

Service Change Plan

Squamish Transit System

September 2018 Implementation



March 2018



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1.0 INTRODUCTION

In order to continue delivering on the goals and objectives of the Sea to Sky Transit Future Plan and to support the continued success of the Squamish Transit system, the District of Squamish approved an expansion of 1,160 conventional transit service hours for implementation on September 4, 2018.

This plan outlines the routes, service levels, and infrastructure requirements required for a successful implementation of the service items identified in Table 2. This service change plan includes the following:

1. A summary of data analysis and engagement results
2. New routes, route changes, and service changes
3. Infrastructure requirements
4. Marketing and communication plan
5. Implementation timeline

This plan outlines the finalized service details for the June 2018 service expansion approved by the District of Squamish Council on November 28th, 2017¹. This plan also provides an update to the Sea to Sky Transit Future Plan by prioritizing future transit expansion options for Squamish.

Table 2: Squamish Transit Service Expansion for September 2018

Start Date	Service Description	Annual Hours	Vehicles
Sept. 2018	Improvements to the Core Transit Network including the following: <ul style="list-style-type: none">• Introduce a new route, the 9 Quest University, which provides hourly weekday service to Quest University from Downtown Squamish and Garibaldi Village• Changes to the existing 1 Brackendale, 2 Highlands, and 4 Tantalus routes	1,160	1

¹ This was approved at the Public and Corporate Services Meeting on November 28th, 2017 at 9:30am.

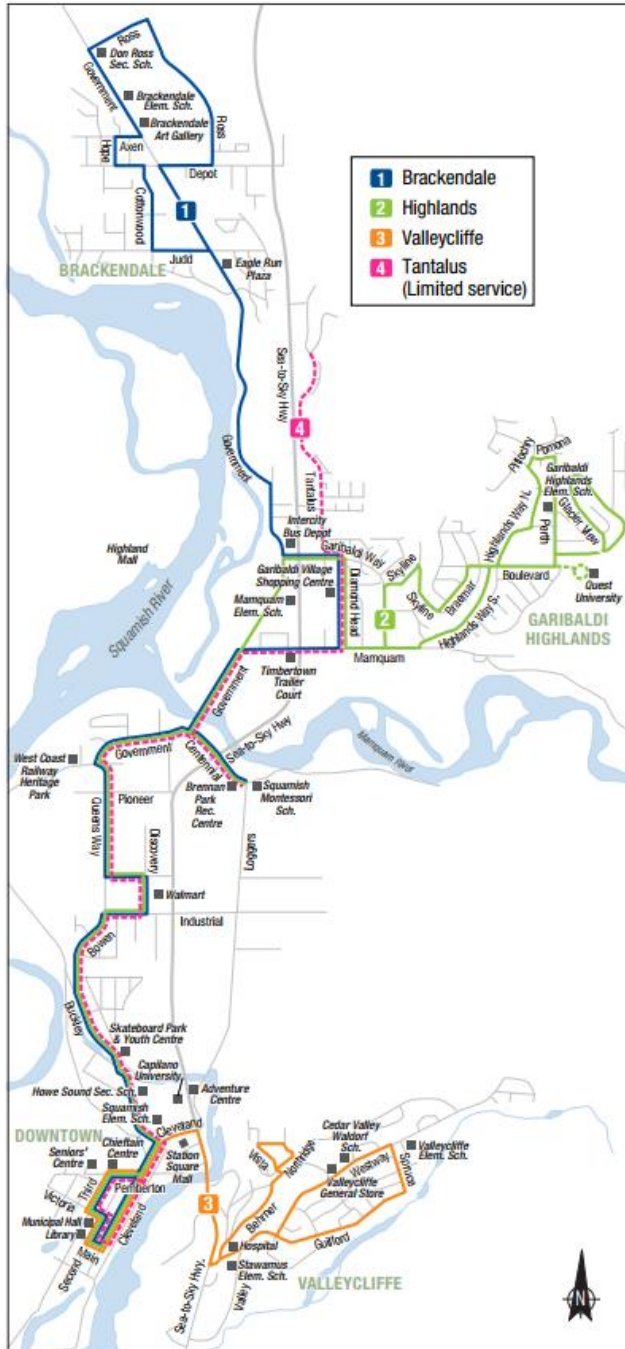
Table 3: Squamish Transit Expansion Implementation Timeline

Date	Deliverable	Owner/Lead
July 2017	2018 Expansion Memorandum of Understanding drafted and signed.	BCT, Squamish
September 2017	Draft routes and schedule options finalized for public engagement	BCT
October 2017	Marketing and engagement material developed	BCT
November 2017	Public Engagement on route proposals	BCT, Squamish
March 2018	Service Change Plan presented to District of Squamish Council	BCT
April 2018	Implementation MOU issued to Squamish for review and signature	BCT, Squamish
April - May 2018	Schedule development	BCT
June – August 2018	Riders Guide completion	BCT
August 2018	Bus stop installation, Riders Guide released, website updated and marketing/media	BCT, Squamish, PWT
September 4, 2018	Service Implementation	BCT, Squamish, PWT
Fall 2018	Monitor transit service changes and make adjustments where necessary	BCT, Squamish, PWT

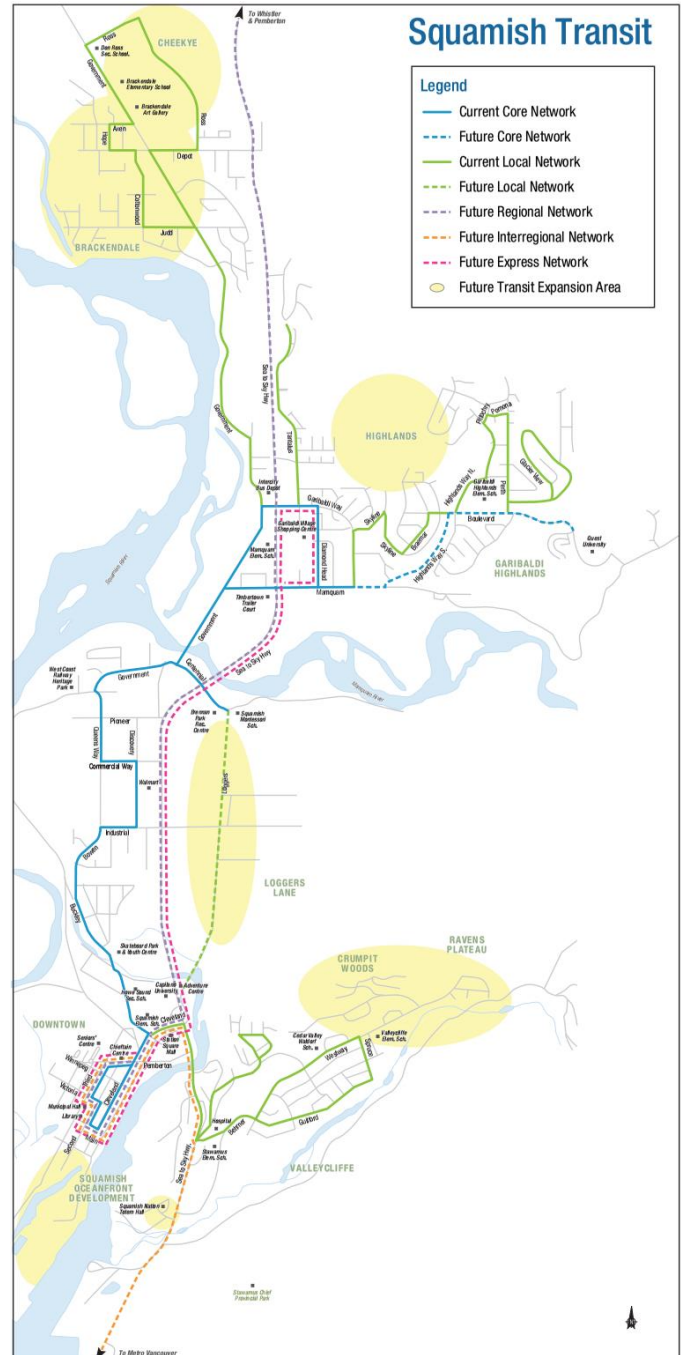
1.1 Existing Transit System and Transit Future Network

The figures below outline the existing transit network and the transit future network as identified within the Sea to Sky Transit Future Plan.

Current System Map



Transit Future Network Map



2.0 PUBLIC ENGAGEMENT



Open House Event at the Chieftain Transit Exchange

2.1 Engagement Methods

As part of the service change process, BC Transit and the District of Squamish undertook a robust public engagement process in the fall of 2017. BC Transit and city staff hosted three engagement events in Squamish on November 24, 2017. These events took place at Quest University, the Downtown Transit Exchange, and the Brennan Park Recreation Centre. An online survey was also promoted and publicly available from November 17 to November 30, 2017.

Table 4: Participation in public engagement process

Method	Number of Participants
Open House Events	90 ²
Survey	193
Total	283

2.2 Engagement Results

As part of this engagement, there were four key topics that were presented to the public for feedback:

1. The South Squamish Parks summer pilot service proposal
2. The September 2018 transit network change proposal
3. Tantalus service options
4. Prioritizing future Squamish transit expansions

The remainder of this section provides a summary of the results for each of these topics.

2.2.1 June 2018 – South Squamish Parks

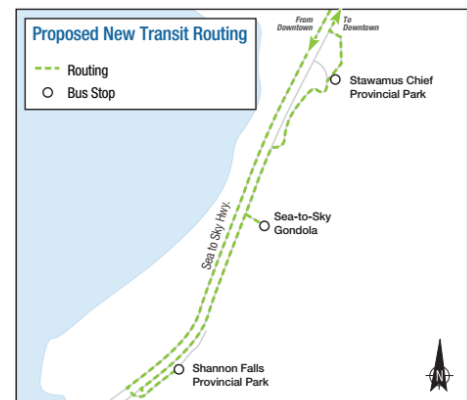
This service was approved by District of Squamish Council at the Public and Corporate Services Meeting on November 18, 2017, and is scheduled to operate between June 16 and September 3, 2018. The engagement asked for feedback on the proposed routing, bus stop locations, and schedule.

² The Quest University open house event had 16 attendees, the Chieftain Transit Exchange had 43 attendees, and the Brennan Park Recreation Centre had 31 attendees.

5 South Squamish Parks – Proposed Schedule

Downtown	Shannon Falls	Sea to Sky Gondola	Stawamus Chief	DT
6:15	6:23	6:27	6:30	6:39
9:00	9:08	9:12	9:15	9:24
9:30	9:38	9:42	9:45	9:54
10:00	10:08	10:12	10:15	10:24
10:30	10:38	10:42	10:45	10:54
11:00	11:08	11:12	11:15	11:24
11:30	11:38	11:42	11:45	11:54
12:00	12:08	12:12	12:15	12:24
12:30	12:38	12:42	12:45	12:54
13:00	13:08	13:12	13:15	13:24
13:30	13:38	13:42	13:45	13:54
14:00	14:08	14:12	14:15	14:54
18:34	18:42	18:46	18:49	18:58
19:04	19:12	19:16	19:19	19:28
19:34	19:42	19:46	19:49	19:59

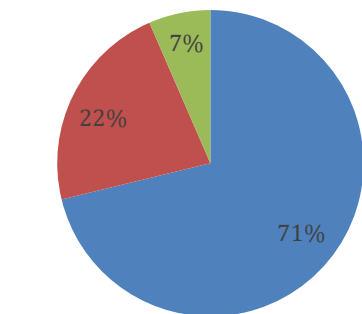
Route Map with Bus Stops



*potential for additional Highway 99 stops including Totem Hall/Chances Casino

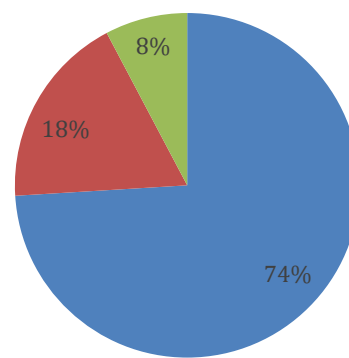
There was substantial support for the proposed routing, bus stop locations, and schedule for this service; only 7 per cent of respondents were fully opposed to the routing and bus stop locations and only 8 per cent for the schedule. Multiple comments on the routing mentioned extending the route to Murrin Park and providing highway stops at Totem Hall and the Chances Casino. Comments on the schedule included providing earlier or later service and eliminating the afternoon gap in service. Minor changes were made to the proposed schedule to better accommodate the Sea to Sky Gondola hours of operation. Additionally, based on further engagement with key stakeholders, it was identified that the proposed 6:15am trip was unlikely to receive significant ridership.

Do you agree with the proposed routing and bus stop locations for the South Squamish Parks Service?



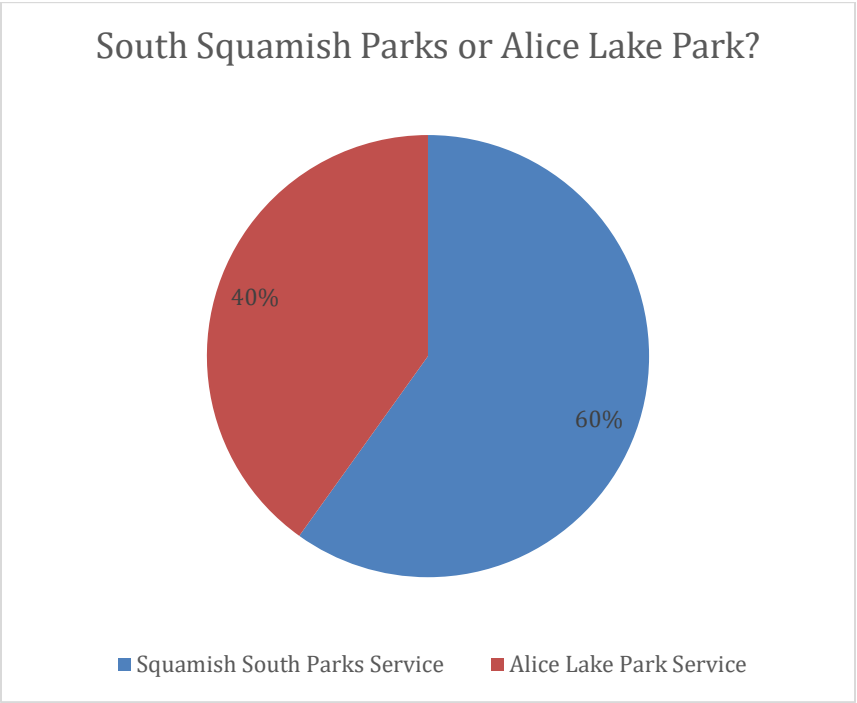
■ Yes ■ Yes, with modifications ■ No

Do you agree with the planned schedule for the South Squamish Parks Service?



■ Yes ■ Yes, with modifications ■ No

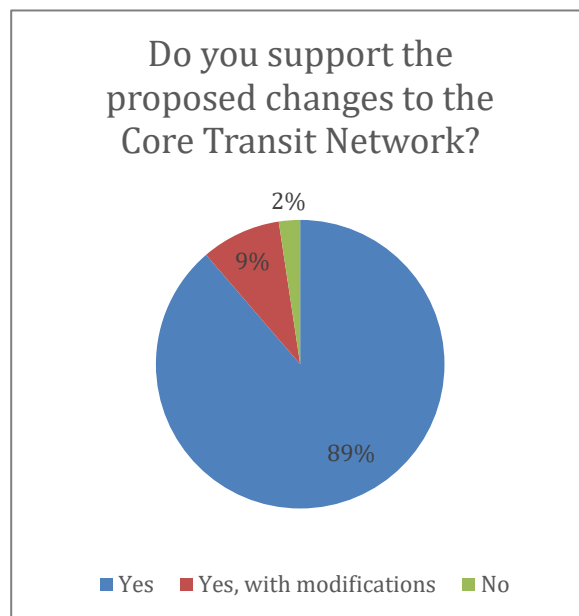
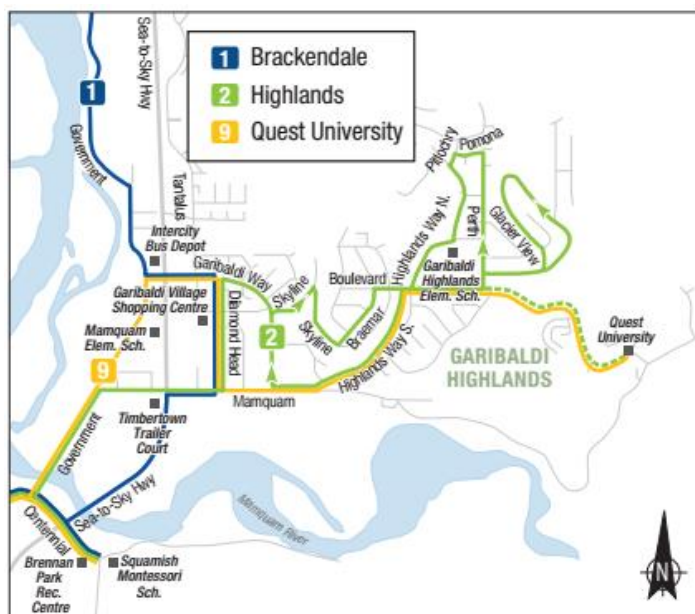
At the request of Council, BC Transit asked the community to identify their preference for service to the South Squamish Parks against Alice Lake Park. Based on the engagement results, service to South Squamish Parks received a higher level of support.



2.2.2 September 2018 – Proposed Transit Network Changes

The September 2018 service option presented in the engagement invited the public to review and provide feedback on the proposed improvements. These improvements include the introduction of a new route 9 Quest University plus changes to current routes 1 Brackendale, 2 Highlands, and 4 Tantalus. The details of these route changes are identified in section 3.0.

Together, these changes seek to grow transit ridership by improving service reliability and to provide three trips an hour along the Core Transit Network between 7am and 7pm³.



Overall, engagement participants were extremely supportive of the proposed changes, with 89 per cent of respondents supporting the proposal, and an additional 9 per cent supportive with some modifications. Only 2 per cent were opposed to the package of changes.

³ The Core Transit Network is the routing between Downtown Squamish, Brennan Park Recreation Centre, and Garibaldi Village served by the existing Routes 1, 2, and 4.

2.2.3 Tantalus Service Optimization Options

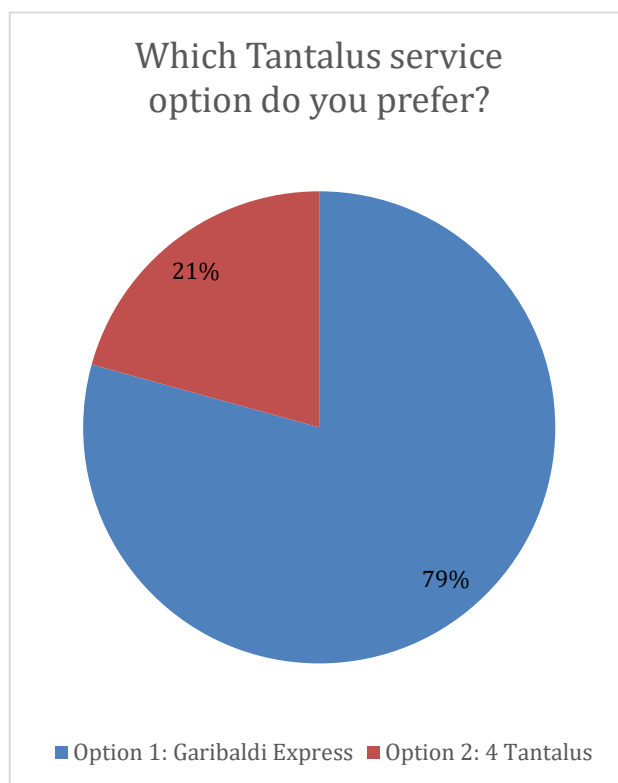
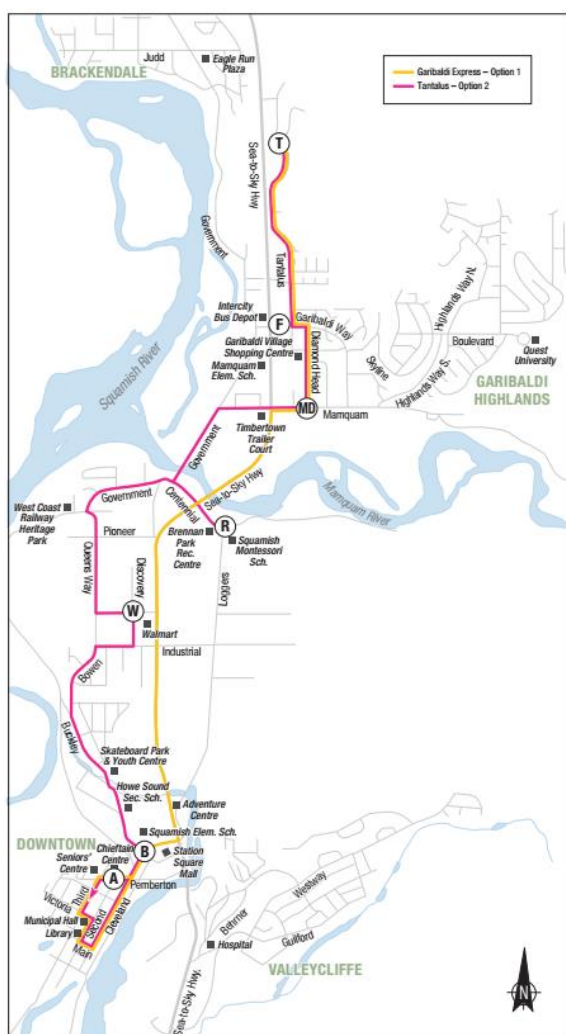
The existing 4 Tantalus route is under-performing in terms of ridership. In order to more effectively use existing resources and meet the goals of the proposed September 2018 service changes, two Tantalus service options were presented to the public for feedback.

Option 1 – Garibaldi Express

This option provides peak only service with six weekday round trips (three round trips in the AM peak and three in the PM peak) with express routing between Tantalus, Garibaldi Village, and Downtown Squamish.

Option 2 – 4 Tantalus

This option provides peak only service with four weekday round trips (two round trips in the AM peak and two in the PM peak) using the existing 4 Tantalus routing.

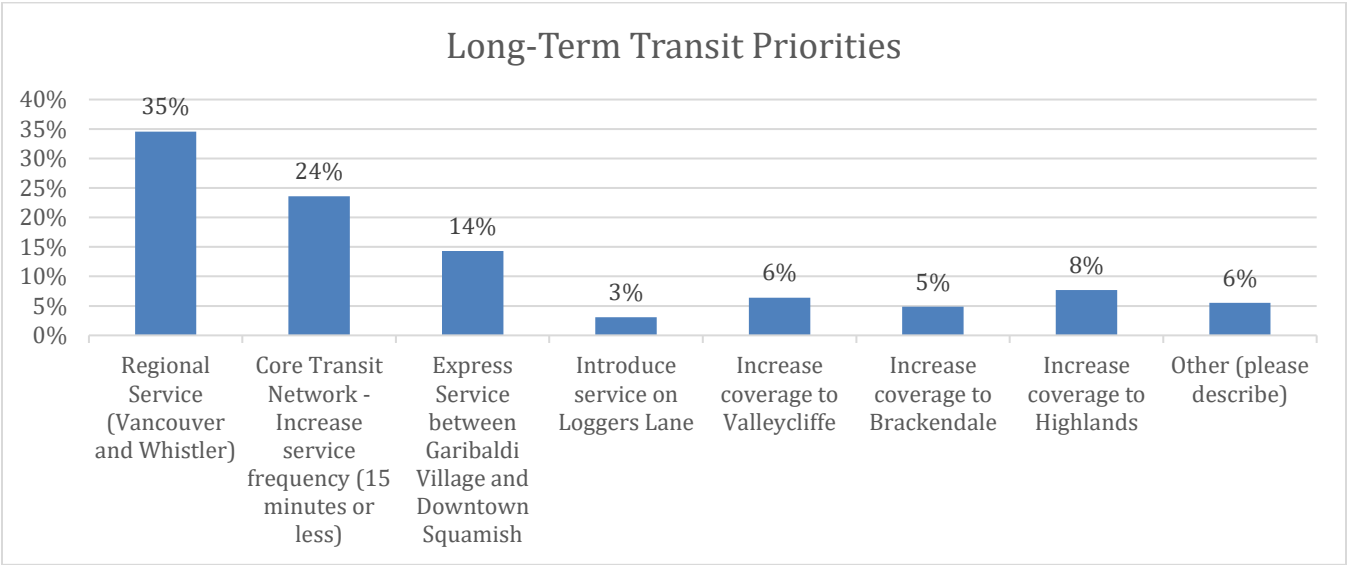


A clear majority of respondents favoured the proposed Garibaldi Express service (79 per cent) over maintaining the existing 4 Tantalus routing (21 per cent).

2.2.4 Future Transit Expansion Priorities

Another goal of the November 2017 engagement was to update and prioritize community priorities identified within the Transit Future Plan for future transit expansions.

Respondents were asked to identify up to three long-term priorities for Squamish transit. Regional service to Vancouver and Whistler was the first priority (35 per cent), followed by increased frequency on the Core Transit Network (24 per cent), followed by express service between Garibaldi Village and downtown Squamish (14 per cent). All the remaining options related to increasing the service coverage in local areas. Of those options, increasing service coverage within the Highlands received the most support.



3.0 JUNE 2018 PLANNED SERVICE CHANGES

The planned service changes for June 2018 include a summer pilot service to the Squamish South Parks and later service on Friday and Saturday nights. These service changes received strong community support through the public engagement process, and were approved by the District of Squamish Council on November 28th, 2017.

3.1 Route 5 South Parks

The 5 South Parks transit service will connect Downtown Squamish to the Shannon Falls Provincial Park, the Sea to Sky Gondola, and the Stawamus Chief Provincial Park. This summer pilot service is scheduled to operate between June 16 and September 3, 2018. Service will operate later on Thursdays, Fridays, and Saturdays since the Sea to Sky Gondola maintains later hours of operation on those days of the week.

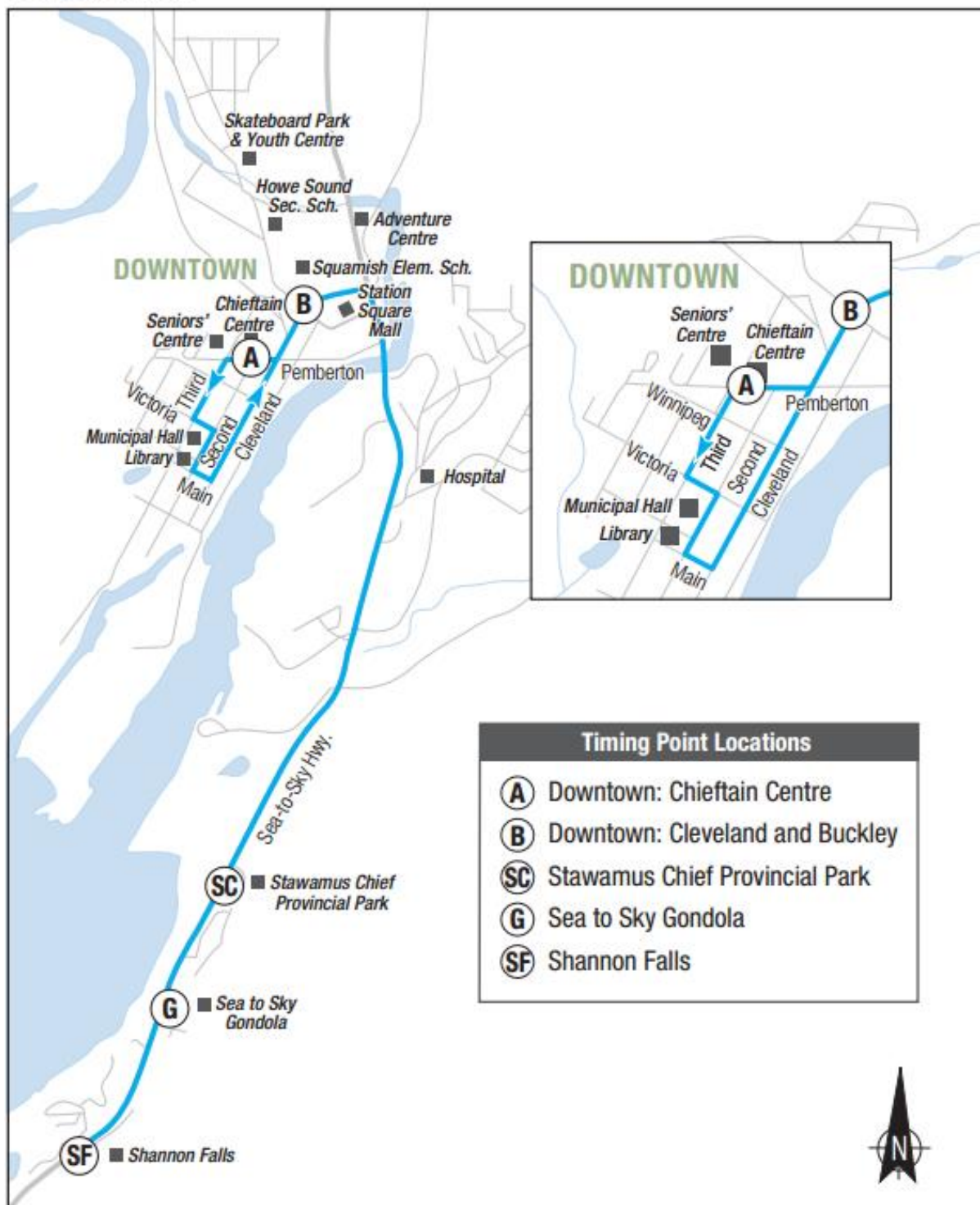
Schedule outline

	Thursday - Saturday	Sunday - Wednesday
Frequency	30 minutes	30 minutes
Service Span	8:45am – 10:30pm ⁴	8:45am – 8:00pm ⁵

⁴ Because an expansion vehicle was not included with this expansion, the service has gaps from 3:00pm to 6:15pm due to peak vehicle capacity.

⁵ Because an expansion vehicle was not included with this expansion, the service has gaps from 3:00pm to 6:15pm due to peak vehicle capacity.

5 South Parks



3.2 Late Night Friday / Saturday Service

As per District of Squamish Council direction, a portion of the hours originally intended for the 5 South Parks service were allocated to extending service later on Friday and Saturday evenings. This will be accomplished by adding an additional 1 Brackendale / 2 Highlands combined trip after the last existing 1 Brackendale / 2 Highlands combined trip, which currently leaves downtown at 10:08pm and terminates at 11:12pm. With the revised Friday and Saturday service, the last trip would leave downtown at approximately 11:30pm and would terminate at approximately 12:30am.

4.0 SEPTEMBER 2018 PROPOSED SERVICE CHANGES

Based on the findings from public engagement and ongoing discussions with key stakeholders, this section summarizes the proposed service changes for September 2018.

4.1 Route 1 Brackendale

The 1 Brackendale currently provides service along the Core Transit Network between downtown, the Brennan Park Recreation Centre, and Garibaldi Village, and then extends up to the Brackendale neighbourhood.

The proposed changes will streamline the existing routing by operating on Highway 99 between Brennan Park Recreation Centre and Garibaldi Village, reducing running time and improving the on-time performance of the route. Additionally, this proposal will provide three trips an hour along the Core Transit Network from 7am to 7pm when combined with the 2 Highlands and 9 Quest University routes. Finally, due to existing passenger pass up issues with the existing 2:40pm trip on the 1 Brackendale, an additional school overload trip will be scheduled to address the issue.

Schedule outline

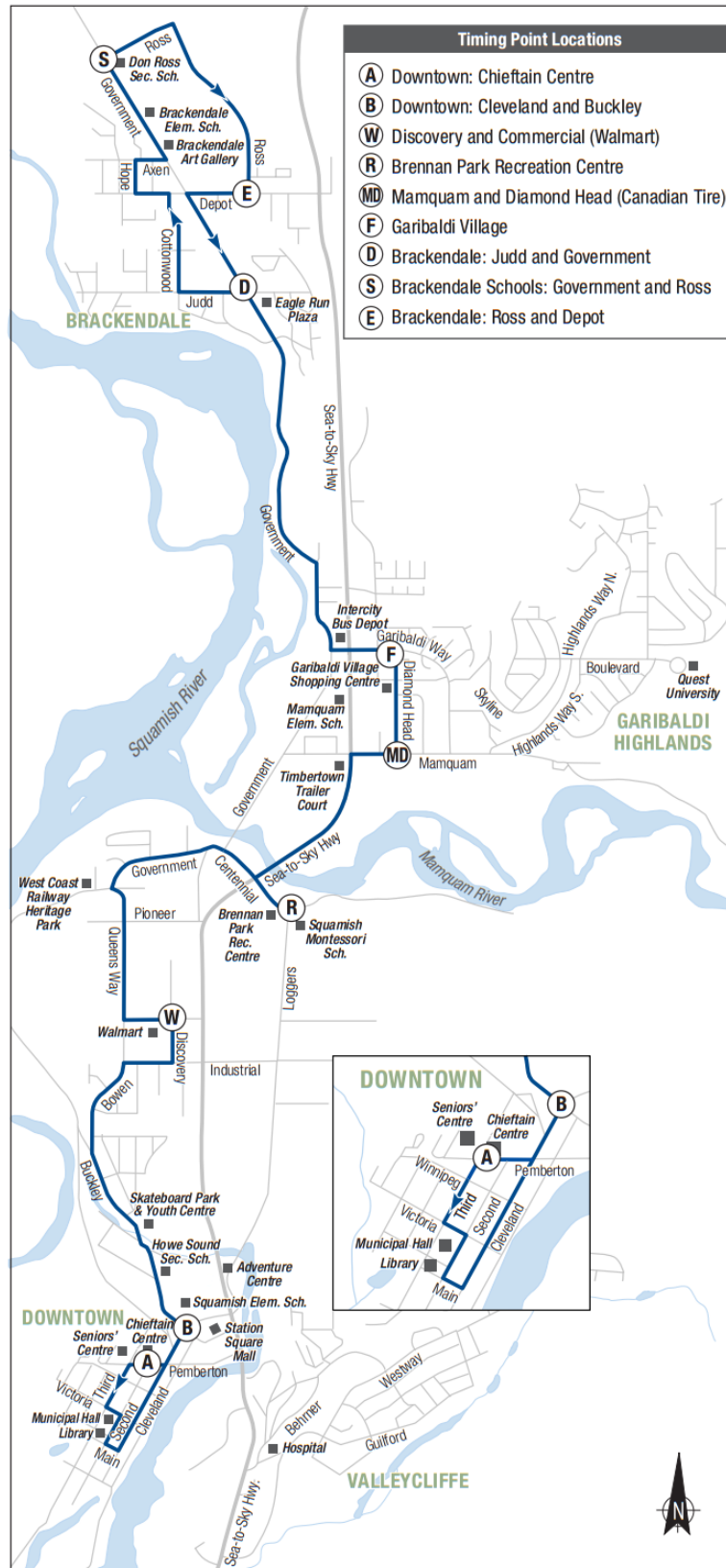
	Weekdays	Saturday	Sunday/ Holidays
Frequency	60 minutes	60 - 90 minutes	N/A
Service Span	6:15am – 8:00pm ⁶	7:30am – 6:00pm ⁷	N/A ⁸

⁶ Service to Brackendale is provided by 1 Brackendale / 2 Highlands combined trips after 8:00pm on weekdays

⁷ Service to Brackendale is provided by 1 Brackendale / 2 Highlands combined trips after 6:00pm on Saturdays

⁸ Service to Brackendale is provided by 1 Brackendale / 2 Highlands combined trips on Sundays

1 Brackendale



4.2 Route 2 Highlands

The 2 Highlands currently provides service along the Core Transit Network between downtown, the Brennan Park Recreation Centre, and Garibaldi Village, and then extends up to the Highlands neighbourhoods, and occasionally provides service to Quest University.

The proposed changes will streamline the existing routing, saving some running time and improving the on-time performance of the route. Additionally, this proposal will provide three trips an hour along the Core Transit Network from 7am to 7pm when combined with the 1 Brackendale and 9 Quest University routes.

Schedule outline

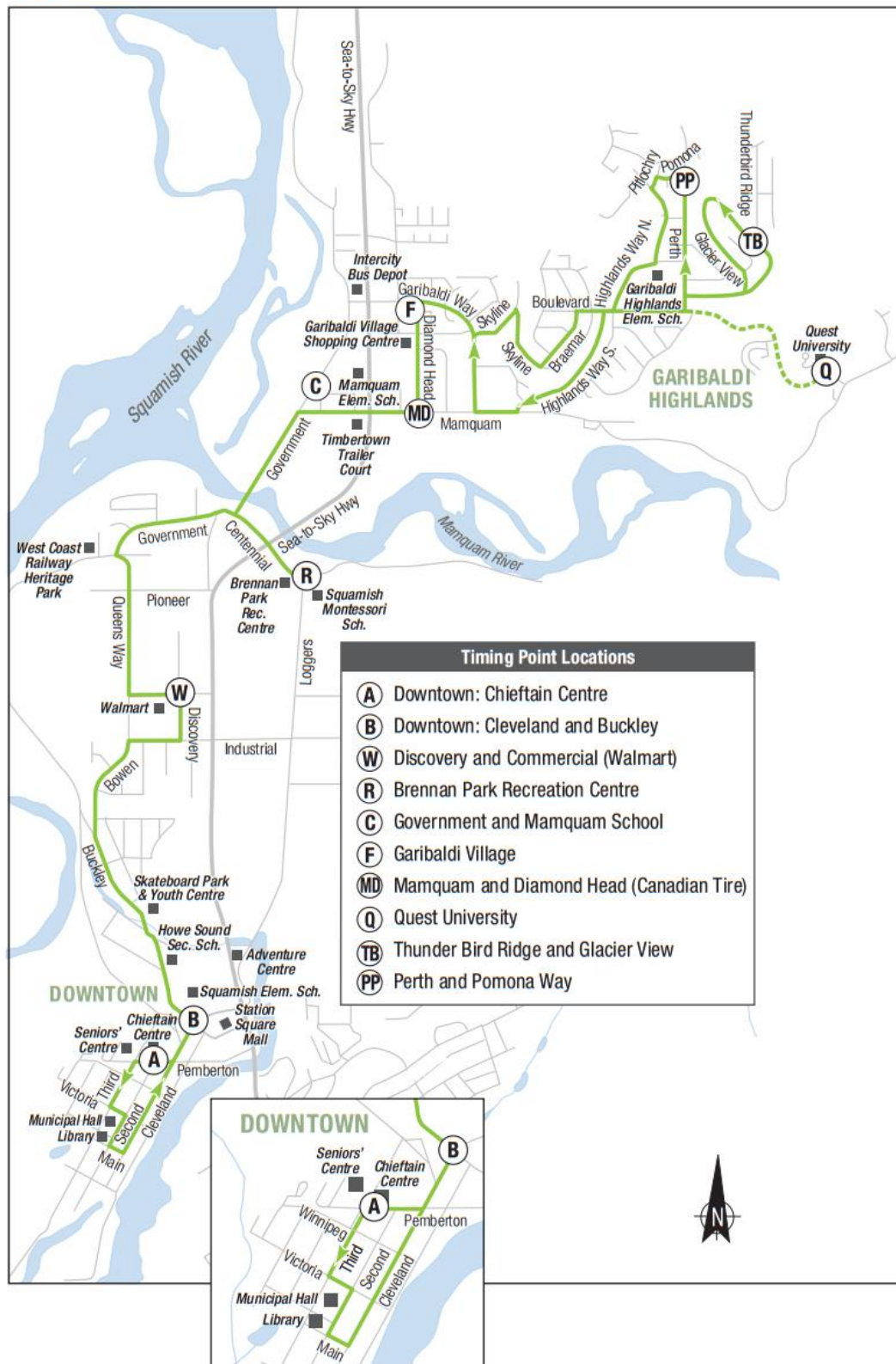
	Weekdays	Saturday	Sunday/ Holidays
Frequency	60 minutes	60 – 90 minutes	N/A
Service Span	7:15am – 8:00pm ⁹	7:30am – 6:30pm ¹⁰	N/A ¹¹

⁹ Service to the Highlands is provided by 1 Brackendale / 2 Highlands combined trips after 8:00pm on weekdays

¹⁰ Service to the Highlands is provided by 1 Brackendale / 2 Highlands combined trips after 6:30pm on Saturdays

¹¹ Service to the Highlands is provided by 1 Brackendale / 2 Highlands combined trips on Sundays

2 Highlands



4.3 Route 1 Brackendale / 2 Highlands Combined

The 1 Brackendale / 2 Highlands combined trips currently provide service along the Core Transit Network, to Brackendale, and to the Highlands on Sundays and holidays and in the evenings on weekdays and Saturdays. These combined trips provide coverage-type service to all these areas for a lower cost than operating a separate trip on both the 1 Brackendale and 2 Highlands.

The only proposed change to this service is a minor routing change to reflect the new proposed routing for the 1 Brackendale and 2 Highlands routes. Additionally, service hour availability dependent, these combined trips will be replaced with full trips on the 1 Brackendale and 2 Highlands on weekday evenings.

Schedule outline

	Monday to Thursday	Friday	Saturday	Sunday/ Holidays
Frequency	90 minutes	60 minutes	30 - 90 minutes	60 minutes
Service Span	8:00pm-11:15pm	8:00pm – 12:30am	6:00pm – 12:30am	9:30am – 9:00pm

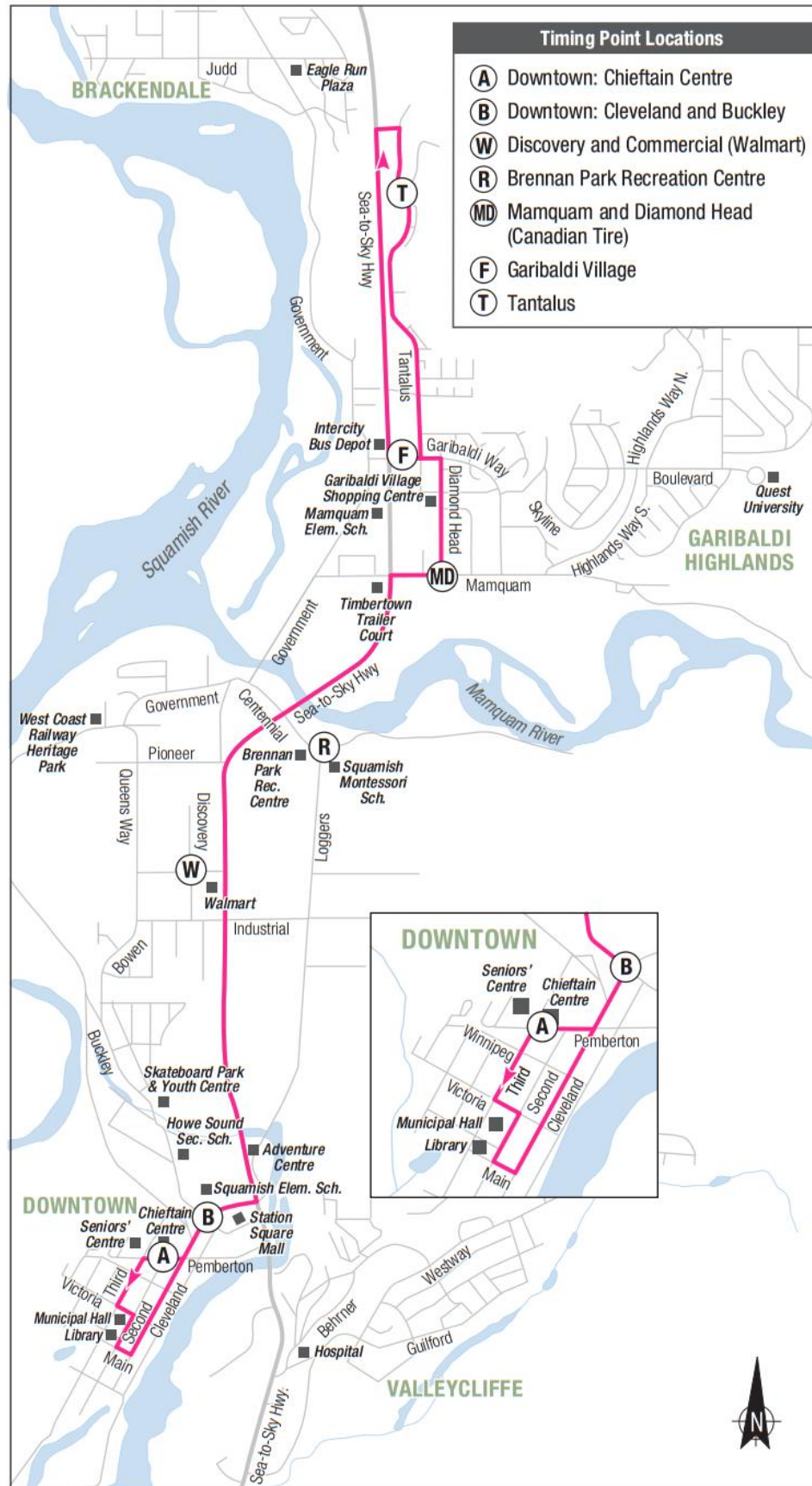
4.4 Route 4 Garibaldi Express

The Tantalus area is currently served by the 4 Tantalus. The proposed 4 Garibaldi Express would replace the existing service to Tantalus, and provide an express, highway service connecting Tantalus, Garibaldi Village, and Downtown Squamish. 79 per cent of engagement participants supported the replacement of the existing 4 Tantalus with the 4 Garibaldi Express.

Schedule outline

	Weekdays	Saturday	Sunday/ Holidays
Frequency	60 minutes	N/A	N/A
Service Span	7:00am – 10:00am 3:30pm – 6:30pm	N/A	N/A

4 Garibaldi Express



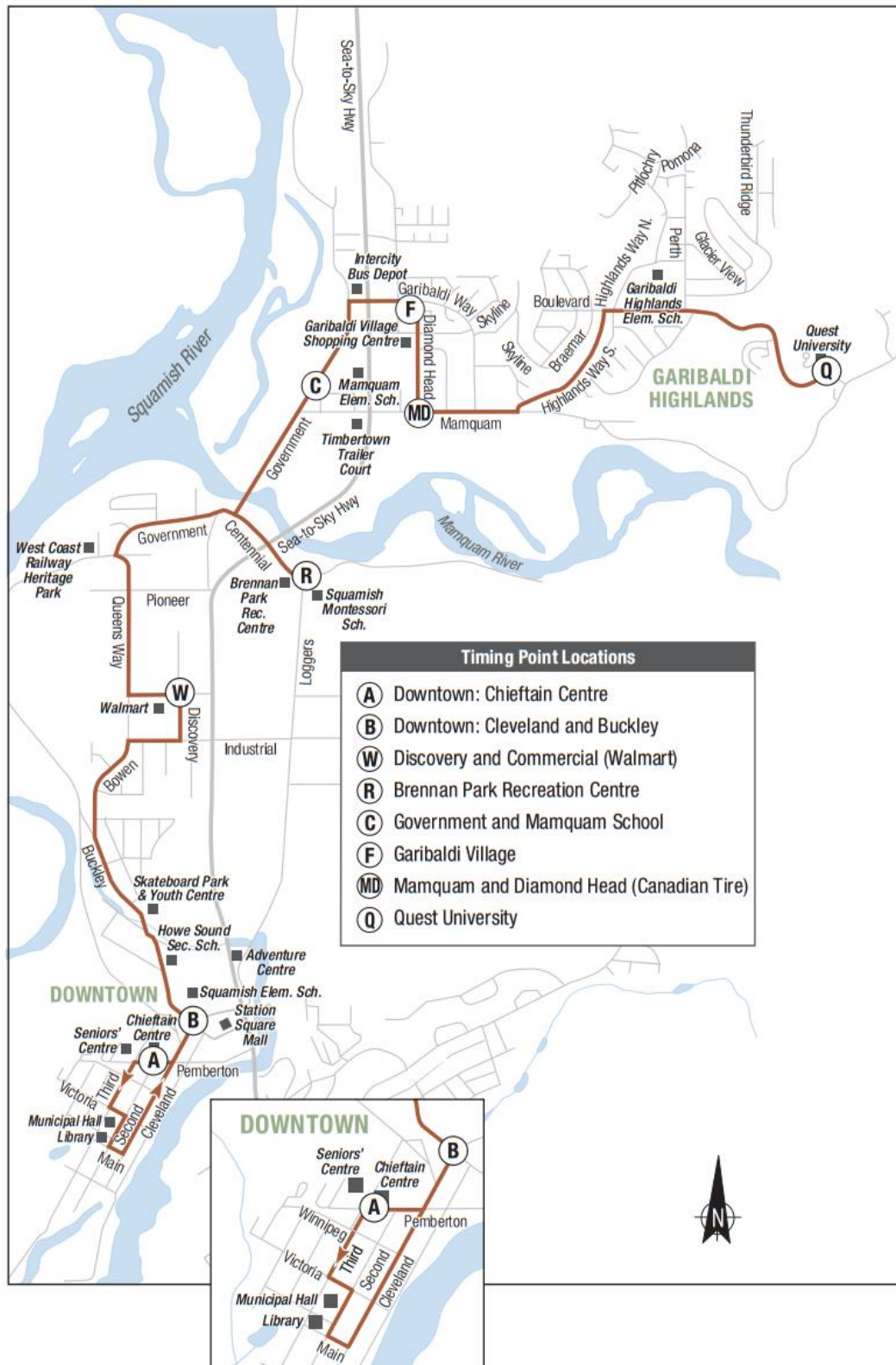
4.5 Route 9 Quest University

This is a new proposed route, which would provide hourly weekday service from 7am to 7pm between Downtown Squamish, Brennan Park Recreation Centre, Garibaldi Village, and Quest University. Additionally, this proposal will provide three trips an hour along the Core Transit Network from 7am to 7pm when combined with the 1 Brackendale and 2 Highlands routes.

Schedule outline

	Weekdays	Saturday	Sunday/ Holidays
Frequency	60 minutes	N/A	N/A
Service Span	7am – 7pm	N/A	N/A

9 Quest University



4.6 Proposed Bus Stop Changes

Several bus stop changes are required to implement the proposed September 2018 service changes. New bus stops are required for the proposed 9 Quest University route, and several bus stops must be closed to implement the proposed Tantalus service changes.

Proposed new stops:

Several new stops are proposed to improve access to the new route 9 Quest University.

Location	Hardware Needed	Routes to be Served
Northbound Highlands Way S at Mamquam Rd	Strip sign, Bus stop ID Number	1
Westbound Boulevard at Perth Dr	Strip sign, Bus stop ID Number	1
Eastbound Boulevard at Perth Dr	Strip sign, Bus stop ID Number	2

Proposed stops to be closed:

Stop ID Number	Location	Current Route Served
102565	Northbound Tantalus Rd at Dowad Dr	1
102563	Northbound 40850 Tantalus Rd	1
102561	Northbound 40775 Tantalus Rd	1
102559	Northbound Tantalus Rd at Newport Ridge Dr	1
102557	Northbound Tantalus Rd at Cheakamus Way	1

4.7 Summary of Squamish September 2018 Service Changes

	Current Mon-Thur Rd. Trips	Proposed Mon-Thur Rd. Trips	Current Friday Rd. Trips	Proposed Friday Rd. Trips	Current Saturday Rd. Trips	Proposed Saturday Rd. Trips	Current Sunday Rd. Trips	Proposed Sunday Rd. Trips
1 Brackendale	15	17	15	17	10	10	0	0
2 Highlands	14	16	14	16	10	10	0	0
1 / 2 Combined	2	0	3	1	5	5	11	11
3 Valleycliffe	21	21	21	21	15	15	11	11
4 Tantalus	12	0	12	0	0	0	0	0
4 Garibaldi Express	0	6	0	6	0	0	0	0
9 Quest University	0	12	0	12	0	0	0	0
Total	64	72	65	73	40	40	22	22

4.8 Marketing & Communication Plan

A marketing and communication plan will be developed that outlines the steps necessary to communicate this service expansion to the public. The objectives of this plan are outlined below:

- To make the public aware of the new transit service and other transit services in the region
- To obtain user feedback
- To ease implementation
- To promote ridership and community support for transit

The plan will include several strategies to achieve the above, including a media release, radio, paper and social media advertisements, and website promotion.

4.9 Updated Operational Resource Requirements

For the Squamish changes, the proposed changes will require for 1,160 service hours and 1 new bus that have already been approved in concept by District of Squamish Council.

5.0 FUTURE SERVICE CONSIDERATIONS

5.1 Transit Improvement Process (TIP)

The annual Transit Improvement Process (TIPs) and the associated Expansion Memorandum of Understanding formalize a community's commitments to transit improvements. Based on existing plans (such as the Sea to Sky Transit Future Plan), BC Transit works with communities to establish transit improvement priorities for the upcoming three years.

The changes included in this document were included in the first year of the current TIPs agreement, which extends through the 2020/21 fiscal year. The District of Squamish has expressed interest in the following transit improvements over the next two years:

AOA Period	In Service Date	Annual Hours	Vehicle Requirements	Estimated Annual Revenue	Estimated Annual Costs	Estimated Annual Net Municipal Share
2019/20	Sept-18	2,000	1	\$21,757	\$289,258	\$148,252
		Description	Improve service on core and local transit network			
2020/21	Sept-19	1,000	1	\$10,879	\$167,679	\$94,791
		Description	Improve service on core and local transit network			

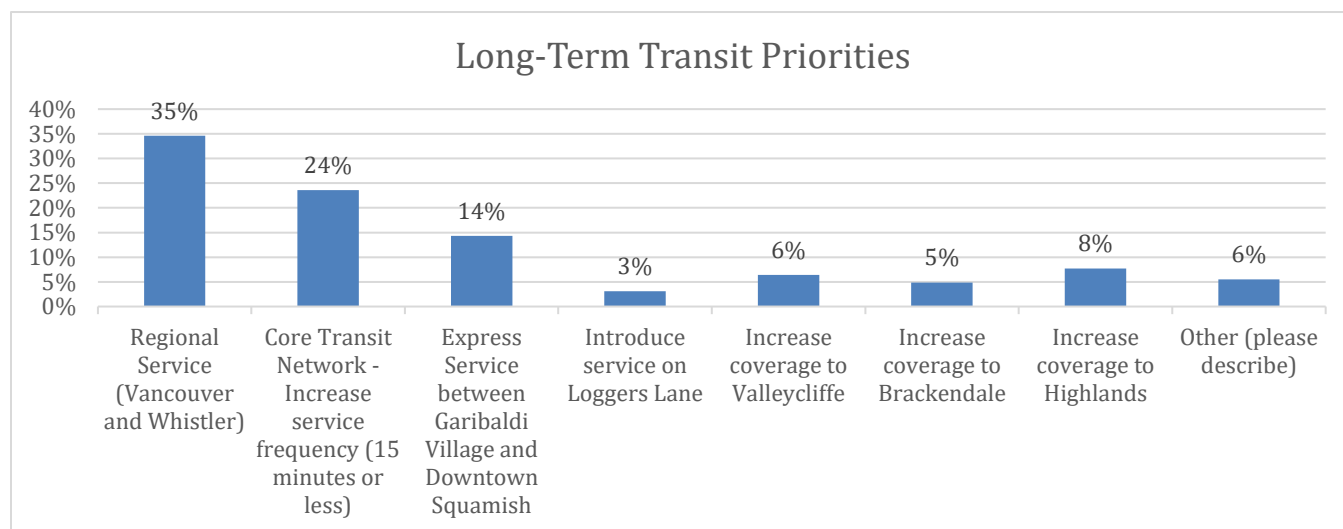
With the implementation of the September 2018 expansion, the District of Squamish Operations and Maintenance Facility will be at capacity. No further expansions requiring a vehicle can be implemented until a new facility has been constructed. There may be an opportunity to introduce expanded off-peak service without an expansion vehicle, however, that must be confirmed as part of the next Three Year Expansion Process.

5.2 Future Expansion Priorities

All of the short-term local transit expansion options within the Sea to Sky Transit Future Plan for Squamish have already been implemented, or are scheduled for imminent implementation. These recently implemented expansions include the following:

- Additional Sunday and holiday service
- South Squamish Parks pilot transit service
- Additional service to Quest University
- Additional midday service frequency on the Core Transit Network.

The engagement conducted as part of this planning process identified future transit expansion priorities for Squamish. Based on the results, regional service connecting to Vancouver and Whistler, additional Core Transit Network service, and express service between Garibaldi Village and Downtown Squamish are the top transit expansion priorities for the Squamish community moving forward.



5.3 Other Considerations

5 South Parks

The 5 South Parks service was approved as a pilot project. Consequently, ridership information will be collected, and the performance of this service will be reviewed in Fall 2018 to identify if it should be continued for summer 2019.

Future options to consider include working with BC Parks and the Ministry of Transportation and Infrastructure (TRAN) to develop infrastructure to allow service to Murrin Park and Alice Lake Park in the future. To allow safe transit egress from Murrin Park, a merge lane would be required in the northbound direction on Highway 99 to allow buses turning left from the Murrin Park parking lot to merge safely into northbound traffic. Providing transit service to Alice Lake Park would require additional infrastructure to allow a bus to turn around within the park.

6.0 RECOMMENDATION

BC Transit recommends that the District of Squamish:

- Approve the proposed September 2018 service changes
- Approve local staff to work with BC Transit to implement the proposed September 2018 service changes

7.0 NEXT STEPS

If the September 2018 service changes are approved, BC Transit will develop the final schedules, and work towards service implementation in collaboration with the local partners.

Date	Deliverable	Owner/Lead
April 2018	Implementation MOU issued to Squamish for review and signature	BCT, Squamish
April - May 2018	Schedule development	BCT
June – August 2018	Riders Guide completion	BCT
August 2018	Bus stop installation, Riders Guide released, website updated and marketing/media	BCT, Squamish, PWT
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