

Welcome

Thank you for attending this community engagement on the Trans-Canada Highway 1 RW Bruhn Bridge Replacement, part of the Highway 1 Kamloops to Alberta Four-Laning Program.

Community Engagement November 15 – November 29, 2016.

We want to hear from you

Please provide us with your feedback by Tuesday, November 29, 2016.

You can provide us with your feedback by:

- ✓ Completing the hard-copy feedback form and leaving it with a member of our team
- ✓ Filling out the feedback form online at: gov.bc.ca/bchwy1-projects
- ✓ Sending an email to: rwbruhnbridge@gov.bc.ca
- ✓ Mailing your form or written feedback to: Ministry of Transportation and Infrastructure, ATTN: RW Bruhn Bridge Replacement Project, 447 Columbia Street, Kamloops BC, V2C 2T3

How feedback will be considered

Community feedback will be considered, along with technical, environmental and financial information, and feedback from local government and First Nations, in selecting an option for the replacement of the Trans-Canada Highway 1 RW Bruhn Bridge to complete the preliminary design.



HIGHWAY 1 KAMLOOPS TO ALBERTA FOUR-LANING PROGRAM



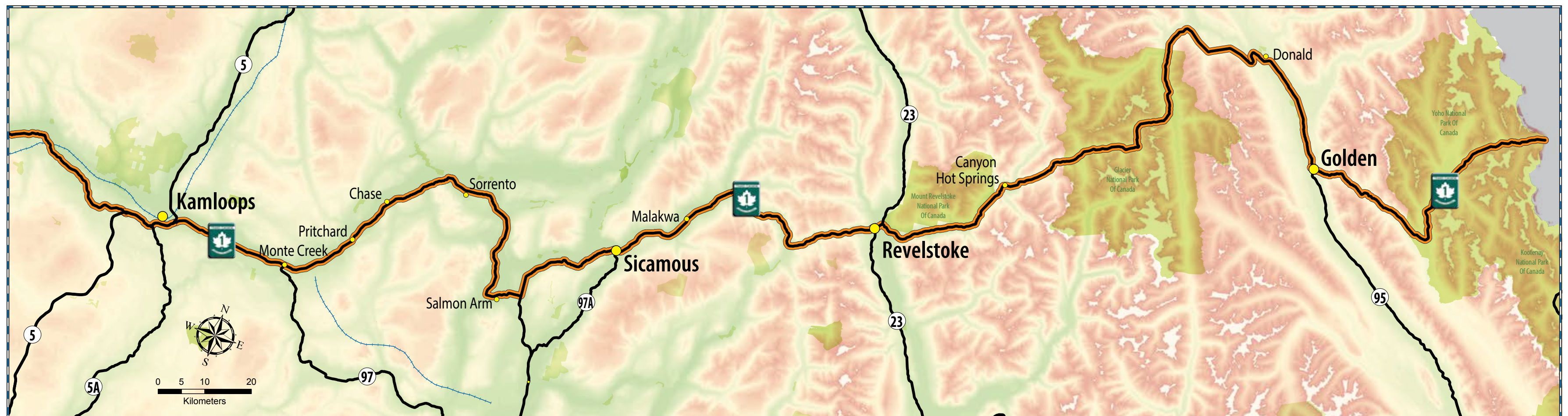
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Importance of Trans-Canada Highway 1

The growth of our economy and our communities relies on a strong transportation network. Trans-Canada Highway 1 is the primary east-west connection through B.C. It links communities and is a vital route for travel, tourism and trade:

Up to 12,000 vehicles per day use the corridor, 15 percent of which are heavy trucks

\$2 billion of exports travel along the corridor to the Lower Mainland annually

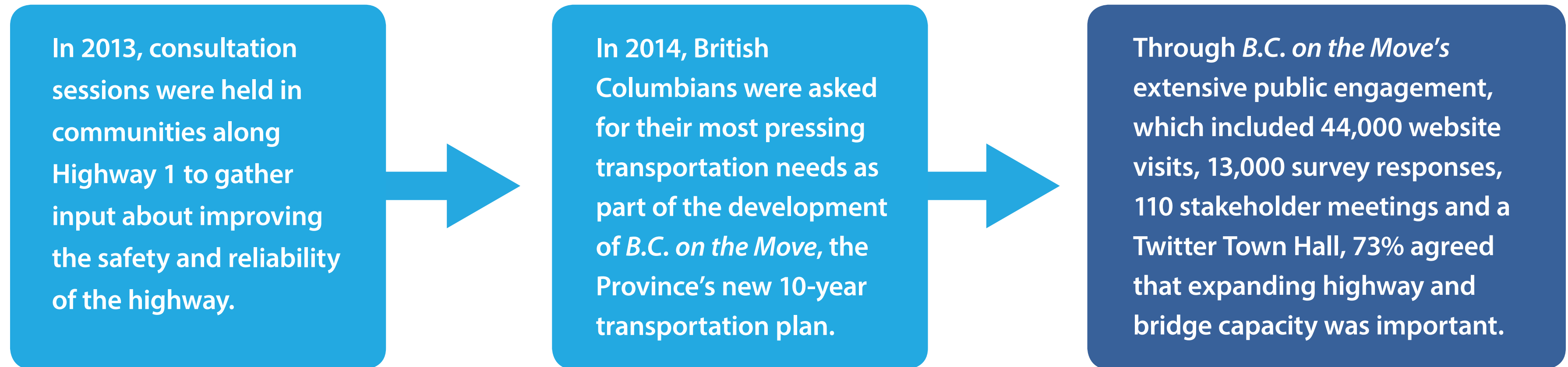


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Public Input Helps to Set Investment Priorities



Continuing to advance four-laning projects on the Trans-Canada Highway between Kamloops and Alberta is a priority action in *B.C. on the Move*. The Province has committed \$650 million for improvements over 10 years. Our goal is to increase investment in this section of Highway 1 to over \$1 billion with partners over the next 10 years. Since 2001, the provincial and federal governments have invested or committed more than \$980 million to improve the safety and reliability of the highway and upgrade it to a modern four-lane standard.



About the RW Bruhn Bridge Project

The Trans-Canada Highway 1 RW Bruhn Bridge Project extends along Highway 1 west of Old Sicamous Road to east of Gill Avenue, and includes potential intersection improvements/turn-lanes at Old Sicamous Road, Old Spallumcheen Road, Gill Avenue and Silver Sands Road.

As a result of planning work that was undertaken, three options are being considered for the Trans-Canada Highway 1 RW Bruhn Bridge Replacement Project:

Option 1	New 6-lane bridge on Trans-Canada Highway 1
Option 2	New 5-lane bridge on Trans-Canada Highway 1
Option 3	New 4-lane bridge on Trans-Canada Highway 1 with an additional Main Street Bridge

Local government and First Nations engagement

Since fall 2014, several meetings have been held with District of Sicamous Council and First Nations (including Project Liaison Committee meetings and Council briefings) to get input on project options and local community needs.

Key themes from these meetings have included:

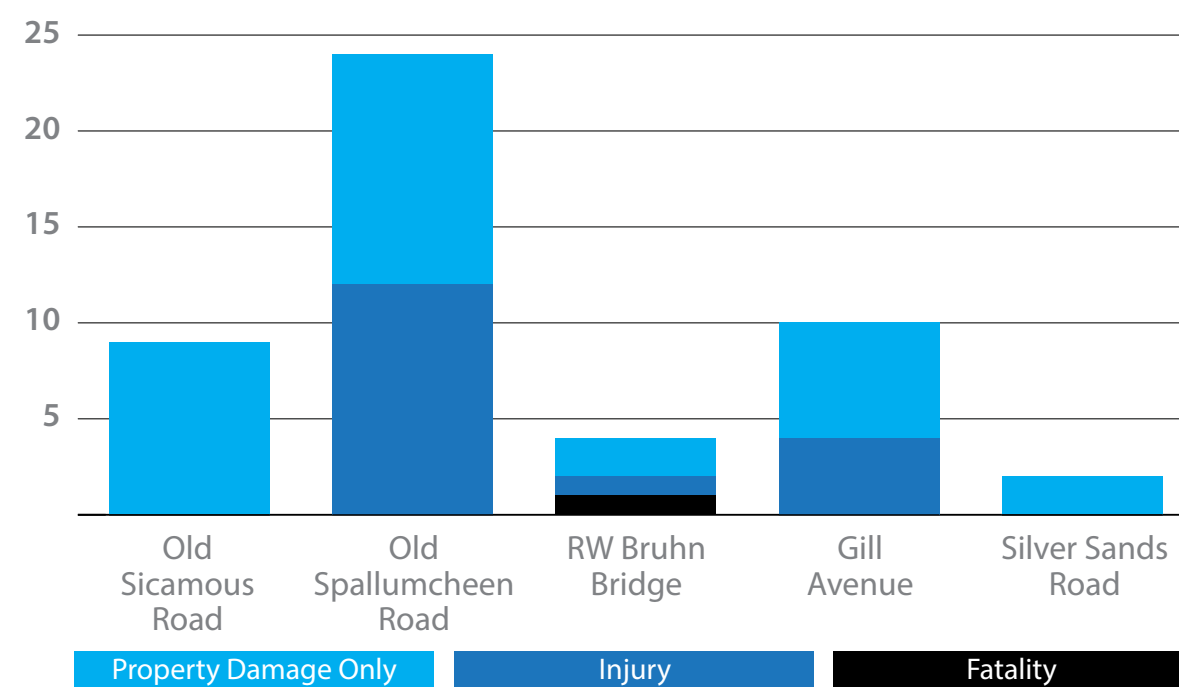
- Interest in the current conditions of RW Bruhn Bridge and future replacement
- Need to address community road network planning and future of Old Spallumcheen Road intersection
- Support for multi-use trails
- Need to mitigate project effects on First Nations cultural heritage and the environment
- Willingness to further consider the potential for a Main Street Bridge



Why Is The RW Bruhn Bridge Project Needed? Improving Safety

There were 56 collisions in a 10-year period (2005-2015) on this section of Highway 1. Of these, there was 1 fatality, 20 involved injuries and 35 involved property damage.

HIGHWAY 1 COLLISIONS 2006–2015



- › Of the four intersections within this section of Highway 1, Old Spallumcheen Road had the highest number of recorded collisions at 24 – more than two times higher than the next highest frequency intersection.
- › Rear-end collisions represent almost 35% of all collisions occurring along this segment. The majority of rear-end collisions have occurred within the vicinity of Old Spallumcheen Road and the RW Bruhn Bridge.
- › This section of Highway 1 is considered to be collision prone, as the collision rate is greater than the provincial average.
- › Similarly, the intersections at Old Sicamous Road, Old Spallumcheen Road and Gill Avenue all experience collision rates greater than the provincial average and are considered to be collision prone locations.

Trans-Canada Highway 1 RW Bruhn Bridge Replacement Project objectives:

- Improve safety, traffic flow and movement of goods
- Improve safety for pedestrians and cyclists
- Address aging bridge infrastructure
- Improve access to local roads and facilitate development



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Why Is The RW Bruhn Bridge Project Needed? Improving Traffic Flow

Traffic volumes are continuing to grow along the corridor serviced by the bridge, and improvements are needed to ensure that people and goods continue to move safely and efficiently.

- › Currently, the average daily traffic volumes along this section of Highway 1 are approximately 5,750 vehicles a day (up to approximately 9,450 vehicles a day during the summer).
- › Intersections along Highway 1 within the study corridor currently experience minimal delays.
- › Future development along Old Spallumcheen Road could see up to an additional 590 vehicles per hour trying to access the highway during the afternoon peak hour, over the next 25 years.
- › Improvements are also needed for pedestrians and cyclists, and to improve access to local roads, and support growth within the District of Sicamous.

2015 AM/PM PEAK HOUR TRAFFIC VOLUMES – EXISTING CONDITIONS

OLD SPALLUMCHEEN ROAD – AM PEAK (PM PEAK)



GILL AVENUE – AM PEAK (PM PEAK)



SILVER SANDS ROAD – AM PEAK (PM PEAK)



Why Is The RW Bruhn Bridge Project Needed? Aging Infrastructure

Built in 1952, Trans-Canada Highway 1 RW Bruhn Bridge is a two-lane bridge connecting communities along Highway 1. It also provides an important local link for District of Sicamous residents and visitors to access businesses and services.

The Ministry carries out regular maintenance to keep the bridge in good operating condition until a new bridge is built. This includes regular inspections, surface maintenance, and repairs to bridge components as needed.

But the bridge is over 50 years old and while it is safe for users, the infrastructure is aging and the time has come to begin planning for its replacement.



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Work to Date

Prior to engaging with the public and stakeholders, the Ministry conducted preliminary design work to determine the feasibility of the options and to better understand the challenges associated with them.

This included:

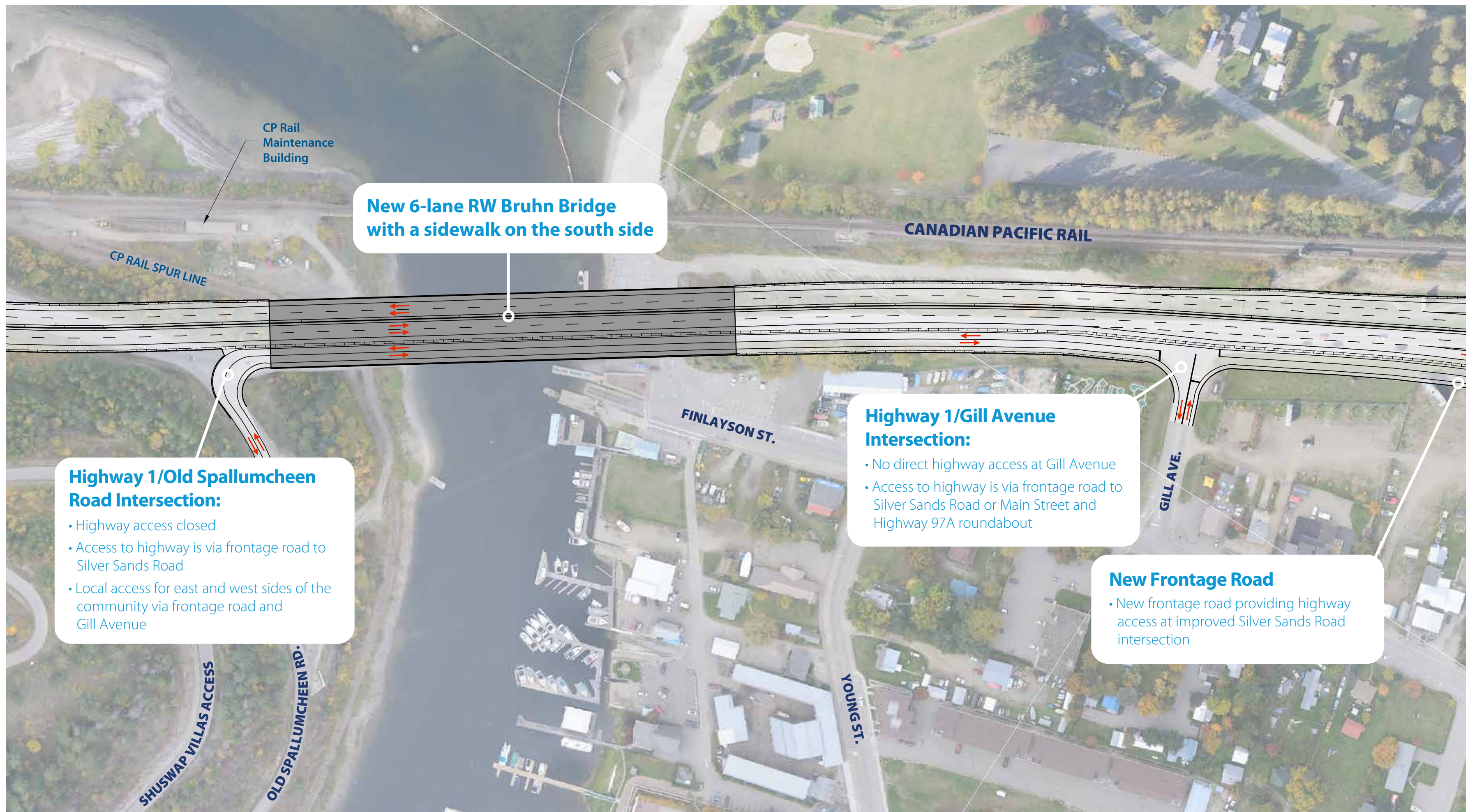
- › Undertaking road safety and formal Independent Technical Review studies
- › Determining optimized intersection configurations
- › Assessing rock cuts and costs in more detail
- › Defining project risks
- › Initiating archaeological and heritage investigations
- › Examining options for local connections like the Main Street Bridge
- › Continuing discussions with BC Hydro, BC Transmission and CP Rail

Where are we now:

- › Preliminary design is underway
- › Independent technical review (to refine project scope, risks and costs) is complete
- › Environmental and archaeological investigations are underway



Option 1: New 6-Lane Bridge on Trans-Canada Highway 1



Option 1: New 6-Lane Bridge on Trans-Canada Highway 1

Advantages

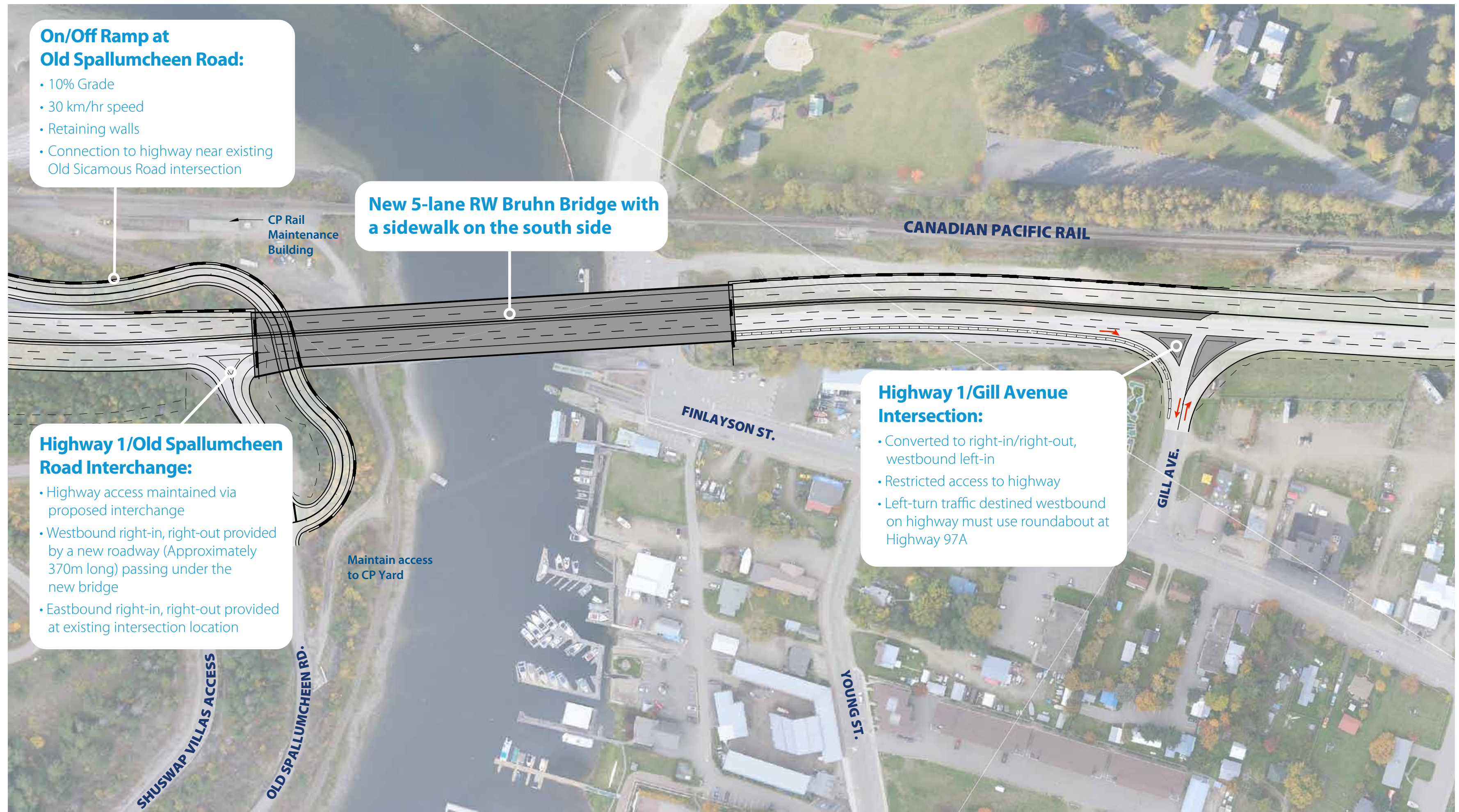
- Improves intersection safety
- Supports future development proposed along Old Spallumcheen Road
- Provides sidewalk on south side of bridge for pedestrians
- Enhances safety and local access to businesses and services with a parallel frontage road that eliminates the Old Spallumcheen Road intersection
- Only requires one bridge crossing

Disadvantages

- Challenging construction and traffic management during construction, resulting in an extended construction period
- Larger project footprint due to large amount of excavation required
- Headlight glare for Highway 1 users, because of proximity of frontage road to the highway
- Winter maintenance challenges on the new bridge and frontage road due to significant overall width
- Highest construction cost



Option 2: New 5-Lane Bridge on Trans-Canada Highway 1



Option 2: New 5-Lane Bridge on Trans-Canada Highway 1

Advantages

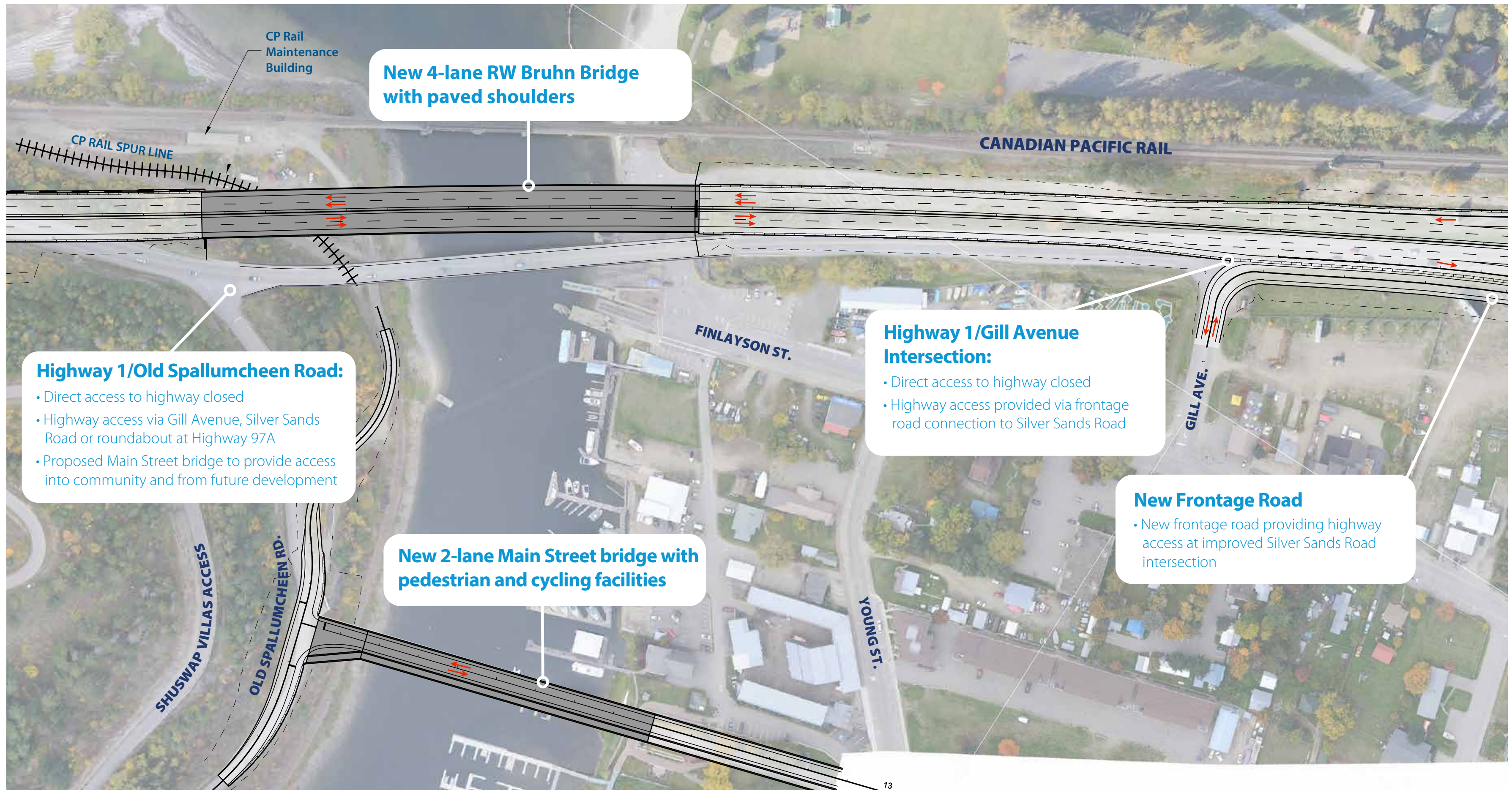
- Improves intersection safety
- Provides full-movement highway access at Old Spallumcheen Road
- Supports future development proposed along Old Spallumcheen Road
- Improves west-bound travel times, compared to other options
- Only requires one bridge crossing
- Lower construction cost than Option 1

Disadvantages

- Challenging construction and traffic management during construction, resulting in an extended construction period
- Interchange will require construction of retaining walls and steep ramp grades
- Larger project footprint due to large amount of excavation and complex ramps required at Old Spallumcheen Road
- Property required from CP Rail and potential operational impacts
- Challenges for winter maintenance on Old Spallumcheen Road and the west-bound ramp



Option 3: New 4-Lane Bridge on Trans-Canada Highway 1 with an additional Main Street Bridge



Option 3: New 4-Lane Bridge on Trans-Canada Highway 1 with an additional Main Street Bridge

Advantages

- Improves intersection safety
- Supports future development proposed along Old Spallumcheen Road
- Improves constructability of new RW Bruhn Bridge, since the traffic can use the existing bridge more easily while the new bridge is being built
- Reduces quantity of rock excavation and fill required
- Main Street Bridge could carry planned municipal services across Sicamous Narrows
- Enhances local connectivity between the east and west sides of Sicamous, including cyclist and pedestrian access associated with planned trail network
- Lower construction cost than Option 1 (comparable cost to Option 2)

Disadvantages

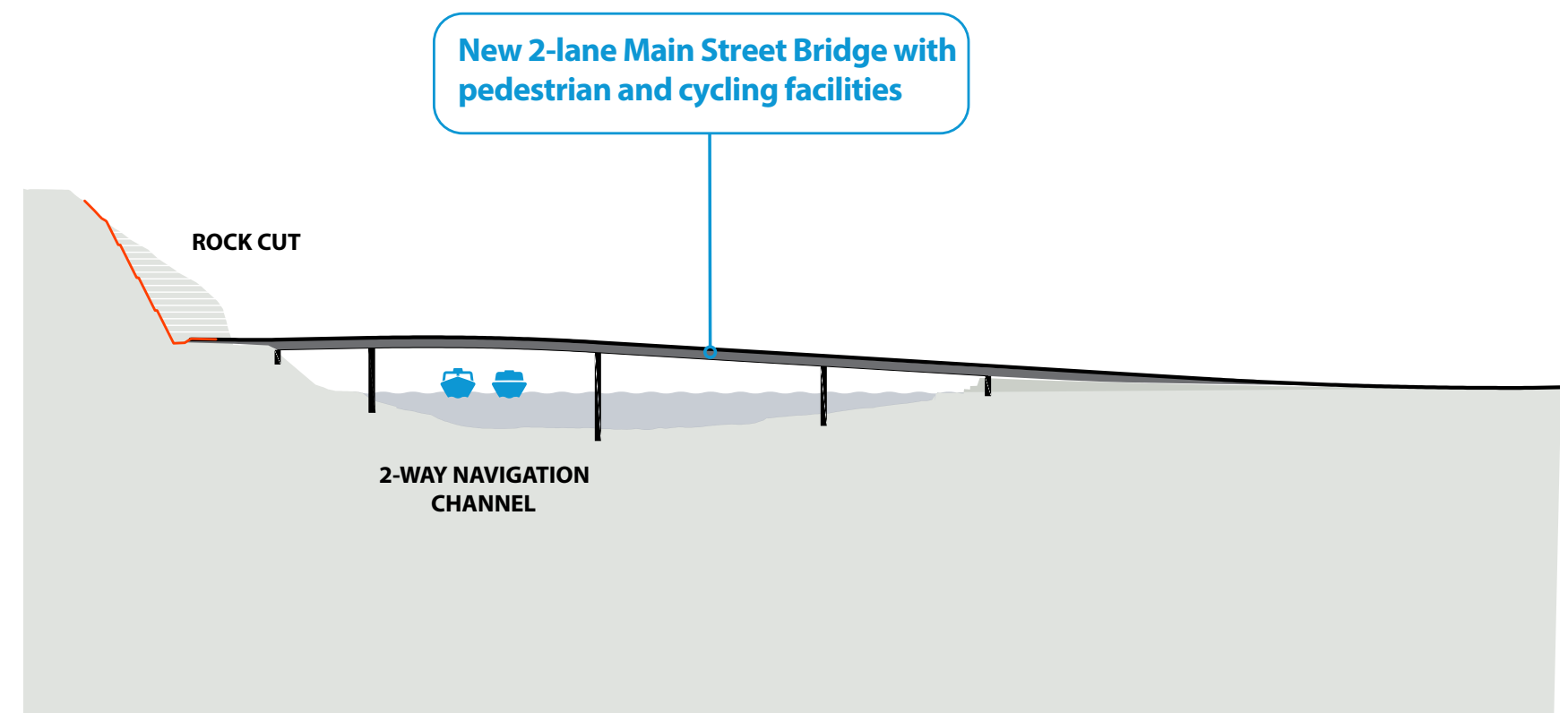
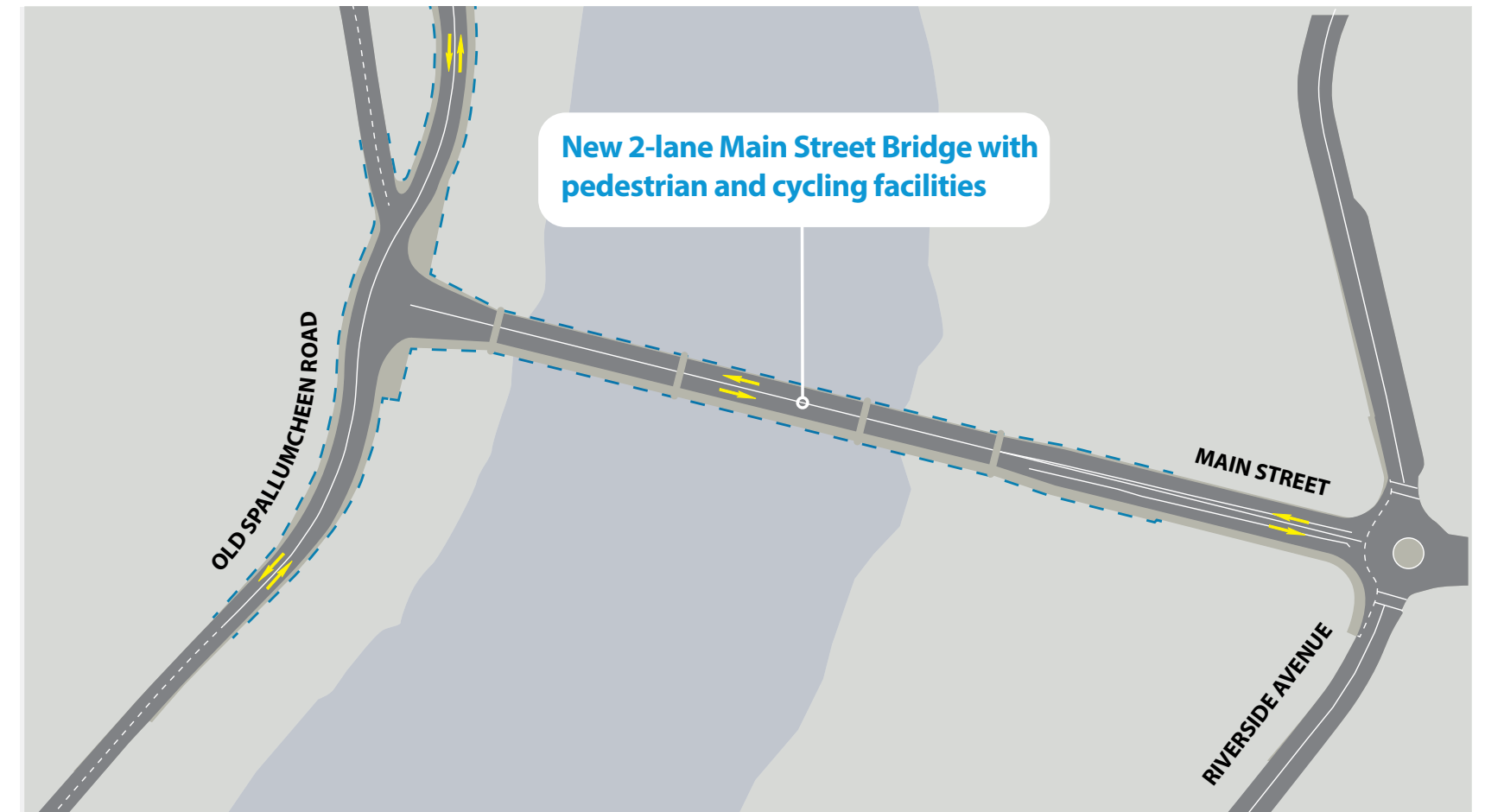
- Requires two bridge crossings
- Impacts marine traffic and existing dock facilities in the area of the Main Street Bridge
- Need for additional navigable waters consultation and approval from Transport Canada, because of second bridge
- Construction activity required in the vicinity of Main Street Landing
- Increases traffic on Main Street
- Municipal maintenance requirement on Main Street Bridge



Main Street Bridge

The key elements of a Main Street Bridge would include:

- › A 30km/h design speed and narrow width to respect the urban setting
- › Potential for separated bicycle and pedestrian facilities that connect to planned trail networks on the west side
- › Navigation clearances equivalent to existing Bruhn Bridge
- › Could carry planned municipal services across Sicamous Narrows
- › Bridge aesthetics and lighting would be considered during detailed design



Option 3: Preliminary Design Intersection Refinements

East Side Intersection Configuration



1. Gill Avenue maintains right-in/right-out/left-in movements
2. Second westbound highway through lane starts at the Silver Sands Road intersection
3. Full movement at-grade access at Silver Sands Road is maintained similar to existing, with extended left-turn storage
4. Second eastbound through lane terminates as a right-turn lane at the Highway 97A signal

Advantages

- Increases capacity on the highway
- Retains all turning movements at Silver Sands Road
- Provides flexibility/opportunities for future upgrades at Highway 1/ Highway 97A junction

Disadvantages

- Closes left-turn out of Gill Avenue

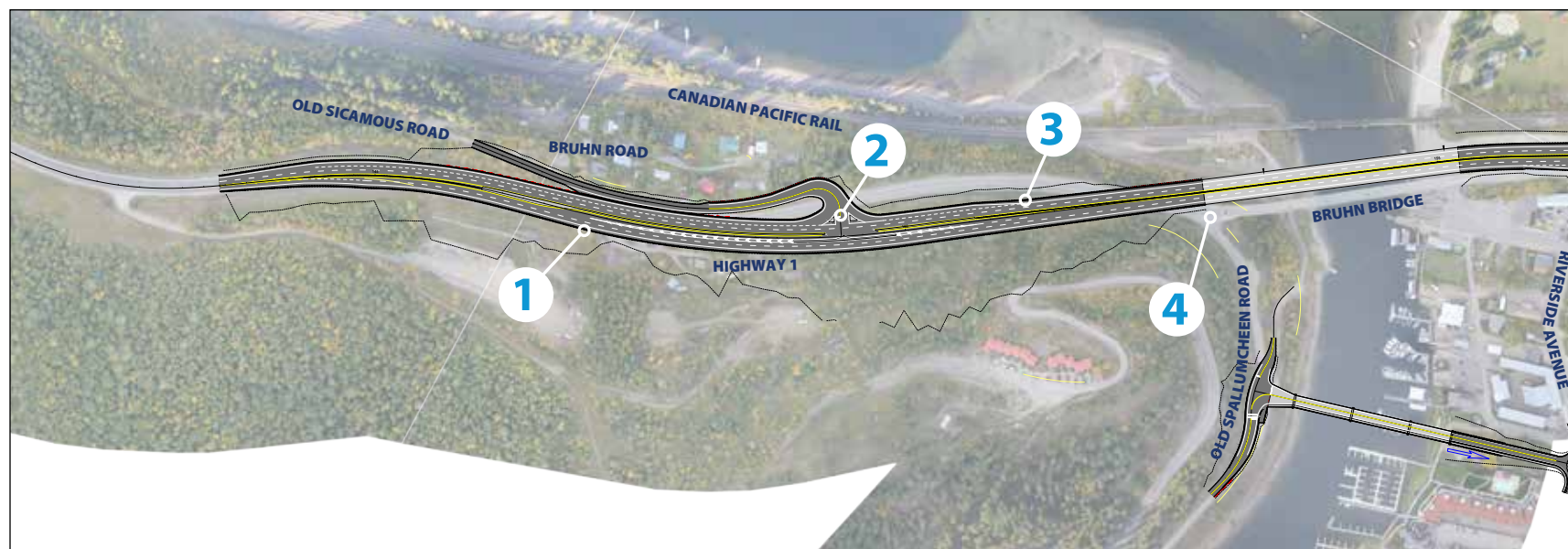


Option 3: Preliminary Design Intersection Refinements

Two options for addressing access at Old Sicamous Road have been identified: an improved intersection (Option A) and a realignment of Old Sicamous Road (Option B)

West Side Intersection Configuration

Option A: Improve Old Sicamous Road Intersection



1. Second eastbound through lane begins before Old Sicamous Road intersection
2. Protected-T full movement at-grade access at Old Sicamous Road intersection
3. Second westbound highway through lane ties into existing climbing lane
4. Old Spallumcheen Road intersection is closed with traffic rerouted to Main Street bridge

Advantages

- Increases capacity on the highway
- Closes Old Spallumcheen Road intersection and provides opportunities for future development on Old Spallumcheen Road
- Improves access at Old Sicamous Road with dedicated left-turn deceleration and acceleration lanes

Disadvantages

- Old Sicamous intersection is on a 6% grade similar to existing condition
- Impacts properties on uphill side of Highway 1 to a greater extent than Old Sicamous Road Realignment option
- Retaining walls required at west bridge abutment
- Increases traffic on Main Street

Additional Considerations

- Future climbing lane (3rd westbound lane) would have to start west of Old Sicamous Road intersection
- Increased rock cut and material balance risks
- Additional archeological investigation required with Main Street Bridge

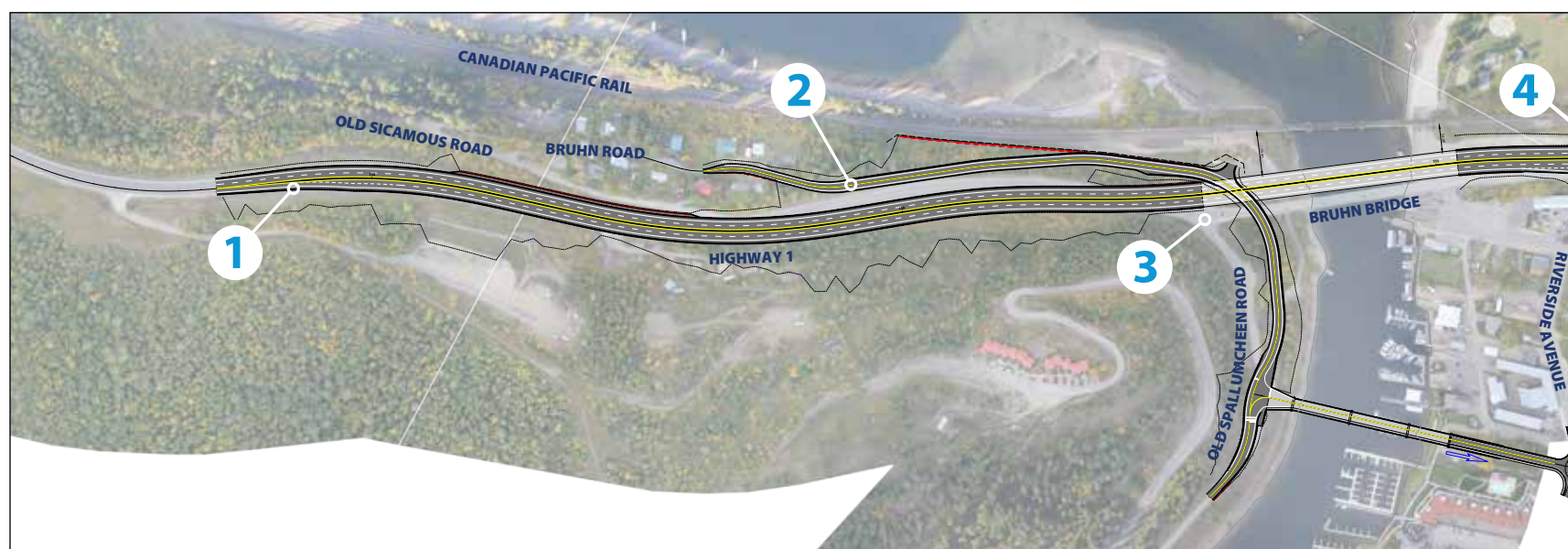


Option 3: Preliminary Design Intersection Refinements

Two options for addressing access at Old Sicamous Road have been identified: an improved intersection (Option A) and a realignment of Old Sicamous Road (Option B)

West Side Intersection Configuration

Option B: Old Sicamous Road Realignment



1. Second eastbound through lane begins before Old Sicamous Road intersection
2. Old Sicamous Road intersection with Highway 1 is closed. Old Sicamous Road traffic rerouted to Old Spallumcheen Road via new frontage road
3. Old Spallumcheen Road intersection is closed with traffic rerouted to Main Street bridge
4. Second westbound through lane ties into existing climbing lane

Advantages

- Improves safety with removal of the at-grade highway intersection, and provides local road connection from Old Sicamous developments to Sicamous town centre, and aligns with corridor access management strategy
- Increases capacity on the highway
- Closes Old Spallumcheen Road intersection and provides opportunities for future development on Old Spallumcheen Road

Disadvantages

- Old Sicamous local road connection is +10% grade
- Retaining walls required at west abutment
- Longer travel time for Old Sicamous residents to points to and from the west of town

Additional Considerations

- CP Rail right-of-way impacted for Old Sicamous local road connection
- Additional archeological investigation required with Main Street Bridge



Project Challenges

Project challenges include:

- › High rock cuts and steep slopes provide major challenges to road widening options on the west side of RW Bruhn Bridge, and along Old Spallumcheen Road
- › Potential archeological impacts within Sicamous Narrows and along the existing Trans-Canada Highway 1
- › Environmental impacts associated with fish and aquatic habitat in and around the Narrows, as well as nesting bird potential
- › Navigation impacts that will need to be addressed include maintaining existing boat clearances, two-way navigation widths, and impacts to existing dock facilities



Next Steps



We anticipate that the project will proceed to construction as early as 2019/2020.

Community feedback will be considered, along with technical, environmental and financial information, and feedback from local government and First Nations, in selecting an option for the replacement of the Trans-Canada Highway 1 RW Bruhn Bridge to complete the preliminary design.

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