

# Transit Future Service Plan

Kootenay Lake West, Castlegar and  
Area and City of Nelson

West Kootenay Transit System



BC Transit would like to thank the Regional District of Central Kootenay, City of Nelson, City of Castlegar, Village of Salmo, Village of Slocan, Village of Silverton, Village of New Denver, Village of Nakusp, Village of Kaslo, the Ministry of Transportation and Infrastructure, Arrow and Slocan Lake Community Services, Trail Transit Services, the West Kootenay Transit Committee and West Kootenay stakeholders and community members who provided input into this Transit Future Service Plan.

# Contents

<b>EXECUTIVE SUMMARY .....</b>	<b>5</b>
<b>1. COVID-19 IMPACT ON SERVICE AND PLANNING .....</b>	<b>14</b>
<b>2. INTRODUCTION.....</b>	<b>22</b>
<b>3. CONTEXT .....</b>	<b>24</b>
3.2 Plan Area .....	24
3.3 Existing Plans.....	25
3.4 Existing Transit Service .....	28
3.5 Population Characteristics.....	32
3.6 Travel Patterns.....	33
3.7 Land Use.....	37
3.8 Education and Employment.....	40
<b>4. PUBLIC ENGAGEMENT SUMMARY .....</b>	<b>42</b>
4.2 Phase 1 .....	42
4.3 Phase 2.....	45
4.4 Phase 3.....	50
<b>5. TRANSIT SYSTEM PERFORMANCE REVIEW .....</b>	<b>51</b>
5.2 Ridership over Time .....	51
5.3 Detailed Performance Review .....	52
5.4 Service Design Standards.....	54
<b>6. DISCUSSION.....</b>	<b>57</b>
<b>7. SERVICE PROPOSALS .....</b>	<b>59</b>
7.1 Critical Fixes .....	59
7.2 Summary Critical Fix Service Proposals.....	64
7.3 Short-Term Service Improvements.....	65
7.4 Summary Short Term Service Proposals .....	81
7.5 Short Term HandyDART Service Proposal .....	83
7.6 Medium to Long Term Service Improvements.....	84
<b>8. INFRASTRUCTURE PROPOSALS .....</b>	<b>86</b>
<b>9. INFORMATION.....</b>	<b>91</b>
<b>10. EMERGING TECHNOLOGY.....</b>	<b>92</b>
<b>11. MOVING FORWARD .....</b>	<b>94</b>
<b>Appendices .....</b>	<b>95</b>

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# EXECUTIVE SUMMARY

Transit has tremendous potential to be the best transportation solution for strong, more sustainable communities. The need to realize this potential in the West Kootenays is increasingly important due to factors such as climate change, an aging demographic and unique shifts in population.

In partnership with the West Kootenay Transit Committee, the Regional District of Central Kootenay, the City of Nelson, the villages of Silverton, New Denver, Nakusp, Kaslo, and Salmo, and the City of Castlegar, BC Transit has undertaken the development of this West Kootenay Transit Future Service Plan (TFSP).

As set out in the mutually agreed upon Terms of Reference the objective of the TFSP is to form a complement to the 2016 Trail and Area Service Review and update the transit priorities identified in the: Central Kootenay Service Review (2011), West Kootenay Master Plan (2012), Nelson and Area Transit Recommendations (2012).

The TFSP is intended to:

- Itemize Plan progress to date
- Examine transit requirements based on demographic trends, official community plans, proposed land development and road network changes, and citizen priorities expressed through consultation
- Analyze and report on the performance of the existing transit in the area.
- Outline and recommend service priorities over the short- and longer-term periods, for consideration by the West Kootenay Transit Committee, RDCK Board, and City of Nelson to improve transit system performance and effectiveness
- Ensure transit priorities align with any updates to the Regional District Community Plans, City of Nelson Official Community Plan, City of Castlegar Community Plan, Active Transportation Plan and Low Carbon Path to 2040 Plan, neighbourhood plans and other local planning initiatives
- Make recommendations on infrastructure priorities required to support service priorities over the short and longer term periods.

This TFSP is an analysis of all transit routes operating within the City of Nelson and RDCK, including Partatransit service operating in the Slocan and Kootenays Zones, services operating within the City of Castlegar and Interregional Connectors.

The impetus for this review stems from the length of time since the last reviews were completed and the changes within the communities and institutions of the region since this time.

The primary focus of this TFSP is on the scheduled conventional and paratransit portions of the City of Nelson, Kootenay Lake West and City of Castlegar transit service, but custom handyDART service will also be considered.

As the West Kootenay TFSP was nearing conclusion in spring of 2020, the global COVID-19 pandemic began to take hold in Canada, causing significant and rapid changes to the transit landscape. Transit ridership initially dropped more than 69 per cent compared to 2019 levels. Swift action to assess transit needs was undertaken and officials chose to maintain service levels to ensure that transit remained available and accessible to those who require it. Transit is an essential service, and its continued operation during uncertain times is critical.

On December 4, 2020, in recognition of the role in transit in maintaining strong communities the Government of Canada and Province of BC announced Safe Restart funding for public transportation agencies in British Columbia. This funding ensures that essential service levels of transit systems are maintained over the next three years and that fares remain affordable.

The focus of this TFSP is on the expansion and improvement of the West Kootenay Transit system over the next five years and beyond. It is acknowledged that the pandemic and subsequent shifts in demand and efforts to restore ridership to may impact the timelines and order of service change priorities outlined in this document.

The transit service and infrastructure priorities identified within this Transit Future Service Plan are based on consultation with key stakeholders and the public, changes in performance of the transit system from 2015 to 2019, consideration of changes in demand drivers, and consideration of local government policies and changing policies and community conditions.

### **Service Review Process**

The following steps were undertaken by BC Transit staff as part of this TFSP:

- Traveled several times to the area to better understand the local transit dynamics, met with local operations managers, customers, general public and stakeholders, and local partners and staff;
- Researched current and future demographic and economic trends, reviewed planning documents to determine current and future land use and growth areas, and examined existing transportation options;
- Conducted a full review of the transit system, including both system and route-by-route overviews, and conducted an analysis of ridership, existing system infrastructure, and operational considerations;
- Organized and held public engagement events and activities, including open houses, stakeholder meetings, and online surveys, and obtained and summarized feedback from these activities in engagement reports, and;
- Reviewed previous plans and considered information gathered from the steps above to propose detailed service and infrastructure change options and critical, short-, and medium-to-long-term recommendations.

The development of the West Kootenay Transit Future Service Plan (TFSP) was highly collaborative and included staff and representatives from BC Transit, the City of Nelson, Regional District of Central Kootenay, Arrow and Slocan Lakes Community Services Society, Trail Transit, Selkirk College, the public and representatives from a wide array of stakeholder organizations.

### **Existing Transit**

The transit routes within this plan area are operated by the City of Nelson, Arrow and Slocan Lakes Community Services Society, and Trail Transit. The system offers a mixture of services:

- *Conventional Transit* Fixed-route, fixed-schedule service
- *Paratransit* Flexible service paratransit connects rural communities with one another and to the conventional routes. Service is provided on-request with customers phoning to book.
- *Health Connections* Routes funded by Interior Health to enable access to non – emergency medical services that are not available in smaller rural communities.
- *Custom (handyDART)*

- Castlegar and Area is served by a distinct custom handyDART transit system provided by Trail Transit.
- Nelson and Area does not have a distinct handyDART service - the Paratransit service and Health Connections services fulfill handyDART-like duties.








Ridership in the West Kootenay Transit System has increased by 59 per cent since 2013 to 933,970 rides per year, while annual service hours have increased by 2 per cent relative to 2013 to 46,858 annual hours. Ridership growth has been based in external driving factors and is among the highest in British Columbia for communities of an equivalent size over this time period.

## Service Design Standards and Performance Guidelines

Service Design Standards and Performance Guidelines for the overall West Kootenay Transit System were produced in February 2016. Pivotal to these guidelines is the classification of West Kootenay Transit's routes into service layers according to their characteristics: regional transit, local or connecting transit – either ridership based or coverage based – and targeted transit (special trips for work shifts, school bell times, or seasonal activities).

This TFSP includes a revised route classification for the Service Design Standards and Performance Guidelines, which introduces of a new service layer: the frequent transit route. This new classification is applied to route 2 within Nelson and route 31 within Castlegar, separating them from their previous “local transit” classification in order to support higher levels of resources to these high-demand routes.

The following colour scheme will be applied in some sections to distinguish between route classifications:

 Connector Route (98, 99, future)	 Paratransit Route
 Frequent Transit Route	 Health Connections Route
 Local Transit Route - Ridership	 Targeted Transit Route
 Local Transit Route - Coverage	





## Public Engagement

Development of the transit priorities for this plan were supported by a comprehensive public engagement platform delivered in three phases. Each phase included events developed for different audiences, various tools to solicit input and feedback, and opportunities for one-on-one conversations with project staff. Engagement is critical in providing insights into community priorities and needs to enable the further shaping of service.

Phase 1 was comprised of targeted transit partner and stakeholder engagement through a series of workshops and meetings held from April to August 2019. Phase 2 consisted of a series of open houses held throughout the region at the end of November 2019 and supported by a comprehensive online survey. Phase 3 was student-focused campus engagement events held in collaboration with Selkirk College staff in January 2020.

In total over 1,600 people participated in the consultation. The majority (67%) completed online surveys, while over 500 people attended scheduled events.



<b>Phase 1</b>		Targeted Stakeholder workshops – 77 people
<b>Phase 2</b>		Open House Events 143 people
		Online Survey 1119 people
<b>Phase 3</b>		Campus Events 320 survey completions
<b>Selkirk College</b>		

## Service Options

Based on the analysis of existing transit performance, existing and future community demographics and land use, and feedback from the public engagement process, the following options are presented to guide further investment in the system to continue to improve its effectiveness and community benefit.

Refinement of the service options has been informed by the results of Phase 2 Public Engagement process, including ongoing collaboration with the local operating companies, the RDCK, City of Nelson and other local partners.

These refined options are divided into three time horizons for implementation; critical (options which can be implemented immediately), short-term (2-3 years), medium-term (3-5 years) and longer-term for future consideration. Broadly the service directions contained in this plan can be described in three steps:

1. Recover ridership and fix critical capacity issues **immediate**
2. Address service inequities and ensure service can be reliably provided **short-term**
3. Implement service improvements of corresponding route classifications consistently across all regions. **medium and longer-term**

The ultimate order of implementation (including the opportunity to combine multiple options into a single option) will be confirmed in collaboration with West Kootenay Transit Committee, RDCK and City of Nelson as part of the three-year budget process, which occurs annually. It is worth noting that the implementation of some options is dependent upon the implementation of other options, since some implementations can only be realized by adding a new bus.

The following tables summarize the proposed Critical (immediate), short-term and medium-term service and infrastructure options for consideration. More detailed costs as well as longer term options are included in the full Service Review. A very modest reallocation of hour resources may be possible, but the upward trend in ridership, coupled with existing low levels of service on some routes make reallocation inadvisable.

The COVID-19 Pandemic and subsequent related shifts in demand impact the prioritization. The column 'Post COVID Impact' clarifies how each service change is impacted by COVID.



Table 1: Proposed Immediate Service Changes

Critical Fixes				
#	Proposed Service Change Option	Proposed Implementation Timeline	Resource Implications	Post COVID impact
1	<b>99 Kootenay Connector</b> Critical fix through two new round trips on Route 99 at peak times.	See Post-COVID impact	Yes. Expansion resources are required.	College dependent
2	<b>10 Balfour</b> Extension of the weekday 4:04 p.m. Route 10 trip to Balfour	Immediate (within 12 months)	Yes. Expansion resources are required.	Applies
3	<b>98 Columbia Connector</b> Introduction of two new weekday Route 98 trips to maintain connectivity with Route 99	See Post-COVID impact	Yes. Expansion resources are required.	College dependent
4	<b>33 Selkirk College</b> Introduction of two new weekday trips to connect the new Route 98 trips with Selkirk College	See Post-COVID impact	Yes. Expansion resources are required.	College dependent
5	<b>2 Fairview</b> One additional morning weekday peak overload trip on Route 2	See Post-COVID impact	Yes. Expansion resources are required.	College dependent

Table 2: Proposed Conventional and Paratransit Short-term Service Changes

Short-term Service Changes				
#	Proposed Service Change Option	Proposed Implementation Timeline	Resource Implications	Post COVID impact
6	<b>53 Edgewood</b> Additional run time to address ferry runtime issues	Short-Term (2-3 years)	Yes. Expansion resources are required.	Applies
	<b>Nakusp Local</b> Adjust service times to maintain service levels	Short-Term (2-3 years)	No change	Applies
7	<b>Salmo ↔ Nelson</b> Introduce basic service between Salmo Ymir and Nelson; three round trips to coincide with high school start/end and office end time	Short-Term (2-3 years)	Some reallocation is possible, but expansion resources will still be required.	Applies
	<b>15 Perrier</b> Discontinue service (will be served by the new Salmo service)	Short-Term (2-3 years)	Apply resources to the new <b>Nelson ↔ Salmo</b> service	Applies
	<b>72 Salmo ↔ Nelson</b> Seek permission from Health Connections to adjust trip times and change the fare structure	Short-Term (2-3 years)	No change	Applies

Short-term Service Changes				
#	Proposed Service Change Option	Proposed Implementation Timeline	Resource Implications	Post COVID impact
8	<b>Fruitvale ↔ Salmo</b> Extend service Fruitvale to Salmo	Short-Term (2-3 years)	Yes. Expansion resources are required	Applies
9	<b>Castlegar Local</b> Extend evening service within Castlegar to better align with service standards and equity for customers.	Short-Term (2-3 years)	Yes. Expansion resources are required.	Applies
10	<b>Castlegar Local</b> Introduce additional peak service to distinguish route 33 from 98; improve route 32 Columbia and 36 Ootischenia;	See Post-COVID impact	Yes. Expansion resources are required.	College dependent
11	<b>98 Columbia Connector</b> All route 98 trips go to the College	See Post-COVID impact	Yes. Expansion resources are required.	College dependent
12	<b>Castlegar Local</b> Improve Castlegar Saturdays to address high demand and better align with service standards and equity for customers.	Short-Term (2-3 years)	Yes. Expansion resources are required.	Applies
13	<b>52 Naksup ↔ Slocan</b> Align all trips to pass by New Denver Health Care Centre	Short-Term (2-3 years)	Very modest expansion resources are required.	Applies
	<b>76 New Denver ↔ Nelson</b> Align all Route 74 trips to pass by New Denver Health Care Centre	Short-Term (2-3 years)	No change	Applies
14a	<b>20 Slocan</b> Discontinue the first northbound trip and the last southbound trip on all service days	Short-Term (2-3 years)	This service change is cost neutral*. Any resources saved from this change will be reinvested back into the transit system.	Applies
14b	<b>20 Slocan</b> Saturday and Friday later evening service	Short-Term (2-3 years)	Yes. Expansion resources are required.	Applies
15a	<b>10 Balfour</b> Discontinue the first northbound trip and the last southbound trip on all service days	Short-Term (2-3 years)	If combined with 14a this service change <u>may</u> be cost-neutral*.	Applies
15b	<b>10 Balfour</b> Saturday improvement to prevent reaching critical	Short-Term (2-3 years)	Yes. Expansion resources are required.	Applies
16	<b>Nelson Local</b> Realign all Nelson routes to serve the new transit exchange at Victoria	Short-Term (2-3 years)	TBD	
17	<b>76 Kaslo ↔ Balfour</b> Introduce two additional round trips per week.	Short-Term (2-3 years)	Yes. Expansion resources are required.	Applies
18	<b>52 Naksup ↔ Slocan</b> Introduce two additional round trips per week.	Short-Term (2-3 years)	Yes. Expansion resources are required.	Applies
19	<b>Kaslo ↔ Silverton</b> Introduce 1 day/week in June, July and August	Short-Term (2-3 years)	Yes. Expansion resources are required.	Applies
20	<b>Feasibility study</b> Explore options for introducing transit to Procter	Short-Term (2-3 years)	NA	Applies

\*This service change is contingent on securing a satellite garage facility and assumes that the annual savings in service hours will directly offset the lease of buses required for spare purposes.

Table 3: Proposed Short-term Custom (handyDART) Service Changes

Short-term Custom (handyDART) Service Changes				
#	Proposed Service Change Option	Proposed Implementation Timeline	Resource Implications	Post COVID impact
21	Introduce dedicated weekday handyDART service to the Nelson Area.*	Short-Term (2-3 years)	Yes. Expansion resources are required.	Applies

\*Custom-like service would continue to be fulfilled in the rural Kootenay West Areas by Paratransit and Health Connections services.

Moving beyond the short term work must be undertaken to ensure that infrastructure is adequate to accommodate the service changes that are identified for the medium and long term of this plan. Many of these service changes are strategic expansions intended to make transit attractive to people currently driving. Achieving a mode shift from driving to transit among regular commuters is an effective way to reduce carbon emissions and address congestion and parking challenges. See table 4.

Table 4: Proposed Short-term Infrastructure Initiatives

Short-term Infrastructure Initiatives		
Initiative	Description	Post COVID impact
<b>Create Satellite Garages</b>	Village of Slocan – required for service change 11	Applies
	Balfour – required for service change 12	
<b>Build or Expand Exchanges</b>	New Exchange Downtown Nelson (planning work is underway).	Applies
	New Exchange Downtown Trail (planning work is commencing)	
<b>Assess Operations and Maintenance Facility needs</b>	Nelson Facilities Strategy	Applies
	Castlegar Facilities Strategy	
	Trail Facilities Strategy	
	Paratransit Facilities Strategy	
<b>Expand and Build new Park'n'Rides</b>	Expansion of the Playmor Junction Park'n'Ride	Applies
	Slocan City Park'n'Ride	
	Salmo Park'n'Ride –	
	Castlegar- Area Examine the need for a Park'n'Ride	
<b>Bus Stops</b>	ONGOING – Upgrades, Maintenance and opportunities for new stops	Applies

Table 5 Medium and Longer-term Service Changes

Medium and Long Term Conventional and Paratransit Service Changes			
#	Proposed Service Change Option	Proposed Implementation Timeline	Resource Implications
22 to 24	<b>Trail, Castlegar and Nelson Local</b> Weekday improvements to attract more residents to transit from driving, work towards equity and prepare to connect to new combined connector trips	Medium-term (3-5 years)	Yes. Expansion resources are required.
25	<b>Nelson ↔ Trail Connector</b> Creation of the combined connector on weekdays for a one-seat ride between Nelson and Trail. 11 Round trips per weekday with consideration for airport connections – service day end extension.	Medium-term (3-5 years))	Yes. Expansion resources are required.
26	<b>20 Slocan ↔ Playmor</b> Add 2 round trips per weekday service to support improved access to the regional connector – reaching 7 round trips per day.	Medium-term (3-5 years)	Yes. Expansion resources are required
27	<b>10 North Shore</b> Add 2 round trips per weekday to support improved access to the regional connector	Medium-term (3-5 years)	Yes. Expansion resources are required
28 to 30	<b>Trail, Castlegar and Nelson Local</b> Saturday improvements attract more residents to transit from driving, work towards equity and prepare to connect to new combined connector trips	Longer-term (5+ years)	Yes. Expansion resources are required
31	<b>Nelson ↔ Trail Connector</b> Introduction of the combined connector on Saturdays and the addition of one later trip for a total of four round trips.	Longer-term (5+ years)	Yes. Expansion resources are required
32	<b>Nelson ↔ Salmo</b> Expand weekday trips from 3 to 4 and introduce 3 trips on Saturdays.	Longer-term (5+ years)	Yes. Expansion resources are required
33 to 35	<b>Trail, Castlegar and Nelson Local</b> Introduction of Sunday urban service (at 2020 Saturday levels)	Longer-term (5+ years)	Yes. Expansion resources are required
36	<b>Nelson ↔ Trail</b> Introduction of the combined connector on Sundays	Longer-term (5+ years)	Yes. Expansion resources are required
37	<b>10 North Shore</b> Introduction of Sunday Service	Longer-term (5+ years)	Yes. Expansion resources are required
38	<b>20 Slocan ↔ Playmor</b> Introduction of a Sunday Service	Longer-term (5+ years)	Yes. Expansion resources are required

Table 6: Information Proposals

Information Proposals		
Category	Descriptions	Post COVID impact
Updated Marketing Plan	<ul style="list-style-type: none"> <li>Continued support for hardcopy information</li> <li>Including additional budget for biannual or quarterly printed targeted transit information in rural and small villages served by paratransit.</li> <li>Supporting the provision of high contrast larger format schedule information at bus stops with schedule posters to assist customers who are vision impaired</li> </ul>	Applies
Raising awareness of Health Connections service days with Interior Health Facilities	BC Transit will support West Kootenay Local Governments in advocating for more informed scheduling of Interior Health medical appointments for residents originating in communities that are reliant on Health Connections routes.	Applies
Awareness campaigns within the Cities	<p>BC Transit will work with the City of Nelson, RDCK (Castlegar), and RDKB (Trail) to boost awareness and consideration to local transit service along city residents.</p> <p>Timing: Campaigns can coincide with major infrastructure improvements or service changes.</p>	Applies

Service improvements will be integrated into the Three Year Transit Improvement Process (TIP), which is updated on an annual basis. Infrastructure proposals will inform capital plans for both BC Transit, the City of Nelson, the Regional District of Central Kootenay and Regional District of Kootenay Boundary. Prior to implementation of service changes, BC Transit planning staff will work with staff at these three organizations and the relevant constituent local governments to ensure service improvements appropriately reflect local needs. Additional targeted engagement may be required.

New emerging technologies will have a direct impact on future mobility within the West Kootenays. SmartBus, BC Transit's Low Carbon Fleet Program, mobility as a service, autonomous vehicles, and other emerging bus technologies have the potential to reshape how people choose to move throughout their communities

To achieve the goals of this TFSP, capital and operating investments in the transit system will be required over the next five years and beyond. Dependent on COVID, the annual operating costs based on the critical and short term proposals are projected to increase by over 12,000 conventional hours, representing a 25 per cent increase over 2019 service hours. Service changes which remain relevant in the critical and short term inspite of COVID represent about 7,500 hours for a 16 per cent increase over 2019 service hours. An additional 2,500 hours are identified to establish a new custom handyDART service. The plan also calls for critical and short term capital investments that include:

- Up to additional 11 buses added to the transit fleet
- Infrastructure initiatives related to two downtown transit exchanges, four operations and maintenance centres, two satellite garage facilities, park'n'rides, and improvements to customer amenities at transit stops

# 1.COVID-19 IMPACT ON SERVICE AND PLANNING

In March 2020, the World Health Organization officially declared the novel coronavirus (COVID-19) global outbreak a pandemic. In response, the Province of British Columbia declared a State of Emergency. Within this, Emergency Management BC declared public transit to be an essential service. To mitigate the spread of the virus, the Office of the Provincial Health Officer (PHO) ordered the indefinite limitation of all travel and transportation (except for essential purposes) and to suspend all mass gatherings to encourage physical distancing. This included the suspension of in-person classes at all schools, the closing of most service industry establishments, the transition of most office and administrative jobs to work remotely and the introduction of new strict protective health measures.

These orders had an immediate and profound impact on BC Transit services across the province. To comply with the PHO's new protective health measures, BC Transit in collaboration with the West Kootenay Transit System implemented operational changes to protect the safety of front line employees and transit riders. This included the following measures:

- Rear-door boarding and no fare collection
- Passenger capacity constrained to 40 per cent to ensure social distancing could be accommodated
- Enhanced cleaning protocols
- Reduced transit services to reflect operator availability and decreased demand

As expected, given the Provincial Health Officers (PHO) advice to limit non-essential travel, transit ridership in the West Kootenay Transit System substantially decreased. Figure 1 below shows transit usage decreased sharply at the end of March – reaching a low of 31 per cent relative to 2018 levels in the same week. As the curve of initial infections flattened, ridership showed a modest initial increase until the resumption of fare collection on June 1. Once the province reached phase 2 in June and business reopened, ridership resumed a gradual fluctuating rising trend into

the fall months. This summer to fall gradual ridership response occurred at a lower rate in the West Kootenays than what was observed in other medium-sized transit systems across the province.

Ridership in the West Kootenays reached a pandemic high of 62 per cent relative to 2019 levels near the middle of November. In the weeks following Thanksgiving and Halloween, the onset of a second wave of new COVID infections began in British Columbia began. Effective November 20 the PHO initiated a series of Health orders intended to again mitigate the spread of the virus. Non-essential travel outside of regions was restricted; indoor gathering for sport purposes were suspended; gatherings outside of household bubbles were also restricted. With these new orders ridership in the West Kootenay routes decreased until the week of December 18, when ridership experienced modest increase to 56 per cent of 2019 levels.

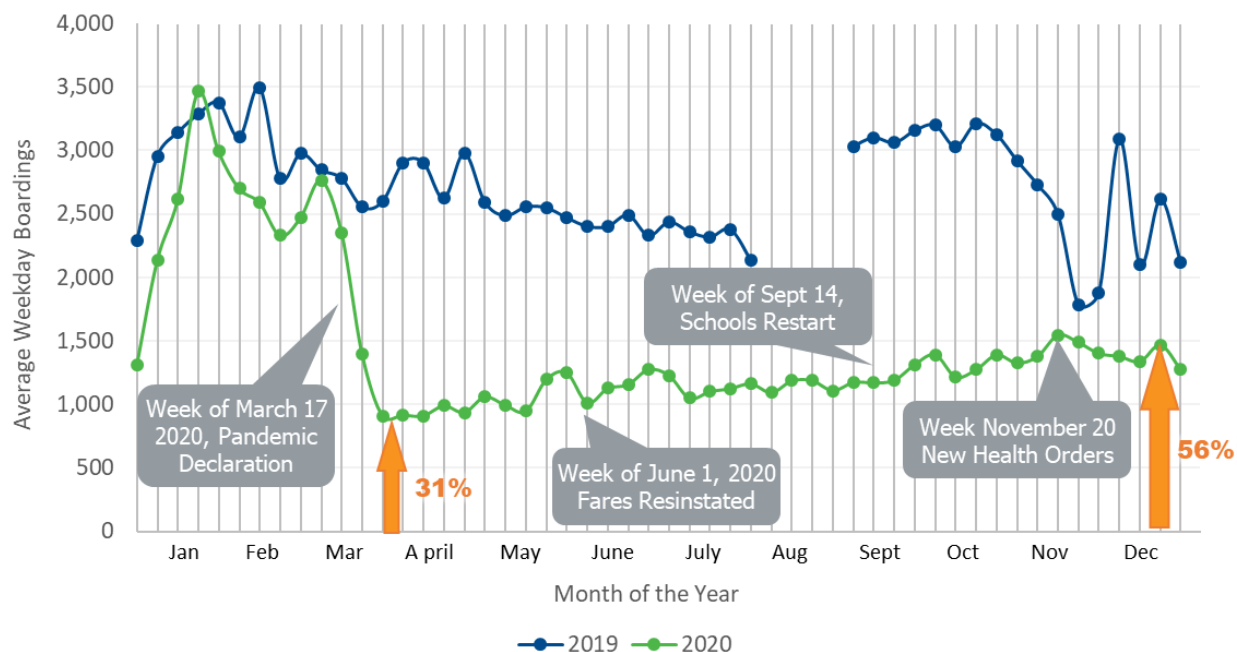


Figure 1: West Kootenay Transit ridership, 2019 compared to 2020

The focus of this Transit Future Service Plan is the recovery and improvement of the West Kootenay Transit System; however, due to the pandemic recovery, it is acknowledged that timelines and priorities established through community engagement in 2019 may need to be re-evaluated as the system transitions through the recovery phases of the pandemic and ridership demand returns.

The progression of and recovery of transit service in the West Kootenay Transit System is planned to occur in stages aligned with the British Columbia Restart Plan. Table 1 below outlines the four Phases BC Restart Plan and the corresponding transit response plan actions that have occurred or are planned to occur.

The West Kootenay system are also positioned to respond as required to reduce capacity and restart phase 1 emergency procedures in the event of a third wave of COVID-19.



British Columbia's RESTART Plan			BC Transit –West Kootenay Transit Response Plan
Phase	Timeframe	Provincial Directive	
Phase 1 Response	March 2020 to mid-May 2020	Essential services and some business open	<ul style="list-style-type: none"> <li>The switch to summer seasonal routing of 3 Rosemount, 43 Glenmerry, and 46 Rossland was implemented about three weeks earlier than usual</li> <li>The spring service reduction of 99 Kootenay Connector occurred as usual</li> <li>Passenger capacity was constrained to 40% on buses</li> <li>Enhanced cleaning protocols initiated</li> <li>Rear door boarding, no fare collection</li> </ul>
Phase 2 Recovery	Mid-May 2020 to June 2020 and onwards	Restoration of some services, under enhanced protocols <ul style="list-style-type: none"> <li>Elective surgeries, dentists, chiropractic, physiotherapy, massage therapy</li> <li>More retail, restaurants, cafes, pubs and personal services</li> <li>Offices</li> <li>Recreation/sports</li> </ul>	<ul style="list-style-type: none"> <li>Public education campaign encouraging the use of face coverings on buses</li> <li>Signage on buses and at stops encouraging personal etiquette</li> <li>Stabilize service levels, monitor demand</li> <li>Continued enhanced cleaning protocols</li> <li>Installation of driver barriers on all buses</li> </ul>
Phase 3 Recovery	June 2020 to September 2020 and onwards  December 2020	Further restoration of services, under enhanced protocols: <ul style="list-style-type: none"> <li>K-12 schools (partial return in June, full return in September)</li> <li>Hotels</li> <li>Post-secondary institutions online</li> </ul> <b>The Province initiates its BC Restart Plan, which recognizes that transit is an essential service required to support the social and economic recovery of communities.</b>	<ul style="list-style-type: none"> <li>Return to front-door loading and fare payments</li> <li>Return to regular fall service levels with the restoration of Fall 99 trip and school-oriented alignments</li> <li>Increased capacity on vehicles two thirds or approx. 66%</li> <li>Ridership recovery campaign</li> <li>Face masks strongly suggested and mandated 24 August 2020</li> </ul>
Phase 4 Rebuild and Revitalize	TBD	Large gatherings, conditional on the release of a vaccination or treatment	<ul style="list-style-type: none"> <li>Return to full capacity on buses</li> <li>Continue to manage proposed transit investment and transit service priorities developed for the Transit Future Service Plan</li> <li>Determine the timeframe for delivery over the next 5 years</li> </ul>

Table 1: West Kootenay Transit System Recovery Plan

## Immediate Impact and Response

In response to the significant and rapid changes that occurred in mid-March across the West Kootenay transit landscape, BC Transit staff worked with local partners and operators to shift those trips serving schools into their summer routings early. The early removal of the 08:04 weekday 99 Kootenay Connector trip was considered, but this ultimately officials chose to continue the route until the end of April as originally intended.

An essential consideration when planning for post-COVID-19 recovery is the need to ensure service levels provide ridership demand with appropriate physical distancing opportunities. As with other BC Transit systems across the province, capacity on West Kootenay buses was reduced to 40 per cent of seated capacity at the early onset of the pandemic. Capacity on West Kootenay buses was raised in late summer to a 100 per cent of seated capacity.

## Planning for Transit Recovery & Rebuild

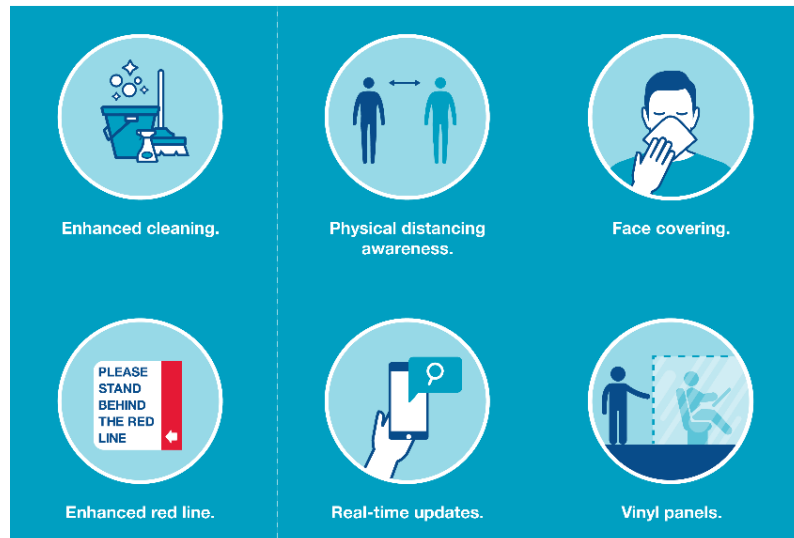
Transit is and will continue to be an essential service for communities as residents go about their daily lives. Transit will continue to play a pivotal role in addressing the challenges that will exist long after the pandemic is over, including climate change, congestion and affordability. BC Transit acknowledges that demand characteristics across communities will be different, and the staged reopening of different sectors will impact ridership and how service is delivered over time.

As of summer 2020 capacity on buses was increased from 40 per cent to a full seated load – approximately 50 to 65 per cent of full capacity. Capacity will be further increased in consultation with Provincial Health Authorities and Work Safe BC as appropriate based on vaccination rates.

It is important to acknowledge that until vaccination rates are high there may be significant anxieties of customers who do not feel comfortable riding in a bus that has many other passengers on it. Maintaining public trust and faith in the transit system to deliver safe and reliable service is critical. BC Transit and local government staff will continue to work together to ensure service is optimized and, where possible, hours reallocated to areas of greater need, such as along corridors that are seeing a swifter return of riders.

## Scaling up Service: Welcome back ridership demand

Restoring transit service to pre-COVID-19 levels will be informed largely by how ridership returns and where. For example a large proportion of the West Kootenay ridership consists of post-secondary students using transit to access the Selkirk Colleges. In response to the pandemic Selkirk College has adopted a modified program delivery and building hours for the fall 2020 and winter 2021 semesters. Stop activity at the Castlegar-area campus has dropped by 54 per cent; at the Nelson Tenth Street campus by 64 per cent; at the Nelson Silver King campus by 44 per cent. Transit services have been maintained at full levels to balance the diminished passenger capacity on buses and continue to serve those requiring access to essential destinations. The resumption of regular program delivery at Selkirk College expected to generate a gradual return to the former ridership levels



*Figure 2: Measures taken to reduce the spread of COVID-19*

Maintaining good service design during the recovery phase will ensure a solid platform continues to exist for essential services, physical distancing, customer comfort and the flexibility to respond to ridership demand as it returns over time. The goal is to make service safe and available to welcome back ridership. If these travel needs are not met, there is a risk of some transit riders shifting to private vehicles and abandoning public transportation, increasing congestion and emissions, and reducing the long-term viability of the West Kootenay Transit System.

Welcoming back ridership demand will be supported by BC Transit marketing initiatives, including a broad campaign encouraging the use of face masks on transit, personal etiquette signage on the bus and at stops and bus capacity information. Table 2 below outlines the service recovery strategy followed between June 2020 and December 2020.



*On August 24 BC Transit, along with Translink and BC Ferries made mask usage mandatory for customers.*

Area	Assumptions	June - August	September - December
Ridership Demand	<ul style="list-style-type: none"> <li>Partial workplace returns throughout the summer</li> <li>Gradual increase in non-essential trips</li> <li>School returns in September</li> </ul>	40% - 60%	60% - 90%
Service Hours	<ul style="list-style-type: none"> <li>Summer service levels for June-August</li> <li>September service will restore typical fall service levels on Route 99 and reintroduce the regular school-oriented route alignments which typically occur in September.</li> </ul>	98% - 100%	100%
Capacity	<ul style="list-style-type: none"> <li>Gradual increase in capacity on buses</li> <li>Reduced physical distancing requirements</li> <li>Face masks advised</li> </ul>	40%-60%	60%-80%
Projected Revenue	<ul style="list-style-type: none"> <li>Resumption of fare collection</li> <li>Revenue reflects ridership demand</li> </ul>	40%-60%	50%-70%

Table 2: Service recovery strategy percentage estimates expected compared to 2019

## Peak Travel Demand

Figure 3 below shows that over April 2020 boardings at all times of day diminished in comparison to the same time in 2019. Additionally, the amplitude of the difference from lows to peaks diminished significantly – dropping from over 150 boardings to fewer than 50 passengers. Morning peaks still occurred at 07:00, 12 noon, and afternoons at 15:00 (3pm) and 17:00 (5 pm) in 2020 but the peaks were much lower, and the midday peak was much closer to the mornings and afternoons. This indicates significantly lowered commuter demand.

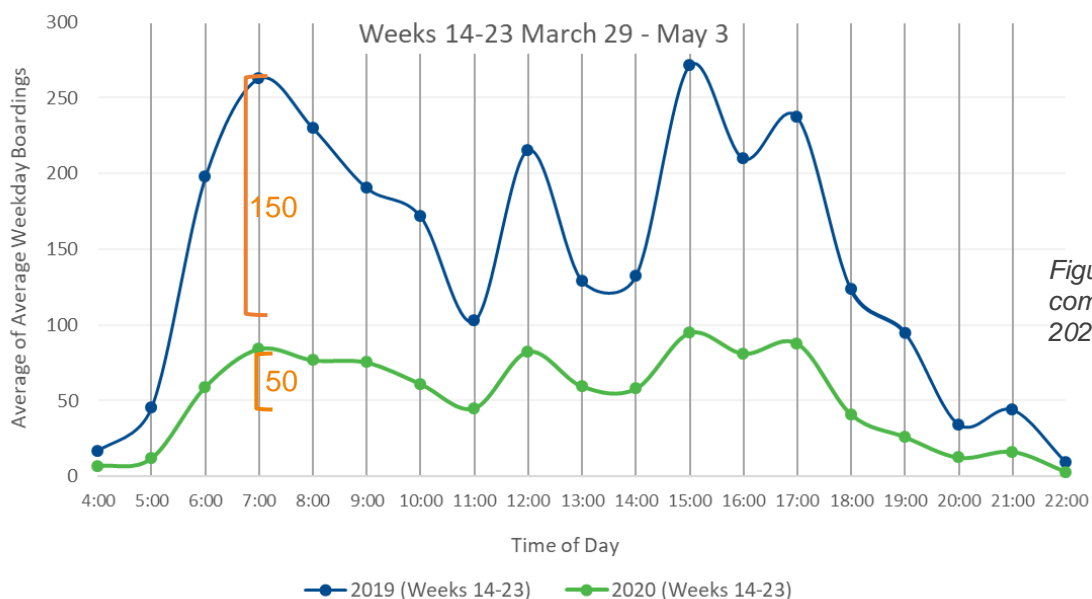


Figure 3: Ridership demand comparison April 2019 vs April 2020 Source: APC Data

More recent ridership data, shown in figure 4, recorded during the mid-September to end of October period shows ridership levels rising as well as a modest restoration of the typical peaks. This suggests that a maintenance of typical commuter-focused service frequency may be the best path to accommodate return ridership.

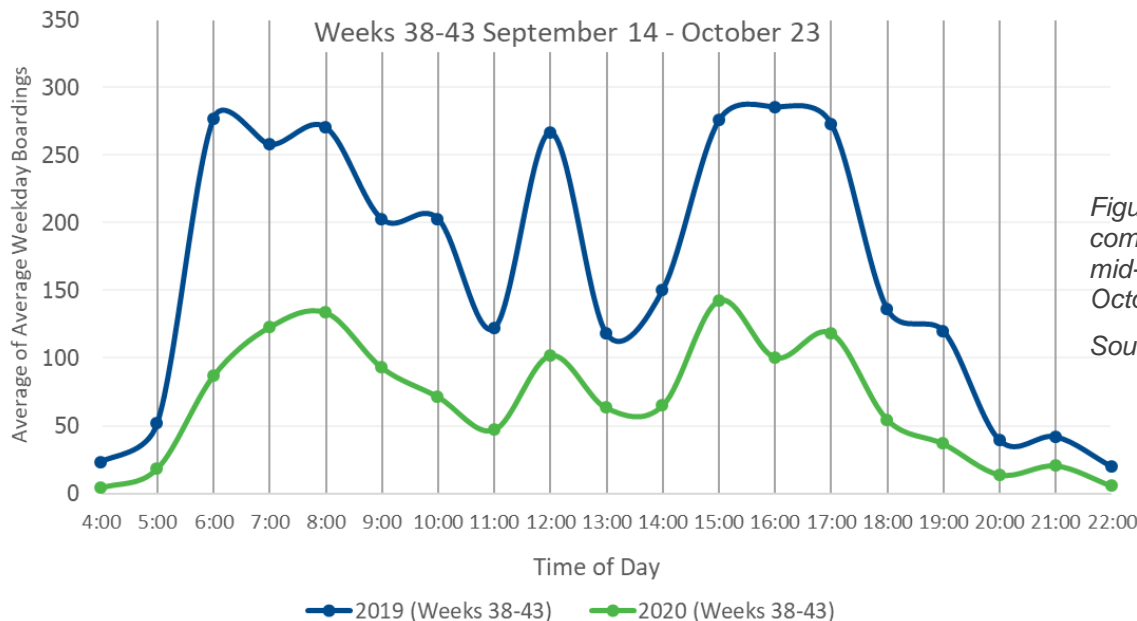


Figure 4: Ridership demand comparison 2019 vs 2020, mid-September to mid-October

Source: APC Data

Prior to the pandemic the rapid development of extreme variation in passenger demand throughout the day posed challenges to the effective delivery of transit services. The demand profile of 2020 with its diminished peaks is better suited to the system's resource levels. BC Transit will continue to monitor these trends, and maintain open reception to school and college officials regarding advance plans for program delivery changes. Monitoring trends and being notified in advance of changes can inform service changes moving forward. Any service design changes that are warranted will be accompanied by awareness campaigns to guide passengers in adjusting their travel times to make best use of the service and ensure they feel comfortable traveling with their fellow passengers.

### Route Level Demand

Throughout the pandemic the levels of decline in demand have varied by route. Early in the pandemic (week 18), the highest drops in ridership occurred on 1 Uphill (74%); 34 Kinnaird (69%), and 99 Kootenay Connector (67%). During this same time ridership diminished the least on 41 Binns (35%), 46 Rossland (43%), and 44 Hospital/Sunngindale (44%).

Into the fall pandemic period (week 43) the highest reduction in ridership occurred on 33 Selkirk (86%), 32 Columbia (76%), and 99 Kootenay Connector (67%) During this same time ridership diminished the least on 44 Hospital/Sunningdale (8%), 46 Rossland (14%) and 20 Slocan (35%).

### Rebuild Phase – Long Term sustainability and the Transit Future Service Plan

The response and recovery phases over the short to medium term will stabilize services, rebuild trust, and regain ridership in the West Kootenay Transit System.

On December 4, 2020, in recognition of the role in transit in maintaining strong communities the Government of Canada and Province of BC announced Safe Restart funding for public transportation agencies in British Columbia. This funding ensures that essential service levels of transit systems are maintained over the next three years and that fares remain affordable.



- The Nelson system is assured of essential transit service at 11,750 annual hours until March 2024.
- Kootenay Paratransit system is assured of essential transit service at 15,303 annual hours until March 2024.
- The Kootenay Boundary system is assured of essential transit service at 19,710 annual hours until March 2024.

Surveys have suggested that until vaccinations are widespread Canadians are less likely to return to their pre-COVID-19 use of transit, and their daily travel habits will include less unnecessary travel. When ridership returns, there are multiple scenarios that may occur. The goal is to ensure the West Kootenay Area has the best transportation solution and a transit strategy that reflects the current impacts of COVID-19, and continues to be able to position the system to improve services for the community in the future and respond effectively to the West Kootenay's sustainable development goals.

Future investment in the West Kootenay Transit Service had been oriented to meeting critical load challenges associated with the 99 Kootenay Connector and 98 Columbia Connector. The service improvements contained in this plan will be integrated into the three year Transit Improvement Process (TIPs).

**The shift to online course delivery by Selkirk College coupled with severe constraints on International travel resulting from COVID-19 has brought a reprieve to the critical expansion pressures on the 99 Kootenay Connector and 98 Columbia Connector as passenger volumes are not expected to reach previous levels for up to two to three years.** BC Transit will continue to work with West Kootenay staff to monitor ridership and ensure future service improvements year over year appropriately reflect budgets and local needs. It is possible that the priorities discussed in this plan could be rearranged accordingly so that they best address the post-COVID-19 transit landscape in the West Kootenays.



Figure 4: From left to right - 76 Kaslo and 10 Balfour buses connect at the Balfour Ferry Terminal

## 2. INTRODUCTION

On July 2, 2013, the West Kootenay transit systems were integrated into one overall system, bringing three (3) local governments and nine (9) transit systems together into one integrated schedule and one rider's guide. The intention of the integration and its alignment of routes and service options were to coordinate transit services into a more user-friendly structure that better leverages the combined resources by reducing duplicate service and increasing service levels.

The West Kootenay Transit System includes:

- The Kootenay Lake West Transit System which encompasses all Transit systems in the Regional District (not including Creston and Area)
- The Castlegar and Area and Trail (Kootenay Boundary) area systems
- The City of Nelson Transit System

This West Kootenay Transit Future Service Plan (TFSP) will be the complement document to the [Greater Trail Area Service Review](#) conducted in 2016. The goal of this TFSP is to inform future service-making decisions for Kootenay Lake West (KLW), Castlegar and Area, and the City of Nelson by updating applicable transit priorities identified in the [Central Kootenay Service Review \(2011\)](#), [West Kootenay Master Plan \(2012\)](#), and the [Nelson and Area Transit Recommendations \(2012\)](#). Since 2012 some progress has been made towards accomplishing priorities identified in these three plans, and ridership in the systems has grown as a result.

Transit ridership in the West Kootenay Transit System is among the fastest growing of all medium-sized BC Transit systems – Nelson, Castlegar and communities in the Kootenay Lake West region have demonstrated a surprisingly strong market demand for transit.

High passenger loads combined with community interest in reducing carbon emissions, ongoing growth in outlying areas, and demand generated by international students provide opportunity for further investment in the development of transit.



## 2.2 Transit Future Service Plan

Plans for this TFSP began in late 2018. The plan process has included a number of phases to understand the current context, review of potential service changes with stakeholders and draft a plan that provides a framework for short term to long term growth of the transit system. The process of developing this TFSP is outlined in Figure 5.

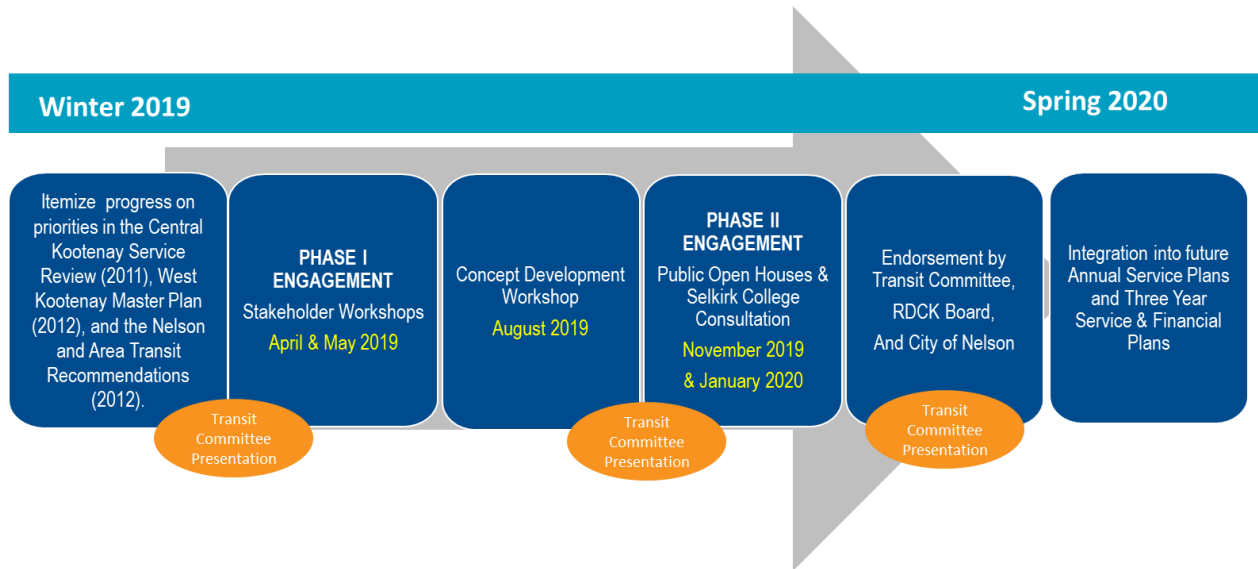


Figure 5: TFSP process

The goals of the TFSP are to inform future service-making decisions for Kootenay Lake West, Castlegar and Area, and City of Nelson by updating applicable transit priorities identified in the [Central Kootenay Service Review \(2011\)](#), [West Kootenay Master Plan \(2012\)](#), and the [Nelson and Area Transit Recommendations \(2012\)](#). This will be accomplished through:

- Evaluating existing routes and ridership against the Service Design Standards and Performance Guidelines
- Considering the priorities of the community as indicated during engagement events conducted with targeted stakeholders, transit passengers and the general public and conversations with elected officials
- Reviewing strategic plans applicable within the plan area

The plan identifies transit service changes and infrastructure priorities which will

1. Ensure that the transit service is reliable safe and accessible, and operates sustainably
2. Shape future transit service in a direction which supports community goals and values

# 3. CONTEXT

## 3.2 Plan Area

This TFSP focuses on areas within the Central Kootenay shown in figure 6 and served by the West Kootenay Transit routes including:

- the City of Castlegar
- Village of Kaslo
- City Nelson
- Village of Nakusp
- Village of New Denver
- Village of Salmo
- Village of Silverton
- Village of Slocan
- Unincorporated communities and designated places across Electoral Areas D, E, F, G, H, I, J and K.

The border of the Regional District of Kootenay Boundary [RDKB] defines the southern plan boundary.

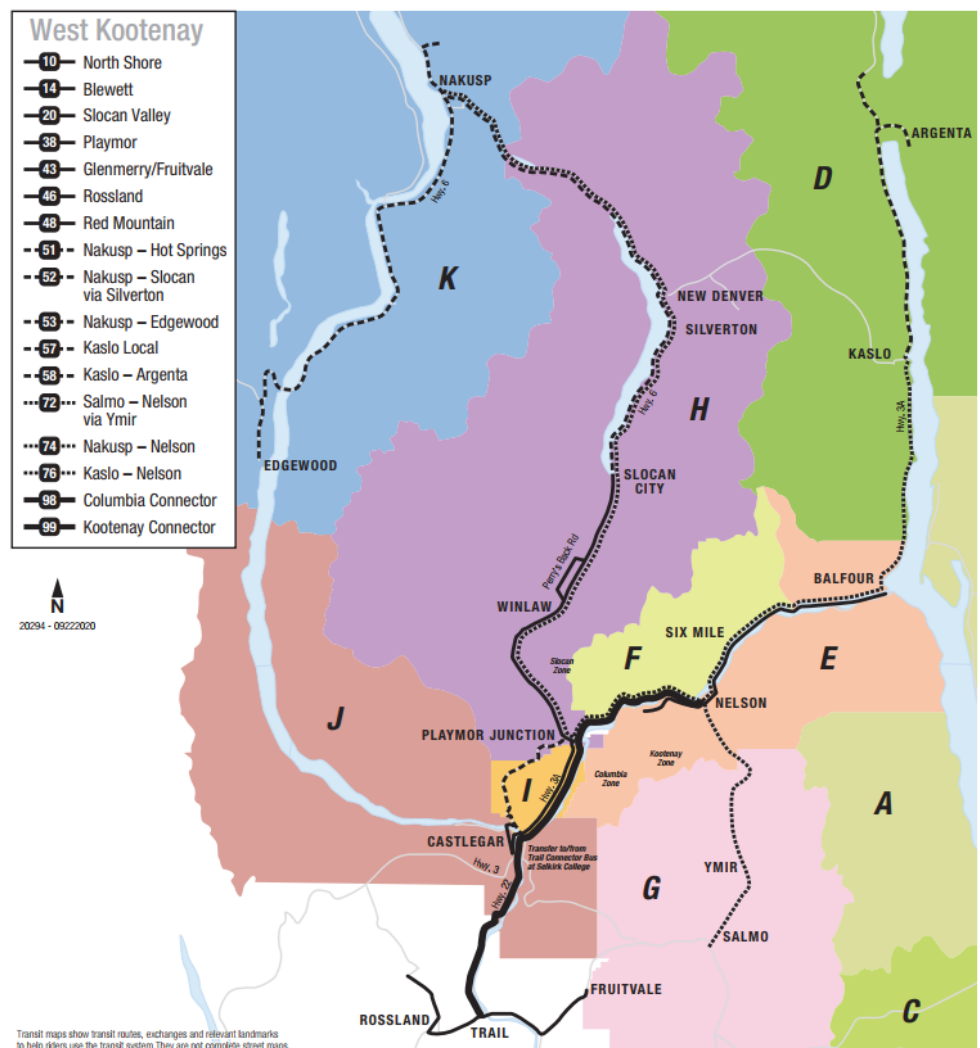


Figure 6: Plan area

For the purposes of discussion, many sections within this plan will be described in the following groupings which correspond to the areas shown in Figure 6:

- City of Castlegar and Area (Areas I and J)
- City of Nelson and surrounding Area (Areas F and E)
- Kaslo and Area D

- Nakusp and Area K
- Salmo and Area (Area G, including Ymir)
- South Slocan: Village of Slocan and portions of Area H to the south
- North Slocan: Area H north of Slocan and the Villages of Silverton and New Denver

### 3.3 Existing Plans

The TFSP builds upon and is informed by the Central Kootenay Service Review (2011), West Kootenay Master Plan (2012), and the Nelson and Area Transit Recommendations (2012), existing and proposed land uses, the communities demographic composition and public input. Supporting work that contributed to this plan is summarized below.

#### Official Community Plans

A mixture of elected councils in the incorporated municipalities and the RDCK Board for the electoral areas administer the area contained within this Transit Future Service Plan. Uniquely, over 60 per cent of the population within the RDCK resides outside of incorporated municipalities. This compares to the provincial average of 11 per cent of population residing outside of incorporated municipalities.

Highlights of a detailed review of these municipal and electoral area Official Community Plan [OCP] Bylaws are found below. The detailed review is available upon request.

#### *Municipal OCPs*

[The City of Castlegar OCP](#) contains several references to transit. Policies are generally high level relating to the objectives of 'Connecting Community' and 'Getting out of our Cars' but there is specific reference to improving frequent bus service along Columbia Avenue.

[The City of Nelson OCP](#) provides direction to support reduced parking standards in downtown and areas served by transit.

Of the smaller incorporated communities, the Villages of Slocan and Salmo each contain specific policies directing improvement and expansion of existing transit services.

Overall, general trends of the municipal OCPs highlight transit as an alternative to the private automobile and as a means of reducing Greenhouse Gas emissions, policies that support the continued improvement and expansion of transit, bus shelters and crosswalk, and policies that promote transit-oriented and pedestrian-friendly developments.

#### *Electoral Area OCPs*

Each of the Electoral Area OCPs contains multiple policies in support of transit service. Almost all Electoral Area OCPs provide direction for pedestrian friendly development integrated with transit and high density and suburban residential areas.

Specific directives in support of transit are found in the OCPs of:

- Electoral Area E - supports investigating and establishing public transit options for Harrop and Procter as well as considers the provision of reduced parking in lieu of providing additional amenities to facilitate other modes of transportation such as walking, cycling, and transit loading areas in keeping with existing rural form and character.
- Electoral Area E –suggests consideration of modes such as transit for any Residential Cluster Development Permit Area locations.

- Electoral Area J – support for transit services to accompany future development proposals in Ootischenia

### **Service Priorities identified in in Previous Plans**

The 2012 Central Kootenay Service review set out the initial restructuring vision for the transit services of the West Kootenay, identifying the hierarchy of routes that remains heavily relevant today. The subsequent 2012 Nelson & Area Transit Recommendations and 2012 West Kootenay Master Plan leverage heavily from the service proposals contained in the 2012 Central Kootenay Plan.

To date, since the restructure of West Kootenay Transit and consolidation into one riders guide in 2013, the most notable service expansions occurred in 2015 and 2017 and consisted of about 1,000 hours and 1,800 hours respectively. These expansions, representing a service increase of about nine per cent, improved schedule adherence and advanced some priorities contained in preceding plans. The majority of mid-term service improvements from the 2012 plans are still unrealized.

A full summary of all proposed service priorities contained within the Central Kootenay Service Review (2011), the Nelson and Area Transit Recommendations (2012), and the West Kootenay Master Plan (2012) is contained in **Appendix A – Status of Priorities from Past Plans**.

The following outlines service changes that have occurred since 2013:

#### **Service:**

- 1 Uphill, Saturdays: Service span has increased in the morning from 8:45 a.m. to 8:17 and in the evening from 7:04 p.m. to 7:52 p.m.
- 2 Fairview, Weekdays: one additional short-turn round trip added in the morning
- 2 Fairview, Saturday: Evening service span increase from 7:24 p.m. to 7:52 p.m.
- 3 Rosemount, Saturday: Service span decrease in the morning from 7:48 a.m. to 8:17 a.m. and increase in the evening from 6:46 p.m. to 7:15 p.m.
- 10 North Shore, Weekdays: One additional morning round trip added at 7:15 a.m.
- 10 North Shore, Saturdays: Removal of the 12:53 short-turn midday trip
- 10 North Shore, Weekdays: One additional afternoon one trip departing Nelson at 3:39 p.m. and an increase in the service span from 4:29 pm to 6:32 pm.
- 15 Perrier: Created – operates on Mondays and Wednesdays.
- 20 Slocan, Weekdays: One additional morning trip added at 7:07 a.m.
- 99 Kootenay Connector, Weekdays: Two additional round trips added at 8:04 a.m. and 4:19 p.m.
- 99 Kootenay Connector, Saturdays: Service extended from Playmor Junction to Castlegar.
- 31 North Castlegar Saturdays: Service Introduced
- 32 Columbia Saturdays: Service introduced
- 33 Selkirk: Service Introduced

- 72 Salmo: Service days increased from two to three per week; trips per service days increased from 2 round trips to three round trips.
- 76 Kaslo Balfour/Nelson: Service days increased from two to three per week;

#### Infrastructure:

- Development of a new Downtown Nelson Transit Exchange (underway)
- Balfour Ferry Terminal Improvements (underway)
- Park'n'Ride locations along Route 10 and 20
- New Transit Shelters



Figure 7: The three previous plans which form the precursors to this Transit Future Service Plan (TFSP)

## 3.4 Existing Transit Service

The West Kootenay Transit System serves communities throughout the plan area. Figure 5 following outlines the existing transit system.

### Conventional Transit

The fixed-route system is divided into regional connector routes 99 Kootenay Connector and 98 Columbia Connector and four other areas:

- Nelson and Area: Nelson, Balfour, Blewett
- Slocan and Area: Playmor Junction, Passmore, Winlaw, Perry sliding, and Slocan City
- Castlegar and Area
- Trail and Area: Trail, Rossland, Fruitvale.

Table 4 following outlines the conventional routes operating in the West Kootenay Transit System. These conventional routes serve approximately 76,100 rides<sup>1</sup> per month with about 39,000 annual in-service hours.

### Paratransit

Flexible service paratransit (shaded grey in figure 5 following) connects rural communities with one another and to the conventional fixed-routes. In smaller, more rural areas, paratransit may fulfill the role of both conventional and custom service. Service is provided on request, customers call to book.

The paratransit service area extends from:

- Nakusp as far as the Nakusp Hot Springs, New Denver, Silverton, and Edgewood
- Kaslo as far as Argenta

These paratransit routes serve approximately 300 passengers per month with about 880 annual in-service hours.

### Health Connections Routes

The routes shown in purple and numbered in the “70s”, as well as substantial portions of the 99 Kootenay Connector and the 98 Columbia Connector are funded by Interior Health to enable access to non – emergency medical services that are not available in smaller rural communities. Health Connections Routes funded by Interior Health connect Salmo, Nakusp and Kaslo to Nelson. Medical appointments have priority, however everyone is eligible to use this service if space is available. Service is provided on request, customers call to book.

These routes serve approximately 1200 passengers per month<sup>2</sup> with about 1900 annual in-service hours. Table 4 provides an overview of the routes operating within the West Kootenay Transit System.

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<sup>1</sup> Nelson and Kootenay Boundary transit monthly rides are based on APS divided by 12; Kootenay Lake West portions of Routes 10, 20, and 99 rides are based on rides per hour, and hours provided.

<sup>2</sup> Ridership estimate is averaged from ridership in October, November, December 2019 and January 2020

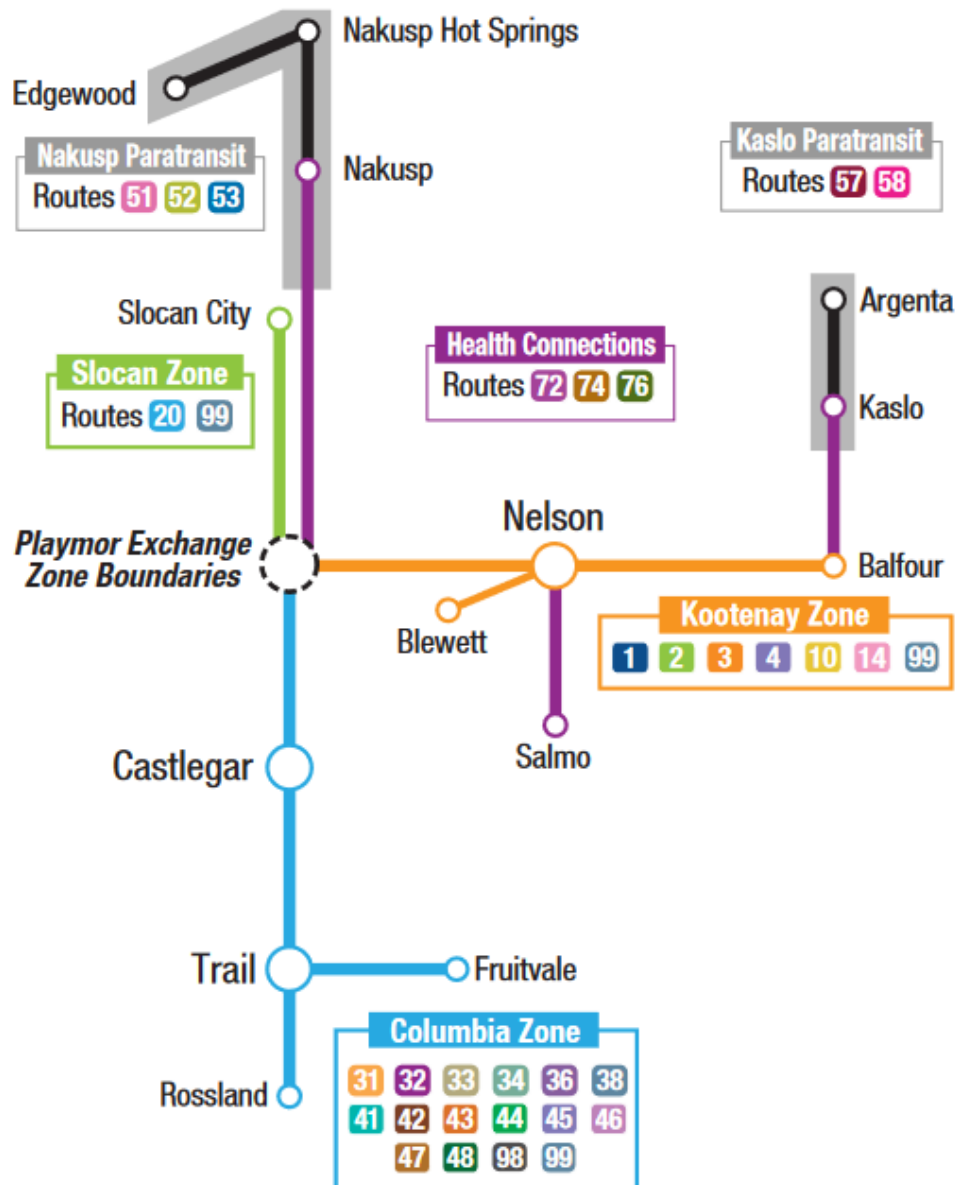


Figure 8 Existing West Kootenay Transit System. The system is divided into zones reflected by different colours. See table 4 below for a description of each route.



Route*	Riders Guide Zone Area	Connects	To
1 Uphill (6)	<b>Kootenay Zone</b> City of Nelson and surrounding Areas E and F	City of Nelson	City of Nelson
2 Fairview (6)		City of Nelson	City of Nelson
3 Rosemont (6)		City of Nelson	City of Nelson
4 Nelson Airport (6)		City of Nelson	City of Nelson
10 North Shore (6)		Area F (North Shore, Six Mile, Balfour)	City of Nelson
15 Perrier (3)		North Area G (Perrier Rd)	City of Nelson
14 Blewett (5)		Area E (Blewett)	City of Nelson
99 Kootenay Connector**		Nelson ↔ Playmor Junction ↔	Castlegar
20 Slocan Valley (6)	<b>Slocan Zone</b> South Slocan	South Slocan Valley (Slocan, Winlaw, Lemon Creek)	City of Nelson
31 North Castlegar (6)	<b>Columbia Zone</b> City of Castlegar and surrounding Area I and Area J	City of Castlegar	City of Castlegar
34 Kinnaird/Southridge (6)		City of Castlegar	City of Castlegar
32 Columbia (6)		Area J (Robson, Rosebery)	City of Castlegar
33 Selkirk (6)		Area J (Selkirk College) & Castlegar Airport	City of Castlegar
36 Ootischenia (5)		Area J - Ootischenia	City of Castlegar
38 Playmor* (2)		Area I - Pass Creek, Krestova	City of Castlegar
98 Columbia Connector**		Trail ↔	Castlegar
51 Nakusp Hotsprings (1)	<b>Nakusp Paratransit Zone</b> North Slocan, Nakusp & Area K	Village of Nakusp	Municipal Hotsprings
52 Nakusp/Slocan (1)		Nakusp & North Slocan Valley	Village of Slocan
53 Nakusp/Edgewood (1)	<b>Kaslo Paratransit Zone</b> Kaslo and Area D	Area K - Edgewood	Village of Nakusp
57 Kaslo/Local (1)		Village of Kaslo	Village of Kaslo
58 Kaslo-Argenta (1)		Area D (Argenta)	Village of Kaslo
72 Salmo/Nelson (3)	<b>Health Connections</b>	Salmo, Ymir & Area G	City of Nelson
74 Nakusp/Nelson (2)		Nakusp & Slocan Valley	City of Nelson
76 Kaslo/Balfour/Nelson (3)		Kaslo & Area D	City of Nelson

\* (in brackets) refers to the number of days of the week that the route operates

\*\* funded in part by Interior Health as part of the Health Connections Program

*Table 4: Route Summary of the West Kootenay Transit System; the colours correspond to the zones shown in figure 8 (above). Routes within the Trail and Area Service Review are excluded.*

## Custom Service Area

Custom transit is a door-to-door, demand responsive or specialized service for customers with physical or cognitive impairments who cannot independently use the conventional transit system some or all of the time. The plan area contains three different models for delivering custom and custom-like transit as follows:

- In Castlegar, custom transit service is delivered as a dedicated service, operated by Trail Transit. Taxi Supplement service is also available. The operating agreement for Castlegar Custom transit is combined with the Trail and Area custom transit. Hours of service are weekdays from 08:00 to 16:00
- Within the City of Nelson, Village of Nakusp, and Village of Kaslo a handyDART-like transit is fulfilled by Arrow and Slocan Lakes Community Services as a function of the Kootenay Lake West Paratransit system. Hours and availability of service are linked to the Paratransit route hours
- In the Slocan Valley, Kootenay Lake Area, and Salmo area, as well as the approaches to Nelson, a variant of Custom transit is delivered by Arrow and Slocan Lakes Community as a function of Health Connections service. Hours and availability of service are linked to the Health Connections service.

## Transit Operations

Funding for the West Kootenay Transit System is cost shared between the Regional District of Central Kootenay, Regional District of Kootenay Boundary, City of Nelson and BC Transit. Health Connection services are provided by the Interior Health Authority.

The transit system has three operators working collaboratively to deliver the transit services. These companies are:

- City of Nelson – a municipal transit operator
- Arrow and Slocan Lakes Community Services Society (ASLCS) – a contracted not-for-profit operator based in Nakusp BC
- Trail Transit - a contracted commercial transit operator

Since the integration of the transit service in 2013 the provision of service on routes 1, 2, 10 and 99 is shared between the City of Nelson and ASLCS. Table 5 shows the specific breakdown of how each route within this plan is provided based on the number of trips and also the operating hours.

Route	Weekly service		Operating Company (per cent hours)		
	Total Hours	Total Trips	City of Nelson	ASLCS	Trail Transit
1 Uphill (6)	45.15	133	72%	28%	0%
2 Fairview (6)	74.72	135	97%	3%	0%
3 Rosemont (6)	40.07	120	100%	0%	0%
4 Nelson Airport (6)	4.80	32	100%	0%	0%
10 North Shore (6)	84.15	98	47%	53%	0%
15 Perrier (3)	1.60	6	0%	100%	0%
14 Blewett (5)	22.25	20	0%	100%	0%
20 Slocan Valley (6)	55.27	58	0%	100%	0%
99 Kootenay (6)	100.85	162	46%	54%	0%
31 North Castlegar (6)	32.95	114	0%	0%	100%
34 Kinnaird/Southridge (6)	25.43	58	0%	0%	100%
32 Columbia (6)	23.70	86	0%	0%	100%
33 Selkirk (6)	30.53	139	0%	0%	100%
36 Ootischenia (5)	8.35	15	0%	0%	100%
38 Playmor* (2)	5.00	4	0%	0%	100%
51 Nakusp Hotsprings (1)	1.33	2	0%	100%	0%
52 Nakusp/Slocan (1)	5.10	2	0%	100%	0%
53 Nakusp/Edgewood (1)	5.25	4	0%	100%	0%
57 Kaslo/Local (1)	1.08	2	0%	100%	0%
58 Kaslo-Argenta (1)	4.50	2	0%	100%	0%
72 Salmo/Nelson (3)	14.76	18	0%	100%	0%
74 Nakusp/Nelson (2)	9.00	4	0%	100%	0%
76 Kaslo/Balfour/Nelson (3)	13.43	18	0%	100%	0%

Table 5 Distribution of routes considered within this TFSP by operators and hours

## 3.5 Population Characteristics

Population and economic growth over the last several years, particularly in the Castlegar area suggests opportunity to continue to grow local transit ridership.

A comprehensive review of the population metrics across the communities is provided in **Appendix B – Population Characteristics**. The following provides a summary of the key transit relevance elements which are used to inform the development of transit priorities.

### Population Change

Residents of urbanized areas such as cities, towns and villages typically have a lower dependency on motorized means of transportation as destinations within urbanized areas have a higher likelihood of being within walking or cycling distance.

The review of the population metrics between 2011 and 2016 indicates strong growth of the population in the West Kootenay rural areas. This growth means that there is comparable increase in motorized transportation demand including transit.

Census data confirms that the rural areas including Winlaw and nearby areas of the South Slokan Valley experiencing the highest growth also have the highest transit mode share.

### International Student Population

One of the strongest transit ridership markets across British Columbia are international students. International student populations are not captured in census figures, but rapid changes in their numbers has implications for transit demand. A review of International student growth in the West Kootenay indicates:

- Transit service to Selkirk College was designed for transit demand generated by the market in 2013, the market has grown therefore service changes should ensue
- The overall transit mode share of residents of the plan area is low – among 1,000 new residents, thirty to eighty will be transit customers. In contrast the mode share of international students is considerably higher with 93 per cent of international students reporting transit use three or more days per week. Consequently for each 1,000 international students added to the plan area, it is estimated that about 930 will be transit customers
- The largest Selkirk campus, which also has the highest proportion of International students, is located outside of the urban fabric of Castlegar and is accessed through motorized means by 95 per cent of survey participants. International students without vehicles are highly likely to become transit passengers
- The rapid increase in student travel paired with modest additional investment in the 99 Kootenay Connector and 98 Columbia Connector has led to critical overloads on these routes.
- Routes serving the largest Selkirk campus are significantly funded by Interior Health and the overloads challenge has disrupted travel of all purposes, including medical travel for community members attempting to reach Trail hospital.

## **Age Distribution**

Communities with high proportions of seniors typically show ridership patterns oriented to shopping, medical needs and social outings. These normally occur in the middle of the day in contrast to work or school-oriented travel. The existing Paratransit and Health Connections service design in Kootenay Lake and North Slokan, Nakusp and Area K has a good alignment with the older population's needs by providing daytime service as well as connections several days per week to larger centres.

Conversely, communities with higher proportions of children and youth show ridership patterns oriented to school, work and after-school activities. These normally occur in the peaks of the day, and somewhat into the evening. The existing transit service design in the South Slokan Valley has good alignment with these typical patterns.

In contrast, the Salmo Area, which also has a higher proportion of children and youth, has a service design similar to that offered in the demographically older areas of Kootenay Lake, North Slokan and Nakusp. There is an opportunity to consider service design in the Salmo Area which addresses the needs of the children and youth also.

## **Labour Force Participation**

Due to the consistent nature and regular times the journey to work represents a trip type that is most easily accommodated by transit. Areas with higher labour force participation, such as the Nelson Area have excellent transit potential for work purposes.

Communities with high proportions of labour force participation typically show ridership patterns oriented towards peak travel times. The existing local transit service design in the areas with higher labour force participation has good alignment by operating daily with trips ranging from early morning to evening. Additionally, routes serving Nelson and Area operate good evening and night service.

Conversely, communities with low proportions of labour force participation typically show ridership patterns oriented to shopping, medical needs and social outing – features that correlate with high proportions of seniors. These activities normally occur in the middle of the day and less consistently in contrast to work-oriented travel. The existing Paratransit and Health Connections service design in Kootenay Lake and North Slokan has a good alignment by providing daytime service as well as connections several days per week to larger centres.

## **3.6 Travel Patterns**

### **Mode Share**

Statistics Canada current transit mode share for the journey to work is variable across the region. Figure 9 following shows mode share by community types. Whilst the automobile mode shares of residents of incorporated communities is lower and access to transit (in Nelson and Castlegar) is better than the rural areas, the transit mode share of residents in larger centers is two per cent – lower than the three per cent of residents living in designated places in the rural areas. Residents of designated places had highest transit mode share, averaging three per cent, but reaching as high as 20 per cent (in Winlaw).

Figure 10 following shows mode share by geographic area. The area with the highest transit mode share at three per cent is the South Slokan Valley, the lowest mode share is the Kootenay Lake Area.

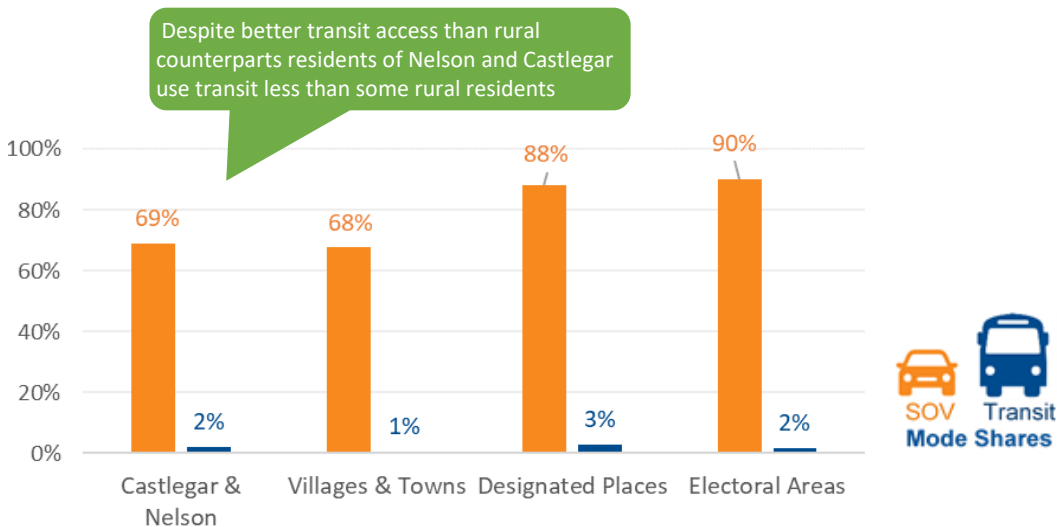


Figure 9: Journey to Work Mode Share by Community Types served by West Kootenay Transit.  
Source: 2016 Census, Statistics Canada

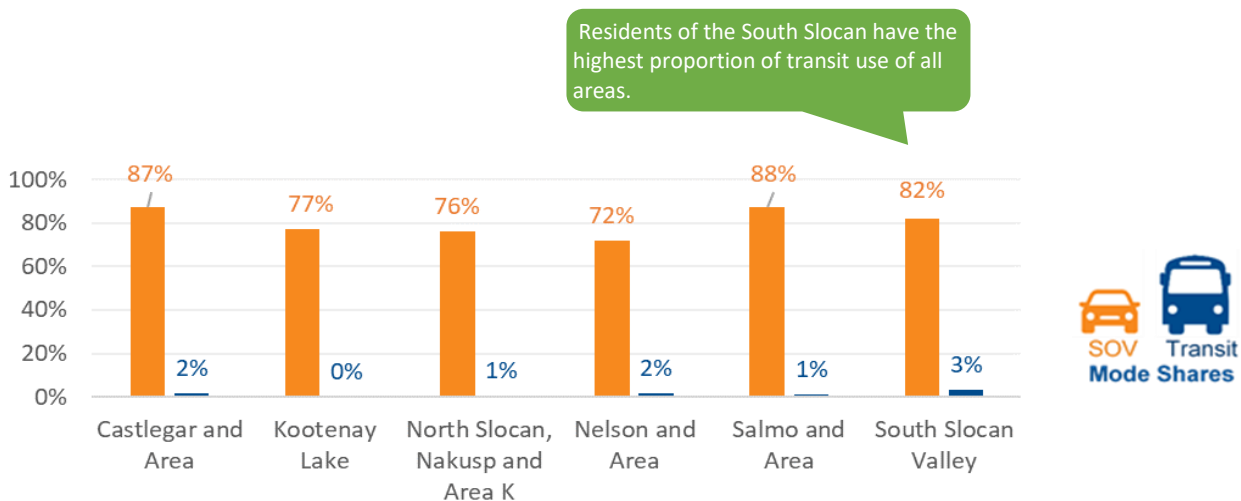


Figure 10: Journey to Work Mode Share by Geographic Area served by West Kootenay Transit.  
Source: 2016 Census, Statistics Canada

Based on Mode share statistics the following outlines considerations for the development of transit strategies moving forward:

- A high labour force participation and good transit access within Nelson creates conditions favorable to transit use. Further examination of incentive programs such as employer pass programs for urban areas is strongly suggested

- The City of Nelson is eager to manage parking demand in the downtown core; mode shifting more of the city's downtown employees to transit from the automobile can assist with alleviating the demand
- The location of larger Selkirk campuses outside of the downtown of Nelson and Castlegar is an opportunity to improve inbound ridership to these respective downtowns from residential areas near the campuses.

## Commuting Destination

Figure 11 shows a high proportion of Castlegar residents who commute outside of their census sub division (CSD) 38%, this represents an excellent opportunity to continue to grow transit mode shares by leveraging the regional connector services in the outbound direction from Castlegar.

The communities within the plan area show a high degree of connection with travel frequently occurring between them.

In the RDCK, 54 per cent of residents commute outside of their CSD for work. The proportions of commutes outside of their CSD for those living in larger centers are lower than the overall RDCK. Residents of Nelson, the largest center within the transit system, and located north of Trail and Castlegar commute the least outside of their municipality for work, 19 per cent . Residents of Castlegar, situated equidistantly between Nelson and Trail, has nearly twice as many residents as Nelson whom commute outside their municipality work at 38 per cent.

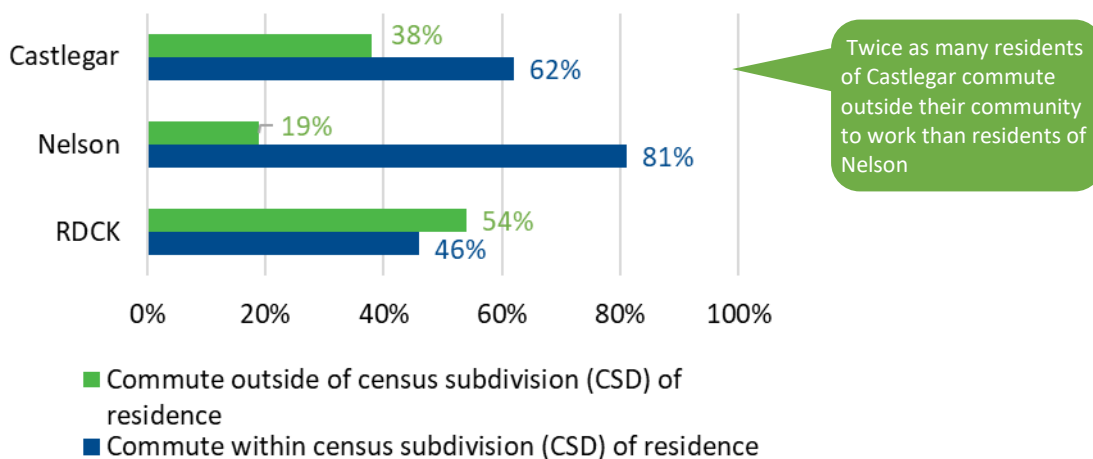


Figure 11: Commuting destination for the employed labour force aged 15 years and over in private households – 25% sample data Source: 2016 Census, Statistics Canada

## Travel Time

Figure 12 shows that over 72 per cent of residents of Designated Places and Electoral Areas experience commutes longer than 15 minutes; this compares to 45 per cent among their counterparts in Castlegar and Nelson, and in the villages and towns.

Figure 13 shows that across the geographic areas of the plan about 80 per cent of residents in the Slokan Area and South Slokan experience commute times greater than 15 minutes.

Residents of the Salmo Area share a very similar travel-distance profile to residents of the South Slokan, however do not have access to weekday commuting transit options.

Supporting non-auto transportation in the faster growing South Slokan Valley means that further improvements to transit are warranted.

In the future, incentivizing and accommodating further population growth within Castlegar, Nelson or within the villages and towns may reduce the need for longer-duration and energy-intensive travel.

People who experience longer durations of travel are more likely constrained to motorized modes of transportation. This potentially makes transit a more competitive option than other non-auto modes.

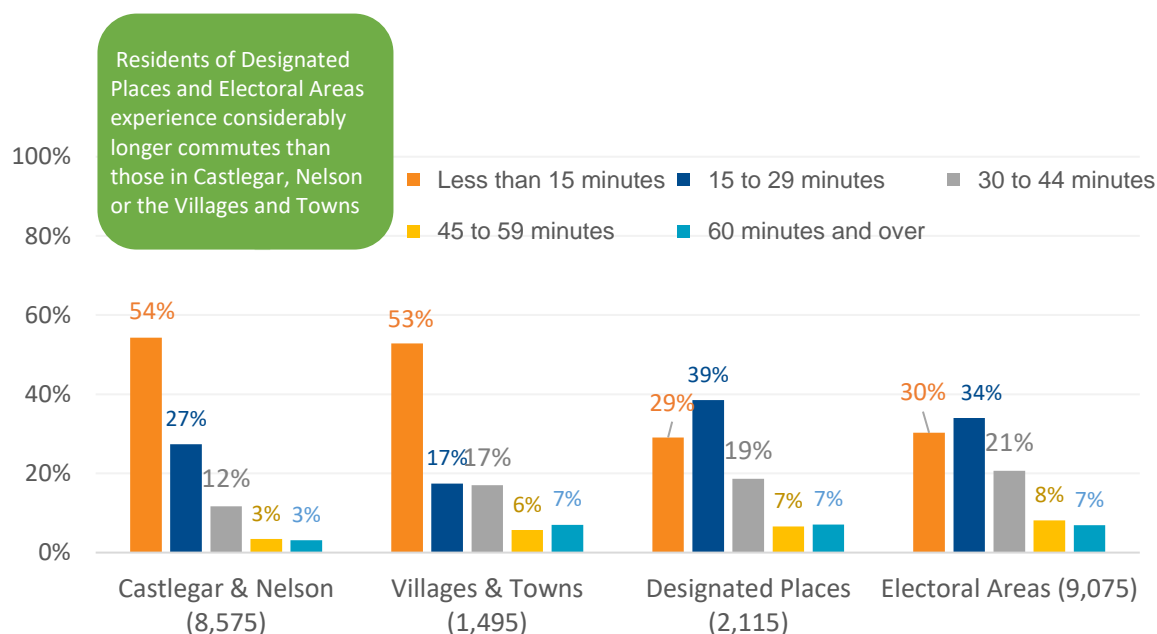


Figure 12: Travel duration by Community Types served by West Kootenay Transit. Source: 2016 Census, Statistics Canada

Salmo and Area and South Slokan display strikingly similar travel time profiles – with nearly 80 per cent of residents travelling longer than 15 minutes to their destination. Salmo does not have access to regular transit.



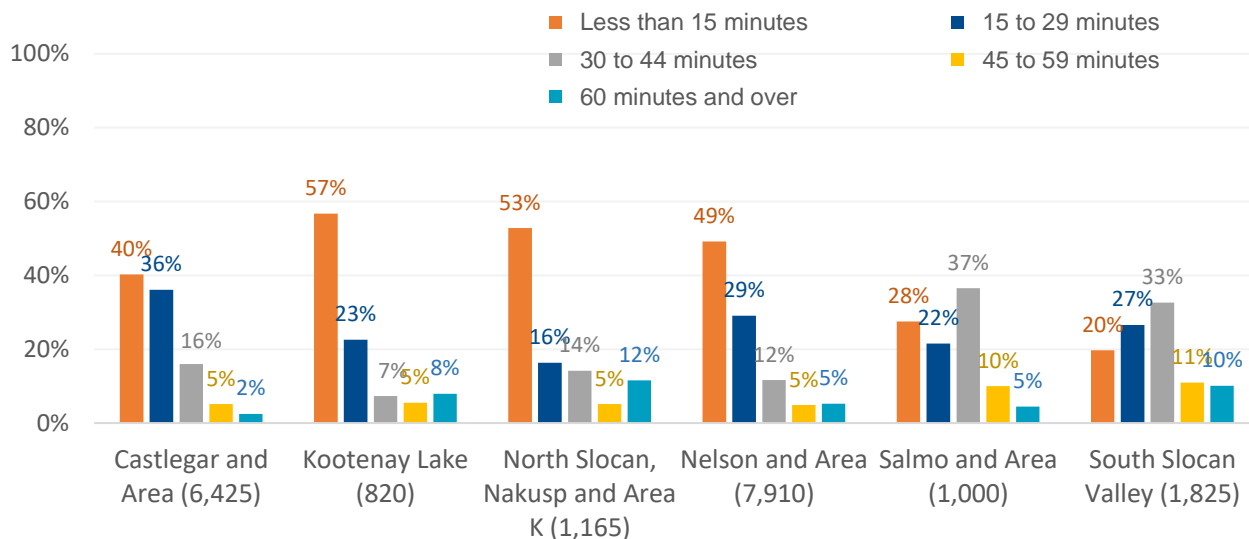


Figure 13: Travel duration by Geographic Area served by West Kootenay Transit. Source: 2016 Census, Statistics Canada

### 3.7 Land Use

Transit-supportive land use is critical for the success of the transit system and, conversely, transit must be integrated with land use in order to best serve community members. Understanding where future population and employment growth is anticipated is critical for effectively planning transit service investment.

The following section provides an overview of the Land Use plans of the two cities, Nelson and Castlegar, covered by this plan and highlights areas of new or intensifying development activity. Although the majority of residents in the plan area live outside of the two cities, the breadth, and relatively low population densities prevent an exhaustive review of all development activity.

#### Residential Development - Nelson

In spite of challenging terrain, Nelson has continued to see residential intensification, especially in the downtown core. Figure 14 below shows recently constructed and under development residential and mixed-use buildings are located at 710 Vernon (Nelson Commons), 43 Hall (Hall Street Place); 514 Victoria Ave and at 805 Nelson Ave (Lakeside Place). Newer areas of townhouses and detached dwellings include Nelson Landing and Fairview Heights. The largest near term development area is Granite Point, a master planned community located on the edges of the Granite Point golf course in Rosemount. In addition to approximately 300 new dwellings Granite Point is expected to introduce a small commercial district to Rosemount.

Nelson also has brownfield sites with high redevelopment potential such as the Railtown area immediately west of Baker Street and former Kutenai Landing lands along Lakeshore Drive.

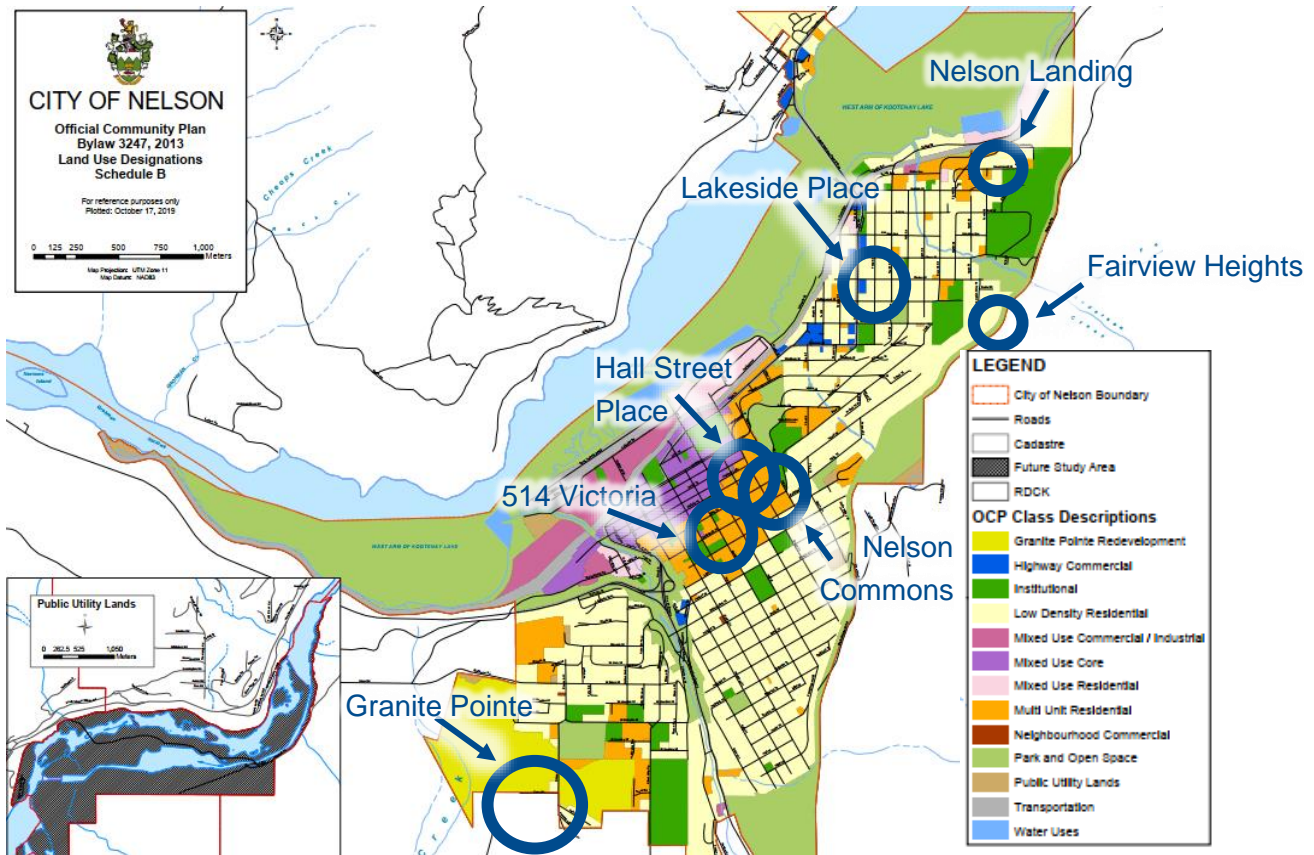


Figure 14: City of Nelson OCP Land Use Designation Map

Like Nelson, Castlegar is heavily defined by geography; however it is the banks of the Columbia River rather than steep slopes which are the primary constraint. A moderate terrain, greater housing affordability, and a central location has made Castlegar and the closest areas of Electoral Area I and J an attractive location for residential growth. BC Statistics population projections for the Castlegar Health Area estimate a population growth of 18% in the coming 20 years.

Figure 16 following shows major residential developments occurring in Castlegar are located at 100 18th St (Columbia River Estates); 3805 Columbia Ave (Twin River Estates), and ongoing development in Grandview Heights. The nearby unincorporated community of Ootischenia also has a large subdivision under development at 1375 Columbia Road (Elkview Estates); while a large condo development at Syringa Creek was completed in Robson (The Waterfront).

With increasing development within Castlegar, which also has high labour force participation there is a strong rationale to create greater consistency in local transit service between the Castlegar local system to that already found within Nelson and Trail.



Figure 15: Castlegar Transit Exchange at the Castlegar and District Community Complex



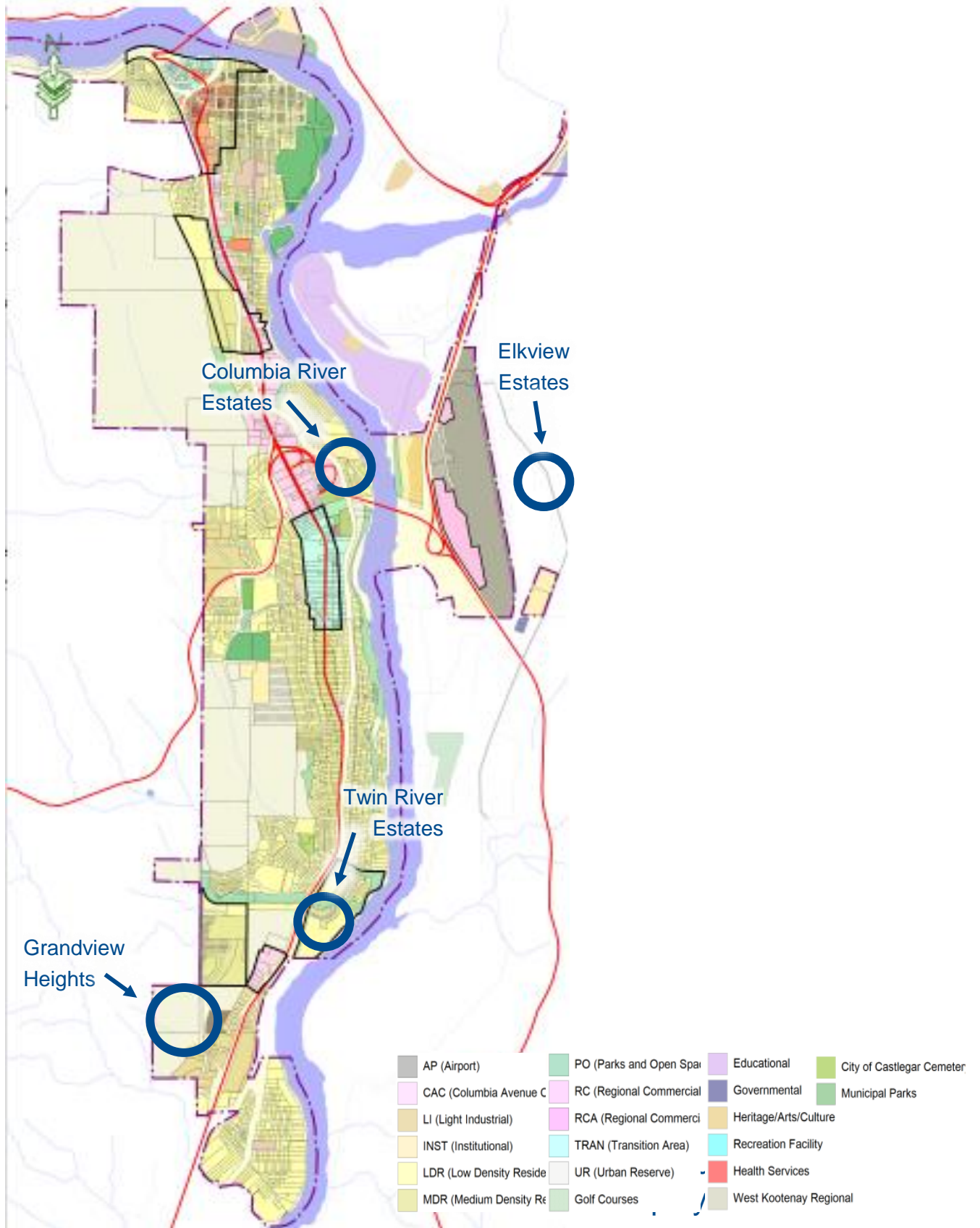


Figure 16: City of Castlegar OCP Land Use Designation Map

## Education: Selkirk College

Selkirk College is a prominent local institution, and a significant source of year-round student population, associated student spending, and student employees.

Of Selkirk College's eight campuses or learning centres, the four key campus locations within the TFSP plan area: One outside of Castlegar, and three within Nelson – 10th Street, Silver King, and Downtown. The near-Castlegar location is ample, but access to and from the campus is significantly hampered by an absence of pedestrian connectivity west across the Columbia River to the urban core of City of Castlegar.

Each campus offers a different selection of programs

- Castlegar-Area Campus  
University Business, and University Arts and Science Programs
- City of Nelson  
Tenth Street Campus: Hospitality and Tourism, Music, Web Development,  
Silver King: Industry and Trades  
Downtown: Fine Arts

## Major Employers

In addition to Selkirk College, major employers operating within the West Kootenay Transit System (based on employment) include mining refinery (Teck, Trail operations), the lumber industry (Interfor, Celgar, Kalesnikoff, Atco), hydroelectric providers (Fortis BC) seniors residential care (Golden Life). Other key sectors of employment include the retail trade and accommodation - however these are associated with smaller businesses and employers.

Heavy industry is typically not a strong transit market, but retail and services sectors are.



*Figure 17 The largest of the Selkirk College Campuses, located across Columbia River from the core of Castlegar*

# 4. PUBLIC ENGAGEMENT SUMMARY

Development of the transit priorities for this plan were supported by a comprehensive public engagement platform delivered in three phases. Each phase included events developed for different audiences, various tools to solicit input and feedback, and opportunities for one-on-one conversations with project staff. Engagement is critical in providing transit staff with insights into community priorities and needs to enable the further shaping of service.

Phase 1 was comprised of targeted transit partner and stakeholder engagement through a series of workshops and meetings held from April to August 2019. Phase 2 consisted of a series of open houses held throughout the region at the end of November 2019 and supported by a comprehensive online survey. Phase 3 was comprised of student-focused campus engagement events held in collaboration with Selkirk College staff in January 2020.

In total 1,600 people participated in the consultation. The majority (67%) completed online surveys, while over 500 people attended scheduled events. See **Appendix C West Kootenay Transit TFSP Engagement Report**.

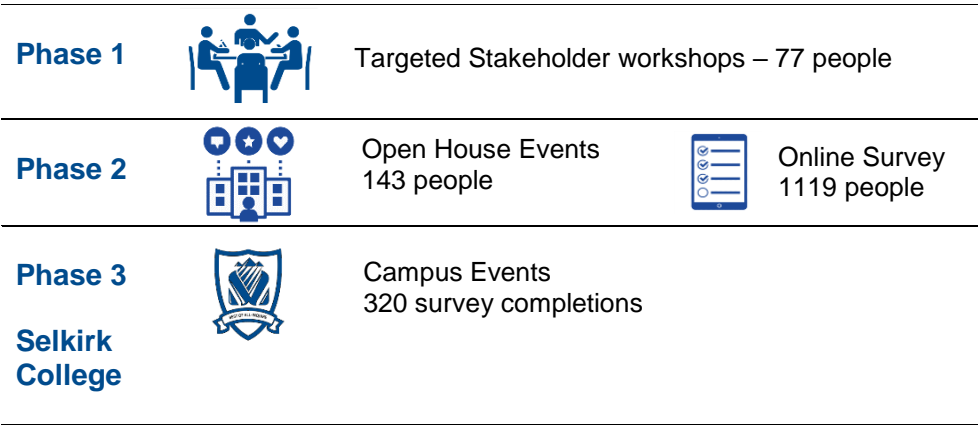


Figure 18: Public engagement participation summary

## 4.2 Phase 1

In most Transit Future engagement processes, stakeholder participants are invited to meetings held in a few key locations within the community that the transit system corresponds to however, the West Kootenay Transit system spans many broadly dispersed communities across two distinct regional districts. Within the plan area, it is up to two hours of highway driving time between Nakusp and Castlegar. Based on concerns that this distance could impede participation, BC Transit opted to hold meetings across six different communities of the plan area. In addition to these six communities, a supplementary meeting was held with community members of Crawford Bay in response to a request from the Area Director.

BC Transit organized and delivered the workshops with the support and participation of RDCK and City of Nelson staff as well as senior staff from ASLCS and Trail Transit. Invitations were sent to

numerous stakeholder groups spanning elected officials, seniors and community services groups, the business community and college groups among others. In total 77 individuals participated in Phase 1 workshops, with regular transit users well represented.

### **Overall Workshop Findings:**

- The existing regional-scale connections are highly valued by residents across the region and regional-scale connectivity was consistently a higher priority in all sessions than local connectivity.
- Most of the outstanding service development options contained in the Central Kootenay Service Review (2011), West Kootenay Master Plan (2012), and the Nelson and Area Transit Recommendations (2012) are still valid priorities.
- The most pressing difference between these previous plans and current conditions is the rapid growth in passenger demand associated with Selkirk College student travel.
- Following this, there is a strong appetite for more equitable access to transit services throughout communities of the region. This applies to not only the provision of regional-scale service, but also the availability and quality local and handyDART service within communities.

### **Key Feedback**

#### Castlegar and Area:

- The community expressed very strong concern around passenger loading on College-oriented trips and the associated risk of injury or falls to passengers
- There is strong interest in local service improvements for residents of Castlegar needing to move within the community and also to connect to regional-scale routes. Transit-reliant residents are challenged by the short end of the service day on weekdays and Saturdays, and existing Saturday service levels. Suggestions include:
  - Broader service span to 8 pm
  - More service between the Castlegar Community Complex and the Selkirk College
  - Late night service on local routes on Friday and Saturday
  - Desire for improved access to Castlegar for residents of Ootischenia

#### Kootenay Lake:

- There is continued support for two round trips per day between Balfour and Kaslo to access Nelson
- Community members expressed desire to have easy connections to hospitals in Nelson and Trail and frustration that medical appointments made by Interior Health do not take into account the Health Connections schedule.

#### North Slokan

- Desire for fixed timing point at the Community Health Centre in New Denver
- Maintained support and strong desire for improved connections to 20 Slokan and opportunities to go to Nelson for a shorter time



- Requests for quarterly publication of bus schedules in community newspapers. Support for higher service connections between Slocan and Nelson, including weekends
- Interest in local service to support local travel between/within Silverton and New Denver; as well as seasonal connections to Kaslo for social/recreational purposes.

#### Nelson and Area

- Consensus that regional-scale connections are a key priority and strong safety and security concerns regarding overcrowding on the 99 Kootenay Connector
- Concern that regional connections do not adequately serve work trips (evenings, weekends) for those who live outside of Nelson
- Concerns that handyDART service and services for seniors to access regional-scale service are not consistent nor robust enough
- Interest in using transit to improve access to outdoor recreation opportunities such as parks and nearby ski areas such as Whittewater
- Strong interest in transit as a way to manage Green House Gas (GHG) emissions
- Concerns regarding crowding conditions on route 10 North Shore and requests to extend the 4:10 departure from Nelson from ending at Six Mile to Balfour.

#### Salmo and Area

- Very strong desire for basic commuter-level service to meet worker and student travel between Salmo and Nelson
- Interest in connections to Trail via Fruitvale for improved access to medical services.

#### South Slocan Valley

- Support for higher service connections between Slocan and Nelson, particularly for evenings and weekends
- Requests for improved access to and from Castlegar for college and employment purposes
- Concerns that the 20 Slocan schedule does not adequately support after-school or evening activities.



Figure 19: Workshop participants in Nakusp

## 4.3 Phase 2

Phase 2 engagement events introduced participants to draft concepts for corridors in the plan area. Concepts were grouped by sub region and by urban service and regional-scale service. Because the 99 Kootenay Connector and 98 Columbia Connectors play such a key role in enabling access, the draft concepts were provided across multiple boards and as part of multiple sub regions.

Over 1,250 people participated in Phase 2 with the online survey garnering 1,119 responses and 143 people attending open houses. Draft service concepts were well received.

### Phase 2 Open House Key Findings:

#### Regional Connector Service

- Engagement indicated that respondents are most interested in having more service between Nelson, Castlegar and Trail.
- Combining these two routes into a single route between Nelson and Trail with 11 trips per weekday were the highest priorities across both online and in-person engagement participants
- Increasing bus size and adding one more trip to the 99 Kootenay Connector and two more trips to 98 Columbia Connector

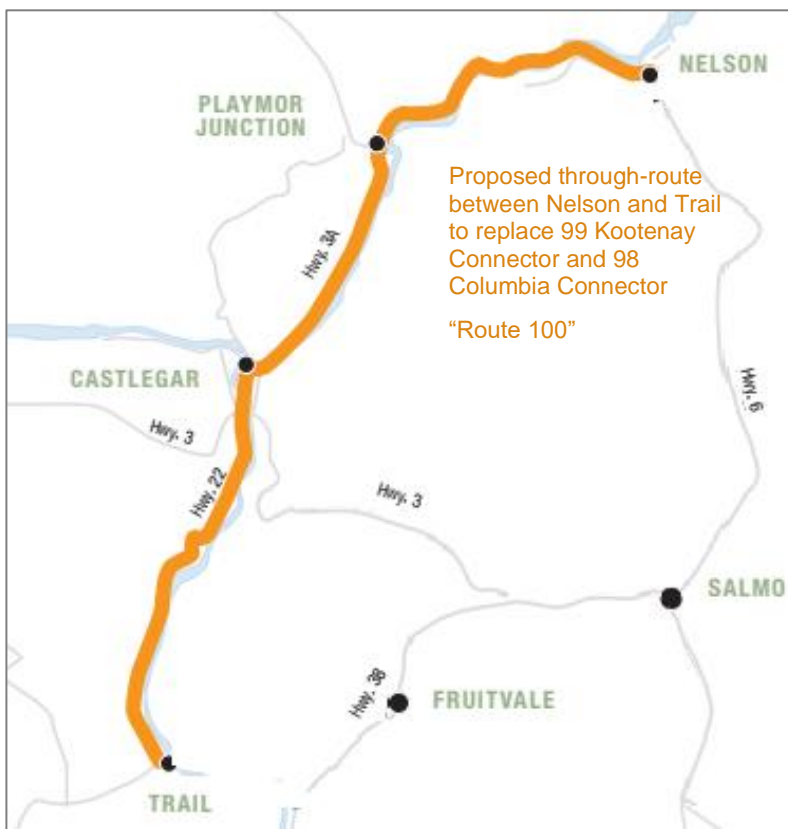


Figure 20: Proposed Combined Regional Connector

### Kootenay Lake, Nelson to Balfour- Route 10 North Shore:

- Extending the 4:04pm trip from Six Mile to Balfour is the highest priority for this corridor
- An additional mid-morning weekday trip, and better Saturday service (later) were also requested

### Kootenay Lake, Kaslo to Balfour- Route 76 Kaslo, Balfour, Nelson:

- Introducing additional service between Kaslo and Balfour, connecting with Route 10 on Monday and Friday is the highest priority for this corridor.
- More direct service between Kaslo and Nelson
- New service between Nelson and Procter

Figure 21: Kootenay Lake Routes from Nelson to Argenta, including a proposed seasonal limited service route between Kaslo and the Slocan Valley



### South Slocan - Route 20 Slocan

- Trips timed to connect with the 99 Kootenay Connector trips at Playmor Junction for travel to/from Castlegar/Trail is the highest priority for this corridor
- Introduce evening service on Friday and Saturday and introducing 3 round trips on Sunday are also very high priorities for this corridor

### North Slocan and Nakusp & Area- Route 52 Nakusp/Slocan

- Introducing service between Nakusp and Slocan on Monday and Friday is the highest priority for New Denver and Silverton Paratransit
- Introducing a new route between New Denver/Silverton and Kaslo is a higher priority than introducing service between New Denver and Silverton

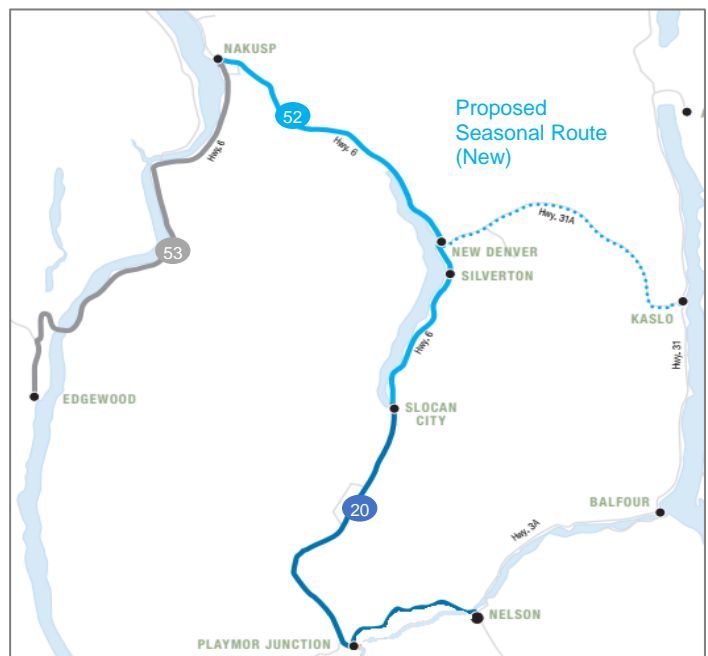


Figure 22: Slocan and Nakusp Routes

### Salmo to Nelson via Ymir Perrier Rd

- Achieving 3 round trips per day on all weekdays is the highest priority for this corridor
- Further improvements between Salmo and Nelson are higher priorities than having through service to Trail
- Have a stop at Nelson Waldorf School
- Requests for high-contrast large print schedule information for customers with visual impairments
- Once service is added on Mondays and Wednesdays monthly bus passes should be accepted on all trips, across all five weekdays

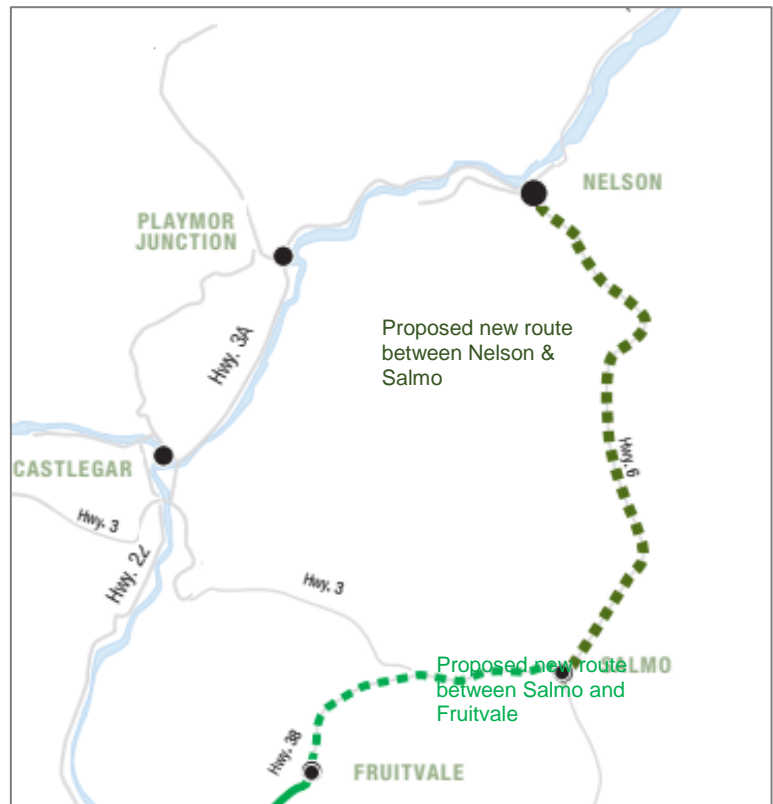


Figure 23: Salmo and Area Routes



Figure 24: Participants at the Phase 2 Open House in Salmo. For the size of the community this was the best attended Open House



## Local Castlegar Service

- Introducing Sunday service and extending weekday service 8:00 pm were identified as the highest priorities for Castlegar.
- From anecdotal comments, this would benefit those who work evenings and weekends, students, and those without other means of transportation.
- Fixing load concerns on route 33 Selkirk and increasing weekday trip frequencies were also identified as high priorities
- Better connections from local routes to the 98 Columbia Connector and 99 Kootenay Connector at the Community Complex
- Increased service to Ootischena

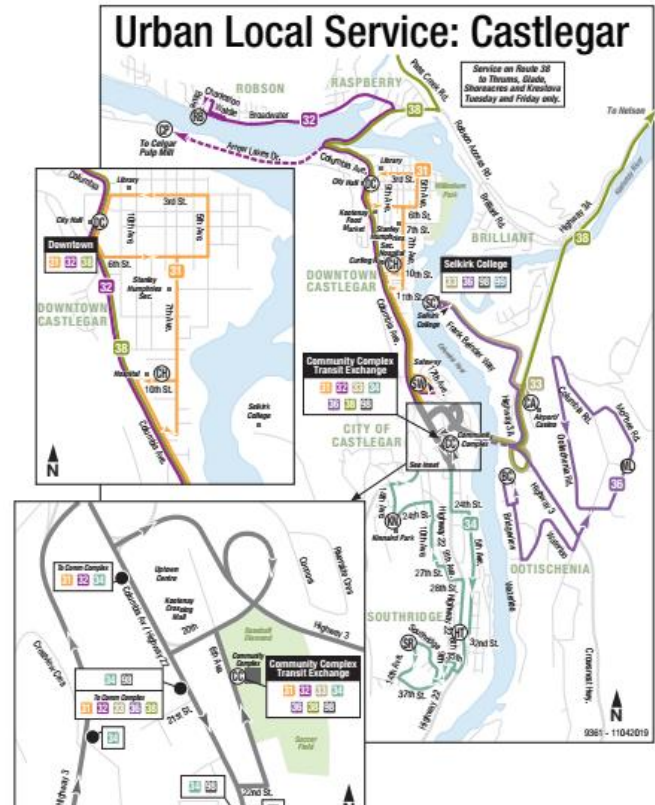


Figure 25: Local Castlegar and Area Transit

## Local Nelson Service

- Aligning Nelson trips with the 98 Columbia Connector and 99 Kootenay Connector is the highest priority for the local service within Nelson. This suggests that many people in Nelson often travel to other communities, and implementing this alignment may reduce capacity issues at the Park & Ride.
- Fixing capacity concerns for routes serving Selkirk College and L.V. Roger Senior Secondary School and introducing Sunday service were also highlighted as priorities. From anecdotal comments, Sunday service would benefit those who work weekends, students, and those without other means of transportation.
- Saturday service for Blewett
- Better connections between routes at Ward Street and Baker Street
- Requests for high-contrast large print schedule information for customers with visual impairments

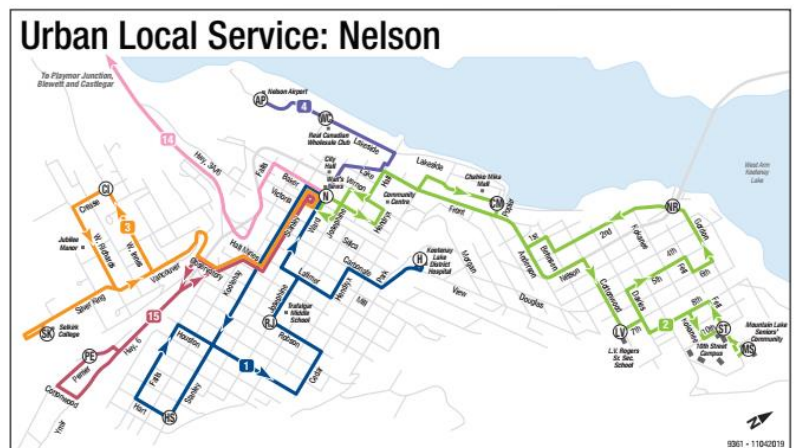
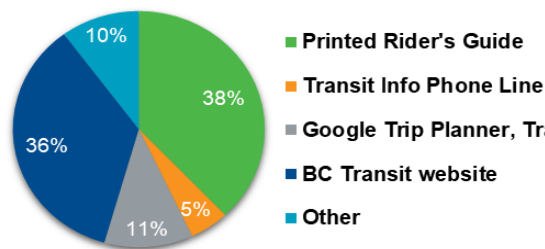


Figure 26: Local Nelson Transit

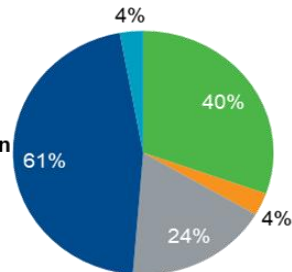
## Transit Information

As part of the engagement, respondents were also asked about their primary source of transit information as well as access to mobile phone service. This will help BC Transit and local government partners more effectively communicate and disseminate information.

*Question posed: What is your primary source of transit information?*



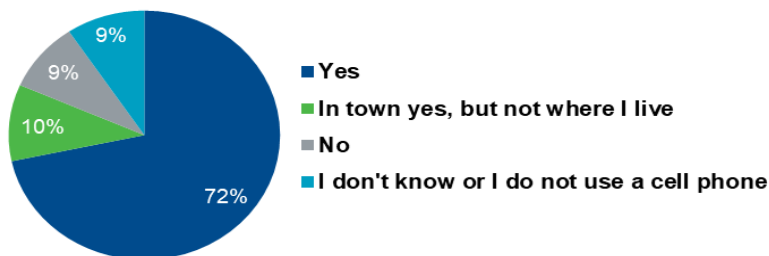
Online Survey, n =1119



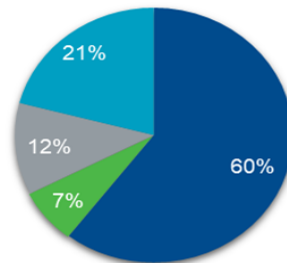
Open Houses, n =143

Among Phase 2 participants 43 to 44 per cent access transit information through traditional hardcopy and telephone means. This figure was consistent between online and open house participants. 36 per cent of online survey participants and 61 per cent of open house visitor's use the BC Transit website while 11 per cent of online survey participants and 24 per cent of open house visitors use Google trip planner or another application.

*Question posed: Is there cell coverage in the areas that you mostly spend time in?*



Online Survey, n =1119



Open Houses, n =143

Among Phase 2 participants, 18 per cent of online survey respondents live in areas without cell phone service or do not use cell phones. This figure rose to 33 per cent among open house participants.

## **Open House and Survey Outcomes**

Based on conversations conducted during the open houses the following items have been added to the plan proposals:

- Feasibility study for transit service connecting Proctor to Nelson
- A recommend future review of the local alignments within Castlegar in advance of any expansion to improve frequency of local routes.
- Strong continued support for non-digital transit information, and written materials which serve people with low vision.

## 4.4 Phase 3

### Selkirk College

Consultation with the Selkirk College community was conducted via targeted on-site events held in the last week of January 2020. This period was selected to avoid exams and reading breaks. Five events across three campuses were organized and staffed in close collaboration with the Selkirk College Sustainability Coordinator. The sessions were advertised using the college social media platforms, posters and through announcements made in classes of various programs.

In addition to reviewing the content presented during Phase 2, participants were encouraged to complete a detailed survey regarding their commutes to and from the college – 320 surveys were collected.

### Key findings

- Almost all students surveyed reside within the coverage area of the West Kootenay Transit System
- 93 per cent of international students surveyed use transit three or more days per week
- 20 per cent of domestic students surveyed used transit three or more days per week
- 68 per cent of international students surveyed are employed
- 24 per cent of domestic students surveyed are employed

#### Castlegar Campus - of students surveyed:

- Two per cent of students walk; three per cent cycle and 95 per cent use motorized means to access campus
- 54 per cent of international students reside in Castlegar, 20 per cent in Nelson; 24 per cent in Trail
- 32 per cent of domestic students reside in Castlegar; 40 per cent in Nelson, and 8 per cent in Trail.

#### Tenth Street Campus – of students surveyed:

- 26 per cent of students walk, none cycle, and 74 per cent use motorized means to access campus
- 100 per cent of international students reside in Nelson
- 80 per cent of domestic students reside in Nelson; 10 per cent in Castlegar.





# 5. TRANSIT SYSTEM PERFORMANCE REVIEW

## 5.2 Ridership over Time

Since 2013 ridership on the West Kootenay Transit System has grown annually by 59 per cent from 586,300 to 933,970.

Figure 27 shows growth has risen most rapidly on the routes served by Trail conventional transit (70 per cent), followed by Nelson conventional (56 per cent) and then Kootenay Lake West (30 per cent).

Figure 28 below shows the change in service hours from 2013 to 2019 in relation to the change in ridership over that same period. Since 2013 service hours have grown from 46,126 to 46,858 in 2019. Growth of ridership in the West Kootenay has outpaced the growth of the transit service and several routes are at critical capacity.

If hours added to the system had kept pace with the growth experienced in ridership, a further 25,500 annual hours in transit service would have been added to the West Kootenay Transit System from 2013 to 2019. Critical capacity and overloads are a risk to transit reliability and deter potential customers from transit. Moving forward it may be helpful to institute a regular expansion schedule in order to reduce risks of critical capacity problems.

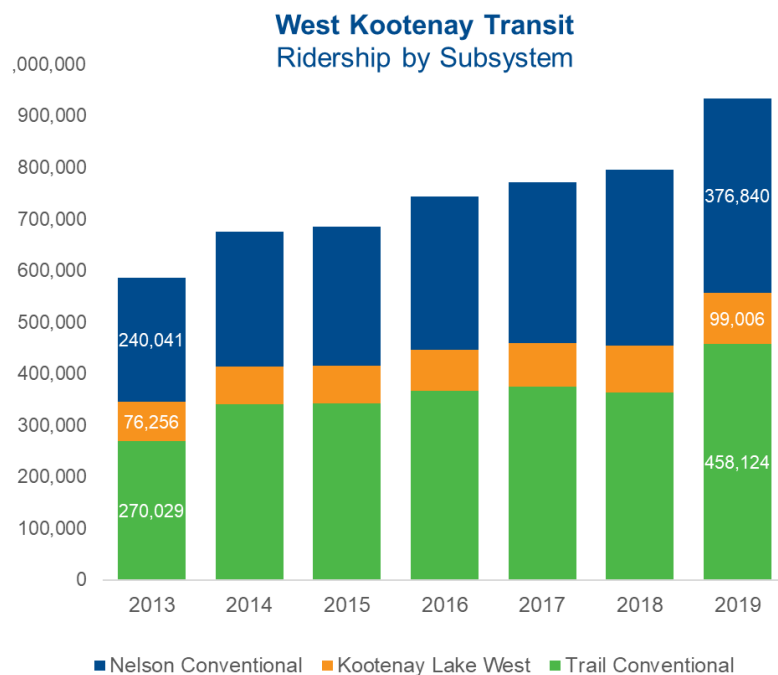


Figure 27 West Kootenay Ridership 2013 to 2019

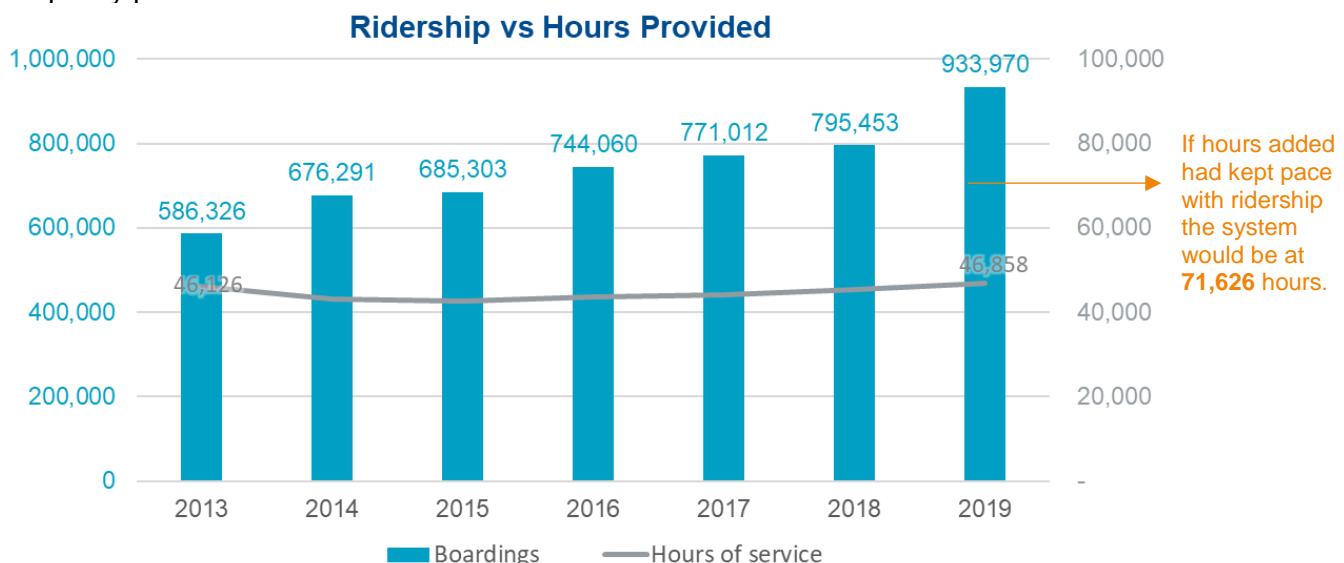


Figure 28 Per Cent Change in Service Hours and Ridership from 2013 levels

## 5.3 Detailed Performance Review

Service Design Standards and Performance Guidelines exist for the West Kootenay Transit System see **Appendix D – Performance Review**. These tools were developed to facilitate future service planning decisions, whether making adjustments to existing service or planning additional service, and measure how the transit system is progressing towards achieving its goals. The following provides a review of the West Kootenay Transit routes and system.

### Route Level Ridership Change

Table 6 below shows an analysis of individual route-level data collected from 2015 and 2019. This indicates that most routes within the West Kootenay Transit System experienced a significant increase in rides per service hour.

The largest magnitude of change among the scheduled conventional routes was in route 99 Kootenay Connector, which more than doubled from 15.3 rides per hour to 32.0 rides per hour. Ridership-based routes also saw a strong increase in rides per service hour. Coverage routes, which primarily serve rural and outlying areas experienced the least change with some showing modest declines in riders per service hour. Targeted Paratransit and Health Connections trips which grew saw a significant increase of over 200 per cent relative to 2015 levels.

Metrics indicated in **red** below show the route is exceeding the performance guideline Target by 150% per cent or more and is a candidate for improved service strategies such as an increase in frequency. Metrics shown in black text indicate the route is operating within the performance guideline.

Regional Connectors					
Route	Boardings per hour			Boardings per trip	
	2015	2019		2015	2019
99 Kootenay Connector	15.3	32.0	+109%	7.5	14.0
98 Columbia Connector	18.4	22.3	+ 21%	11.0	15.0
Target	20.0			15.0	

Black callboxes show the change from 2015 to 2019

Local Or Connecting Transit - Ridership Based					
Route	Boardings per hour			Boardings per trip	
	2015	2019		2015	2019
1 Uphill	15.7	23.2	+ 48%	4.4	8.1
2 Fairview	22.6	40.0	+ 77%	7.5	14.0
10 North Shore	13.8	18.3	+ 33%	10.2	14.7
3 Rosemont	29.9	36.7	+ 23%	10.1	22.1
31 North Castlegar	22.9	23.9	+ 5%	11.0	15.0
33 Selkirk	52.4	64	+ 22%	7.8	18.9
43 Glenmerry/Fruitvale	14.9	12		10.8	6.8
44 Sunningdale	12.9	6.4		5.1	2.1
46 Rossland	12.3	6.8		5.5	3.7
Target	18.0			10.0	

Route 33 is interlined with Route 98, this acts to obscure the ridership on Route 98. A portion of route 33 passengers are actually Route 98 passengers

Black callboxes show the change from 2015 to 2019

Route 33 is interlined with Route 98, this acts to obscure the ridership on Route 98. A portion of route 33 passengers are actually Route 98 passengers

Black callboxes show the change from 2015 to 2019

Local or Connecting Transit - Coverage Based				
Route	Boardings per hour		Boardings per trip	
	2015	2019	2015	2019
14 Blewett	5.3	3.6	2.6	5.3
15 Perrier	N/A	3.6	N/A	3.3
20 Slocan Valley	7.3	7.1	6.4	7
32 Columbia	14.7	12.2	3.2	4
34 Kinnaird	9.4	13.3	3.7	6.2
36 Ootischenia	3.7	2.7	1.8	1.7
38 Playmor	2.8	N/A	3.5	N/A
41 Binns	11	9.4	2.5	3.1
44 Columbia Heights	14.9	8.5	2.5	2
Target	13.0		8.0	
Targeted Transit				
Route	Boardings per hour		Boardings per trip	
	2015	2019	2015	2019
45 Teck	10.9	N/A	3.8	N/A
48 Red Mountain	3.5	N/A	3.0	N/A
Target	20.0		15.0	
Paratransit				
Route	Boardings per hour		Boardings per trip	
	2015	2019	2015	2019
51 Nakusp Hotsprings	1.9	9.2	N/A	6.1
52 Nakusp/Slocan City	2.1	3.8	N/A	9.6
53 Nakusp/Edgewood	4.5	4.8	N/A	6.3
57 Kaslo Local	2.2	12.5	N/A	6.7
58 Kaslo/Argenta	2.7	0	5.8	0
Target:	5.0		3.0	
Health Connections				
Route	Boardings per hour		Boardings per trip	
	2015	2019	2015	2019
72 Salmo/Nelson via Ymir	1.8	5.1	2.9	4.2
74 Nakusp/Nelson	3.5	8.0	N/A	18.0
76 Kaslo/Balfour/Nelson	3.6	6.4	3.4	4.7

Table 6: Route Level Ridership Change 2015 to 2019

### **Transit Performance Review Recommendations:**

- Four of the conventional transit routes are exceeding their targets by more than 150% and are high priority candidates for increases in service frequency. Of these, routes 99, 2, and 33 are of critical concern.
- Two paratransit transit routes, 51 Nakusp Hot springs and 57 Kaslo Local, are exceeding their targets by more than 150% and are high priority candidates for increases in service frequency.
- 58 Argenta is underused. These hours may be more effectively used to accommodate increased local service within Kaslo, or better connections to Balfour.

## **5.4 Service Design Standards**

The service design standards initially created for the West Kootenay Transit System in 2016 reflect the much lower historic ridership of the transit system. The service design standards have been reviewed and amended to reflect the West Kootenay Transit ridership levels, the strong community interest in the regional connector, and resultant connectivity needs to and from local routes.

The transit service priorities identified in this plan will focus on improving local route connectivity to the regional routes and aligning service spans across communities.

The service frequencies contained in the service design standards are also somewhat misaligned with the ridership levels of several routes as well as some goals of the 2012 Service Plans. For example, The Nelson and Area Plan 2012 suggests a long term goal of lifting Routes 1, 2, and 3 to 20-minute frequencies. These three routes are classified as local –ridership based routes and the long term 20 minute frequency goal is fitting for this classification of route, but this is not reflected in the service frequencies contained in the 2016 Service Design Standards. Additionally, at this time, only Route 2 is demonstrating a demand that would be commensurate with 20-minute service.

### **Recommendations:**

- That a new Frequent Transit layer be introduced to the West Kootenay Route Classifications and 2 Fairview and 31 North Castlegar be relocated to that layer from their existing “Local Transit – Ridership-Based”
  - 34 Kinnaird be reclassified as Local Ridership-based to reflect the substantial community growth occurring in south Castlegar
  - 38 Playmor be reclassified as Paratransit to reflect service design, ridership levels and enable improved flexibility.
- Broadening of service spans of Local Transit Ridership-based and Coverage-based in order to:
  - Improve access to and from the Regional Connectors
  - Guide the development of consistent transit service provision between routes of the same classification across communities in the West Kootenay.
- Adjusting the frequency range for Local Transit Ridership-Based Routes. Broadening of service spans of Local Transit Ridership-based and Coverage-based to guide investments in increased frequencies that are arising from high ridership levels.

The following tables 7, 8, and 9 outline the revised service design standard and performance guidelines to be updated and reflected in the 2016 West Kootenay Transit Service Design Standards and Performance Guidelines.

Service Layer	Service Description	2020 (Proposed)
<b>Regional Connectors</b>	Key routes, forming the backbone of the regional system, which connect urban centres within the West Kootenays.	98 Columbia Connector 99 Kootenay Connector
<b>Frequent Transit</b>	These routes generally operate on arterial roads, serve corridors with higher density mixed land use and provide connections between primary local urban places such as downtown and key commercial nodes and regional connectors.	2 Fairview 31 North Castlegar
<b>Local or Connecting Transit – Ridership Based</b>	These routes generally serve established and urban density neighbourhoods with a focus on connections to local centres, schools, hospitals, and regional connectors.	1 Uphill 3 Rosemont 10 North Shore 33 Selkirk 34 Kinnaird 43 Glenmerry, Fruitvale 44 Sunningdale 46 Rossland
<b>Local or Connecting Transit – Coverage Based</b>	These routes generally serve less densely populated neighbourhoods and rural areas, also with a focus on connections to local centres and regional connectors	14 Blewett 15 Perrier 20 Slocan Valley 32 Columbia 36 Ootischenia 41 Binns 42 Columbia Heights
<b>Paratransit</b>	Paratransit provides flexible local service for small rural communities.	38 Playmor 51 Nakusp Hot Springs 52 Nakusp/Slocan City 53 Nakusp/Edgewood 57 Kaslo Local 58 Kaslo/Argenta
<b>Targeted Transit – Work, school, seasonal</b>	Targeted routes are created to provide service to specific areas such as major employers, schools, and outlying leisure activity destinations (seasonal service).	45 Teck 48 Red Mountain
<b>Health Connections</b>	Health Connections service provides transportation options to access non-emergency medical appointments – although medical appointments have priority, everyone is eligible to use this service if space is available.	72 Salmo/Nelson via Ymir 74 Nakusp /Nelson 76 Kaslo/Balfour/Nelson
<b>Custom Transit</b>	Demand-responsive service for people with disabilities who cannot use the regular accessible conventional transit system some or all of the time.	handyDART: Nelson & Area Castlegar & Area Greater Trail & Area

New for 2020 the introduction of Frequent Transit will enable Local Governments to respond to increases in demand in a more nuanced way

South Castlegar is growing rapidly – transit service should reflect this

The service design and ridership levels of 38 Playmor align more closely with Paratransit routes.

**See Appendix E - West Kootenay Transit Service Design Standards and Performance Guideline 2020 Update**

Table 7 Proposed Revised Service Layers

Service Layer	2016 Service Spans	2020 Revised Service Spans (Proposed)
<b>Regional Connectors</b>	Weekdays: 6:00 a.m. to <del>6:30 p.m.</del> Saturdays: 9:00 a.m. to <del>6:30 p.m.</del> Sundays: 10:00 a.m. to 5:00 p.m.	Weekdays: 6:00 a.m. to 7:30 p.m. Saturdays: 9:00 a.m. to 7:30 p.m. Sundays: 10:00 a.m. to 5:00 p.m.
<b>Frequent Transit (NEW in 2020)</b>	This layer did not exist in 2016	Weekdays: 6:00 a.m. to 9:00 p.m. Saturdays: 8:00 a.m. to 8:00 p.m. Sundays: 9:30 a.m. to 6:00 p.m.
<b>Local or Connecting Transit – Ridership-Based</b>	Weekdays: <del>7:00 a.m. to 6:00 p.m.</del> Saturdays: <del>9:30 a.m. to 4:00 p.m.</del> Sundays: <del>10:00 a.m. to 3:00 p.m.</del>	Weekdays: 6:30 a.m. to 8:00 p.m. Saturdays: 8:00 a.m. to 8:00 p.m. Sundays: 8:30 a.m. to 6:00 p.m.
<b>Local or Connecting Transit – Coverage-Based</b>	Weekdays: <del>9:00 a.m. to 2:00 p.m.</del> Saturdays: <del>10:00 a.m. to 2:30 p.m.</del>	Weekdays: 7:30 a.m. to 7:00 p.m. Saturdays: 8:30 a.m. to 6:00 p.m.
<b>Paratransit</b>	Weekdays: 1:00 p.m. to 4:00 p.m. Saturdays: no service	No change
<b>Targeted Transit – Work, school, seasonal</b>	Weekdays: 7:30 a.m. to 3:00 p.m. Saturdays (seasonal service only): 8:00 a.m. to 4:30 p.m.	No change
<b>Health Connections</b>	Weekdays: 1:00 p.m. to 4:00 p.m. Saturdays: no service	No change
<b>Custom Transit</b>	Weekdays: <del>7:15 a.m. to 3:00 p.m.</del> Saturdays: no service	Weekdays: Match Local Transit Saturdays: Match Local Transit

Local routes should begin earlier and end later than the Regional Connectors to enable residents to transfer to /from the connector routes in the morning or evening routes.

Table 8 Proposed Revised Service Spans

Service Layer	2016 Frequencies	2020 Revised Frequencies (Proposed)
<b>Regional Connectors</b>	Weekdays: Every 1 to 3 hours Saturdays: <del>Every 3 ½ to 4 ½ hours</del> Sundays: <del>Every 3 ½ to 4 ½ hours</del>	Weekdays: Every 1 to 3 hours Saturdays: Every 3 to 4 hours Sundays: Every 3 to 4 hours
<b>Frequent Transit</b>	This layer did not exist in 2015	Weekdays: Every 20 to 60 minutes Saturdays: Every 30 to 90 minutes Sundays: Every 60 to 90 minutes
<b>Local or Connecting Transit – Ridership-Based</b>	Weekdays: <del>Every 1 to 3 hours</del> Saturdays: <del>Every 3 to 5 hours</del> Sundays: <del>Every 3 to 5 hours</del>	Weekdays: Every 1 to 2 hours Saturdays: Every 1.5 to 3 hours Sundays: Every 2 to 3 hours
<b>Local or Connecting Transit – Coverage-Based</b>	Weekdays: <del>Every 3 to 5 hours</del> Saturdays: <del>Every 3 to 5 hours</del> Sundays: No 2016 reference	Weekdays: Every 2 to 4 hours Saturdays: Every 2 to 4 hours Sundays: Every 4 to 5 hours
<b>Paratransit</b>	Weekdays: 1:00 p.m. to 4:00 p.m. Saturdays: no service	No change
<b>Targeted Transit – Work, school, seasonal</b>	Weekdays: 2 trips per day Saturdays (seasonal service only): 1 round trip per day.	No change
<b>Health Connections</b>	Weekdays: <del>1:00 p.m. to 4:00 p.m.</del> Saturdays: no service	Weekdays: 1 round trip per week Saturdays: no service
<b>Custom Transit</b>	Weekdays: 7:15 a.m. to 3:00 p.m. Saturdays: no service	n/a (demand-based)

Table 9 Proposed Revised Service Frequencies

## 6. DISCUSSION

See **Appendix F Area-Level Discussion**. The following provides a summary of the assessment of all materials reviewed and developed to inform the service proposals outlined in section 8 of this West Kootenay Transit Service Review.

Transit use among residents of the West Kootenay Transit area are aligned with those of mid-sized communities within BC. The large gains in ridership over the last six years that the system has experienced is heavily tied to:

- Increases in international student enrolment and the influx of compulsory transit riders to the communities served by this system
- The location of Castlegar Campus of Selkirk College and avid use of the Routes 98, 33 and 99 to access this location

Community members are strongly supportive and interested in transit, but are experiencing two primary constraints:

- Ridership has reached critical levels at times of the day when discretionary users would most consider using transit and the service is not attractive to them
- Disparities in the transit service
  - Routes of the same classification vary substantially in their service spans and frequencies between communities
  - The type of transit offered to communities of similar commuting distance to major centres is not consistent

### **Strengths of the Transit Service:**

- There is good alignment between community needs and commuting volumes in the paratransit and Health Connections transit service provided to the villages, towns and rural areas of North Slocan, Nakusp and Kootenay Lake
- There is good alignment between community needs and commuting volumes in the conventional transit service provided to South Slocan and Nelson and Area.

### **Opportunities for the Transit System**

Proposals identified in the previous plans from 2011 and 2012 are still largely valid, however before new expansion is considered, critical capacity problems on existing routes should be addressed.

- Routes 99, 2, 10, 98, and 33 are critically full and are experiencing overloads and passups.
- Addressing disparity and following through on past planning priorities which are still valid:
  - Despite (1) similar proximity to Nelson as Balfour and a nearer proximity than Slocan, (2) a younger demographic, and (3) strong support for the implementation of transit proposals in previous plans, the Salmo Area still lacks basic commuter access to the Nelson Area.



- The local transit routes serving the Castlegar Area are underdeveloped for the size, community needs and commuting volumes of that community. Further investment and network development is strongly suggested in order to reach the proposed service design standards and offer more equitable levels of service across urban centres.
- Improving access for routes which demonstrate strong demand (based on ridership data and engagement)
  - Existing routes of all categories are well used, but further improvements should be considered for Route 10 (Saturdays), and Route 20 (Friday and Saturday Evenings);
- Instituting a regular investment schedule of five to ten per cent expansion per year into the transit system.



*Figure 29 The West Kootenay Transit System Service Design Standards and Performance Guidelines. Tables 7, 8, and 9 above highlight the revisions proposed for this document.*

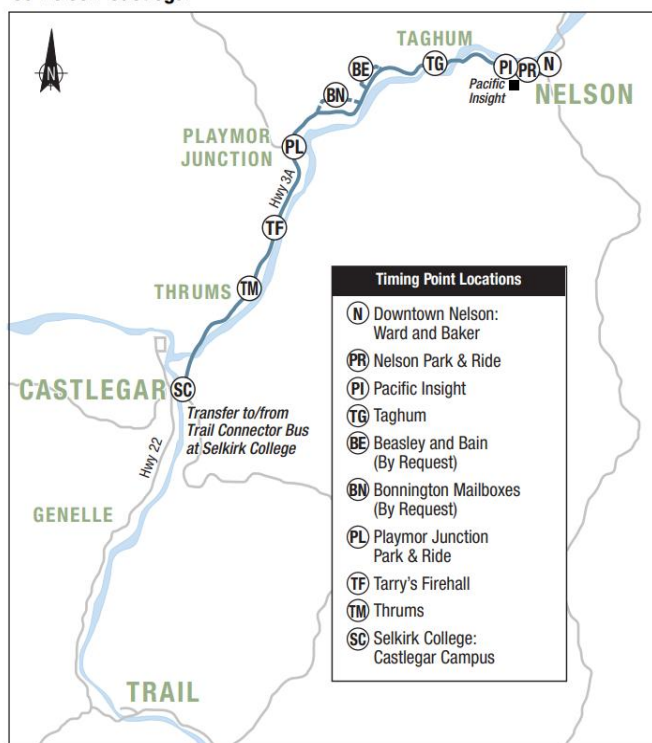
# 7. SERVICE PROPOSALS

## 7.1 Critical Fixes

The TFSP identifies a number of routes that are critically over capacity and experiencing passups or overloads. The critical fix service changes to address these challenges require an investment of approximately 3,150 service hours and four vehicles. Of these, 300 service hours apply regardless of COVID conditions.

### 1. Nelson ↔ Castlegar: Route 99 Kootenay Connector

99 Nelson-Castlegar



**Service Change Description:** One new round trip on weekdays at each peak time, for a total of two new round trips per weekday.

**Rationale:** Route 99 is at critical capacity. New trips are required to reduce passups, and address severe overcrowding issues.

**Estimated Annual Hours:** 1,450

**Vehicles Required:** 1 Peak HD - may require one additional spare. Possibility to share transit vehicles if the City of Nelson also expands local urban service.

**Transit Funder/Subsystem:** RDCK

#### COVID-19 Impact

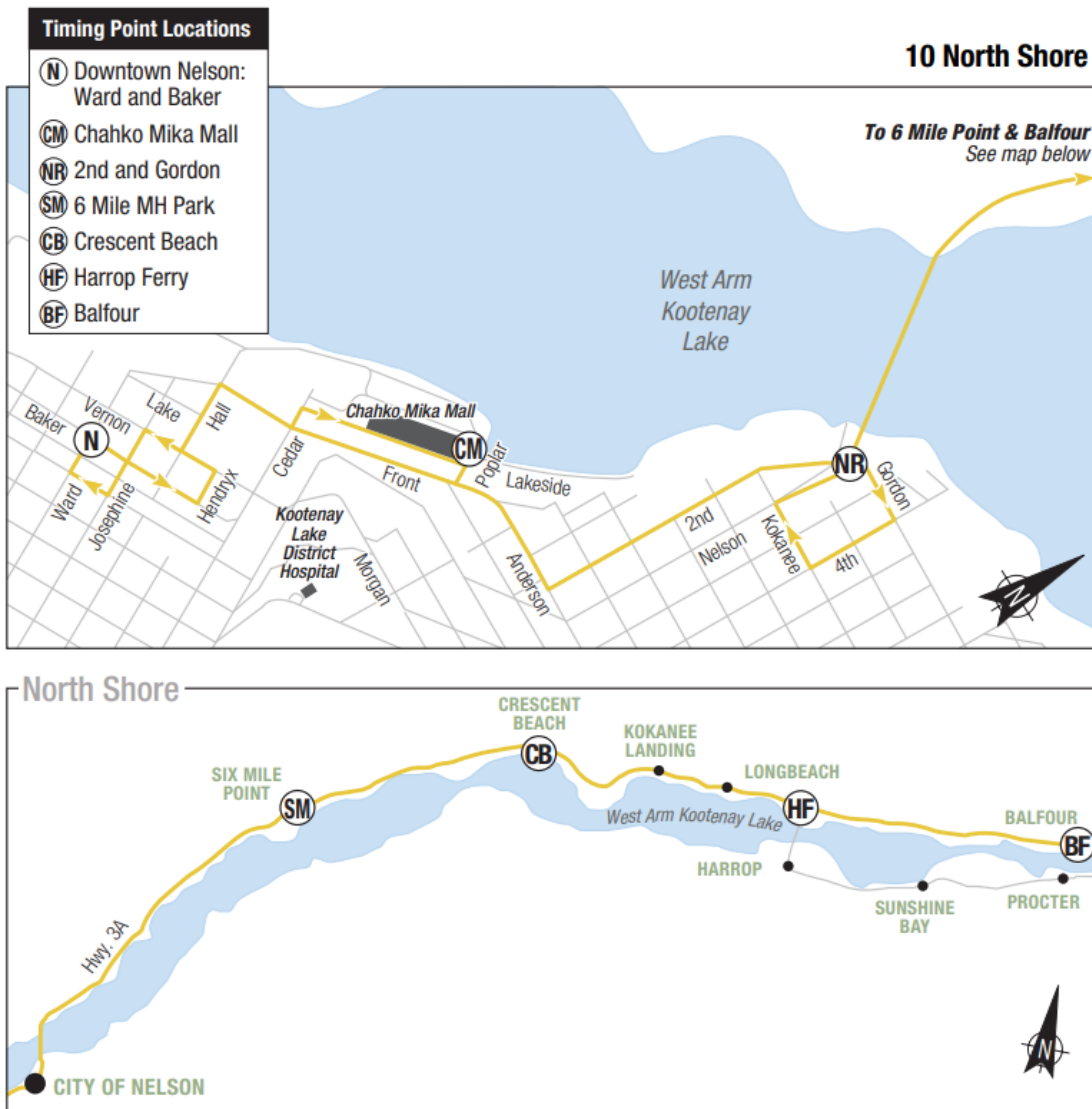
This expansion is heavily driven by student travel demand.

Critical loads will resume once international student enrolment and in-person classes are restored at the Castlegar Campus of Selkirk College.

**COVID has reduced the urgency of this expansion**

**Transit Operator:** City of Nelson

## 2. Nelson ↔ Balfour: Route 10 North Shore:



**Service Change Description:** Extension of the weekday 4:10 pm trip departing Nelson from Six-Mile to Balfour.

**Rationale\*:** The 5:00pm trip is at critical capacity. By extending the 4:10 pm trip passengers destined to Balfour whom are able to depart earlier will have an additional option to use.

**Estimated Annual Hours:** 300 – equivalent to one additional hour per day Monday-Saturday

**Vehicles Required:** 1 Peak HD. Possibility to share if the City of Nelson or route 99 also expands service.

**Transit Funder/Subsystem:** RDCK

**Anticipated Garage Location:** Nelson

### COVID-19 Impact

This expansion is driven by local resident travel demand.

Critical loads are likely to reoccur as resident ridership patterns are restored.

**Priority is unchanged by COVID**

\*This route is also heavily valued by residents of the Eastshore whom connect between the Crawford-Balfour ferry and Route 10 at Balfour

### 3. Trail ↔ Castlegar: Route 98 Columbia Connector

**Service Change Description:** Introduction of two new 98 trips to restore connectivity with route 99

**Rationale:** Restoration connectivity with route 99 and provision of additional service for heavily overloaded trips on route 98.

**Estimated Annual Hours:** 800

**Vehicles Required:** 1 Peak HD or MD.

**Transit Funder/Subsystem:** RDKB

**Anticipated Garage Location:** Trail

#### COVID-19 Impact

This expansion is heavily driven by student travel demand.

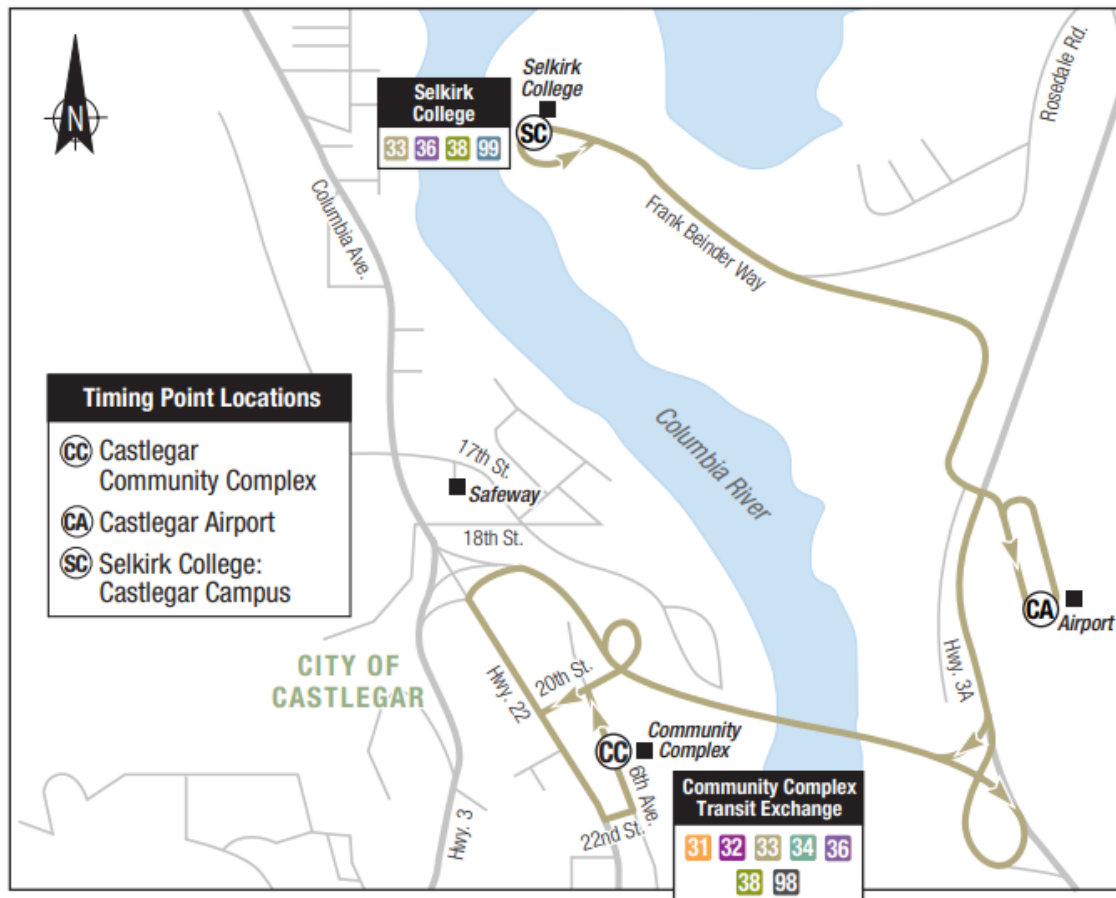
Critical loads will resume once international student enrolment and in-person classes are restored at the Castlegar Campus of Selkirk College.

**COVID has reduced the urgency of this expansion**



#### 4. Castlegar Local: Route 33 Selkirk College

### 33 Selkirk



**Service Change Description:** Introduction of two new route 33 trips to maintain connectivity between the route 98, Selkirk College, and route 99.

**Rationale:** Restoration connectivity with route 99 and provision of additional service for heavily overloaded trips on route 98.

**Estimated Annual Hours:** 300

**Vehicles Required:** Same vehicle as used for route 98.

**Transit Funder/Subsystem:** RDCK & RDKB

**Anticipated Garage Location:** Trail

#### COVID-19 Impact

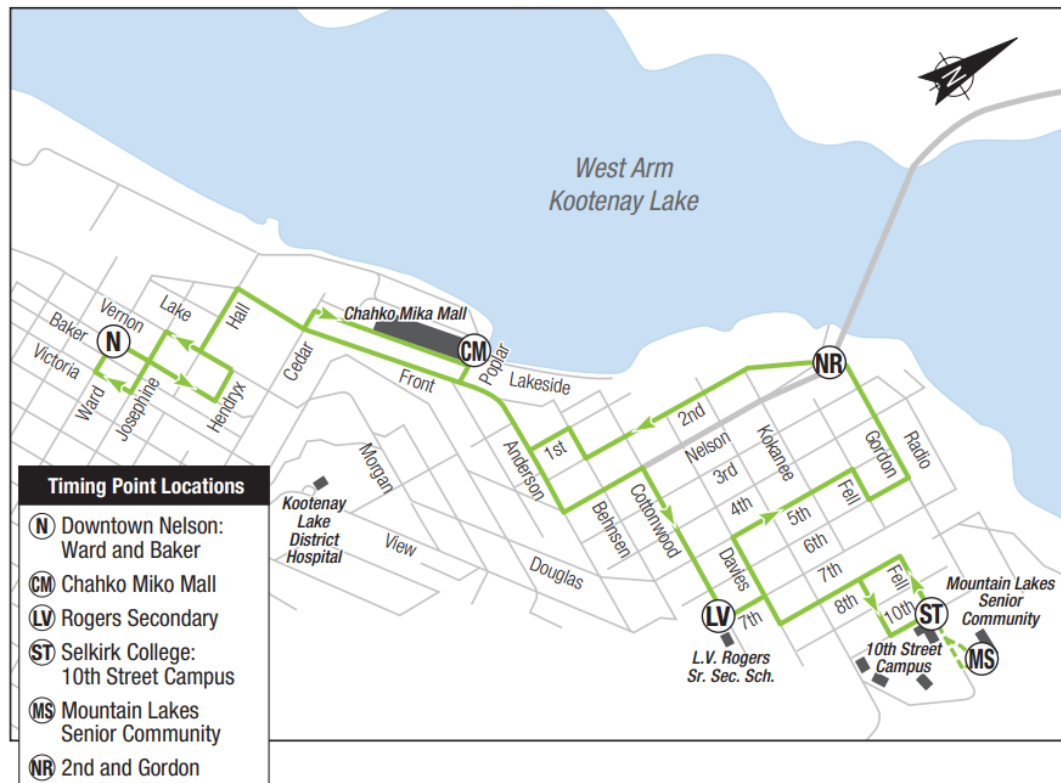
This expansion is heavily driven by student travel demand.

Critical loads will resume once international student enrolment and in-person classes are restored at the Castlegar Campus of Selkirk College.

**COVID has reduced the urgency of this expansion**

## 5. Nelson Local: Route 2 Fairview

### 2 Fairview



**Service Change Description:** Introduction of 2 trips during the weekday morning peak

**Rationale:** The provision of additional service for heavily overloaded trips on route 2 to address passups and crowding

**Estimated Annual Hours:** 300

**Vehicles Required:** 1 HD or MD – there may be the possibility of creatively sharing with the vehicle brought for the additional route 99 trips.

**Transit Funder/Subsystem:** City of Nelson

**Anticipated Garage Location:** Nelson

#### COVID-19 Impact

This expansion is heavily driven by student travel demand.

Critical loads will resume once international student enrolment and in-person classes are restored at the 10th Street Campus of Selkirk College.

**COVID has reduced the urgency of this expansion**

## 8.2 Summary Critical Fix Service Proposals

Based on customer notifications, public engagement, performance reviews and reports from operators and stakeholders the TFSP identifies routes that are critically over capacity and experiencing passups or overloads. The critical fix service changes to address these challenges require an investment of approximately 3,150 service hours and four vehicles. Of these, 300 service hours apply regardless of COVID conditions.

Description	Estimated trips	Estimated hours	Peak buses	Spare buses (est)	LG Funder/ Garage	Post COVID impact
1. <b>99 Kootenay Connector</b> Critical fix	2	+ 1450	+ 1 HD	+1 HD	RDCK/ Nelson	College - dependent
2. <b>10 North Shore</b> Extension of 4:04 trip to Balfour	Equivalent of 1	+ 300	+0	+0	RDCK/ Nelson	Applies
3. <b>98 Columbia Connector</b> two new trips to restore connectivity with route 99	2	+800	+ 1 HD or MD	0	RDCKB/ Trail	College - dependent
4. <b>33 Selkirk</b> Introduction of two new route 33 trips to connect the route 98 with Selkirk College	2	+300	0	0	RDCKB/ Trail	College - dependent
5. <b>2 Fairview</b> One additional morning peak overload trip on route 2	2	+ 300	+1	0	Nelson/ Nelson	College - dependent
TOTAL		3,150 hours (7% increase over 2019 levels)				
Applicable regardless of COVID		300 hours				



## 8.3 Short–Term Service Improvements

The TFSP identifies a number of areas where there is significant disparity in access to transit, where past priorities outlined in the Central Kootenay Service Review, Nelson and Area Service Recommendations and West Kootenay Master Plan are still valid but have not yet been implemented, or where routes are at critical capacity. The short-term service proposals shown here require an investment of approximately 5,300 service hours and the addition of five vehicles. Of these 3,600 hours apply regardless of COVID conditions.

### 6a. 53 Edgewood

**Service Change Description:** Add additional runtime to route 53 to address challenges with ferry schedule coordination

**Rationale:** The driver reports great difficulty in meeting the sailing times without needing to speed.

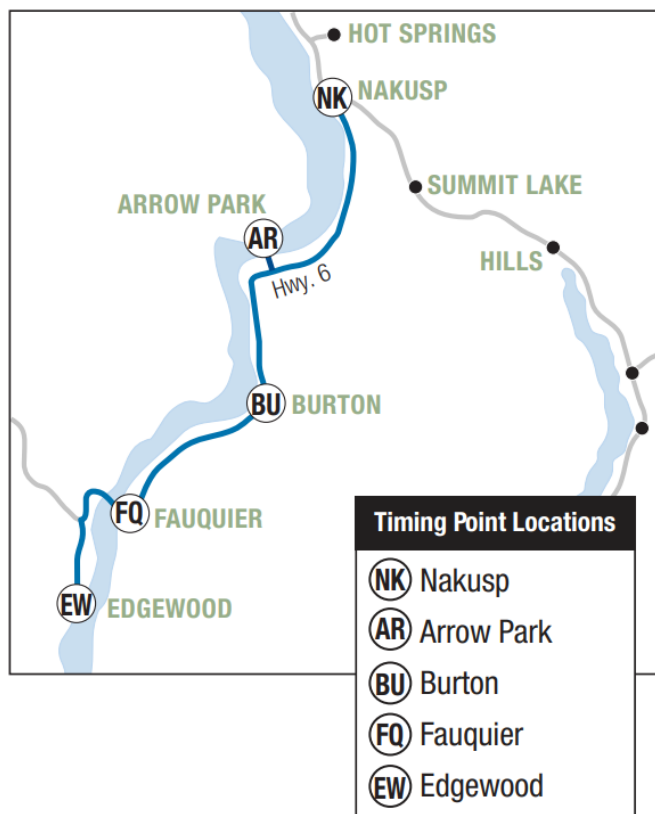
**Consideration:** The bus used for route 53 has On-demand commitments within the town of Nakusp before and after operating as a route 53. Modest reallocation to when local on-demand hours are offered will be required

**Estimated Annual Hours:** +40

**Vehicles Required:** NA

**Transit Funder/Subsystem:** RDCK

**Anticipated Garage Location:** Nakusp



#### COVID-19 Impact

This expansion is driven by operational needs.

Priority is unchanged by COVID

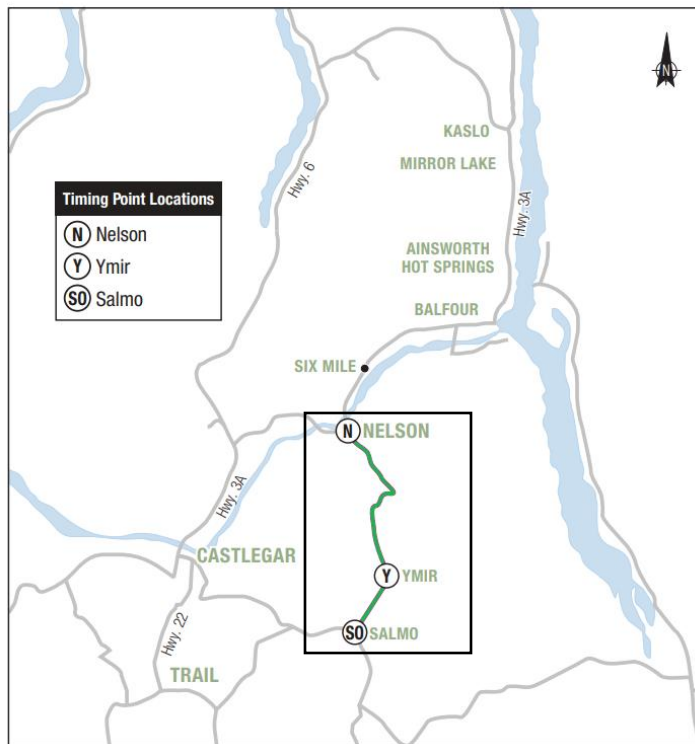
### 6b. Nakusp Local

**Service Change Description:**

Adjust the schedule to maintain service levels.

**Rationale:** The same vehicle is used for route 53. The expansion of hours for route 53 will remove them from the local service. The minutes lost should be replaced at other times of the day (or days of the week)

## 7. Salmo ↔ Nelson via Ymir: New Route



### COVID-19 Impact

This expansion is driven by local resident travel demand.

**Priority is unchanged by COVID**

**Service Change Description:** Conversion of the existing route 72 Salmo-Nelson via Ymir into a basic commuter route operating on all weekdays. A total of six additional round trips will be added per week - three each on Mondays and Wednesdays and existing trip times on Tuesdays Thursdays and Fridays will be modified. **15 Perrier will be discontinued and its resources (83 hours) will applied to this new route.**

**Rationale:** The introduction of regular transit to this corridor was identified as a mid-term priority in West Kootenay Master Plan 2012 and Central Kootenay Service Review 2011. Additionally, Salmo and Area fit the demographic profile of where commuter-access style transit is strongly warranted.

**Consideration:** In order for trip times to be consistent across weekdays, **72 Salmo Nelson will need adjustments.** Will Interior Health consider a blended service similar to that provided on Route 99? The community has expressed that the ability to use a transit pass on all trips will be essential to them.

**Estimated Annual Hours:** +1300

**Vehicles Required:** 1 HD or MD – there may be the possibility of creatively sharing with the vehicle brought for the additional route 99 trips.

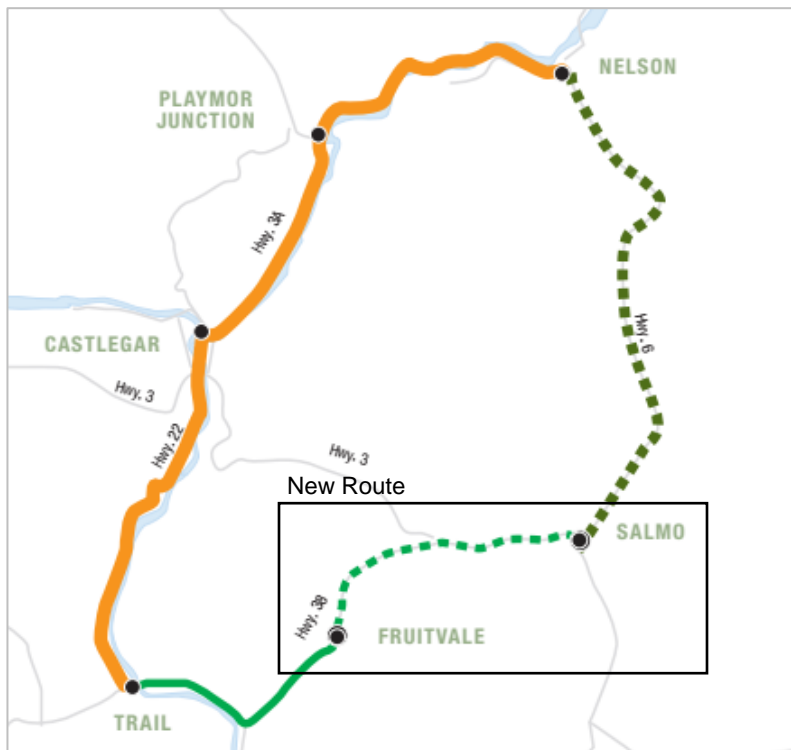
**Transit Funder/Subsystem:** RDCK

**Anticipated Garage Location:** Nelson or Salmo (future)

### NOTES:

- It is no longer BC Transit practice to place bus stop pairs on opposing sides of a highway. This creates unsafe situations for transit customers crossing the highway to board their return trip.
- If a paved dedicated transit turning area is developed on the east side of the highway at the base of Whitewater this route could connect transit customers with a shuttle\*

## 8. Fruitvale ↔ Salmo: New Route



### COVID-19 Impact

This expansion is driven by local resident travel demand.

**Priority is unchanged by COVID**

**Service Change Description:** Extend service from Fruitvale to Salmo

**Rationale:** The introduction of regular transit to this corridor was identified as a mid-term priority in West Kootenay Master Plan 2012 and Central Kootenay Service Review 2011.

Residents of Salmo travelling by transit to the hospital in Trail must currently spend three hours and take three buses in each direction. Basic connectivity to Fruitvale (to enable onwards travel via Route 43) would be a significant reduction in travel time. Residents of Salmo are very strongly in favour of this connectivity.

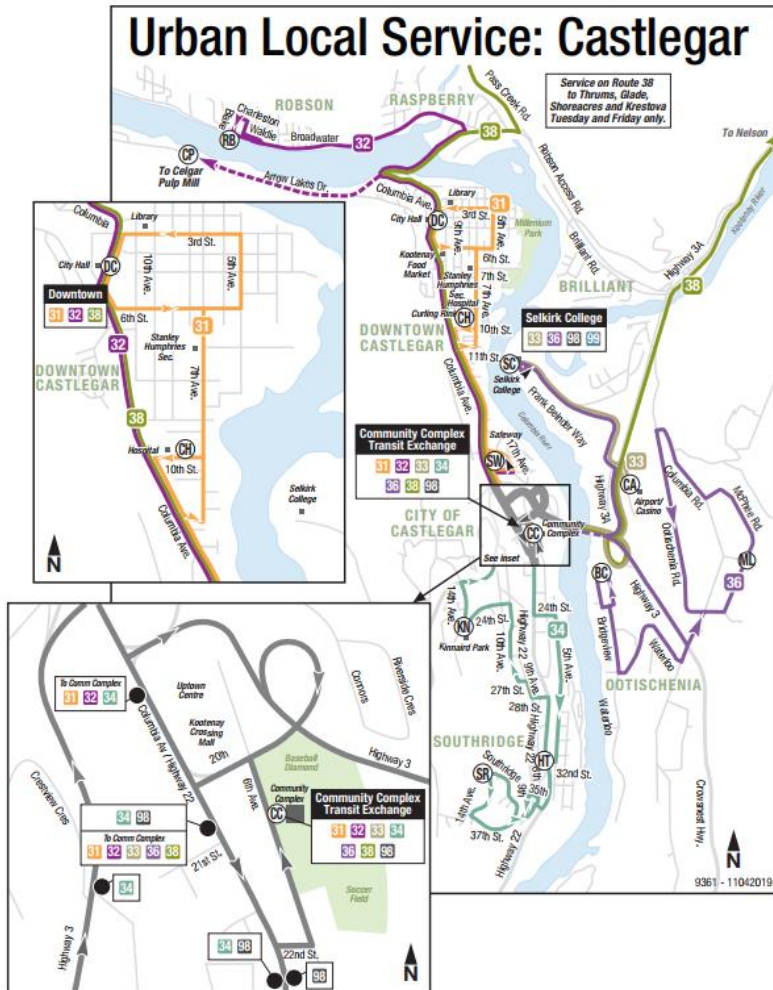
**Estimated Annual Hours:** + 700 hours

**Vehicles Required:** TBD

**Transit Funder/Subsystem:** RDKB

**Anticipated Transit Garage:** TBD

## 9. Castlegar Local Proposal 1



## COVID-19 Impact

This expansion is driven by local resident travel demand.

## Priority is unchanged by COVID

**Service Change Description:** Extend the weekday evening service span within Castlegar to reach 8:00 pm or 8:30 pm and align with other urban routes within the West Kootenay Transit System.

**Rationale:** The quality of transit service provided within Castlegar does not align with urban transit found in either Nelson or Trail. Weekday and weekend service span are one of the most commonly cited concerns by Castlegar residents and students. Additionally, the span of service within Castlegar does not meet minimums outlined in the service design standards.

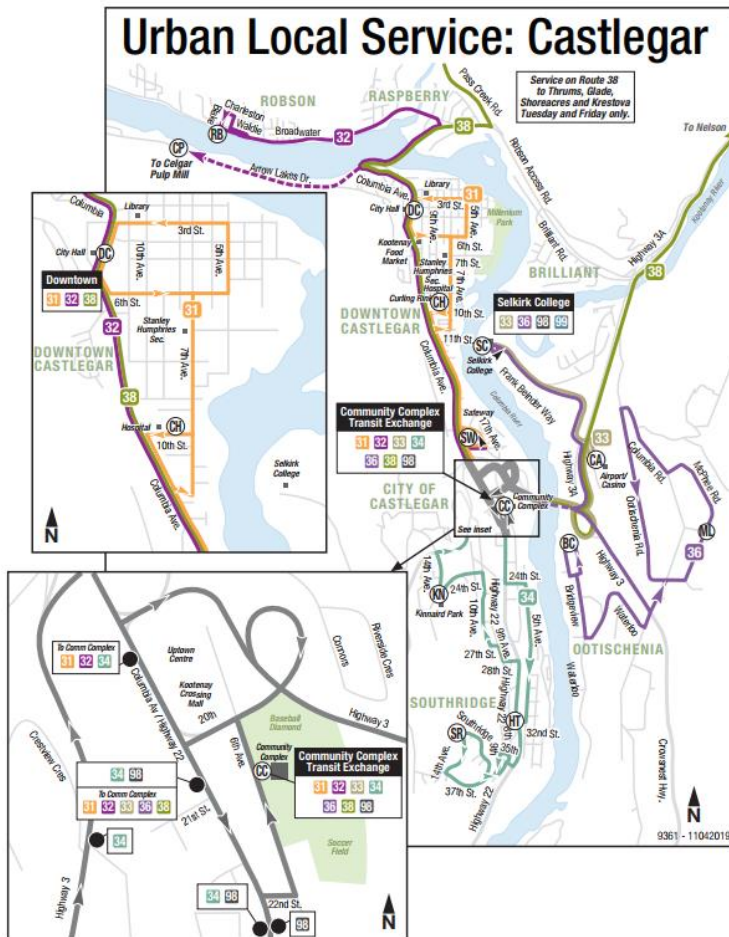
**Estimated Annual Hours: +1,000**

**Vehicles Required:** None – the existing fleet will be used.

Transit Funder/Subsystem: RDCK

**Anticipated Garage Location:** Castlegar

## 10. Castlegar Local Proposal 2



### COVID-19 Impact

This expansion is driven by local resident travel demand.

**Priority is unchanged by COVID**

**Service Change Description:** Introduce additional weekday peak service to distinguish route 33 from 98; improve 32 Columbia and 36 Ootischenia; remove the 98 Columbia Connector/33 Selkirk interline and maintain 98 Columbia Connector route name to and from Selkirk College.

Conduct a review of Castlegar route alignments as part of this expansion examining potential coverage extensions within Robson and service levels to Ootischenia

**Rationale:** The quality of transit service provided within Castlegar does not align with urban transit found in either Nelson or Trail. Coverage in Robson does not extend far enough west and service levels to Ootischenia are well below the minimums in the service design standards for that route type.

**Estimated Annual Hours:** +1,200

**Vehicles Required:** + 1 HD or MD

**Transit Funder/Subsystem:** RDCK

**Anticipated Garage Location:** Castlegar



## 11. Route 98 Columbia Connector

**Service Change Description:** Extend all route 98 trips directly to the Selkirk College.

**Rationale:** The demand on both routes 33 and 98 is very heavy. Creating better clarity for passengers boarding at Selkirk College on what the bus's end destination is will help balance loading.

**Estimated Annual Hours:** +500

**Vehicles Required:** 1 Peak HD or MD.

**Transit Funder/Subsystem:** RDKB

**Anticipated Transit Operator:** Trail Transit

**Anticipated Garage Location:** Trail

**Consideration:** This expansion should occur at the same time as the peak local expansion within Castlegar which introduces additional 33 Selkirk College trips.

### COVID-19 Impact

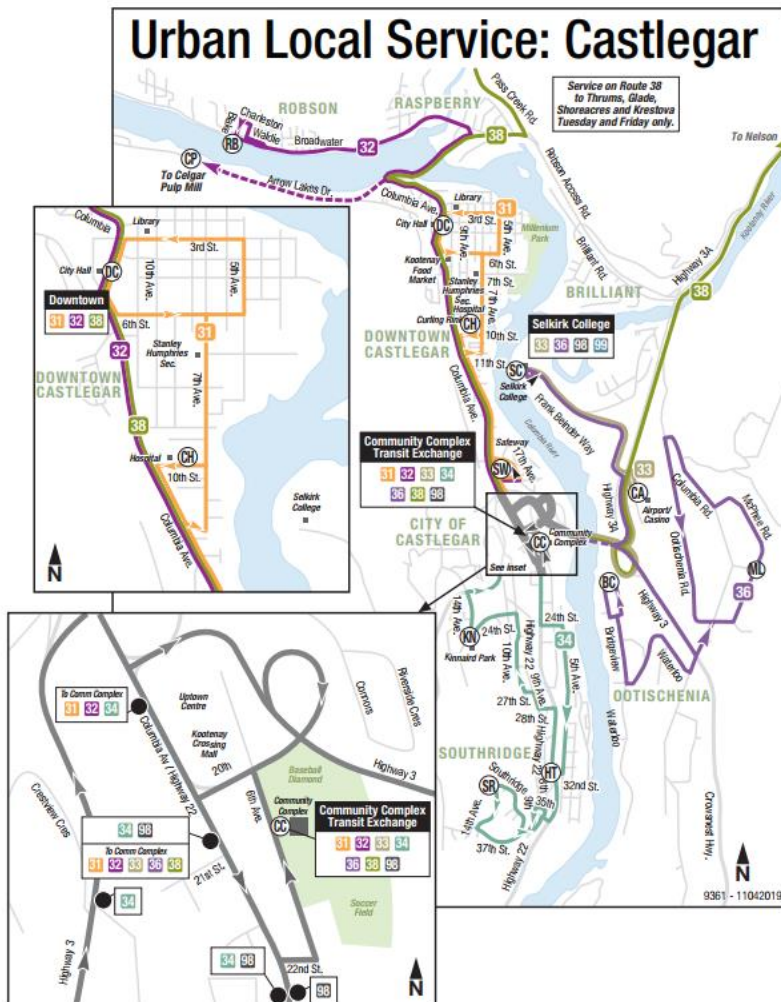
This expansion is heavily driven by student travel demand.

Critical loads will resume once international student enrolment and in-person classes are restored at the Castlegar Campus of Selkirk College.

**COVID has reduced the urgency of this expansion**



## 12. Castlegar Local Proposal 3



### COVID-19 Impact

This expansion is driven by local resident travel demand.

Priority is unchanged by COVID

**Service Change Description:** Improve Castlegar Saturday service to address high demand, reduce disparity and reach better alignment with the minimum frequency and spans within the service standards.

**Rationale:** The quality of transit service provided within Castlegar does not align with urban transit found in either Nelson or Trail. Weekday and weekend service span are one of the most commonly cited concerns by Castlegar residents and students

**Estimated Annual Hours:** +250

**Vehicles Required:** 0

**Transit Funder/Subsystem:** RDCK

**Anticipated Garage Location:** Castlegar



### 13a. 52 Nakusp Slocan

**Service Change Description:** Align all trips to pass by New Denver Health Care Centre

**Rationale:** This concept was raised during Phase 1 consultation and was well-received in Phase 2, particularly from residents of the Slocan Valley.

**Estimated Annual Hours:** +30 hours

**Vehicles Required:** 0

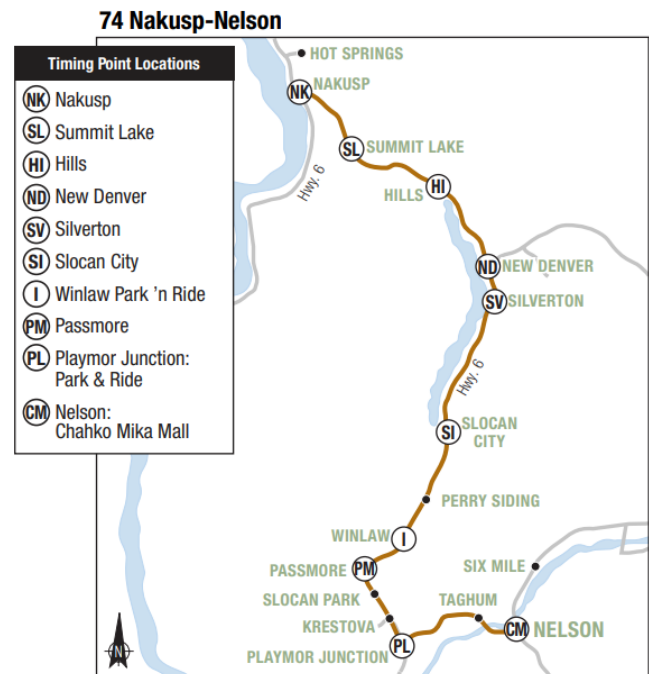
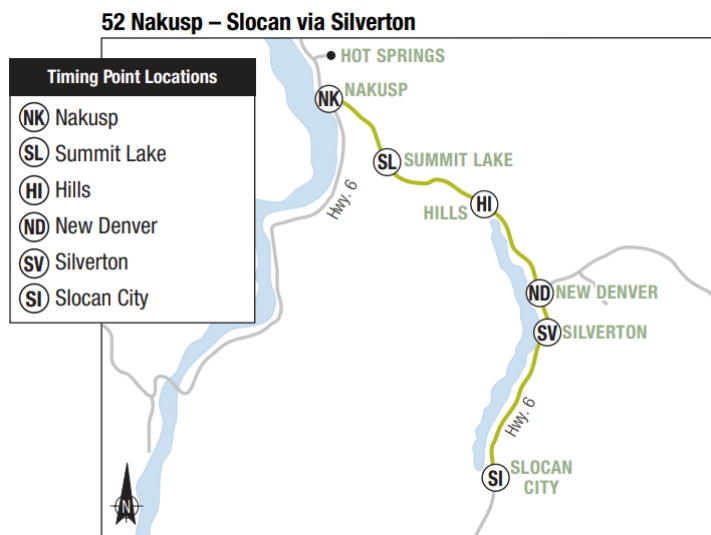
**Transit Funder/Subsystem:** RDCK

**Anticipated Garage Location:** Nakusp

#### COVID-19 Impact

This service change is driven by local resident travel patterns

Priority is unchanged by COVID



### 13b. 76 Nakusp Nelson

**Service Change Description:** Align all trips to pass by New Denver Health Care Centre

**Rationale:** This concept was raised during Phase 1 consultation and was well-received in Phase 2, particularly from residents of the Slocan Valley.

**Estimated Annual Hours:** May be possible within the existing time, but departure times from Slocan and Nelson will have to be adjusted.

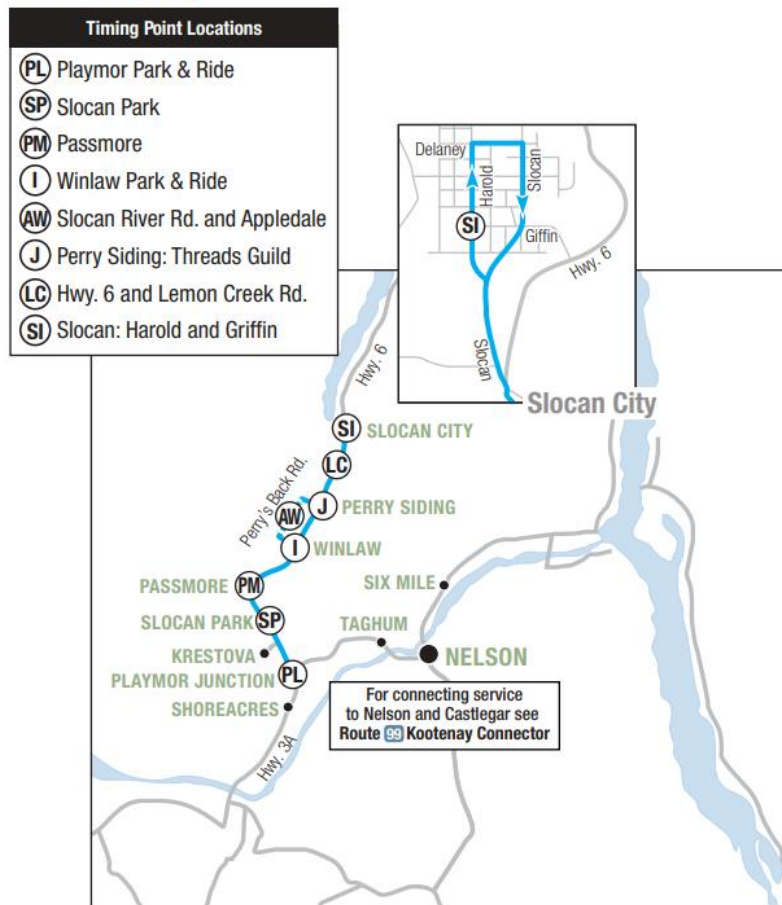
**Vehicles Required:** 0

**Transit Funder/Subsystem:** Health Connections

**Anticipated Garage Location:** Nakusp

## 14a Slocan City ↔ Playmor Junction/Nelson: Route 20 Slocan

### 20 Slocan Valley



**Service Change Description:** Discontinue the first northbound trip and the last southbound trip on all service days.

**Rationale:** 20 Slocan primarily serves residents of the South Slocan Valley seeking access to Nelson and other locations south of the valley. Ridership on the 04:45 and 05:23 northbound trips and on the southbound 6:58 pm and 6:39 pm trips is negligible.

Beginning and terminating service from a satellite garage facility in Slocan City will save approximately 700 service hours per year. These resources can be reinvested back into the system.

**Estimated Annual Hours:** -700 hours

**Vehicles Required:** 1 (spare)

**Transit Funder/Subsystem:** RDCK

**NOTE:** If undertaken in combination with 15a and b then the hours savings can offset the local portions of lease fees for 2 buses.

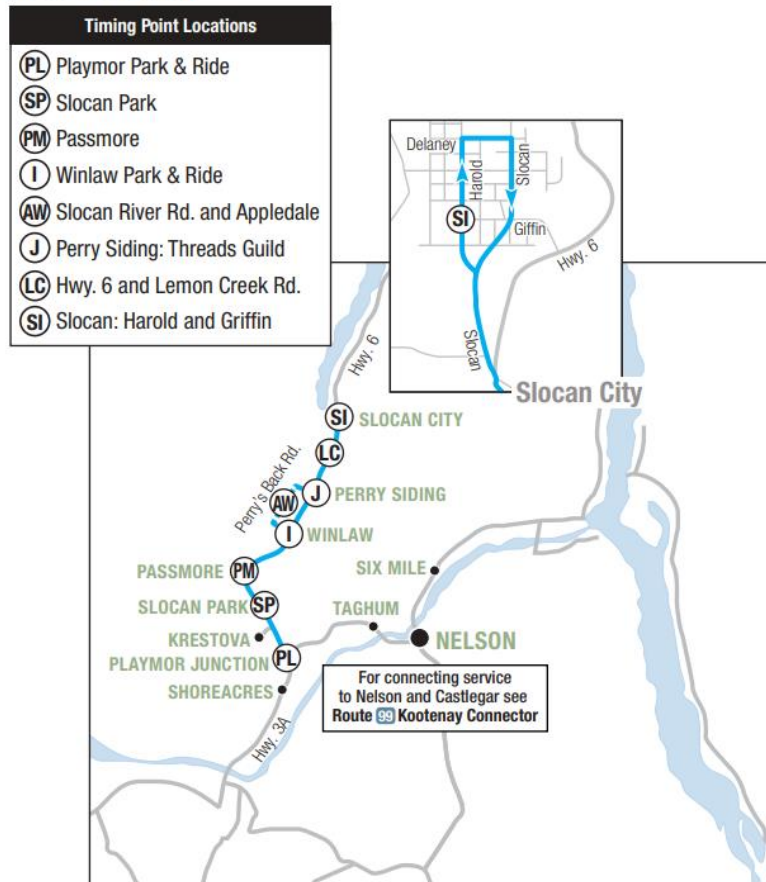
### COVID-19 Impact

This expansion is driven by local resident travel demand.

**Priority is unchanged by COVID**

## 14b. Slocan City ↔ Playmor Junction/Nelson: Route 20 Slocan

### 20 Slocan Valley



**Service Change Description:** One additional round trip on Friday and Saturday, interlined with a Nelson-oriented 99 Kootenay Connector in order to accommodate strong ridership.

**Rationale:** The South Slocan has among the highest transit mode shares within the West Kootenay Transit system and the population is also growing the most rapidly. Additional service on Friday and Saturday evening will support increasing demand and also greater patronage of transit. The West Kootenay Master Plan 2012 identified a mid-term goal of 8 round trips per weekday between Slocan City and Playmor Junction.

**Estimated Annual Hours:** + 225 hours

**Vehicles Required:** TBD

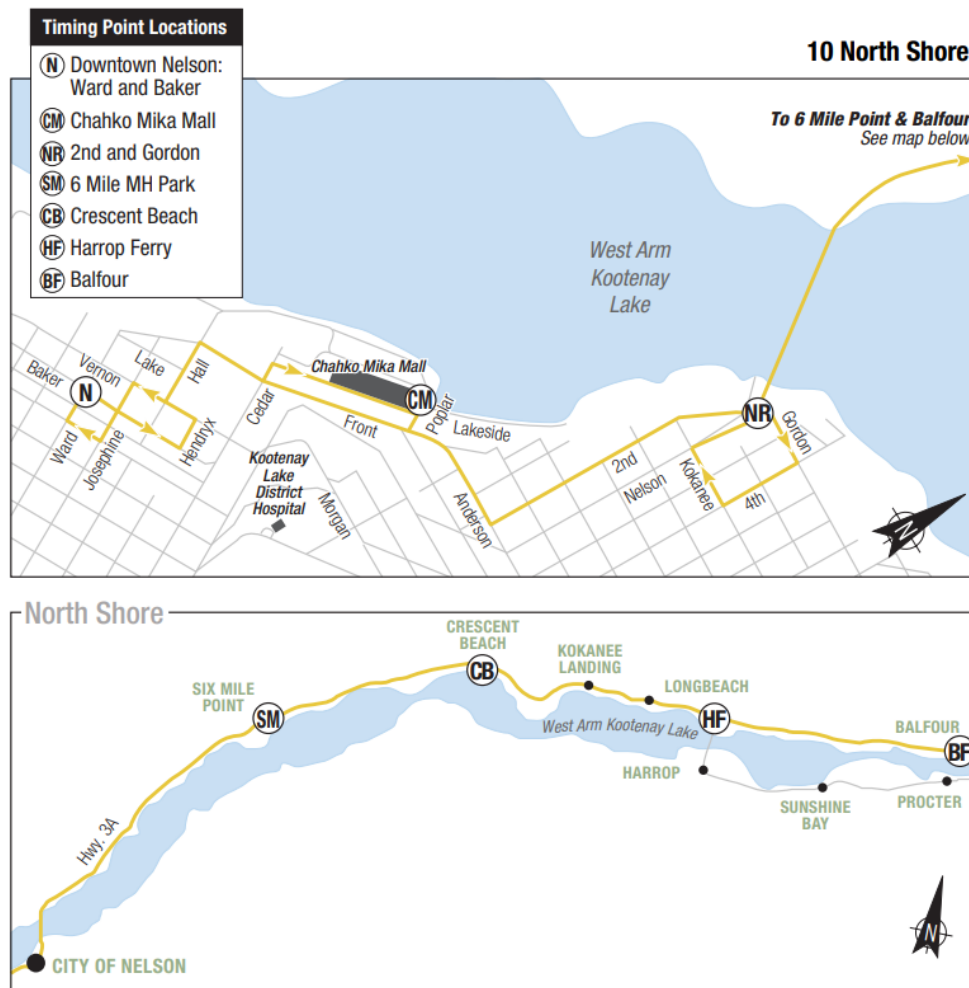
**Transit Funder/Subsystem:** RDCK

### COVID-19 Impact

This expansion is driven by local resident travel demand.

**Priority is unchanged by COVID**

## 15a Nelson ↔ Balfour: Route 10 North Shore:



**Service Change Description:** Discontinue the first northbound trip and the last southbound trip on all service days.

**Rationale:** 10 North Shore primarily serves residents of the north and east shores seeking access to Nelson. Ridership on the 6:21 am and 7:10 am northbound trips and on the southbound 9:35 pm and 7:45 pm trips is low.

Beginning and terminating service from a satellite garage facility in Balfour will save approximately 300 service hours per year. These resources can be reinvested back into the system.

**Estimated Annual Hours:** -300 hours

**Vehicles Required:** 1 (spare)

**Transit Funder/Subsystem:** RDCK

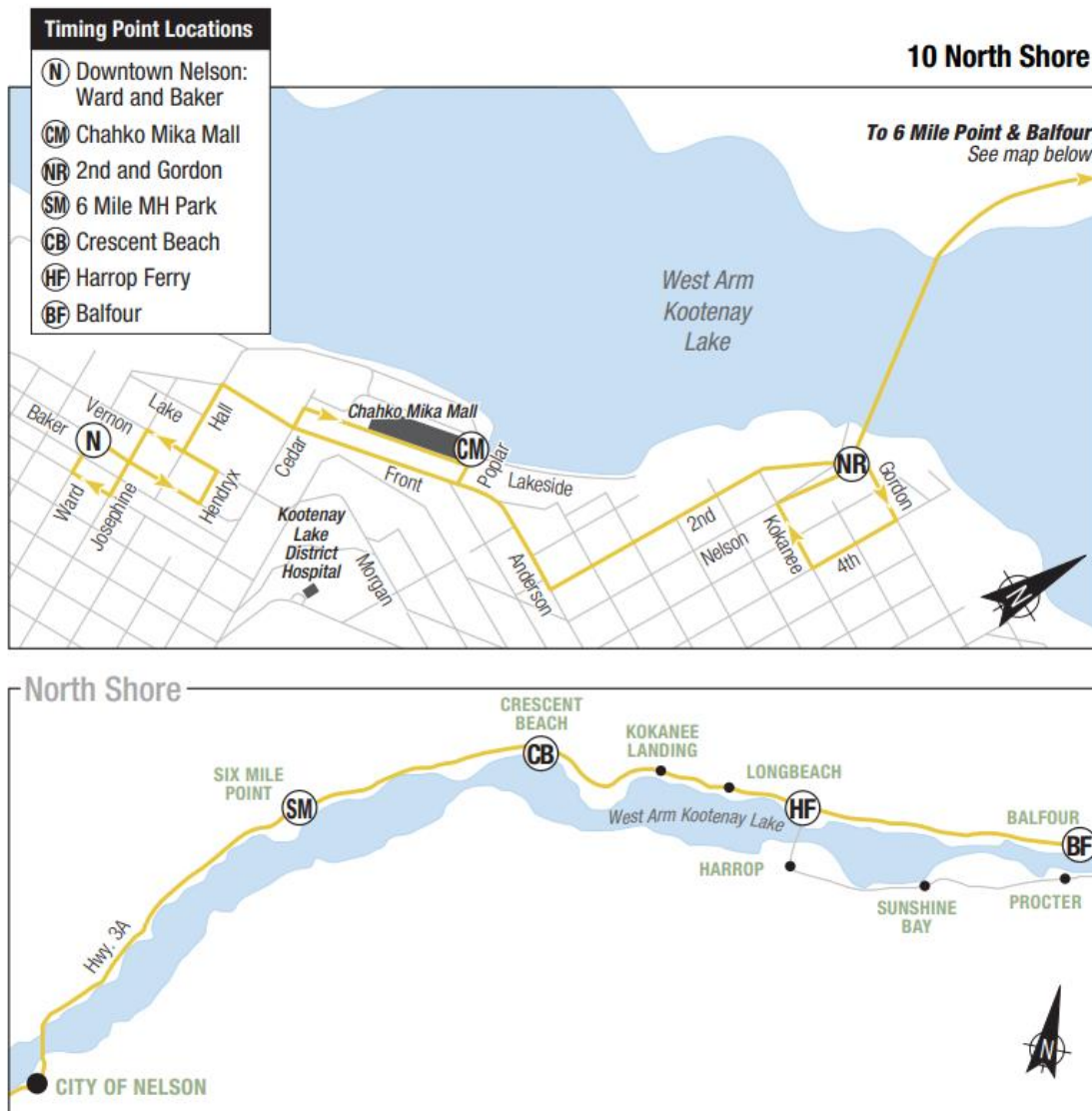
**NOTE:** If undertaken in combination with 14a and b then the hours savings can offset the local portions of lease fees for 2 buses (spares), whilst diminishing unproductive kms

### COVID-19 Impact

This expansion is driven by local resident travel demand. Critical loads are likely to reoccur as resident ridership patterns are restored.

**Priority is unchanged by COVID**

## 15b Nelson ↔ Balfour: Route 10 North Shore:



**Service Change Description:** Two additional round trips between Nelson and Balfour on Saturdays in order to accommodate very high ridership.

**Rationale:** The existing transit trips on Saturdays are very close to reaching critical capacity. An expansion is necessary to address this issue before it negatively impacts service.

**Estimated Annual Hours:** + 200 hours

**Vehicles Required:** 0

**Transit Funder/Subsystem:** RDCK

### COVID-19 Impact

This expansion is driven by local resident travel demand.

Critical loads are likely to reoccur as resident ridership patterns are restored.

**Priority is unchanged by COVID**

#### 16. Nelson Local: Realign all Nelson routes to serve the new transit exchange at Victoria

**Service Change Description:** All routes passing through or terminating at Ward and Baker will be realigned to serve the new transit hub within Nelson.

**Rationale:** The introduction of a new transit hub within Nelson, which is critically required to accommodate improvement and development of transit services at the local, regional, and connector scale means that routes must be modestly re-aligned.

**Estimated Annual Hours:** TBD

**Vehicles Required:** 0

**Transit Funder/Subsystem:** ALL

##### COVID-19 Impact

This expansion is driven by local resident travel demand.

Critical loads are likely to reoccur as resident ridership patterns are restored.

**Priority is unchanged by COVID**



## 17. Kaslo ↔ Balfour: 76 Kaslo/Nelson



### **Service Change Description:**

Introduce two additional round trips per week

**Rationale:** Kaslo residents were most interested in improved access to Balfour and Nelson during consultation.

**Estimated Annual Hours:** +140 hours

**Vehicles Required:** 0

**Transit Funder/Subsystem:** RDCK

**Anticipated Garage Location:** Kaslo

### **COVID-19 Impact**

This service change is driven by local resident travel patterns

**Priority is unchanged by COVID**

## 18. 52 Nakusp ↔Slocan

**Service Change Description:** Introduce two additional round trips per week.

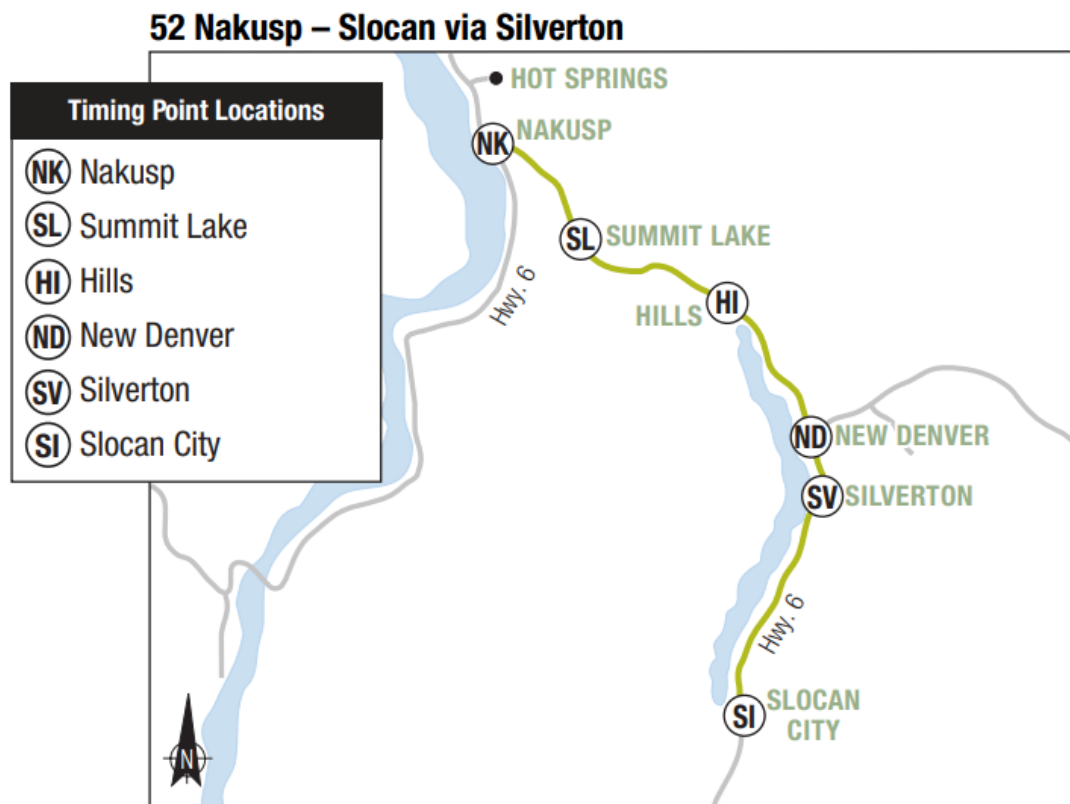
**Rationale:** Route 52 and 76 are well used – additional service is warranted. New trip times should be timed to connect with Route 20 in Slocan village.

**Estimated Annual Hours:** 280 hours

**Vehicles Required:** TBD

**Transit Funder/Subsystem:** RDCK

**Anticipated Garage Location:** Nakusp

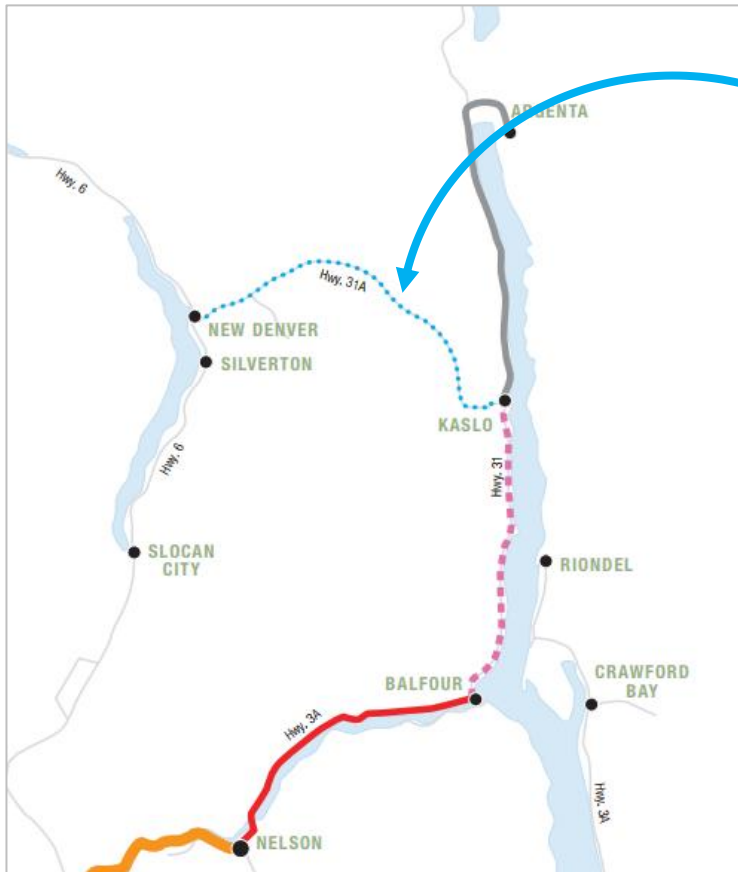


### COVID-19 Impact

This service change is driven by local resident travel patterns

**Priority is unchanged by COVID**

## 19. Kaslo ↔ Silverton: New Route



**Service Change Description:** Two round trips 1 day per week in June, July and August

**Rationale:** This concept was raised during Phase 1 consultation and was well-received in Phase 2, particularly from residents of the Slocan Valley.

**Estimated Annual Hours:** +85 hours

**Vehicles Required:** 0

**Transit Funder/Subsystem:** RDCK

**Anticipated Garage Location:** Kaslo

### COVID-19 Impact

This service change is driven by local resident travel patterns

**Priority is unchanged by COVID**

20. FEASIBILITY STUDY: Examine options and develop high level cost estimates for introducing transit service to Harrop and Proctor

## 8.4 Summary Short Term Service Proposals

The TFSP identifies a number of areas where there is significant disparity in access to transit, where past priorities outlined in the Central Kootenay Service Review, Nelson and Area Service Recommendations and West Kootenay Master Plan are still valid but have not yet been implemented, or where routes are at critical capacity.

The short-term service proposals shown here require an investment of approximately 5,300 service hours and the addition of five vehicles. Of these 3,600 hours apply regardless of COVID conditions.

Description	Estimated trips	Estimated hours	peak buses	Spare buses	LG Funder/ Garage	Post COVID impact
<b>6a. 53 Edgewood</b> Additional trip time to address ferry runtime issues.	No Change	+ 40 hours	NA	NA	RDCK/ Kaslo	Applies
<b>6b. Nakusp Local</b> Adjust schedule to maintain service levels		NA				
<b>7a. Salmo ↔ Nelson</b> Introduce basic commuter service between Salmo Ymir and Nelson; round trips to coincide with high school start/end and office end time. Reach 3 round trips on all weekdays.	3 new round trips on 2 new service days	+1,300 hours	+ 1 LD	1	RDCK/ Nelson or Salmo	Applies
<b>7b. 15 Perrier</b> Discontinue service and reallocate resources to 8a. Perrier road will continue to be served by the new route	- 2 round trips on two days of the week	- 83 hours	TBD	NA	City of Nelson/ Nelson	Applies
<b>7c. 72 Salmo/Nelson</b> Seek permission from Health Connections to adjust trip times and change the fare structure	Currently operates 3 round trips 3 days per week	NA	NA	NA	Health Connections	Applies
<b>8. Fruitvale ↔ Salmo</b> Extend service from Fruitvale to Salmo	+3 trips per weekday	+700 hours	1 MD		RDCK/ TBD	Applies
<b>9. Castlegar Local 1</b> Extend evening service span within Castlegar to reach 8:00 pm or 8:30 pm and align with other urban routes within WKT	6 total new trips (evenings)	+1,000 hours	0	0	RDCK/ Castlegar	Applies

Description	Estimated trips	Estimated hours	peak buses	Spare buses	LG Funder/ Operator/ Garage	Post COVID impact
<b>10. Castlegar Local 2</b> Introduce additional peak service to distinguish route 33 from 98; improve route 32 Columbia and 36 Ootischenia; Reallocate the existing extension route 33 trips to form route 98	TBD	+ 1,200 hours	+1 HD or MD	0	RDCK/ Castlegar	College - dependent
<b>11 Trail ↔ Castlegar</b> All route 98 trips go to the College	TBD	+500 hours	0	0	RDCKB & RDCK/ Trail	College-dependent
<b>12. Castlegar Local 3</b> Improve Castlegar Saturdays to address high demand and reach better alignment service standards	2-3 additional trips per route	+250 hours	0	0	RDCK/ Castlegar	Applies
<b>13a. 52 Nakusp Slocan</b> Align all trips to pass by New Denver Health Centre	NA	+30 hours	0	0	RDCK/ Nakusp	Applies
<b>13b. 74 Nakusp Nelson</b> Align all trips to pass by New Denver Health	NA	NA	0	0	Health Connections/ Nakusp	Applies
<b>14a. 20 Slocan</b> Discontinue to first northbound trip and the last southbound trip on all service days	NA	-700 hours	0	1 (LD Spare)	RDCK/ <u>Slocan</u>	Applies
<b>14b. 20 Slocan</b> 1 late evening trip on Friday and Saturday to accommodate high ridership	+ 1 trip on Friday, Saturday	+225 hours	0	0	RDCK/ Slocan	Applies
<b>15a. 10 North Shore</b> Discontinue to first northbound trip and the last southbound trip on all service days	NA	-300 hours	0	1 LD Spare	RDCK/ <u>Balfour</u>	Applies
<b>15b. 10 North Shore</b> Nelson ↔ Balfour Saturday improvement to accommodate very high ridership	+2 trips per Saturday	+150 hours	1 LD	0	RDCK/ Balfour	Applies

Description	Estimated trips	Estimated hours	peak buses	Spare buses	LG Funder/ Operator/ Garage	Post COVID impact
<b>16. Nelson Local</b> Realign all Nelson routes to serve the new transit exchange at Victoria	0	TBD	0	0	NA	Applies
<b>17. 76 Kaslo ↔ Balfour</b> Introduce two additional round trips per week.	+2 trips per week	+140 hours	0	0	RDCK/ Kaslo	Applies
<b>18. 52 Nakusp ↔Slocan</b> Introduce 2 additional round trips per week	+2 trips per week	+ 280 hours	TBD	TBD	RDCK/ Nakusp	Applies
<b>19. Kaslo ↔ Silverton</b> Introduce 1 day/week in June, July and August	2 round trips/day	+85 hours	0	0	RDCK/ Kaslo	Applies
20. Conduct a feasibility study to explore options for introducing transit to Procter and Harrop	NA	NA	0	0	RDCK	Applies
<b>TOTAL</b>	<b>4,900 + hours</b>					
Applicable regardless of COVID	3,200					
Connector	500 hours					
City of Nelson	TBD (Transit exchange)					
RDCK (Castlegar)	2,450 hours					
RDKB (Trail)	700 hours (see 2016 Trail and Area Service Review)					
RDCK (Kootenay West)	1,250+ hours					

## 8.5 Short Term handyDART Service Proposal

The current blended delivery model for handyDART service to the Nelson Area as part of the Kootenay Lake West Paratransit provides a lower level of handyDART access to residents of the Nelson Area than what is provided to residents in the Castlegar and Trail Areas.

Re-allocating the existing handyDART hours from Kootenay Lake West Paratransit business unit to a distinct custom business unit will enable local partners to leverage more supportive cost-sharing agreement, and also enable consideration of a more diverse suite of custom transit service delivery options such as Taxi-Supplement service.

Description	Estimated trips	Estimated hours	peak buses	Spare buses	LG Funder/ Operator/ Garage	Post COVID impact
21. Introduce dedicated weekday handDART service to the Nelson Area	NA	+ 2,500 hours	1	1	TBD	Applies



## 8.6 Medium to Long Term Service Improvements

The following section outlines the proposal and costs for the consideration in the medium and long-term. Many of these initiatives are carried forward from the West Kootenay Master Plan 2012 and Nelson and Area Transit Service Recommendations 2012.

Description	Estimated trips	Estimated hours	Peak buses	Spare buses	LG Funder/ Garage	Post COVID impact
<b>22. Nelson Local</b> Weekday improvements to accommodate growing ridership, attract more residents from driving to transit, and prepare to connect to new connector trips	TBD	+2,000 hours	1 bus	1 bus	Nelson/ Nelson	College - dependent
<b>23. Castlegar Local</b> Weekday improvements to continue towards service equity, attract more residents from driving to transit, and prepare to connect to new connector trips	TBD	+2,000 hours	1 bus	TBD	RDCK/ Castlegar	College - dependent
<b>24. Trail Local</b> Weekday improvements to attract more residents from driving to transit, and prepare to connect to new connector trips	TBD	+2,000 hours	1 bus	TBD	RDCK/ Trail	College - dependent
<b>25. Nelson ↔ Trail</b> Creation of the combined connector on weekdays: Addition of the equivalent of 2 new trips on segment now served by route 99; Addition of 3 the equivalent of 3 new trips on the segment now served by 98 & 33; Addition of time to serve the Airport Consider examining opportunities to terminate some trips at Chako Mika	Reaching 11 to 12 round trips per weekday (total). <i>12 round trips recommended in the 2012 West Kootenay Master Plan</i>	+ 3,500 hours	1 bus & dedication of 5 heavy duty buses	TBD	All partners/ various garages	College - dependent
<b>26. 20 Slocan</b> Slocan City ↔ Playmor Add 2 round trips per weekday service to support improved access to the connector – reaching 7 round trips per day.	+2 per weekday <i>The West Kootenay Master Plan 2012 had 8 round trips for the mid term; 10 round trips for the long term.</i>	+1,200 hours	1 LD	TBD	RDCK/ TBD	College - dependent

Description	Estimated trips	Estimated hours	Peak buses	Spare buses	LG Funder/ Garage	Post COVID impact
<b>27. 10 North Shore</b> Add 1 round trips per weekday service to accommodate high ridership and support improved access to the connector – reaching 9 round trips per day.	+1 per weekday	+545 hours	1	TBD	RDCK/TBD	Applies
<b>28. Nelson Local</b> Modest Saturday (off-peak) improvements to urban Nelson routes to accommodate growing ridership and to prepare for the Saturday Connector	TBD	+350 hours	0	TBD	Nelson/ Nelson	Applies
<b>29. Castlegar Local</b> Saturday expansion (off-peak) to Castlegar urban and coverage routes (31, 32, 33, 34 & 36) – including Saturday service for Ootischenia to attract more people to transit and prepare for Saturday connector	TBD	+750 hours	0	TBD	RDCK/ Castlegar	Applies
<b>30. Trail Local</b> Saturday expansion (off-peak) to Trail urban and coverage routes (41, 42, 43, 44, 46) to attract more people to transit prepare for the Saturday connector.	TBD	+600 hours	0	TBD	RDCKB/ Trail	Applies
<b>31. Nelson ↔ Trail</b> Introduction of the combined connector on Saturdays and the addition of one later trip.	+1	+300 hours	0	TBD	All partners/ various garages	Applies
<b>32. Nelson ↔ Salmo</b> Expand weekday trips from 3 to 4 and introduce 3 trips on Saturdays.	+1 weekdays; +3 on Saturdays	+1,500 hours	1 LD	TBD	RDCK/ Nelson or Salmo	Applies
<b>33. Nelson Local</b> Introduction of Nelson Sunday urban service (at 2020 Saturday levels)	TBD <i>Previously identified in the Nelson &amp; Area Transit Recommendations 2012</i>	+1,000 hours	0	TBD	Nelson/ Nelson	Applies
<b>34. Castlegar Local</b> Introduction of Sunday	TBD	+1,000 hours	0	TBD	RDCK/ Castlegar	Applies

Description	Estimated trips	Estimated hours	Peak buses	Spare buses	LG Funder/ Garage	Post COVID impact
urban service (at 2020 Saturday levels)						
<b>35. Trail Local</b> Introduction of Sunday urban service (at 2020 Saturday levels)	TBD	+1,000 hours	0	TBD	RDCK/ Trail	Applies
<b>36. Nelson ↔ Trail</b> Introduction of the combined connector on Sundays	3 round trips	+500 hours	0	TBD	All partners/ various garages	Applies
<b>37. 10 North Shore</b> Introduction of Sunday Service	3 round trips	+250 hours	0	TBD	RDCK/Balfour	Applies
<b>38. 20 Slocan</b> Slocan City ↔ Playmor: Introduction of Sunday Service	3 round trips	+400 hours	0	TBD	RDCK/Slocan	Applies
TOTAL		18,895 hours				
Connector		4,300				
City of Nelson		3,350				
RDCK (Castlegar)		3,750				
RDCK (Trail)		3,600				
RDCK (Kootenay West)		3,895 (includes Route 10)				

## 13. INFRASTRUCTURE PROPOSALS

A hard constraint on all transit service growth is the physical capacity of the facilities which transit relies upon. Exchanges where multiple buses meet and where customers conduct timed transfers must have sufficient bays to safely and consistently accommodate different routes while meeting accessibility requirements; space for recovery is required at the terminus of each route.

Expansion of transit service often requires fleet expansion for reliability purposes and to ensure that vehicles meet their amortized service lifespan. A prerequisite to fleet expansion are

adequately sized transit facilities offering sufficient maintenance bays and parking to accommodate new fleet vehicles.

Many of the service proposals contained in this plan are predicated on the ability to expand the transit fleet. However development of new transit facilities is a lengthy process easily surpassing the three-year transit service budget process; this means that efforts to expand or replace facilities must begin well before the planned expansions that will occupy the final available spaces in existing facilities. Some garage facilities in the West Kootenay system are already nearing capacity or do not have secure tenure. Efforts to secure adequate facilities should be prioritized

From a resident/customer legibility perspective the presence and quality of transit stop and exchange infrastructure is often the only fixed sign of transit service in specific areas of the community and the caliber of that transit service.

From a social inclusion perspective, accessible bus stop infrastructure and pedestrian connections are crucial to enabling community members of different abilities to use transit services.

From an active transportation and low carbon perspective the provision of bicycle rack amenities can broaden the catchment area of transit stops and enable.

## 13.2 Exchanges

- **New Exchange Downtown Nelson (planning work is underway).** The Nelson transit exchange situated at Ward and Baker is currently exceeding capacity. A new terminal facility located on Victoria between Stanley and Kootenay with space to accommodate a minimum of six vehicles and future transit system growth is in the planning stages. Figure 30 shows one design option developed over the summer of 2020.

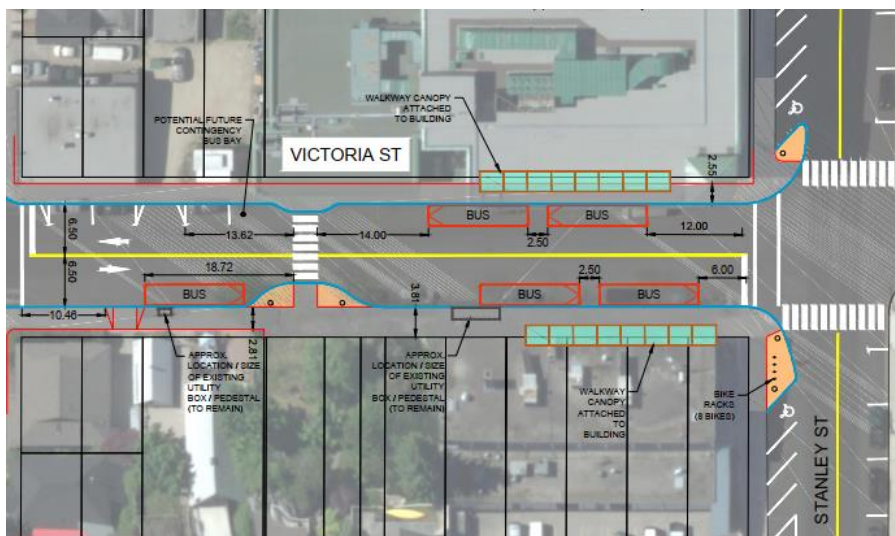


Figure 30 One design option being considered for the new Downtown Exchange in Nelson

- **New Exchange Downtown Trail (planning work is commencing).** The Trail transit exchange has a deficit of amenities. A new terminal facility designed to improve user friendliness and easy transfers accommodate future transit system growth is in the planning stages

### 13.3 Operations and Maintenance Facilities

- **Nelson Operations & Maintenance Strategy** The municipal facility in Nelson is nearing capacity for additional vehicles. Sufficient maintenance capacity and parking space will be required in Nelson in order to carry out the short term and further term proposals contained within this plan.  
The volume of passenger travel at peak times on the regional connectors is significant – it may be prudent for future facilities strategy to consider accommodating high capacity vehicles.
- **Castlegar Operations & Maintenance Strategy** This plan contains significant expansion oriented towards Castlegar. A review should be undertaken to determine the long term viability and tenure of the existing Castlegar Operations and Maintenance facility.
- **Trail Operations & Maintenance Strategy** This plan contains significant expansion oriented towards the connector routes. A review should be undertaken to determine the long term viability and tenure of the existing Trail facility.  
The volume of passenger travel at peak times on the regional connectors is significant – it may be prudent for future facilities strategy to consider accommodating high capacity vehicles
- **Paratransit Operations & Maintenance Strategy** The Paratransit and Health Connections systems contained within this plan are dispersed throughout the RDCK. Parking will be further dispersed upon creation of satellite facilities in Slocan and Balfour. A long term strategy charting out the approach for maintenance would be beneficial.

### 13.4 Satellite Garage Facilities

Several existing and planned routes are oriented to provide outlying communities at the fringe of commuting distance with commuter access to larger centres. Each morning and evening buses travel from and back to garages in the Nelson area. These positioning trips are necessary because of the garage location, but consume significant resources while serving none or very few customers. Reorienting the fleet vehicles which provide commuter service from the Nelson-area to the outlying communities will eliminate this unproductive time. Secure overnight storage facilities for light and medium-duty buses are needed in the following locations.

- **Village of Slocan.** Capacity: 2-3 buses. Buses are deadheading about 160 minutes per day Monday-Saturday. This will save the transit system a minimum of 700-800 hours of time per year.
- **Balfour.** Capacity: 2-3 buses. Buses are deadheading about 120 minutes per day Monday-Saturday. This will save the transit system a minimum of 300-400 hours of time per year which may be removed or reallocated. Additionally this location may also prove strategically valuable for enabling service expansions oriented towards the EastShore (Area A).

#### Considerations

Spare vehicles will be needed at each of these locations to ensure service reliability, for a total of 2 spare vehicles. The annual lease fees associated with 2 additional spare vehicles should be offset for local government by the operational savings of the 1,000 – 1,200 hours. This spare expansion will address an existing spare ratio deficit and support future expansions elsewhere in the system.

Drivers for commuter routes where vehicles are housed in satellite facilities will need be prepared to “seat swap” during their shifts.

Operators of the commuter routes will need to devise a strategy to regularly rotate buses through a central facility for maintenance.

## 13.5 Park’n’Ride

People residing in rural areas experience the longest duration and distance commutes. By encouraging shifts to transit and ridesharing, Park’n’ Ride facilities reduce greenhouse gas emissions, reduce parking demands and also commuter traffic congestion.

This plan strongly supports ongoing growth and development of Park’n’Ride facilities, particularly in rural areas where local residents can access commuter transit service. Design considerations should include: Off-highway access by transit buses from both directions, accessibility, lighting, shelter, and bicycle parking.

- **Expansion of the Playmor Junction Park’n’Ride** – the Park’n’Ride facility at Playmor Junction is nearing capacity whilst the rural south Slokan Valley continues to grow in population and transit demand. An additional 30 car spaces onsite or in the near vicinity are suggested. If the existing Park’n’Ride location is to be retained an accessibility pad is strongly encouraged. Passenger amenities, including shelter, lighting and bicycle parking should also be improved.
- **Slokan City Park’n’Ride** - A Park’n’ride in Slokan City would be expected to serve mostly those living north of Slokan City in Silverton or New Denver. An accessibility pad is strongly encouraged. Other passenger amenities including shelter, lighting and bicycle parking should be considered.
- **Salmo Park’n’Ride** – A centrally located and dedicated parking lot for 10 vehicles with expansion potential for more. The development of this facility should coincide with the introduction of commuter connectivity between Salmo and Nelson. An accessibility pad is strongly encouraged. Other passenger amenities including shelter, lighting and bicycle parking should be considered. One of the lots between Railway Ave and Hutcheson Ave would be ideal.
- **Castlegar-Area Park’n’Ride Opportunities** - 38 per cent of Castlegar residents travel outside of the city for employment daily, and the city is served by the regional connectors providing outbound transit to Trail and Nelson. New transit ridership could be captured through:
  - A new Park & Ride on the outskirts paired with additional local transit service to enable better connections for city residentsor:
  - A re-routed regional connector travelling the length of the City of Castlegar - (this could be further enabled by a direct pedestrian bridge to access Selkirk College from the core of Castlegar).

BC Transit will conduct a study to identify considerations related to further P& R development to improve access to the connector service and support Castlegar residents in getting out of their cars.



## 13.6 Transit stops

Bus stops frame the transit user experience and are the most visible fixed indicator of transit service and quality in the community. They are tools to attract riders, improve operational efficiency, build the brand identity of a system and foster local economic development.

- **Upgrades and maintenance** – Each local government within the plan area is encouraged to allocate an annual portion of capital budget to upgrade or refresh existing transit stops. The installation of accessibility boarding pads is particularly encouraged however improvements such as shelters, lighting, and bicycle racks may also be considered.
- **Signage** - BC Transit is undertaking a gradual shift from strip bus stop signage (the pair of narrow vertical signs), to flag signs which project further from the pole. Flag signs offer greater visibility to bus drivers and customers and also enable information about the bus route (such as its name and number) to be communicated to community members.
- **Fixed Stops with signs vs Flag-down stops** Some rural areas permit passengers to wave the bus down, this practice is called “flag stop” and relies on passengers standing in a place that is safe for the bus to stop. Flag stops can be advantageous where population is sparse, however reliance on customers to identify safe stopping locations can introduce inconsistency into the customer experience.

Permanent fixed stop locations are carefully selected for visibility and safety of transit passengers. This helps make the customer experience more consistent and also enables community members to use trip-planning tools more effectively.

BC Transit will continue to support the RDCK and City of Nelson in pursuing improvements to stop infrastructure, including new stops, to improve access to transit and ease of use for customers.

## 13.7 Strategic Active Transportation Connections

Active transportation (AT) networks are pivotal in enabling and broadening access to transit and other amenities to residents of any community. Strategic investments in new AT infrastructure can enable and encourage shifts to walking, cycling, and transit from motorized means of transportation. In some instances this can reduce pressure on road networks.

- Encouragement for the creation of highway pedestrian crossings in designated communities flanking the highway to support safe access to and from transit stops and community destinations. Examples include: Crossing opportunities on Highway 31 at Ainsworth and Highway 3A at Frank Beinder Way
- Encouragement for the creation of accessible and direct Active Transportation linkages to the Frank Beinder Campus of Selkirk College. Currently **98%** college commuters surveyed are fully reliant on motorized means of transportation.

# 14. INFORMATION

In order to access and use transit services community members and other potential users must become aware of the service and be able to learn how routes and schedules operate. In cases where Health Connections are provided other stakeholders such as medical offices also benefit from understanding the availability of Health Connections to the various communities within their respective service areas. The availability and access to transit information define a key component in the user-friendliness of a transit system.

Many of the priorities identified during the plan development process relate to how transit information is presented to the various communities served by the West Kootenay Transit System. Key topics were raising general awareness and providing greater assistance to new customers in communities where transfers are necessary to complete journeys; improving the availability of schedule information for community members with vision impairments; and highlighting Health Connections schedules to staff at Interior Health Facilities.

The following actions are suggested to improve the availability and dissemination of transit information.

## 14.2 Updated Marketing Plan

New annual marketing plans should direct greater budget to providing quarterly or biannual targeted transit information for the small villages served by the paratransit routes. Given the lower incursion of technology, limited cellular service, and substantially older demographic in these villages inserts within local papers are the preferred approach.

As service levels are generally stable any new materials required will only need to be developed one-time and are not expected to require frequent updates.

## 14.3 Improved Information for Customers with Vision-Impairments

BC Transit will work to ensure that route schedule information can be accessed in a format more suited for those with vision impairments. This includes supporting improvements to the corporate website and also exploring strategic stop locations within the West Kootenays that would benefit from large format schedule information posters.

## 14.4 Supporting

BC Transit will support West Kootenay Local Governments in advocating for more informed scheduling of Interior Health medical appointments for residents originating in communities that are reliant on Health Connections routes.

# 15. EMERGING TECHNOLOGY

New emerging technologies will have a direct impact on future mobility within the West Kootenays. Mobility as a service, autonomous and electric vehicles, and other emerging bus technologies have the potential to reshape how people choose to move throughout their communities.

The following section outlines some of these future technologies and how they could potentially influence the transit system in West Kootenays.

## 15.1 Fleet-Related Technology

BC Transit is committed to continuously enhancing the rider experience. As part of this endeavour, BC Transit is moving forward with the installation and development of technology initiatives to improve efficiency, increase security and put passengers in control of their BC Transit experience. Two of the primary fleet-related technology improvements planned for the near future include the SmartBus program and the Low Carbon Fleet Program. Additional information on both of these projects is provided below.

## 15.2 SmartBus

### Phase 1

The first phase of the SmartBus program at BC Transit introduces real-time bus information, automated stop announcements, and closed circuit TV Cameras onboard each bus. The implementation of these bus technology improvements was planned for 2020, but due to the ongoing impacts of the COVID-19 pandemic, has been delayed. An update on this project will be provided in fall 2020.

### Phase 2

BC Transit is beginning a review of fare technology and fare payment systems with the intent to move to an advanced fare collection system.

BC Transit has undertaken a project to procure and introduce new fare collection technology to replace the existing fareboxes on its buses. The goal of this project is to introduce an electronic fare collection system where customers bring their own ticket (i.e. mobile phone app or credit card) and will require the introduction of onboard fare validators and a backend system for fare validation, payment processing, account management and payment reconciliation. The NRFP for this project was posted in June 2020, with the implementation plan for the transit systems in scope to be determined with the selected vendor post-contract award.

## 15.3 Low Carbon Fleet

In November 2018, BC Transit approved a Low Carbon Fleet Program to support provincial targets for greenhouse gas (GHG) emissions and to align with the provincial CleanBC plan. Core to this program is a 10-year fleet replacement strategy to replace over 1,200 existing buses and expand the fleet by an additional 350 buses by using the potential of advanced GHG reducing technology. Across the province of B.C., there is growing expectation from all partners that BC Transit endeavor to find prudent ways to support its emission reduction goals. BC Transit is actively pursuing new and emerging low carbon technologies, supported by the use of renewable fuels, as we strive towards a cleaner, greener fleet. Based on the fleet replacement needs required in each

vehicle classification, an initial pathway to full electrification has been established. More information on this program is available in BC Transit's Low Carbon Fleet Program.

## 15.4 Car and Bike Sharing

Car and bike sharing leverages the sharing economy to extend the benefits of car or bicycle ownership to individuals without the upfront costs, maintenance, and storage required for ownership. Touted benefits of car and bicycle sharing include decreasing the incidence of car ownership and promoting multimodal travel within communities, which could help build transit ridership within a community. Car and bike sharing programs can help address the first and last mile issue with transit; in other words, car and bike sharing services can extend the reach of transit by connecting transit riders between a bus stop and their trip origin or destination.

There are several different car sharing models including station based, A to B, and free-floating models. Further, there are several different car sharing business models including business to consumer, business-to-business, peer to peer, and not for profit.

Similar to car sharing, there are several different bicycle sharing models include docked, dockless, workplace pool bikes, bike loans, and peer to peer sharing. Another distinguishing factor within these models is whether the bikes are geo-fenced or not.

Many transportation-sharing services are currently seeing significant investment as technology improvements and profitable business models emerge for these services.

## 15.5 Ride Hailing

Ride hailing is the provision of immediate or on-demand service whereby a vehicle and driver are hired for a fee to transport a passenger, or a small group of passengers, between locations of their choice. This service may be provided by Transportation Network Companies (TNCs) or traditional taxi operators.

Beginning in 2019, TNCs are permitted to operate in British Columbia. As seen in many other cities that currently permit TNCs, the widespread adoption of ride hailing services can either supplement or substitute existing fixed-route transit services depending on various contextual factors.

## 15.6 Digital on-Demand Transit

Digital on-demand transit uses technology to dynamically dispatch a bus, van or fleet of vehicles to locations dictated by the riders. Real-time information and mobile platforms for customers and drivers support the transition to more flexible service models. A typical digital on-demand bus service will have no fixed schedules and customers can request it as they need it by using an app. It also has flexible and responsive routing, but may still have fixed route stops so it can be more efficient and allow multi-user boardings.

# 16. MOVING FORWARD

## 16.1 Funding the Plan

Once this document has been endorsed, it will become a guiding document for making future decisions regarding transit connecting to, from and within the plan area.

The West Kootenay Transit System is among the most unique transit systems in the Province. Development patterns, demographic shifts, increasing ridership and traffic congestion all impact the efficiency and effectiveness of the transit system. Planning and budgeting processes need to address the shifting nature of this operating environment in order to maintain and build transit ridership and achieve community environmental, social and economic goals.

## 16.2 Keys to Success

Guiding the plan from vision to reality will require an on-going dialogue between the Province, BC Transit, the West Kootenay Transit Committee, City of Nelson, City of Castlegar and Regional District of Central Kootenay on transportation policy, funding and the connection between land use and transit planning.

This West Kootenay TFSP builds upon the three precursor 2012 Plans as well as local land use and transportation plans and will be used to support the vision and direction for transit in the region. Steps required for the success of the plan include integrating the transit strategy into other municipal and regional projects, supporting travel demand management measures, transit-oriented development and transit-friendly land use practices.

This plan will be presented to the West Kootenay Transit Committee for review, to the Board of the RDCK and City of Nelson council for endorsement. Service improvements will be integrated into the Three Year Transit Improvement Process (TIP), which is updated on an annual basis. Infrastructure improvements will be incorporated into BC Transit's Capital Plan.

Prior to implementation of service changes, BC Transit planning staff will work with staff members of the local governments represented at the West Kootenay Transit Committee to ensure service improvements appropriately reflect local needs. Additional targeted engagement may be conducted.

## Appendices – upon request

A– Status of Priorities from Past Plans

B - Demographic Review

C - West Kootenay Transit TFSP Engagement Report

D – Performance Review

E – Updated West Kootenay Service Design Standards and Performance Guidelines

F – Area Level Discussion