partnerships with Silverdale stakeholders and private interest groups.

Each category of improvements is divided into discrete projects that align with the priorities within that category. For each project, there may be multiple delivery options that provide flexibility to right-size the scope of the project to match the available funding.

In addition to these broad categories, specific improvements and delivery strategies were developed for the two hub intersections within Silverdale: Silverdale Way at Ridgetop Boulevard and Silverdale Way at Bucklin Hill Road. The hub intersections were identified as the two critical nodes within Silverdale’s transportation network that are critical for circulation, access, and mobility within Silverdale. The hub intersections experience the highest levels of congestion (LOS E or F) within Silverdale. These intersections provide connectivity for autos, cyclists, freight, and pedestrians, and connect to key destinations within Silverdale including Kitsap Mall, East Silverdale, Old Town, and Central Kitsap Schools.

The Implementation Strategies identify the priority projects from the array of recommended improvements within Silverdale that will be targeted for funding by Kitsap County. The priorities developed for the Silverdale Regional Center are listed in Table 2.

Table 2. Implementation Priorities within Silverdale

Priority	Rationale for Priority
Ridgetop Boulevard Corridor	The Ridgetop Boulevard corridor is experiencing rapid growth in traffic from continued development and increases in retail traffic. The corridor has three of the highest accident intersections in Kitsap County. Currently the corridor does not include bike lanes and has a less than desirable non-motorized environment. Improvements in the corridor are needed to improve mobility and safety, provide non-motorized connections to the future Silverdale Transit center, and ease congestion.
Silverdale Way Corridor	The Silverdale Way corridor is the primary north-south route through Silverdale for all modes of transportation. This corridor also experiences significant congestion from traffic entering and exiting the many commercial driveways along the corridor. Maintaining mobility and access to businesses and destinations along the corridor is essential for economic vitality, connectivity and circulation. Improvements are needed to improve the non-motorized environment (particularly for pedestrians crossing Silverdale Way) and better manage access along the corridor.
Spot Improvements	Spot improvements address specific non-corridor needs and gaps in the transportation network. They may include improvements to intersections or segments of the transportation network. The highest priority spot improvements identified in the Silverdale TIS were: Bucklin Hill Road Gap, Kitsap Mall/Randall Way intersection, Anderson Hill Road (Bucklin Hill Road to Provost Road) and the Newberry Hill Road/Silverdale Way intersection.
Opportunity Projects	These projects could be implemented as stand-alone projects or in conjunction with other improvements. They identify non-motorized project opportunities that enhance and complete the non-motorized network. These projects are envisioned as projects that would be funded in whole or in part through partnerships with property owners, stakeholders and private interest groups. As opportunity projects, priorities are flexible and are subject to change as opportunities for funding and implementation develop over time.

Within these priorities, there are a mix of roadway, access management, and non-motorized improvements. Not all improvements within a corridor or category received the highest priority, nor will they be constructed at the same time or funded as a single package. Improvements within Silverdale will be constructed in logical packages that allow for the completion of discrete elements that advance the highest priorities over time. Phased implementation is the process of implementing the recommended improvement priorities in stages as funding becomes available. The phasing process provides for the implementation of buildable segments that balance needs, costs, and benefits. Table 3 summarizes a prioritized list of projects in Silverdale.

Table 3. Prioritized List of Projects

Priority Rank	Location	Project Name	Project Improvements	Total Cost (M)
1	Ridgetop Corridor	Ridgetop Phase 1 (Mickelberry to Myhre)	<ul style="list-style-type: none"> • 4-lane Ridgetop with center median access control • Sidewalk, landscaping, low stress bike lane • Protected intersections with U-Turn capability • Add 2nd EB GP lane and bike lane from Myhre to realigned Sid Uhnick Dr • Storm water, sanitary sewer and utilities 	\$13.7
2	Silverdale Way Corridor	Silverdale Way Phase 1 (Silverdale Way @ Bucklin Hill)	<ul style="list-style-type: none"> • Add 2nd WB left-turn lane • Protected intersection improvements • Access control on WB and EB approaches 	\$2.8
	Spot Improvement	Bucklin Hill Gap (Mickelberry to Myhre)	<ul style="list-style-type: none"> • Complete 5-lane Bucklin Hill • Complete bike lane gap • Sidewalk, landscaping, storm water, utilities • Protected intersection improvements 	\$2.6
3	Ridgetop Corridor	Ridgetop Phase 2 (SR 303 Interchange)	<ul style="list-style-type: none"> • 4-lane Ridgetop with bike lanes, sidewalks, landscaping <ul style="list-style-type: none"> ◦ Add dual EB left turn to NB SR 303 on-ramp • Provide a 5-lane Ridgetop beneath the SR 303 overpass <ul style="list-style-type: none"> ◦ Add dual NB left turn from NB SR 303 on-ramp to WB Ridgetop 	\$1.1 \$5.8
	Spot Improvement	Kitsap Mall Boulevard/Randall Turn Lane	<ul style="list-style-type: none"> • Provide dual EB to NB left turn lanes 	\$1.9
4	Ridgetop Corridor	Ridgetop Phase 3 (Silverdale Way to Blaine)	<ul style="list-style-type: none"> • 4-lane Ridgetop with center median access control • Sidewalk, landscaping, low stress bike lane • Protected intersections 	\$7.1
	Silverdale Way Corridor	Silverdale Way Phase 2 (Silverdale Way @ Ridgetop)	<ul style="list-style-type: none"> • Add NB right turn lane • Protected intersection improvements 	\$1.5
	Opportunity Project	Central Silverdale Multi-Use Pathway Phase 1	<ul style="list-style-type: none"> • Provide multi-use pedestrian/bike pathway from Central Kitsap Schools to YMCA 	Unknown
5	Ridgetop Corridor	Ridgetop Phase 4 (Blaine to Mickelberry)	<ul style="list-style-type: none"> • 4-lane Ridgetop with center median access control • New bridge over Clear Creek • Sidewalk, landscaping, low stress bike lanes • Protected intersections • Clear Creek trail connections 	\$17.2
	Opportunity Project	North Silverdale Multi-Use Pathway	<ul style="list-style-type: none"> • Provide multi-use pedestrian/bike pathway from Randall, across Kitsap Mall to Harrison Hospital 	Unknown
6	Silverdale Way Corridor	Silverdale Way Phase 3 (Randall Way Extension)	<ul style="list-style-type: none"> • Randall extension from Bucklin Hill to Silverdale Way • New sidewalks, landscaping, low stress bike lanes on Randall extension • New protected intersections at Randall/Bucklin and Randall/Silverdale Way 	\$6.0

Priority Rank	Location	Project Name	Project Improvements	Total Cost (M)
			<ul style="list-style-type: none"> • Access management on Bucklin Hill between Silverdale Way and Randall Way • Restrict WB left turn from Bucklin Hill to Randall Extension and EB left turn from Bucklin Hill to Silverdale Way 	
	Silverdale Way Corridor	Silverdale Way Phase 3 (Complete Street Strawberry Creek to Bucklin)	<ul style="list-style-type: none"> • Sidewalk, landscaping, low stress bike lane on Silverdale Way from Strawberry creek to Bucklin • Center median with access control on Silverdale Way • Restrict NB LT from Silverdale Way to Bucklin • No fish passage 	\$2.0
7	Spot Improvement	Anderson Hill Road (Bucklin to Provost)	<ul style="list-style-type: none"> • Center turn lane, median and access control • New SB left turn lane • Protected intersection improvements at Anderson Hill/Bucklin Hill 	\$3.0
8	Silverdale Way Corridor	Silverdale Way Phase 4 (Poplars Extension)	<ul style="list-style-type: none"> • Poplars Ave extension to Silverdale Way • New protected intersections and pedestrian crossings at Silverdale Way/Poplars Ave and Kitsap Mall Boulevard/Poplars Ave 	\$7.7
	Silverdale Way Corridor	Silverdale Way Phase 4 (Complete Street Bucklin to Ridgetop)	<ul style="list-style-type: none"> • Sidewalk, landscaping, low stress bike lane on Silverdale Way from Bucklin to Ridgetop • Center median with access control on Silverdale Way • Restrict NB left turn from Silverdale Way to Ridgetop Boulevard 	\$2.9
	Opportunity Project	Central Silverdale Multi-Use Pathway Phase 2	<ul style="list-style-type: none"> • Provide multi-use pedestrian/bike pathway from YMCA to Silverdale Plaza, connecting to clear creek trails and the Bucklin Hill bridge 	Unknown
9	Silverdale Way Corridor	Silverdale Way Phase 5 (Complete Street Anderson Hill to Strawberry Creek)	<ul style="list-style-type: none"> • Sidewalk, landscaping, low stress bike lane on Silverdale Way from Anderson Hill to Strawberry Creek • Center median with access control on Silverdale Way • Strawberry Creek fish passage 	\$5.9
10	Silverdale Way Corridor	Silverdale Way Phase 6 (Complete Street Ridgetop to SR 303)	<ul style="list-style-type: none"> • Sidewalk, landscaping, low stress bike lane on Silverdale Way from Ridgetop to SR 303 • Center median with access control on Silverdale Way • Protected intersections at Kitsap Mall entrance, Myhre and Randall 	\$6.8
	Spot Improvement	Silverdale Way/Newberry Hill Roundabout	<ul style="list-style-type: none"> • Add SB to WB slip lane from Silverdale Way to Newberry Hill • Protected intersection improvements 	\$2.1
	Opportunity Project	Randall Way Bike Lane	<ul style="list-style-type: none"> • Provide bike lanes on Randall Way from Bucklin Hill to Silverdale Way 	Unknown

The timeline for the implementation of the prioritized list of improvements is shown below (Figure 3).

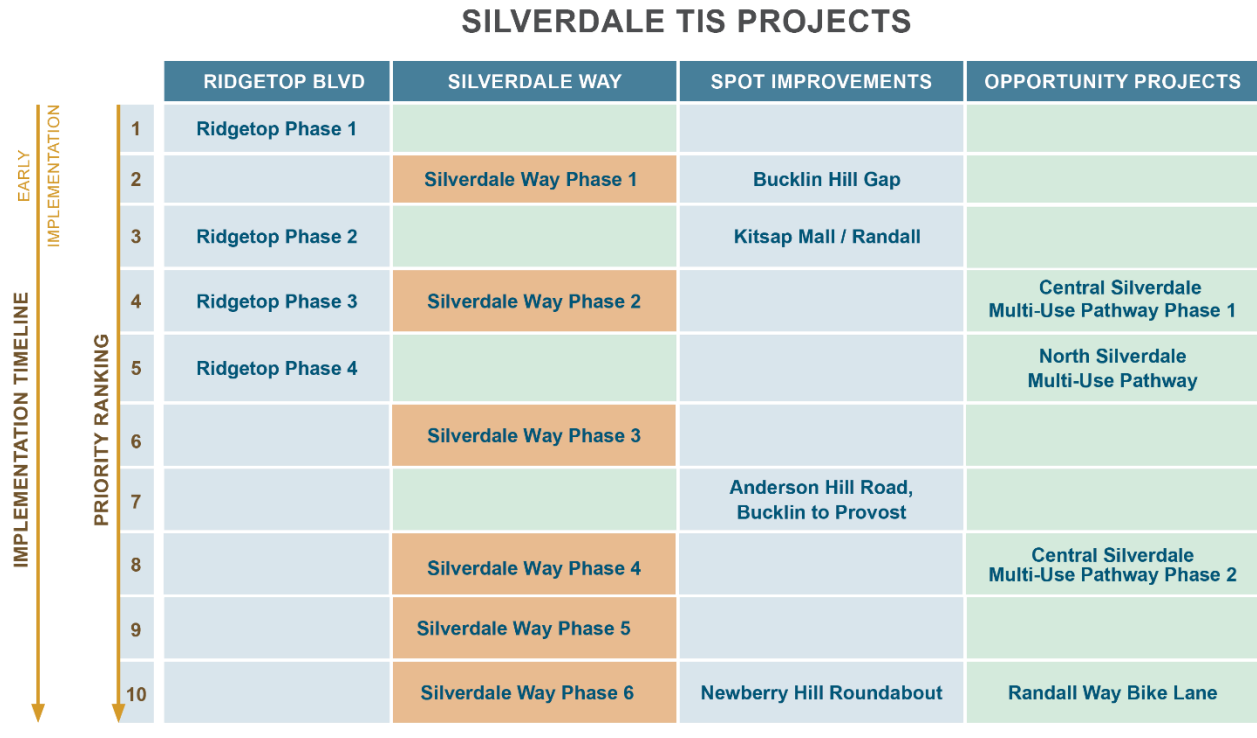


Figure 3. Silverdale TIS Projects and Implementation Timeline

The project costs for the prioritized list of improvements is summarized in Table 4.

Table 4. Prioritized List of Improvements Project Costs

Priority	Project	Cost			
		PE	ROW	Construction	Total
1	Ridgetop Phase 1	2.5	1.2	10.0	13.7
	Silverdale Way Phase 1 (Bucklin Hill/Silverdale Way Intersection)				
	2nd WB Lane	0.2	0.1	1.2	1.5
	Protected Intersection	0.1	0.0	0.5	0.6
2	Access Management	0.1	0.0	0.6	0.7
	Silverdale Way Phase 1 Total	0.4	0.1	2.3	2.8
	Bucklin Hill Gap	0.3	0.4	1.9	2.6
	Phase Totals	0.7	0.5	4.2	5.4

Table 4. Prioritized List of Improvements Project Costs (continued)

Priority	Project	Cost			
		PE	ROW	Construction	Total
3	Ridgetop Phase 2				
	4-Lane under SR 303	0.1	0.0	1.0	1.1
	5-Lane under SR 303	0.8	0.0	5.0	5.8
	Kitsap Mall/Randall				
	Dual EB LT turn Lanes	0.2	0.1	1.0	1.3
	Protected Intersection	0.1	0.0	0.5	0.6
	Kitsap Mall/Randall Totals	0.3	0.1	1.5	1.9
	Phase Totals	1.1	0.1	6.5	7.7
	Ridgetop Phase 3	0.5	1.0	5.6	7.1
	Silverdale Way Phase 2 (Ridgetop/Silverdale Way)				
4	NB Rt Turn Lane	0.1	0.1	0.7	0.9
	Protected Intersection	0.1	0.0	0.5	0.6
	Silverdale Way Phase 2 Totals	0.2	0.1	1.2	1.5
	Central Silverdale Pathway Ph 1*	0.0	0.0	0.0	0.0
	Phase Totals	0.7	1.1	6.8	8.6
5	Ridgetop Phase 4	1.3	1.4	14.5	17.2
	North Silverdale Pathway*	0.0	0.0	0.0	0.0
	Phase Totals	1.3	1.4	14.5	17.2
6	Silverdale Way Phase 3				
	Randall Extension	0.2	1.5	1.2	2.9
	Randall/Bucklin Intersection	0.1	0.0	0.3	0.4
	Randall/SW Intersection	0.5	0.0	1.5	2.0
	Access Management	0.1	0.0	0.6	0.7
	Silverdale Way Complete Street Randall Extension to Bucklin	0.3	0.0	1.7	2.0
	Phase Totals	1.2	1.5	5.3	8.0
7	Anderson Hill from Bucklin to Provost	0.5	0.5	2.0	3.0

Table 4. Prioritized List of Improvements Project Costs (continued)

Priority	Project	Cost			
		PE	ROW	Construction	Total
	Silverdale Way Phase 4				
	Poplars Extension	0.4	0.1	2.5	3.0
	Poplars/KM Boulevard Intersection	0.2	0.2	1.5	1.9
8	Poplars/SW Intersection	0.3	0.5	2.0	2.8
	SW Complete Street Bucklin to Ridgetop Boulevard	0.4	0.0	2.5	2.9
	Central Silverdale Pathway Ph 2*	0.0	0.0	0.0	0.0
	Phase Totals	1.3	0.8	8.5	10.6
9	Silverdale Way Phase 5 (Anderson Hill to Randall Way Extension)	1.1	0.0	4.8	5.9
	Silverdale Way Complete Street Ridgetop to SR 303				
	Roadway	0.5	0.0	2.8	3.3
	Mall Entrance Roundabout	0.5	0.0	3.0	3.5
	Myhre Roundabout	0.7	0.3	3.0	4.0
10	Randall Way Roundabout	0.5	0.3	2.3	3.1
	Ridgetop to SR 303 Totals	2.2	0.6	11.1	13.9
	Newberry Hill Roundabout	0.3	0.2	1.6	2.1
	Randall Way Bike Lane*	0.0	0.0	0.0	0.0
	Phase Totals	2.5	0.8	12.7	16.0

* Note: Asterisk denotes projects that would be funded through developer funds or some combination of private and public funding.

PROJECT DETAILS AND DELIVERY OPTIONS

Ridgetop Corridor Improvements

The Ridgetop Boulevard corridor provides critical access and circulation to east Silverdale for businesses, transit, and employment. Improvement strategies in the corridor include additional roadway capacity, non-motorized, safety, and access management improvements from Silverdale Way to SR 303.

Today, Ridgetop Boulevard carries some of the highest traffic volumes in Silverdale (approximately 18,000 vehicles per day west of SR 303). As a key east-west link between east and west Silverdale, it provides one of three crossings over Clear Creek and provides the only direct connection to SR 303 on the east side of Silverdale.

Three of Kitsap County’s top ten highest accident intersections are in this corridor (Myhre Road, Mickelberry Road, and Silverdale Way intersections). These accidents are primarily driven by congestion and high volume turning movements that occur at these intersections. Corridor traffic volumes are high throughout the day with peaks around noon and again in the 4:00 to 6:00 pm periods, as shown on Figure 4. In addition, peak hour traffic volumes are forecasted to increase in the traditional AM and PM peak hours with the growth of medical services and employment in the Ridgetop Boulevard corridor. Ridgetop Boulevard is also considered a key transit corridor by Kitsap Transit and will provide the primary access to Kitsap Transit’s future transit center located on Ridgetop Boulevard at Sid Uhnick Drive.

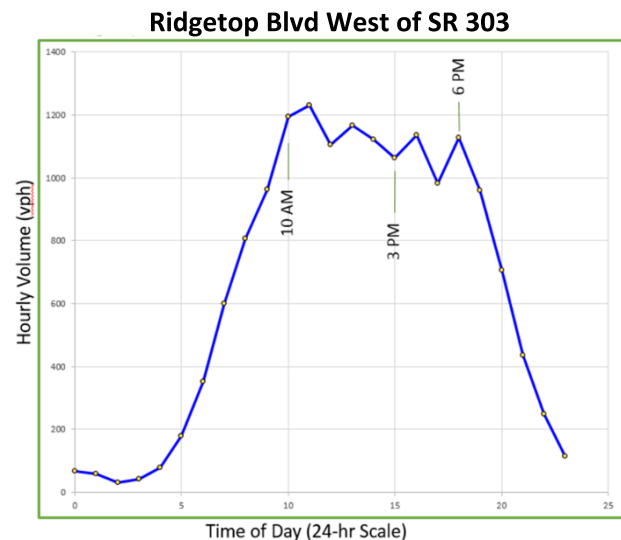


Figure 4. Traffic volumes throughout the day at Ridgetop Blvd west of SR 303

Implementation strategies identified in the Ridgetop Boulevard Corridor are listed in Table 5.

Table 5. Ridgetop Corridor Implementation Strategies

Strategy	Improvements
Add Roadway Capacity	<ul style="list-style-type: none"> • Provide 4 traffic lanes + center median for left turns and access management
Improve Safety	<ul style="list-style-type: none"> • Provide managed access with left turn/U-turn capability at select intersections
Improve Non-Motorized Connections	<ul style="list-style-type: none"> • Provide protected intersections • Provide low stress bike lanes • Provide sidewalk and landscaping improvements • Improve connections to the Clear Creek and Markwick trails
Enhance Transit Access	<ul style="list-style-type: none"> • Improve access and non-motorized connections to Kitsap Transit’s new transit center
Complete Streets	<ul style="list-style-type: none"> • Provide landscaping, sidewalk, bike lanes, storm water and utilities

Phased Implementation

A four-phase implementation strategy is envisioned for the Ridgetop Boulevard Corridor to allow for the funding of discrete projects with independent utility over time. The four phases of implementation are shown in Figure 5.

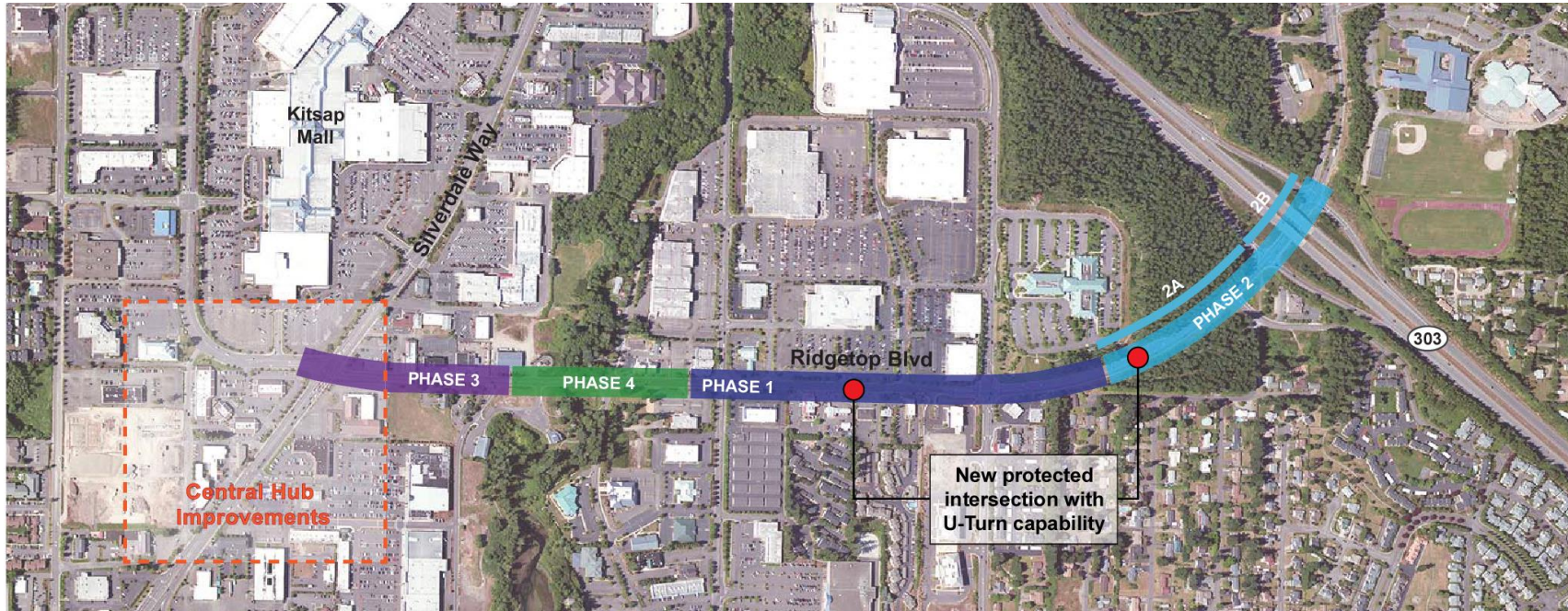
Ridgetop Phase 1

Ridgetop Phase 1 would provide four general purpose traffic lanes with a center median on Ridgetop Boulevard from Mickelberry Road to the realigned Sid Uhnick Drive intersection. The center median would provide access management of the many commercial driveways along Ridgetop Boulevard. Access would be restricted to right turn in/right turn out at all intersections except:

- Mickelberry Road/Ridgetop Boulevard
- Myhre Road/Ridgetop Boulevard
- Midblock Access to Best Buy and Costco

The midblock access to Best Buy and Costco would be signalized with U-turn capability. This signalized midblock intersection would provide important system benefits:

- U-turn and left turn access
- Midblock pedestrian crossing (also important for access to transit stops)
- Protected intersection



<p>Central Hub Improvements</p> <ul style="list-style-type: none"> • Poplars extension, sidewalk, ADA treatments, low stress bike lane • Protected intersections with U-turn and left turn at: <ul style="list-style-type: none"> - Poplars/Kitsap Mall Blvd. (with shared use path) - Poplars/Silverdale • Silverdale/Way Poplars to Ridgetop Complete Streets 	<p>3. Silverdale Way to Blaine</p> <ul style="list-style-type: none"> • 4-Lane Ridgetop with center median access control • Sidewalk, landscaping, low stress bike lane • Protected intersections with U-turn and left turn at: <ul style="list-style-type: none"> - Blaine/Ridgetop - Silverdale/Ridgetop 	<p>4. Blaine to Mickelberry</p> <ul style="list-style-type: none"> • 4-Lane Ridgetop with center median access control • Sidewalk, landscaping, low stress bike lane • Protected intersections with U-turn and left turn at Levin/Ridgetop • New bridge • Clear Creek Trail connections 	<p>1. Mickelberry to Myhre</p> <ul style="list-style-type: none"> • 4-Lane Ridgetop with center median access control • Sidewalk, landscaping, low stress bike lane • Protected intersections with U-turn and left turn at: <ul style="list-style-type: none"> - Mickelberry/Ridgetop - Myhre/Ridgetop - Potential New midblock feasibility TBD • Add 2nd EB GP lane and uphill bike lane from Myhre to realigned Sid Uhnick Dr • Storm water, sanitary sewer and utilities 	<p>2a. Realignment of Sid Uhnick Drive</p> <ul style="list-style-type: none"> • Realign Sid Uhnick Drive to align with Harrison Hospital entrance • Add new EB lane on Ridgetop Boulevard <p>2b. New SR 303 Improvements</p> <ul style="list-style-type: none"> • 4 to 5 lane, bike lane, sidewalks (w/ WSDOT) • Add dual EB LT and 2 receiving lanes on NB SR 303 on-ramp and dual WB LT off SR 303
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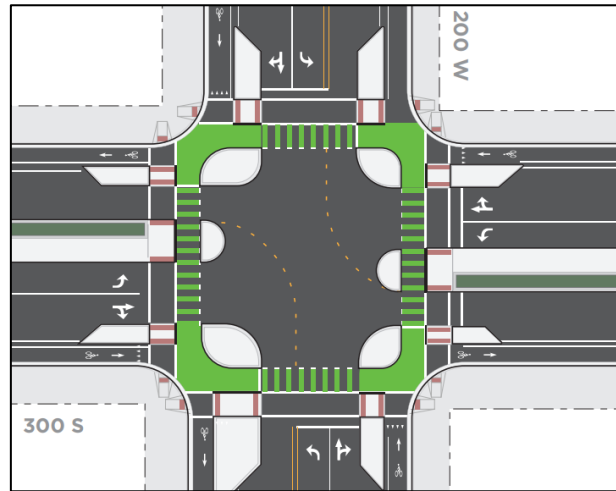
Figure 5. Ridgetop Corridor Phased Implementation Strategies

An important benefit of the midblock intersection is to reduce the southbound left turn demand at the Myhre Road/Ridgetop Boulevard intersection. Without a signalized left turn from the Best Buy/Costco driveways onto Ridgetop Boulevard (heading east to SR 303), high volumes of traffic exit the parking lots from Costco and Best Buy onto Myhre Road to make a signalized left turn from Myhre Road onto Ridgetop Boulevard (heading east to the SR 303 interchange).

Bike lanes on Ridgetop Boulevard would be low stress with some level of vertical and/or horizontal separation from traffic. The bike lanes could be integrated with the sidewalk and landscaping or raised next to the traveled lane. Protected intersections would provide at-grade separation for non-motorized movements. An example of a protected intersection is provided in Figure 6.

Ridgetop Phase 1 Delivery Options

Ridgetop Phase 1 would connect to developer funded improvements on Ridgetop Boulevard from Sid Uhnick Drive to SR 303. Phase 1 improvements provide capacity to accommodate expected growth, improve safety, and ease congestion on this key segment of Ridgetop Boulevard. A critical component of the project is improving and managing the access to the high demand big box retail outlets adjacent to Ridgetop Boulevard. Managing access will improve throughput and safety, and ease congestion. The Phase 1 project provides the foundation for additional improvements in the corridor that will connect to developer funded improvements near Harrison Hospital.



Source: Evolution of the Protected Intersection, 2015 ALTA Planning

Figure 6. Protected Intersection Example

Ridgetop Phase 2

Ridgetop Phase 2 would provide four to five general purpose traffic lanes on Ridgetop Boulevard from the northbound SR 303 on- and off-ramps to the southbound SR 303 on and off-ramps.

Harrison Hospital is constructing an eastbound travel lane and bike lane from east of Myhre to the SR 303 southbound ramp terminal. The improvement will also realign Sid Uhnick Drive to match the hospital access and will include a new signal. The project also includes a westbound bike lane from SR 303 to Mickelberry Road.

Bike lanes on Ridgetop Boulevard would be integrated into the design of the roadway. The Ridgetop improvements will improve non-motorized connections to the transit center, Harrison Hospital and the proposed Markwick trail.

Ridgetop Phase 2 Delivery Options

Ridgetop Phase 2 would complete improvements on Ridgetop Boulevard from Sid Uhnick Drive to SR 303. Phase 2 improvements provide capacity to accommodate expected growth and improve safety and ease congestion from east Silverdale to SR 303. Ridgetop Phase 2 would be implemented in two stages: 2a and 2b (see Figure 5). 2a would consist of the realignment of Sid Uhnick Drive, a new eastbound lane

on Ridgetop and new entrance to Harrison Hospital. 2b would provide improvements to the SR 303 interchange.

A critical component of the stage 2b project is improving the capacity and operation of the SR 303 interchange. There are two options considered for the SR 303 interchange improvements:

1. **Provide a four-lane section between the southbound and northbound SR 303 on-ramps:** The four-lane section would provide a single westbound through lane on Ridgetop Boulevard, two eastbound to northbound left turn lanes on Ridgetop Boulevard at the northbound on-ramp, a single eastbound through lane at the northbound on-ramp, and a single westbound to southbound left turn lane at the southbound on-ramp.

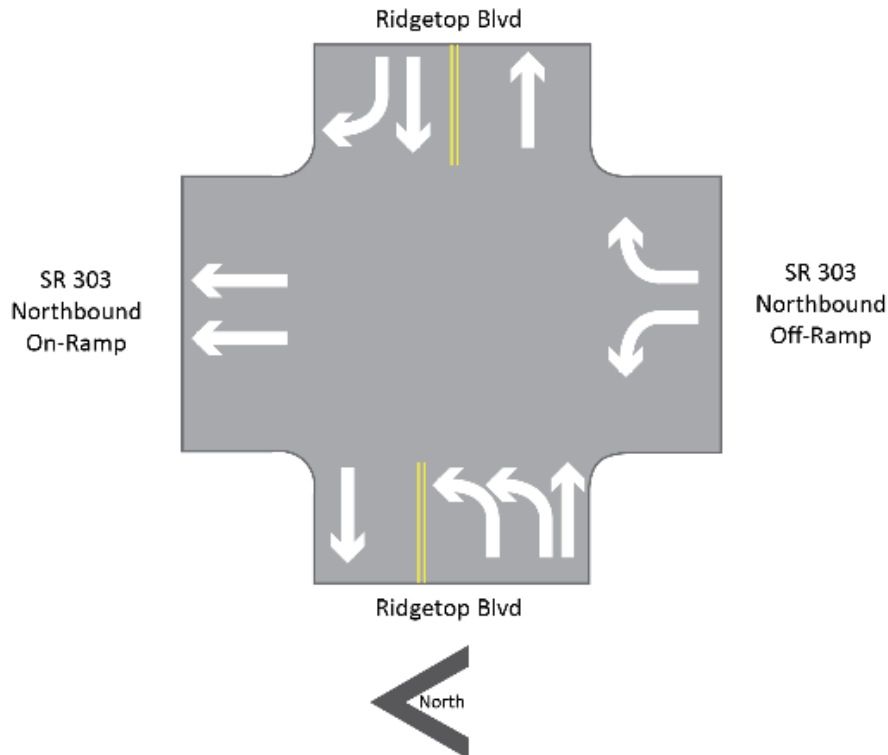


Figure 7. SR 303 Interchange Improvements, Option 1

2. **Provide a five-lane section between the southbound and northbound SR 303 on-ramps:** The five-lane section would provide two westbound through lanes and two northbound to westbound left turn lanes on the SR 303 northbound off-ramp.

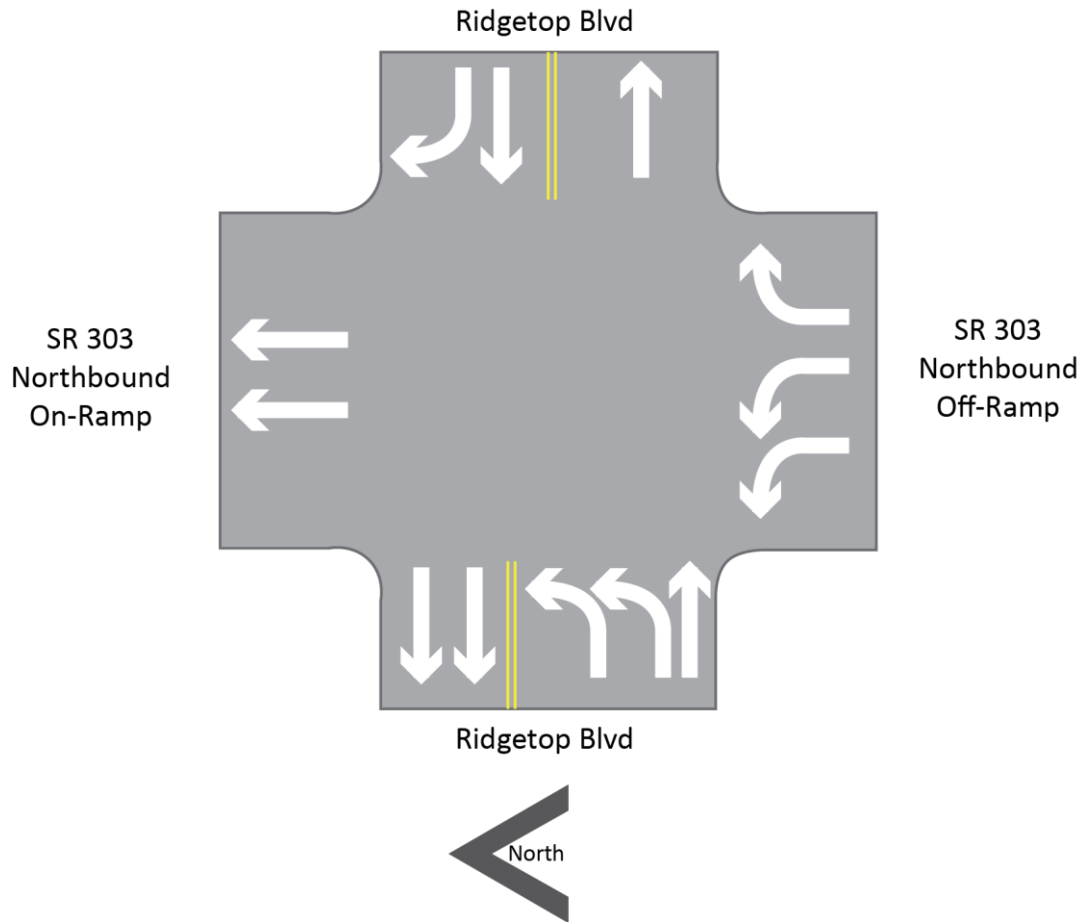


Figure 8. SR 303 Interchange Improvements, Option 2

While the four-lane option would not require the widening of the existing roadway, the five-lane option would require roadway widening and modifications to the existing wing walls that support the SR 303 overpass structure. The five-lane option would require modifications to both the northbound off- and on-ramps and may require storm water and utility work. The four-lane option is estimated at \$1.1M while the five-lane option is estimated to cost \$5.8M. Additional study is needed to determine the actual costs of each alternative and identify potential funding sources and partners (i.e., WSDOT). One strategy is to build the less costly four-lane section first until funding is available to build the five-lane option. Since the four-lane option primarily involves restriping the existing pavement, there would be little throw away when the five-lane section is built.

Ridgetop Phase 3

Ridgetop Phase 3 would provide four general purpose traffic lanes on Ridgetop Boulevard from Silverdale Way to Blaine Avenue. Access would be restricted to right turn in/right turn out at all intersections except:

- Silverdale Way/Ridgetop Boulevard
- Blaine Avenue/Ridgetop Boulevard

Protected intersections with U-turn and left turn capabilities would be provided at both Silverdale Way and Blaine Avenue. The improvements would include low stress bike lanes, landscaping and storm water/utility work.

Ridgetop Phase 3 Delivery Options

Ideally, Ridgetop Phase 3 would be constructed before the Central Hub improvements. The Ridgetop Phase 3 improvements would build infrastructure improvements at the Silverdale Way intersection to accommodate the future hub improvements. This would include the protected intersection improvements and the northbound right turn lane. If funding becomes available sooner for the hub intersection improvements at Silverdale Way, the project could be modified to eliminate elements that would be built as part of the hub intersection work.

Ridgetop Phase 4

Ridgetop Phase 4 would provide four general purpose traffic lanes on Ridgetop Boulevard from Blaine Avenue to Mickelberry Road. A critical component of the Phase 4 project is the construction of a new bridge over Clear Creek. Access would be restricted to right turn in/right turn out at all intersections except:

- Blaine Avenue/Ridgetop Boulevard
- Mickelberry Road/Ridgetop Boulevard

A protected intersection with U-turn and left turn capabilities would be provided at Blaine Avenue. The improvements would include low stress bike lanes, landscaping, and connections to the Clear Creek trail system.

Silverdale Way Corridor Improvements

The Silverdale Way corridor is used by autos, bikes, trucks, and transit to access the major retail, business, and residential centers within Silverdale. It is used for trips that are entirely local (walking, biking, and auto trips staying within the Silverdale Regional Center) as well as trips that are passing through Silverdale destined to locations outside of the Regional Center. The two hub intersections on

Silverdale Way Phase 1 (South Hub Phase 1 Improvements)

Silverdale Way Phase 1 would implement Phase 1 of the South Hub intersection improvements. The Phase 1 hub improvements would provide a separate westbound through lane on Bucklin Hill Road, protected intersection improvements, and access control from the Safeway driveway signal to Anderson Hill Road (see Figure 10). The extension of Randall Way from Bucklin Hill Road to Silverdale Way would be constructed as part of the South Hub Phase 2 improvements and this project is included in the Silverdale Way Corridor Phase 3 implementation strategy. The Randall Way roadway extension would include low stress bike lanes, sidewalk, landscaping, and utilities work. Upon completion of the South Hub improvements, access would be restricted to right turn in/right turn out on Bucklin Hill Road at all intersections except:

- Silverdale Way/Bucklin Hill Road
- Safeway Driveway/Bucklin Hill Road
- Randall Way/Bucklin Hill Road

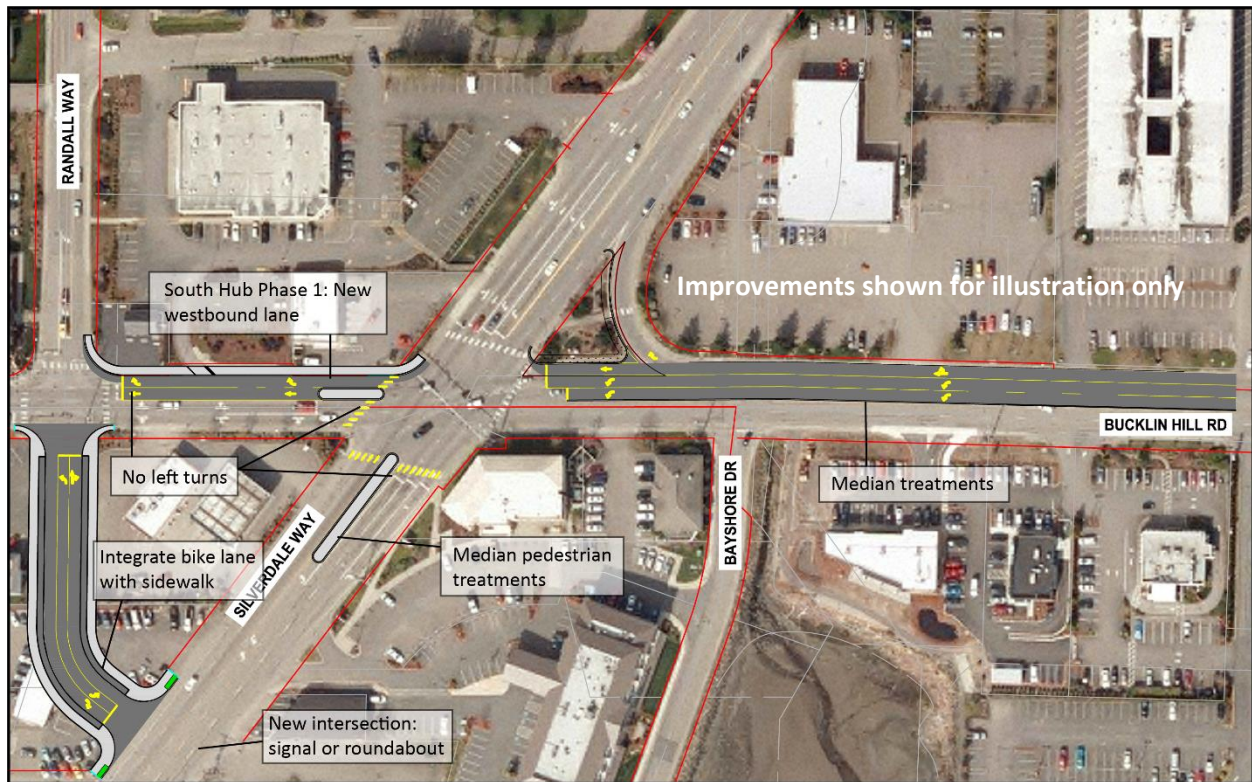


Figure 10. South Hub Intersection Improvements

South Hub Delivery Options

The South Hub intersection operates with the highest delays (LOS E) in the Silverdale roadway network. The hub intersection improvements will provide additional capacity and access management to improve throughput and reduce conflicts. The project could be built in phases to provide affordable construction packages that could be funded over a period of years. The completion of the Randall Way extension is needed to complete the intersection improvements and maximize the operations of the Bucklin Hill Road intersection. The project would include pedestrian islands and refuge areas and implement left turn restrictions that will significantly improve the operations of the traffic signal system. Potential phased construction of the South Hub improvements is shown in Figures 11 through 14.



Figure 11. South Hub Implementation Options – Phase 1



Figure 12. South Hub Implementation Options – Phase 2

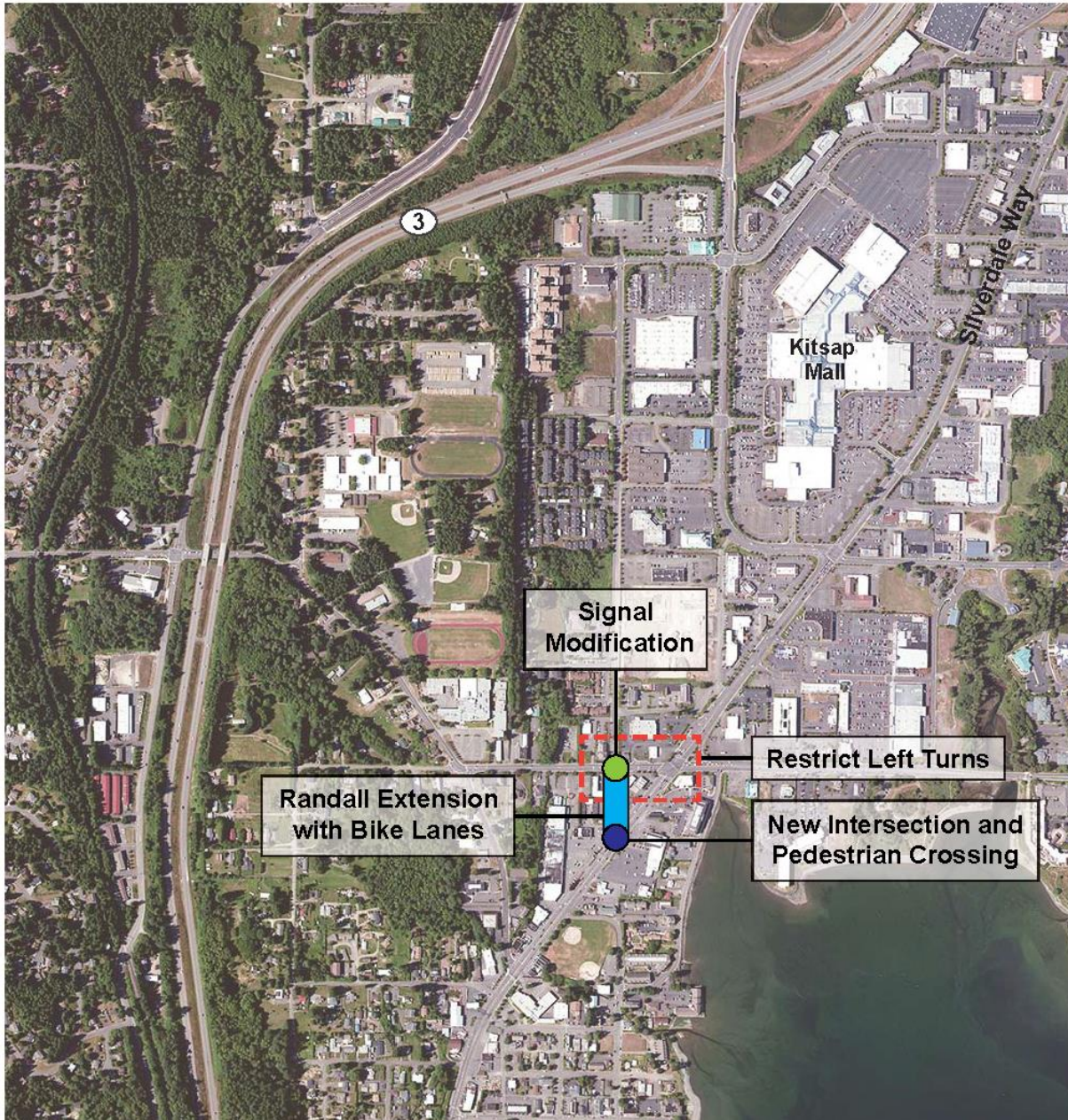


Figure 13. South Hub Implementation Options – Phase 3

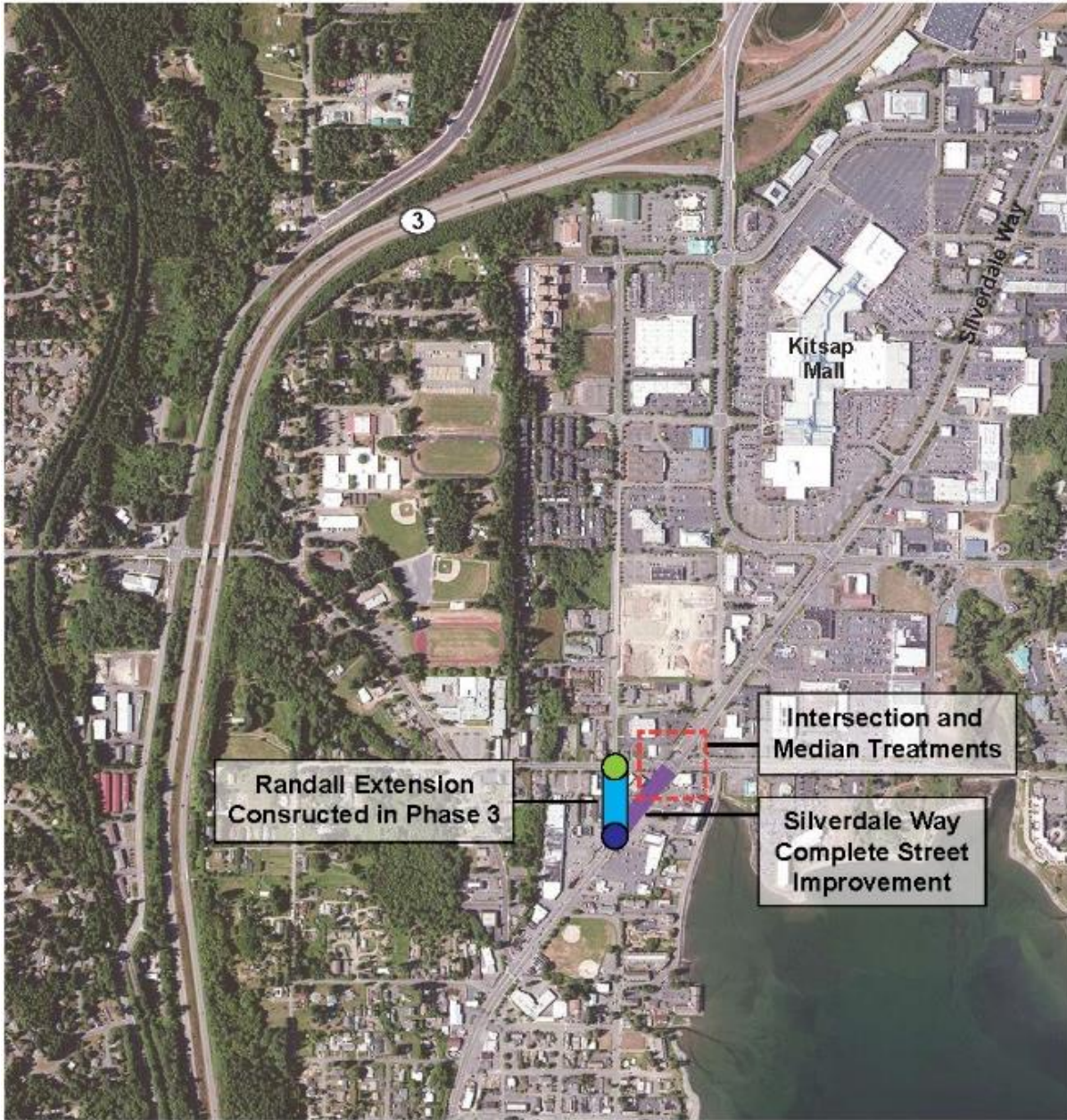


Figure 14. South Hub Implementation Options – Phase 4

Randall Way Extension Delivery Options

The Randall Way roadway extension includes two implementation options as shown in Figure 15.

RANDALL WAY EXTENSION OPTION 1



RANDALL WAY EXTENSION OPTION 2

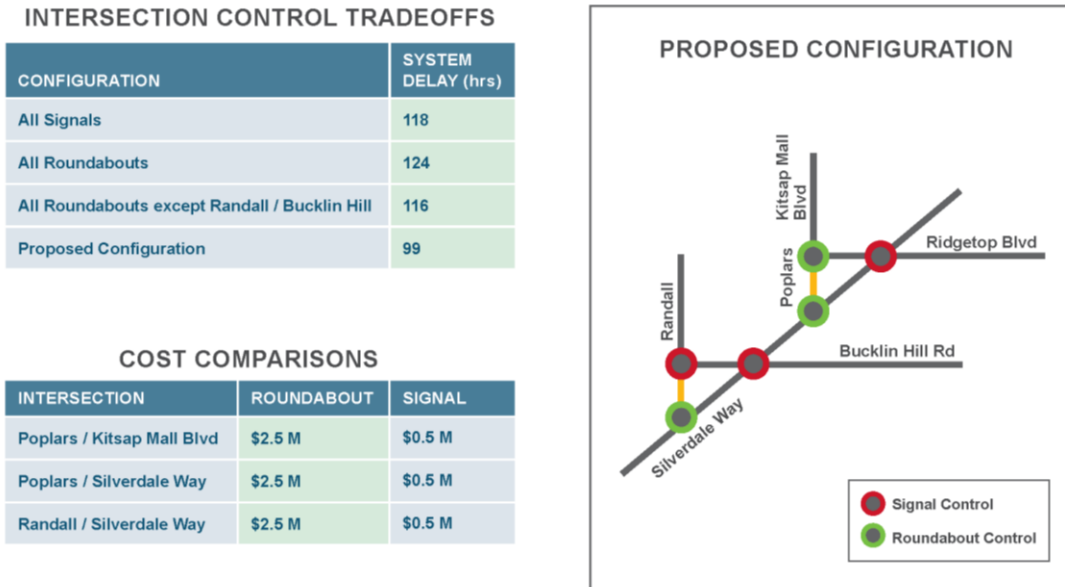


Figure 15. Randall Way Roadway Extension Options

Option 1 would minimize roadway and right-of-way costs and impacts. The second option would extend Randall Way to the existing pedestrian signal on Silverdale Way. Both options include a new intersection at Randall Way/Silverdale Way. This new intersection would replace the existing pedestrian crosswalk signal on Silverdale Way.

Intersection Control Options

Roundabout and traffic signal intersection control options were evaluated for the South Hub and Central Hub intersections. The results of that analysis are shown in the Figure 16.



Intersection	Circulation						Safety						Non-motorized		Cost		Total Score								
	Signal			Roundabout			Signal			Roundabout			Signal	Roundabout	Signal	Roundabout	Signal	Roundabout							
	raw	+/-	Total	raw	+/-	Total	raw	+/-	Total	raw	+/-	Total	Total	Total	Total	Total	Total	Total							
Ridgetop Way/Silverdale Way	1	0	1	1	+1	2	2	+1	3	1	+1,-1	1	2	3	2	0	8	6							
Poplars Ave/Kitsap Mall Blvd	3	0	3	3	0	3	2	-1	1	3	+1	3	3	3	3	1	10	10							
Poplars Ave/Silverdale Way	1	0	1	3	+1	3	1	-1	0	3	+1	3	3	3	3	1	7	10							
Bucklin Hill Rd/Silverdale Way	1	0	1	0	+1	1	2	0	2	1	+1,-1	1	2	3	2	0	7	5							
Randall Way/Bucklin Hill Rd	2	0	2	1	0	1	2	0	2	1	+1,-1	1	1	3	3	1	8	6							
Randall Way/Silverdale Way	3	0	3	1	+1	2	1	-1	0	3	+1,-1	3	3	3	3	1	9	9							
Point Scale	0	LOS E or F					0	No Improvement					0	No Improvement		0	>\$3M								
	1	LOS D					1	0-15% Improvement					1	Improves one crossing		1	\$2-\$3M								
	2	LOS C					2	15-30% Improvement					2	Improves two or more crossings		2	\$1-\$2M								
	3	LOS A or B					3	>30% I					3	Improves all crossings		3	<\$1M								
Additions and Subtractions	Add 1 point if needed for improved U-Turn capability					Subtract 1 point if improvement increases rear end collisions					Add 1 point if improvement reduces crash severity and injury					None									
																					Subtract 1 point for negative impact on driver behavior				

Figure 16. Hub Intersection Traffic Control Options

Silverdale Way Phase 2 (Central Hub Phase 1 Improvements)

Silverdale Way Phase 2 would implement the first phase of the Central Hub intersection improvements. This would include a dedicated northbound right turn lane from Silverdale Way to Ridgetop Boulevard, and protected intersection improvements. Adding the northbound right turn lane will reduce intersection delays and improve overall intersection operations. The improvements should include a protected refuge area on the southeast corner for pedestrians and bicyclists, as shown on Figure 17.

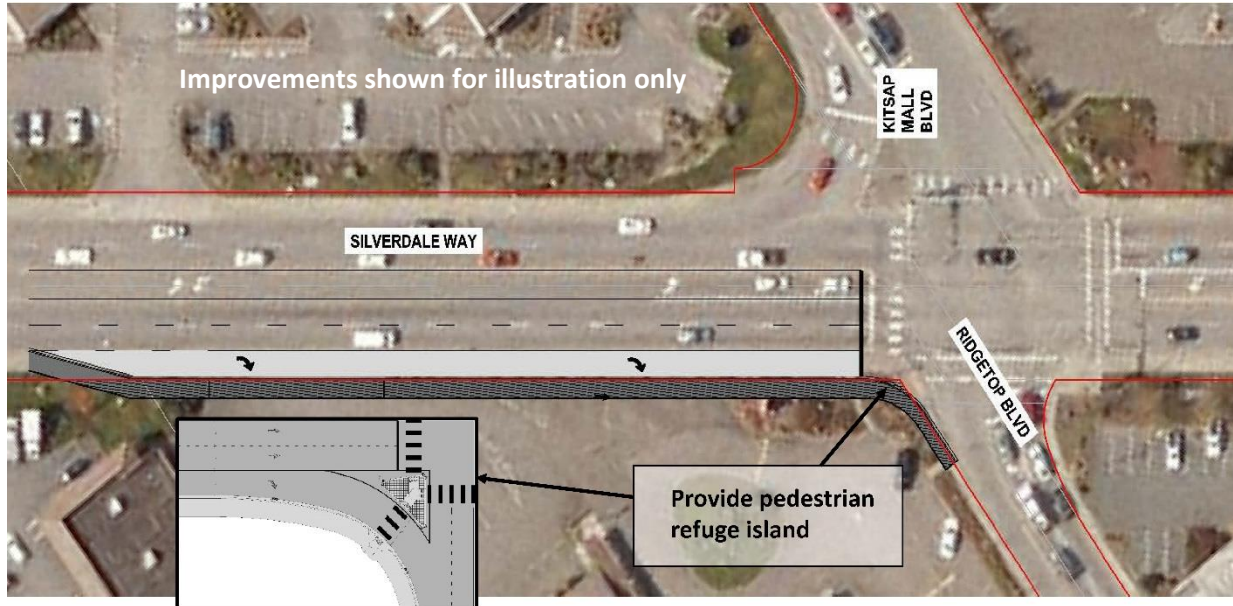


Figure 17. Central Hub Phase 1: NB Right Turn Lane at Silverdale Way/Ridgetop

Completion of the Central Hub intersection improvements including the extension of Poplars Avenue from Kitsap Mall Boulevard to Silverdale Way would occur during the Silverdale Way Phase 4 work. The Poplars Avenue extension is shown in Figure 18.

Central Hub Delivery Options

Central Hub Phase 1 provides an affordable near-term improvement that provides congestion relief at the Ridgetop Boulevard intersection. It is recommended that the northbound right turn lane be built in concert with the Ridgetop Phase 3 improvements or before Ridgetop Phase 3 due to the increase in traffic volume that is expected on Ridgetop Boulevard with the completion of the Phase 3 improvements. The second phase of the Central Hub improvements would be completed as part of the Silverdale Way Phase 4 improvements and would include the complete streets and access management improvements on Silverdale Way from Bucklin Hill Road to Ridgetop Boulevard. The intersection at Poplars Avenue could be constructed as a signal or roundabout. This intersection provides critical U-turn capability for the implementation of access management on Silverdale Way.



Figure 18. Central Hub Phase 2: Poplars Ave Roadway Extension

Silverdale Way Phase 3 (South Hub Phases 2,3 & 4 and Strawberry Creek to Bucklin Hill Complete Street)

Silverdale Way Phase 3 would construct the Randall Way extension and complete the South Hub Phase 2,3, and 4 improvements as well as implement complete streets on Silverdale Way from Strawberry Creek to Bucklin Hill Road. This project would not include fish passage for Strawberry Creek. The project would include sidewalk, low stress bike lanes, and median access control.

Silverdale Way Phase 4 (Central Hub Phase 2 and Ridgetop Boulevard to Bucklin Hill Complete Street)

Silverdale Way Phase 4 would complete the Central Hub improvements and implement complete streets on Silverdale Way from Ridgetop Boulevard to Bucklin Hill Road. This phase would include the new intersection at Poplars Avenue and Silverdale Way. The project would include sidewalk, low stress bike lanes, and median access control.

Silverdale Way Phase 5 (Anderson Hill to Strawberry Creek Complete Street)

Silverdale Way Phase 5 would implement complete streets on Silverdale Way from Anderson Hill Road to Strawberry Creek. The project would include sidewalk, low stress bike lanes, and median access control, and would include a new culvert for Strawberry Creek underneath Silverdale Way for fish passage.

Silverdale Way Phase 6 (Ridgetop Boulevard to SR 303 Complete Street)

Silverdale Way Phase 6 would implement complete streets on Silverdale Way from Ridgetop Boulevard to SR 303. The project would include sidewalk, low stress bike lanes, and median access control.

Spot Improvements

There are four spot improvements identified in the Silverdale TIS:

1. Bucklin Hill Gap
2. Kitsap Mall/Randall Way Intersection
3. Anderson Hill Road (Bucklin Hill Road to Provost Road)
4. Newberry Hill Road/Silverdale Way Roundabout

Each spot improvement addresses a specific need identified in the Silverdale TIS study.

Bucklin Hill Gap

The Bucklin Hill Gap project completes the five-lane roadway section on Bucklin Hill Road from Mickelberry Road to Myhre Road (see Figure 19). This improvement would include bike lanes, sidewalks, landscaping, storm water, and utilities. This project would extend the improvements completed for the Bucklin Hill Road bridge.

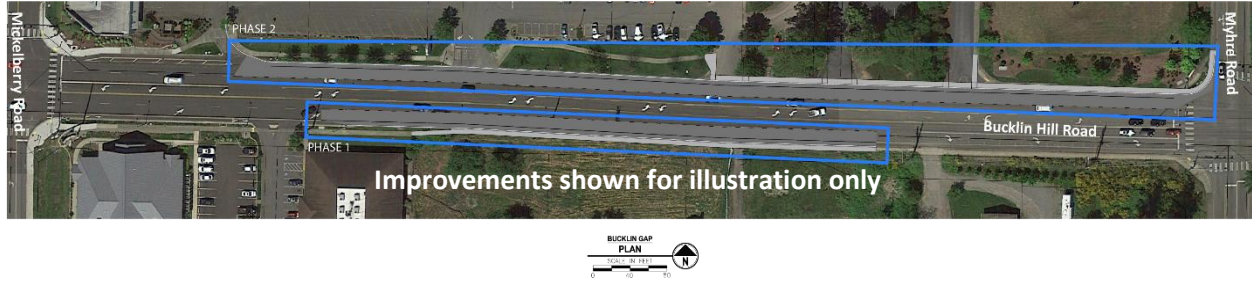


Figure 19. Bucklin Hill Gap Project

The Bucklin Hill Gap project could be constructed in two phases. The first phase would construct the roadway improvements on the south side of the roadway when expected development occurs on the south side of Bucklin Hill. Developer improvements would include the missing sidewalk on the south side of the roadway. The second phase would construct the roadway and sidewalk improvements on the north side of the roadway.

Kitsap Mall Boulevard/Randall Way Intersection

The Kitsap Mall Boulevard/Randall Way intersection project provides a second eastbound left turn lane on Randall Way (see Figure 20). This improvement would include sidewalks, landscaping, storm water, and utilities.



Figure 20. Kitsap Mall Boulevard/Randall Way Intersection Improvements

Anderson Hill Road (Bucklin Hill Road to Provost Road)

The Anderson Hill Road corridor provides a critical connection to Central Kitsap Schools, Provost Road (on the west side of SR 3), and Bucklin Hill Road. It is used as a primary route to and from the Seabeck area and Hood Canal. Traffic volumes on Anderson Hill Road adjacent to the Central Kitsap Schools is forecasted to grow by approximately 20% by 2036. This corridor provides critical access to the Central Kitsap Schools campus. The improvements recommended for the corridor are depicted in Figure 21.

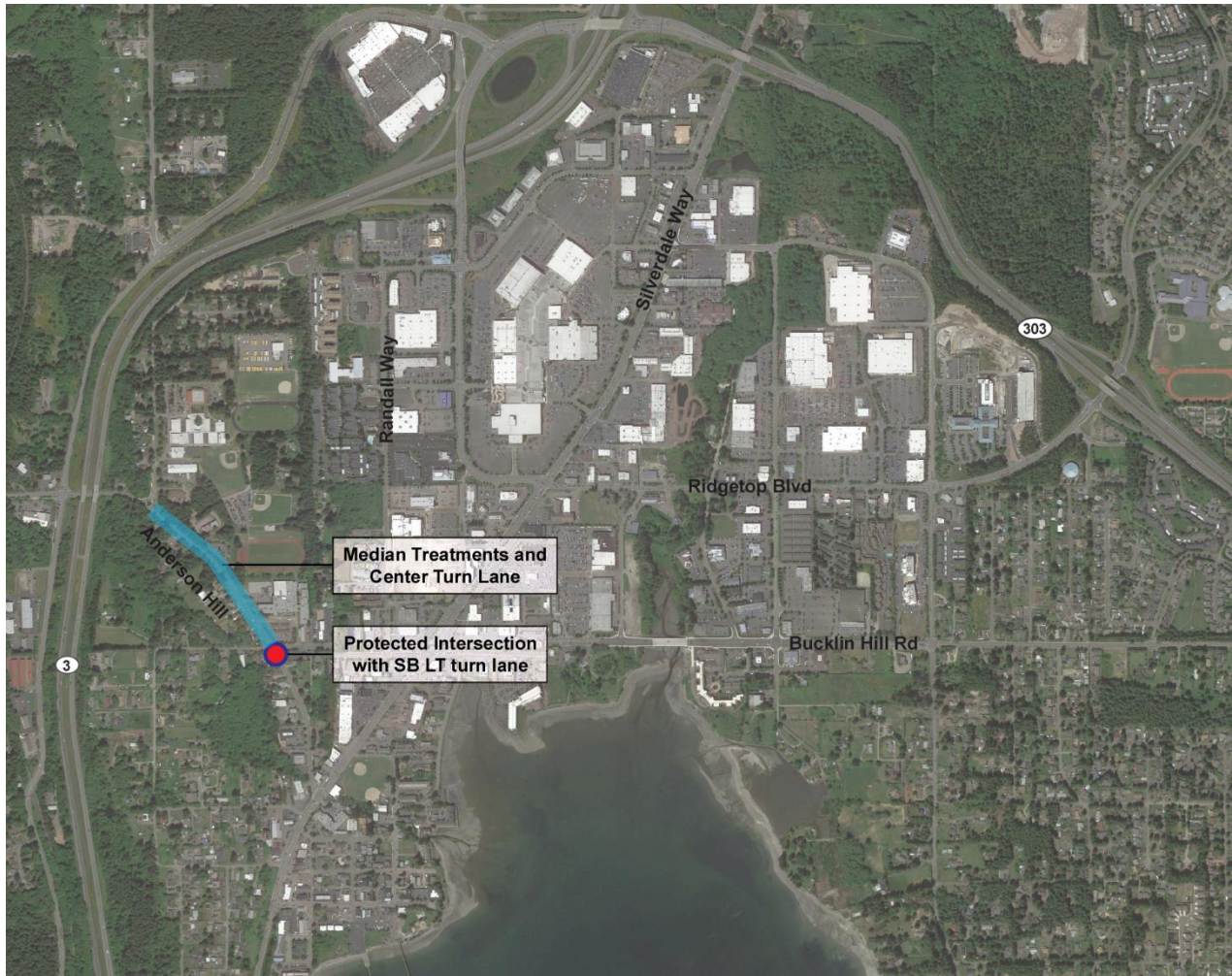


Figure 21. Anderson Hill Road Improvements

Newberry Hill Road/Silverdale Way Roundabout

The primary improvement considered for the Newberry Hill Road/Silverdale Way roundabout is a southbound to westbound slip lane from Silverdale Way to Newberry Hill Road. This improvement would allow this heavy traffic movement to bypass the roundabout reducing conflicts and improving the operation of the roundabout. This improvement will require widening of Newberry Hill from the roundabout to SR 3.

Opportunity Improvements

Opportunity improvements would be funded and implemented through partnerships with developer-initiated projects and/or with Silverdale stakeholders and private interest groups. These improvements include:

1. Central Silverdale Multi-Use Pathway
2. North Silverdale Multi-Use Pathway
3. Randall Way Bike Lanes

Central Silverdale Multi-Use Pathway

The Central Silverdale Multi-Use Pathway would connect the Central Kitsap Schools campus with the Bucklin Hill Road bridge and the Clear Creek trail system. The project could be built in two phases. Phase 1 would connect the Central Kitsap Schools campus to Silverdale Way. The second phase would be built upon completion of the Central Hub intersection improvements, which would include a new intersection at Poplars Avenue and Silverdale Way, providing a protected midblock crossing for bikes and pedestrians across Silverdale Way. A concept for the pathway is shown in Figure 22.

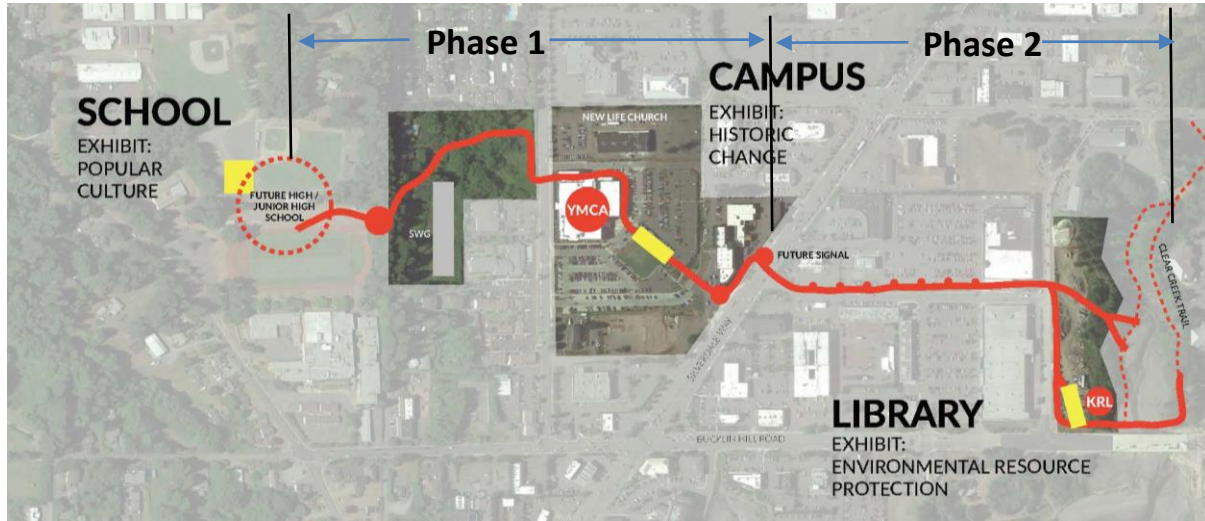


Figure 22. Central Silverdale Multi-Use Pathway Concept

North Silverdale Multi-Use Pathway

The North Silverdale Multi-Use Pathway would connect Randall Way to Myhre Road across Kitsap Mall, Silverdale Way and east Silverdale. A conceptual location for the pathway is shown in Figure 23.

Randall Way Bike Lanes

Randall Way is a lower volume 2-lane roadway with a center turn lane. The proposed project would repurpose the center turn lane for bike lanes (see Figure 23). These could be standard bike lanes with paint or low stress bike lanes depending upon funding.



Figure 23. Randall Way Bike Lanes and Multi-Use Pathway

IMPROVEMENTS CONSIDERED BUT NOT RECOMMENDED

The Silverdale TIS technical analysis evaluated additional roadway capacity improvements to the Silverdale Corridor (from Byron Street to Newberry Hill Road) and for the Randall Way/Myhre Road Corridor (from Kitsap Mall Boulevard to Myhre Road). These improvements are discussed in this section.

Myhre Road Extension to Randall Way

The purpose of the Myhre Road extension analysis was to evaluate the potential for a northern Silverdale corridor improvement to reduce traffic volumes and congestion on Ridgetop Boulevard. Two options were evaluated (see Figure 24). Each option evaluated a new three-lane roadway connecting Myhre Road to Randall Way north of Kitsap Mall.



Figure 24. Myhre Road Extension to Randall Way

The findings for each option are summarized in Table 6. A key conclusion from the analysis was that the Myhre Road Extension to Randall Way would not reduce traffic volumes and congestion on Ridgetop Boulevard.

Table 6. Myhre Road Extension to Randal Way Findings

Alternative	Benefits	Impacts	Ridgetop Corridor
Option 1	<ul style="list-style-type: none"> Improved localized circulation around Kitsap Mall Minor benefit at Ridgetop Boulevard/Silverdale Way. Modeling shows about a 10% decrease in the SB right turn from Silverdale Way to Kitsap Mall Boulevard. This is not a critical movement at the intersection and the LOS benefits would be minor if any. 	<ul style="list-style-type: none"> Adds volume and degrades the LOS at Kitsap Mall Boulevard/Randall Way Separates the north mall parking lot from the mall. Protected midblock pedestrian crossings would be needed for pedestrians crossing the new roadway. 	<ul style="list-style-type: none"> Did not reduce traffic volumes in the Ridgetop corridor
Option 2	<ul style="list-style-type: none"> Improved localized circulation around the north edge of Kitsap Mall Reduced volume on Myhre in the vicinity of Silverdale Way 	<ul style="list-style-type: none"> Significant impact to wetlands east of Silverdale Way Minor impact to the LOS at Kitsap Mall Boulevard/Randall Way 	<ul style="list-style-type: none"> Did not reduce traffic volumes in the Ridgetop corridor

Four-Lane Silverdale Way South of Byron Street

The purpose of the four-lane Silverdale Way South of Byron Street analysis was to evaluate the traffic benefits and impacts of improving Silverdale Way from two lanes to four lanes between Newberry Hill Road and Bryon Street (see Figure 25). The analysis assumed a four-lane roadway from the SR 3/ Newberry Hill Road interchange to the Silverdale Way/Byron Street intersection.



Figure 25. 4-Lane Silverdale Way South of Byron Street

This project attracted significantly higher traffic volumes onto the Silverdale Way Corridor, resulting in poor operating level-of-service (LOS F) at key intersections, such as Bucklin Hill Road and Ridgetop Boulevard. Due to the potential impacts on circulation within Silverdale, this improvement was given a low priority with the understanding that additional study and analysis is needed to fully understand the benefits and tradeoffs. The key findings of the analysis included:

1. A 4-lane Silverdale Way improvement will make Silverdale Way a more attractive entry into Silverdale, attracting higher traffic volumes onto the corridor. The resulting increased congestion is likely to impede internal circulation within Silverdale, particularly at key hub intersections such as Silverdale Way/Bucklin Hill and Silverdale Way/Ridgetop Boulevard.
2. Additional study is needed to understand the potential tradeoffs and impacts including the potential need and benefits of improvements at the SR 3/Newberry Hill interchange and at the Newberry Hill/Provost Road intersection to reducing queuing and congestion.