Cranbrook Transit System

Service Review – Report

December 4, 2013

City of Cranbrook | BCTransit

ACKNOWLEDGEMENTS

BC Transit would like to thank the Council and staff of the City of Cranbrook, the staff of Sun City Coach Lines Ltd., and all Cranbrook community members who provided input into this review, in particular:

- College of the Rockies students and staff
- School District #5
- Mount Baker High School
- Big Brothers Big Sisters
- Cranbrook Boys & Girls Club
- Cranbrook Food Bank
- Street Angels
- East Kootenay Addictions Services
- AIDS Network Kootenay Outreach and Support Society
- Salvation Army
- R.E.A.L.M.
- United Way
- Community Connections Society
- Ministry of Social Development
- WorkBC East Kootenay Employment Services Centre
- BC Government Retired Employees' Association
- Joseph Creek Village
- Cranbrook in Motion (Integrated Community Sustainability Plan representative)
- Chamber of Commerce
- Tamarack Centre
- Slaterville neighbourhood area
- Cranbrook/Canadian Rockies International Airport
- St. Eugene Golf Resort & Casino

BC Transit would also like to thank all residents who provided feedback and information through passenger and online surveys and at the public open house.

EXECUTIVE SUMMARY

In collaboration with the City of Cranbrook, BC Transit has undertaken this service review to examine the existing Cranbrook Transit System service and outline potential service change options for consideration.

The rationale for the service review is based on:

1. the City of Cranbrook's Business Plan, which requested a review of the Cranbrook Transit System, schedules, and buses, with a target of maximizing service for investment and reducing the budget over two to three years
2. ongoing work to identify opportunities to continue to improve transit's efficiency and effectiveness.

Analysis of the community and transit system was based on a variety of census sources, community plans, public engagement, and system-specific data sources. The proposed service change options were developed with the collaboration and feedback of elected officials and staff of the City of Cranbrook, the staff of Sun City Coach Lines Ltd. (which operates the transit system), transit passengers, and representatives from a wide array of organizations representing education, social services, and the business community. High-level data summaries are presented in the body of the report, with full results included in the appendices.

Community Profile – Population, Official Community Plan and Development

Cranbrook's growing population has seen the proportion of seniors and adults rise, with the proportion of youth and young adults declining somewhat. Young people have traditionally made up a large segment of Cranbrook Transit's ridership, so strategies are required for maintaining and building ridership in the face of this population shift. As of the 2006 census, the majority of employed Cranbrook residents commute to work within Cranbrook, and use transit at a slightly higher-than-average rate than similarly sized BC communities. This is promising given the relative youth of Cranbrook's transit system.

The City of Cranbrook's Official Community Plan has been evolving to include more transit-supportive language and policies, particularly with the proposed OCP amendment. Continued strengthening of language in the OCP to increase walkability and the concentration of development along transit corridors—and land use decision-making in line with that language—is a key way that Cranbrook can improve the efficiency and effectiveness of its transit system over time.

Two key developments which may have an effect on transit ridership are a social housing complex for low-income seniors in the Baker Park area (which has been completed), and a proposed three-storey Salvation Army transition housing complex in the Slaterville area. The former is well served by existing transit service, while the latter is poorly served and may be a challenge to serve in the future.

Background to Present Service – History, Ridership and Performance

Cranbrook's fixed-route service has seen minor changes since its implementation in late 2000, consisting mainly of small routing alterations to increase coverage, variations in the amount of evening and Sunday service, changes in location of the downtown transit exchange, and the introduction of the limited-service Route 4 Slaterville in 2011.

Ridership has increased by around 250% since system implementation, largely due to the increase in college student ridership following U-Pass introduction.

While Cranbrook's ridership per service hour is below average relative to its peer transit systems, this should be considered in the context of its extremely young age, relatively speaking, as a transit system. Cranbrook performs well in terms of cost per ride, cost recovery, total cost per hour and operating cost per hour among its peer group, demonstrating the efficiency of its transit operations.

- *The system has experienced consistent ridership growth, and possible service changes should be evaluated against the risk of disrupting this trend.*

Existing Conventional (Fixed-Route) Service – Market Analysis

School and college students are by far the most frequent weekday users of transit in Cranbrook. Routes 1 (serving Tamarack Mall, the WalMart/Superstore complex, and the Save On Foods complex) and 5 (serving COTR, the recreation complex and the hospital) have the highest service frequency and carry by far the highest number of passengers on weekdays. Route 1's ridership remains consistently high on Saturdays and Sundays and is appropriately served.

- *While Route 5's ridership merits its half-hourly service on weekdays, its ridership drops to that of other routes, and may be over-served, on weekends, in particular on Sundays.*

Of the remaining routes, Route 14 (14^{th} Avenue) is the strongest performer in terms of ridership. Ridership on Routes 2 (Highlands) and 3 (Third Avenue) is consistently low across all service days and time periods, as is that of Route 7 (7^{th}–11^{th} Avenue) outside of the weekday morning and afternoon peaks. This low ridership is most notable on Sundays.

- *These routes may be candidates for frequency or routing adjustments, and potentially in the longer term, for service by a smaller, community-sized vehicle.*

Route 4 Slaterville has the lowest overall ridership but also the most limited service, operating only three times per weekday, with no service on weekends.

- *If the Slaterville route is to remain, at least two more trips per day should be added, to reduce the long interval times(four to five hours) between trips.*

Existing Custom (handyDART) Service – Market Analysis

With conventional system implementation, Cranbrook's custom service has transitioned into a specialist handyDART service for people with physical or cognitive impairments. Since introducing standard eligibility requirements, the custom service has seen a commensurate drop in ridership, lowering its productivity (riders carried for the hours delivered), but has also maintained a total cost per hour and operating cost per hour lower than those of peer systems.

- *A ridership review shows that the system has overall capacity to meet the needs of passengers in terms of service hours and appears to have more hours than needed on the majority of service days.*
- *The system has a high spike in passenger activity on Thursdays and it may be beneficial to work with handyDART subscription clients to see if some trips can be moved to better balance demand across all service days.*

Service Reliability and Operating Issues

In general, the Cranbrook Transit System is both operated and functioning well. Damage to transit vehicle fuel tanks had been noted in the past, due to them dragging on the ground in the cut-through between Kootenay St. North and 12^{th} St. North to the downtown exchange, but improved City maintenance of the roadway has reduced this issue.

- *To reduce potential vehicle damage, maintenance of the Kootenay St. North and 12^{th} St. North roadway should continue to be a priority for the City. There may also be opportunity to improve bus route and stop/shelter snow removal, and communication of roadway construction closures.*

Vehicle Fleet and Infrastructure

The existing five-vehicle conventional vehicle fleet has been recently refitted and has an estimated lifespan to 2017. Future replacements will be of a different make and model and may include community-sized vehicles (such as the Vicinity bus). The existing handyDART fleet of three high-floor, lift-equipped vehicles are scheduled for replacement over the next two years, likely with smaller low-floor vehicles. It should be noted that Cranbrook's conventional peak fleet requirements often put service reliability at risk, with the custom, high-floor, fleet required to supplement service.

- *The two priority bus stops identified for improvement within the system are located at College of the Rockies and East Kootenay Regional Hospital. (More details on these, and other, stops with the potential for improvement can be found in* Section 6.0 Vehicle and Infrastructure Review.*)*

Phase 1 Public Consultation and Feedback

Feedback about Cranbrook's transit system was solicited from the public by means of an on-board passenger survey, an online survey, a Key Stakeholder Workshop, and an Open House at College of the Rockies (COTR). The most frequent responses from passengers, online respondents, and COTR students was that the service is good and not to change anything, followed by requests for increased service frequency and evening service. Key stakeholders' most frequent suggestions were for the addition of evening service, more trips serving Slaterville, and rural connections with Kimberley and Creston.

Service Change Options

Service change options are based on this feedback in conjunction with analysis of current ridership and service frequencies. Short-term options comprise an increase in service to the Slaterville area, and reallocating some Sunday service hours towards either the extension of weekday service hours by 30 minutes per route or to the provision of weekend evening service. Longer-term options consider Cranbrook's vehicle fleet composition, service to the Wildstone neighbourhood, and regional service.

Other Considerations and Supporting Strategies – Fares and Marketing

A separate Fare Structure Review is included in this report as *Appendix K*. It should be noted that Cranbrook's current fares are significantly higher than those of other comparable systems within BC.

The report also notes the following additional fare and marketing strategies for Cranbrook:

- **Introduction of a Semester Pass** for school students, enabling the purchase of four months of travel at once
- **Outreach to parents of elementary, middle and high school students** to ensure awareness of the system
- **College of the Rockies outreach,** since many COTR students attending a recent BC Transit Open House event at the College were unaware of U-PASS and its benefits
- **Outreach to shoppers,** for example, better publicizing Route 1 Tamarack, which operates relatively frequently and connects Downtown and multiple shopping destinations
- **Seniors outreach,** particularly to younger seniors
- **Outreach via the City of Cranbrook,** including placing a link on the City's website to BC Transit's webpage for the Cranbrook Transit System, as well as continuing support for the system by the City and elected officials

Phase 2 Public Consultation and Feedback

Feedback on the proposed short-term service change options was solicited at two public open houses, as well as via an online survey. Overall, 55% of public consultation participants stated support for the proposed changes to Route 4 Slaterville (with the remaining 45% saying the changes would not affect them), and 59% stated support for the proposed changes on Sundays to Route 5, and Routes 3 and 7 (with 41% saying that they would not affect them). This indicates that future implementation of these service changes will likely be met with a positive public response.

The vast majority (92%) of respondents wanted to see any savings realized through the changes reinvested in the transit system, with an additional hour of evening service on Fridays and Saturdays as the favoured option for improved service through reallocation.

In general, there was also verbal support for the proposed introduction of a Semester Pass program.

Recommendations for Implementation

Based on the analysis contained in this report and public consultation results, it is recommended that the City of Cranbrook and its partners undertake the following for implementation:

A. Service

- Approve Short Term Service Option 1 (Route 4 Slaterville Service Additions and Routing Adjustment) and Option 2 (Sunday Service Reductions) for implementation, with any cost savings to be reinvested into the system, in particular to provide longer evening service on Fridays and Saturdays;
- Work with BC Transit, as vehicle replacement plans and other opportunities arise, to examine introducing a mix of community-sized vehicles to the Cranbrook Transit System's fleet over time, pending review of ridership and capacity needs.

B. Fares

- Approve the introduction of a Semester Pass program for September 2014, at a rate of $112. As the Cranbrook Transit System's fares are relatively high compared to its peers and the last fare change occurred in September 2011, a fare increase is not recommended at this time. However, there is opportunity for the City to accrue higher ridership and potentially more consistent revenue by implementing a Semester Pass program, combining four one-month passes for purchase by school students at a reduced rate.

C. Marketing

- Direct staff to work with BC Transit, Sun City Coach Lines and College of the Rockies staff to create a working group to meet on a regular basis and explore how the marketing strategies outlined in Section 9.2 could be implemented, including outreach to schools, the College of the Rockies, shoppers, seniors, and outreach via the City of Cranbrook.

Once local government has approved a service option for implementation, an Implementation Agreement Memorandum of Understanding (MOU) will be developed for signature by the City and BC Transit. This MOU will outline the exact service changes to be developed for implementation, and the implementation timeline. Once signed, any changes to the scope of service changes in the MOU may change timelines. Detailed costing would be confirmed through implementation.

Recommendations

It is recommended that the City of Cranbrook:

- **Receive this report as information, provide comment, and approve it for finalization by City and BC Transit Staff;**
- **Approve the implementation recommendations as outlined in the section above;**
- **Direct staff to work with BC Transit in order to proceed with implementation of any approved service change and fare options, including assisting with the development and signing of an Implementation Agreement Memorandum of Understanding (MOU).**

1.0 INTRODUCTION

In collaboration with the City of Cranbrook, BC Transit has undertaken this service review to examine the existing Cranbrook Transit System service and outline potential service change options for consideration.

The rationale for the service review is based on:
1. the City of Cranbrook's Business Plan, which requested a review of the Cranbrook Transit System, schedules, and buses, with a target of maximizing service for investment and reducing the budget over two to three years
2. ongoing work to identify opportunities to continue to improve transit's efficiency and effectiveness.

Therefore, the main objective of this report has been to investigate the efficiency and effectiveness of the current transit system, as well as consider potential service change options to optimize the service provided within the current budget. Included in this report are approximate cost estimates for suggested service change options provided.

The proposed service change options were developed with the collaboration and feedback of elected officials and staff of the City of Cranbrook, the staff of Sun City Coach Lines Ltd. (which operates the transit system), transit passengers, and representatives from a wide array of organizations representing education, social services, and the business community. A list of these organizations is provided in the *Acknowledgements* section on page 2.

The proposals also reference the City of Cranbrook's Official Community Plan (August 2006, with updates in 2008, 2009, 2010, and 2012) and data collected from:
- an on-board passenger survey (December 2012)
- an online survey (December 2012 to February 2013)
- electronic farebox ridership information (September 2012 to February 2013)
- passenger boarding/alighting numbers (December 2012 to January 2013)

High-level summaries of this data are presented in the body of the report, with full results included in the appendices.

2.0 COMMUNITY PROFILE

2.1 Population

As of the 2011 census, Cranbrook's population was 19,310, showing a 5.7% increase from 2006 census figures. Census results for Cranbrook and the BC average are shown below:

City of Cranbrook Population Trend and Comparison to BC Average

	City of Cranbrook					BC Average		
	2006		2011		% Change	2011		% Change
Age Group	#	%	#	%	2006 --> 2011	#	%	2006 --> 2011
Children (0 - 9 years)	2,010	11%	2,165	11%	0.2%	438,580	10%	-0.3%
Youth (10 - 19 years)	2,490	14%	2,330	12%	-1.6%	513,945	12%	-1.2%
Young Adults (20 - 24 years)	1,110	6%	1,060	5%	-0.6%	279,825	6%	-0.1%
Adults (25 - 64 years)	9,675	53%	10,300	53%	0.4%	2,478,985	56%	0.6%
Younger Seniors (65 - 74 years)	1,550	8%	1,855	10%	1.1%	371,615	8%	0.8%
Older Seniors (75+)	1,440	8%	1,600	8%	0.4%	317,100	7%	0.2%
Total	**18,275**		**19,310**		**5.7%**	**4,400,050**		**7.0%**
Median Age of Population	41.9		43.1			41.9		
% of Population Age 15 or Over	82.3		83.2			84.6		

Seniors, lower-income families and youth tend to be major users of public transit. In the 2011 census, 18% of Cranbrook's population were seniors aged 65 or older, slightly higher than the provincial average of 16%.

While the 2006-2011 percentage change of the 65-or-older population was only one point higher for Cranbrook than for the BC average (16% versus 15%), between the 2001 and 2011 censuses, Cranbrook's seniors' population increased by 35% compared to the BC average of 29%. This difference can be attributed at least partly to regional medical services being centralized in Cranbrook, resulting in an influx of seniors into Cranbrook in the intervening years. Older seniors in particular (those 75 years and older) rely substantially on transit. Maintaining a viable base level of frequency in the system—particularly during the 9 a.m.–3 p.m. period when many seniors conduct their shopping, medical appointments and other errands—will be key in maintaining stable ridership growth over the long term for Cranbrook's transit system.

At the other end of the age spectrum, Cranbrook's youth (ages 10-19 years) and younger adult (ages 20-24 years) populations have both declined somewhat since the 2006 census (shifting down by 1.6% and 0.6% respectively as a proportion of the population). Since these groups have been heavy users of Cranbrook's existing system, particularly as school students and college students, maintaining and growing ridership among this segment means encouraging transit travel for reasons other than school, such as transportation to work, and to evening and weekend social activities. While Cranbrook currently has weekend service, its evening service is limited to one-way trips for College of the Rockies students returning home from evening classes.

Cranbrook's adult population (ages 25-64) has been stable since the 2006 census. Adults commuting to work can be one of the most difficult markets to attract to using transit, which usually requires investment in system peak-time frequency. Cranbrook's existing peak-level weekday service on some key routes provides a good starting point to attract adults who may be motivated to take transit for environmental or health reasons. However, making substantial gains in this segment would require investment in further service, as well as potentially changes to parking and land use policies. Adults who are not commuters tend to have similar travel patterns to those of seniors, and similarly require a viable base level of service during the day in order to be able to use transit.

5% of all economic families in Cranbrook were classified as low-income families in the 2006 census, with 1% of seniors classified as low-income. These are below the BC averages of 10% and 7%, respectively. Ensuring transit serves higher-density areas and places where families access daily needs is key to attracting these segments of the population.

2.2 Commuting Profile

The following table shows Cranbrook's commuting flow for the employed labour force aged 15 years and older:

Commuting Flow for the Employed Labour Force 15 Years and Over
(Flows Greater than or Equal to 20)

Place of residence / Place of work	Count	%
Cranbrook (CY) / Sparwood (DM)	45	0.6%
Cranbrook (CY) / Kimberley (CY)	110	1.6%
Cranbrook (CY) / Elkford (DM)	55	0.8%
Cranbrook (CY) / East Kootenay E (RDA)	115	1.6%
Cranbrook (CY) / East Kootenay C (RDA)	305	4.3%
Cranbrook (CY) / East Kootenay B (RDA)	145	2.0%
Cranbrook (CY) / Cranbrook (CY)	6,215	87.7%
Cranbrook (CY) / Canal Flats (VL)	60	0.8%
Cranbrook (CY) / Calgary (CY)	35	0.5%
Total:	**7,085**	100.0%

Source: Statistics Canada - 2006 Census (2011 Census stats n/a)

The table shows that Cranbrook's main commuting flow (88%) is internal, i.e. within Cranbrook itself. The strongly contained nature of commuters within the City has a couple of considerations for transit. On the one hand, it means that the vast majority of commuters are within an area generally served by the transit system. On the other, the relatively short commuting distances within the community provide less impetus to commute by means other than car and also make walking and cycling attractive alternatives.

In terms of transportation modes used for commuting, Cranbrook residents' mode shares are shown below, along with provincial comparisons:

Mode of Transportation, % distribution
-- based on population with usual or no fixed workplace

	Cranbrook		Tier 3 System*	BC
	Count	%	Comparison (Avg.)	Comparison
Automobile, as driver	8,830	77.6%	76.5%	71.6%
Automobile, as passenger	1,180	10.4%	9.9%	7.7%
Walk	880	7.7%	9.3%	6.9%
Bicycle	190	1.7%	1.1%	2.0%
Public transit	180	1.6%	1.5%	10.3%
Motorcycle	35	0.3%	0.3%	0.3%
Taxi	0	0.0%	0.2%	0.1%
Other	90	0.8%	1.3%	1.0%
Total	**11,385**	**100.0%**	**100.0%**	**100.0%**

Source: BC Stats - 2006 Census (2011 Census stats n/a)

* BC Transit's systems are divided into tiers based on population size, with Cranbrook classed as a Tier 3 system.

The table shows that the overwhelming majority (87.9%) of employed Cranbrook residents commute by automobile, as either a driver or passenger. In terms of other modes of travel, 1.6% commute by public transit and 9.4% by walking or cycling. This compares to the provincial average of similarly-sized communities (25,000 population or less) of 86.4% for automobile drivers and passengers, 1.5% transit users, and 10.3% for walking and cycling. This means that Cranbrook had a slightly better representation of transit users than average in 2006, which is notable given the fact that the conventional transit system had only been in operation for five years at the time.

2.3 Official Community Plan and Development

Just as population shapes the demand for transit, the built form and land use patterns within a community influence how efficiently transit can serve it. In general, the City of Cranbrook's community plans have been evolving in a way that is supportive of transit and sustainable transportation.

The City of Cranbrook's **Official Community Plan (OCP)** was adopted in August 2006, with amendments in 2008, 2009, 2010 and 2012. The OCP speaks to transit and transit-supportive land use in the following ways:

- The implementation of the fixed-route public transit system is described as contributing to the ongoing and exciting evolution of the community and as a way of attracting new residents, in particular retirees, to Cranbrook.
- Transit-supportive development is listed as one of the City's general policies.
- Mixed-use development is listed as a neighbourhood and area planning policy to encourage public transit in addition to other community benefits.
- Two public transit-related transportation policies mentioned are to encourage the provision of accessible transit vehicles, and to encourage new development with high ridership potential in areas currently served by public transit.

The OCP mentions public transit within three specific neighbourhood plans: Wildstone, St. Mary, and Slaterville. The Wildstone plan mentions that public transit will be implemented as warranted by demand, and the St. Mary plan anticipates the neighbourhood being served by transit once adequate service level requirements can be achieved. The Slaterville plan references the establishment of transit service to this area in September 2011, and recommends that ridership should be promoted and encouraged to ensure the service's success.

Discussions with City staff revealed that Wildstone and St. Mary, which includes the Shadow Mountain golf course and strata development, have not been developed as extensively as originally planned, with a limited population and no high-density outlook at the present time.

A recent **amendment to the OCP** has added new sections referencing the City's Integrated Sustainability Plan and Growth Management Study, and new and updated policies with respect to the regional context, sustainable land use, municipal boundary extensions, and social, institutional and community considerations.

As pertains to transit, the OCP amendment has added an aging-in-place policy, to be supported amongst other means by promoting alternative transportation methods including public transit services. Also added is a subsection on Community Health, to be promoted and encouraged by a variety of measures, including continuing to explore opportunities to improve and promote ridership of the City's public transit system.

Additionally, the amendment summarizes the City's **"Connecting to our Future – Integrated Community Sustainability Plan" (ICSP)**, formally endorsed in June 2011. The ICSP includes eight "Big Ideas" for sustainability, one of which is "Restore the Core", visioning a vibrant downtown that enables people living and working there to connect to other parts of the community through public transit, amongst other means.

The OCP amendment also recommends encouraging the review of development applications from the perspective of sustainability, to ensure proposals strive to meet or support the ICSP's goals.

In terms of **current development**, two projects that would directly tie in to transit are:

- In the Baker Park area, a social housing complex, partnered with BC Housing, for low-income seniors. This development is now complete, and is extremely well located in terms of being close to existing transit and within walking distance of key services.
- In the Slaterville area, a proposed three-storey Salvation Army transition housing complex. This may be a longer-term project as financing is not yet in place. As it is in an area that currently has

only limited transit service, this development may be somewhat more challenging to serve in the future.

Areas with high residential or mixed-use density or that contain key trip generators, such as major grocery or “big box” stores, are key markets for public transit as they tend to generate high ridership and can increase the productivity of a transit system. However, in order for transit to be able to serve such destinations without a drop in productivity or efficiency, they need to be located within the current transit service area, preferably as in-fill development along or within 400 metres of an existing transit route, and the road network needs to be transit-supportive[1].

The City may find it helpful to use BC Transit’s development referral service, which enables local governments to send larger-scale development or rezoning proposals to BC Transit for comment. As part of this referral process, BC Transit reviews the proposal and provides local government with comments on how the proposed development fits with the existing transit network, the outlook for future transit service to the development area, and comments on pedestrian links or transit amenities that would make the development more transit-friendly.

Development referrals can be sent to developmentreferrals@bctransit.com. Appendix A shows a sample BC Transit development referral response.

2.4 Community Profile: Conclusions

- Between 2006 and 2011, Cranbrook’s population grew by 5.7%, with the proportion of seniors and adults growing and the proportion of youth and young adults declining somewhat. Since young people have traditionally made up a large segment of Cranbrook Transit’s ridership, strategies for maintaining and building ridership in the face of this population shift include marketing to encourage youth ridership outside of school hours

- The majority of employed Cranbrook residents commute to work within Cranbrook, and use transit at a slightly higher-than-average rate than similarly sized BC communities. This is promising given the relative youth of Cranbrook’s transit system.

- The City of Cranbrook’s OCP has been evolving to include more transit-supportive language and policies, particularly with the proposed OCP amendment. Continued strengthening of language in the OCP to increase walkability and the concentration of development along transit corridors—and land use decision-making in line with that language—is a key way that Cranbrook can improve the efficiency and effectiveness of its transit system over time.

- Two key developments which may affect transit ridership are: a social housing complex for low-income seniors in the Baker Park area (now complete, and served well by existing transit service) and a proposed three-storey Salvation Army transition housing complex in the Slaterville area (which is poorly served by transit currently and may be a challenge to serve in the future).

- BC Transit staff would be happy to review and provide comment on community plans and larger developments through the development referral process at developmentreferrals@bctransit.com.

[1] An overview of transit-supportive road networks is available from BC Transit’s Planning Department.

3.0 BACKGROUND TO PRESENT SERVICE

3.1 Implementation History

3.1.1 Fixed-route (Conventional) Service

The Cranbrook Transit System's fixed-route (conventional) service was implemented in December 2000. It began with seven routes offering service seven days per week, with three or four evening trips per route on Thursdays, Fridays, and Saturdays. Routing patterns were similar to the routing operating currently, although the exchange location at that time, at Baker between 9th and 10th Avenues, involved different routing around the exchange area.

Key changes over time to the fixed-route transit system that have influenced its operation and ridership include:

- **September 2001:** Minor routing changes were made, to expand coverage of transit within neighbourhoods and to improve service to several schools. The downtown exchange was moved east along Baker Street to between 11th and 12th Avenues South.
- **October 2003:** Service was reduced slightly, by combining the original Route 1 (Tamarack) and Route 6 (Kootenay) into a single route, Route 1 Tamarack, using the same routing as exists today. Evening trips were reduced from three nights per week year-round to Friday evenings only, September through June.
- **February 2005:** Further minor route modifications were implemented, to expand coverage of neighbourhood areas. With this change, all routing became the same as current routing, with the exception of the area immediately surrounding the downtown transit exchange.
- **September 2006:** The "U-Pass" was introduced at College of the Rockies, providing all full-time students with a reduced-price semester pass for unlimited access to all Cranbrook Transit routes. Funding from the U-Pass program enabled a system expansion to provide more frequent service between the College and popular student residential areas. This included winter and spring increases to trip frequency on the Route 5 (College), Route 7 (7th – 11th Avenue), and Route 14 (14th Avenue), as well as the introduction of an evening door-to-door drop-off service for students attending night classes at the College.
- **September 2007:** Sunday service was increased, with frequency doubling on Route 1 (Tamarack) and Route 5 (College). Friday evening service was reduced, from operating September through June to operating in December only.
- **September 2008:** With the construction of the current downtown exchange, on 12th Avenue South at Baker, all routing changed slightly, to its current form.
- **September 2011:** A new route, Route 4 (Slaterville), was added in response to demand for service on the north side of the railway tracks. It offers limited service, operating on weekdays only with three trips per day: at the morning peak, at midday, and in the early evening. At the same time, in order to render this service addition cost-neutral, nine trips with very low ridership were eliminated on the rest of the system: five weekday trips, two Saturday trips, and two Sunday trips.

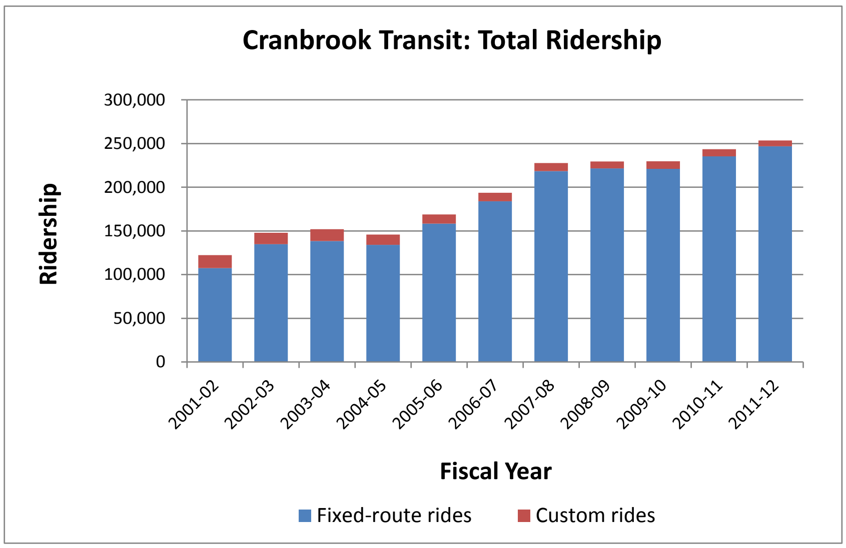
3.1.2 Custom Service

Cranbrook's custom transit service was implemented in January 1982, operated by the Easter Seals and offering door-to-door service to everyone in the community. By 1992, it was operated by Cranbrook Home Support Services. Time slots in the morning and afternoon peaks were available for service specifically to/from schools, and evening service was offered on Fridays. By 1998, operation of the custom service had been transferred to the Cranbrook Health Council. The morning and afternoon peak time periods were now available for bookings by any user, Friday evening service was maintained, and Saturday service was introduced.

Custom service was taken over by the same operator as the conventional, fixed-route service, Greyhound Canada, in September 2003. Since that time, Friday evening and Saturday service hours were repurposed to increase the weekday service span.

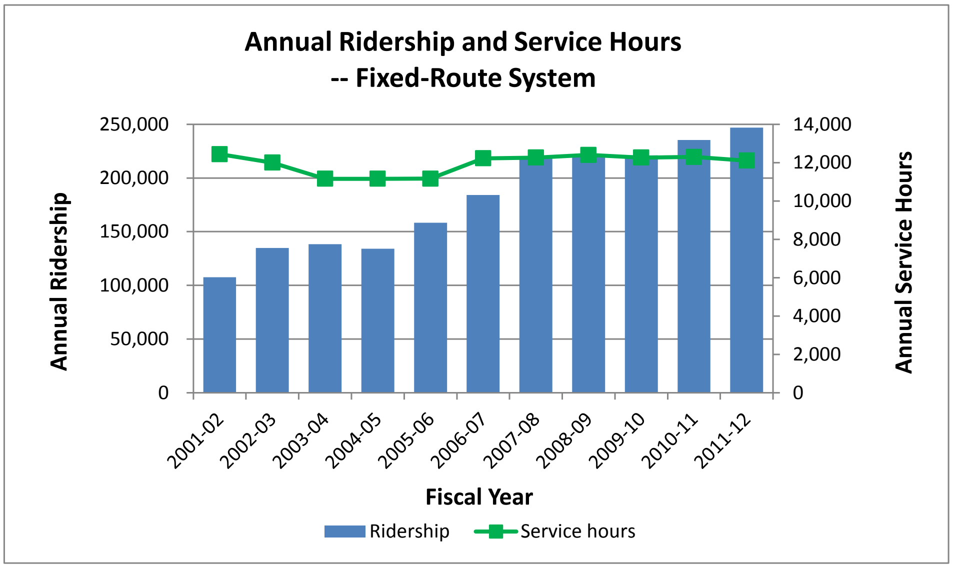
3.2 Historical Ridership Data

Annual fixed-route and custom ridership for the past eleven years is shown in the following chart, to illustrate the relative passenger volumes for these two different service types:



In the 2001-2002 fiscal year, the first full year of fixed-route service, fixed-route ridership accounted for 88% of total rides, with custom ridership constituting 12%. By fiscal 2011-12, the fixed-route ridership share had increased to 97%, and the custom share had dropped to 3%. Reasons for this are discussed in the sections following.

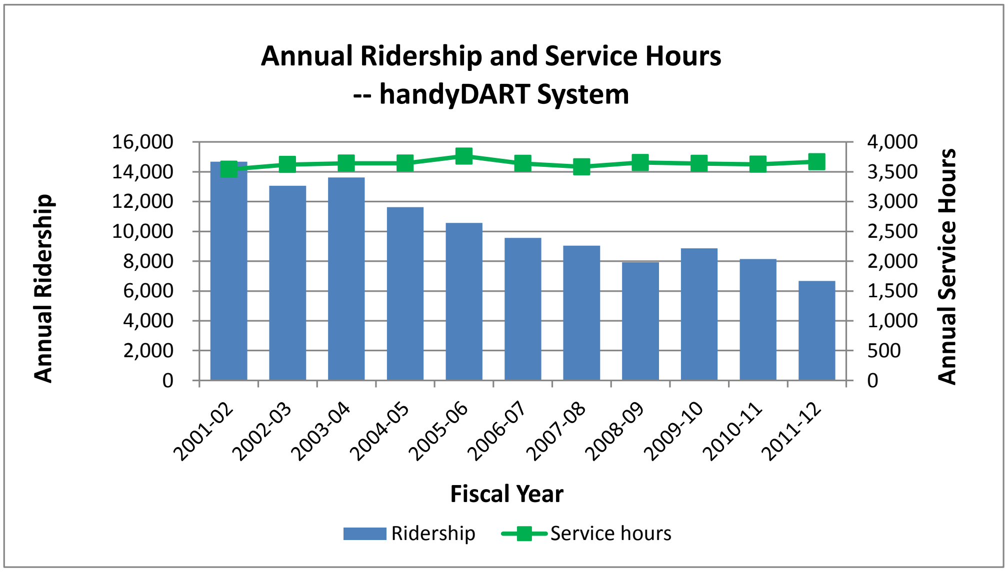
3.2.1 Fixed-route (Conventional) Service



Ridership on Cranbrook's fixed-route system has increased by approximately 250% since the system began. Much of this can be attributed to the community's growing familiarity with the service, as well as to the introduction of U-Pass in September 2006.

Annual service hours decreased between 2001-02 and 2005-06, as the original Route 1 (Tamarack) and Route 6 (Kootenay) were combined into a single route and evening trips were reduced, from Thursday through Saturday year-round to Friday only, September through June. Hours were increased in 2006-07 to provide more service for college students with the introduction of U-Pass, and have remained constant since that time.

3.2.2 Custom Service



Cranbrook's custom service has seen a steady decrease in ridership over the past eleven years. Ridership levels at present are approximately 50% of those in 2001-02. The onset of this decrease is attributable to two key factors:

- The implementation of the fixed-route system and the corresponding refocusing of handyDART to serve only people with a disability. This meant that all non-disabled people who had previously used the door-to-door service (the only transit service available) now transferred to the fixed-route system.
- The use of low-floor accessible vehicles on the fixed route system. Since the fixed-route buses are equipped with ramps and other accessible features, many people who have a mobility disability that requires them to use a wheelchair, scooter, walker or cane can use the fixed route system, particularly in seasons when weather is good and sidewalks are clear.

Passengers with a mobility disability have continued to migrate to the fixed-route system over time and it should be stressed that this is a positive change. Since handyDART operates at higher cost for the premium level of service it offers, ideally it should be preserved for those who need it most.

However, while ridership has dropped by about half over this time, annual service hours have remained constant over the same period, averaging around 3,600. This shows that the handyDART system may be over-served by hours at present for the number of people being carried.

3.3 Other Performance Indicators

The tables on the following page show the Cranbrook Transit System's performance in a variety of measures in the 2011-12 fiscal year, relative to other BC Transit systems considered to be its peers in terms of service type and total revenue hours.

2011/12 Information and Performance Summary: Year End Actuals
Fixed-Route -- Cranbrook and Peer Systems

	Annual Statistics			Annual Financials									Annual Performance				
Transit System	Licenced Vehicles [1]	Total Revenue Hours [2]	Total Passengers	Total Revenue ($) [3]	Total Oper Costs ($)	Local Contn Op Costs ($)	Prov Contn Op Costs ($)	Local Contn Lease Fees ($)	Prov Contn Lease Fees ($)	Total Costs ($)	Net Local Contn to Total Costs ($) [4]	Prov Contn to Total Costs ($)	Cost Recovery (%)	Rides/Hour	Total Cost/ Ride ($)	Total Cost/ Hour ($)	Operating Costs/ Hour ($)
Cranbrook	5	12,109	246,781	271,867	1,044,216	556,672	487,544	147,353	129,055	1,320,624	413,419	616,600	20.6	20.4	5.35	109.07	86.24
Kootenay Boundary	11	13,028	286,190	295,209	1,636,661	919,948	716,714	344,194	301,452	2,282,307	941,903	1,018,166	12.9	22.0	7.97	175.18	125.63
Nelson*	5	11,420	257,172	321,865	1,148,588	612,312	536,276	141,139	163,812	1,453,539	410,904	700,088	22.1	22.5	5.65	127.28	100.58
Port Alberni	5	12,354	314,706	315,461	1,546,127	824,240	721,887	129,499	113,418	1,789,044	610,356	835,305	17.6	25.5	5.68	144.81	125.15
Powell River*	5	11,856	227,615	256,675	1,109,724	591,594	518,130	99,451	87,101	1,296,276	415,773	605,231	19.8	19.2	5.70	109.34	93.60
Prince Rupert	5	9,993	353,828	415,913	967,608	515,832	451,776	126,197	110,526	1,204,332	209,213	562,302	34.5	35.4	3.40	120.51	96.83
Squamish	5	10,684	203,814	189,899	1,359,217	724,599	634,619	137,132	120,103	1,616,453	647,473	754,722	11.7	19.1	7.93	151.29	127.22

* Municipally run transit system. Information above only reflects those costs included in the Annual Operating Agreement.

1 Includes in service and spares vehicles
2 Excludes deadhead hours

3 Includes advertising revenue
4 Excludes revenue and municipal administration credit

Source: BC Transit 2011/12 Year-End Actuals

2011/12 Information and Performance Summary: Year End Actuals
handyDART -- Cranbrook and Peer Systems

	Annual Statistics			Annual Financials									Annual Performance				
Transit System	Licenced Vehicles [1]	Total Revenue Hours [2]	Total Passengers	Total Revenue ($) [3]	Total Oper Costs ($)	Local Contn Op Costs ($)	Prov Contn Op Costs ($)	Local Contn Lease Fees ($)	Prov Contn Lease Fees ($)	Total Costs ($)	Net Local Contn to Total Costs ($) [4]	Prov Contn to Total Costs ($)	Cost Recovery (%)	Rides/Hour	Total Cost/ Ride ($)	Total Cost/ Hour ($)	Operating Costs/ Hour ($)
Alberni - Clayoquot	4	5,369	18,972	37,444	422,135	140,613	281,522	11,883	77,031	511,049	107,560	358,553	7.3	3.5	26.94	94.69	78.13
Cranbrook	3	3,669	6,679	18,177	204,204	68,020	136,183	20,090	40,222	264,515	66,222	176,405	6.9	1.6	39.60	70.90	54.46
Kootenay Boundary	2	2,439	5,286	10,999	207,276	69,044	138,233	73	147	207,496	54,312	138,379	5.3	2.1	39.25	84.33	84.24
Nelson & Area	1	2,016	5,131	10,040	150,031	57,477	92,554	12,531	20,178	182,740	57,624	112,733	5.5	2.5	35.61	90.57	74.35
Powell River	4	5,976	18,481	33,006	307,120	133,014	174,106	18,635	70,053	395,809	113,908	244,160	8.3	3.1	21.42	65.82	50.98
Prince Rupert	1	1,764	6,778	7,289	96,847	32,260	64,587	15,700	31,434	143,981	38,916	96,021	5.1	3.6	21.24	80.87	54.15
Squamish	2	2,034	5,160	8,551	236,109	78,690	157,419	22,267	37,914	296,290	96,790	186,663	2.9	2.5	57.42	145.24	115.65

1 Includes in service and spares vehicles
2 Excludes deadhead hours

3 Includes advertising revenue
4 Excludes revenue and municipal administration credit

Source: BC Transit 2011/12 Year-End Actuals

3.3.1 Fixed-route (Conventional) Service

In terms of expenditures, Cranbrook's fixed-route system has the lowest total cost per hour ($109.07) and lowest operating cost per hour ($86.24) of its peer systems. This means that on average, Cranbrook's fixed-route system is less costly to operate on a per-hour basis than those of other similar-sized communities within BC.

In terms of ridership and revenue, while Cranbrook Transit is fifth among peer systems based on rides per hour (20.4), it also has the second lowest total cost per ride ($5.35) and the third highest cost recovery percentage (20.6%). This higher cost recovery rate means that passenger fares are covering one fifth of the costs of Cranbrook's transit system and is partially due to the system's fares, which are relatively high for its size (see also *Section 9.1 Fares*), but largely due to the high efficiency with which the system is operated. The relatively low cost per ride can also be attributed to operational efficiency.

Concerning ridership, it should be noted that Cranbrook's transit system is extremely young relative to its peers: Nelson's was established in 1899, Powell River's in 1958, those in Port Alberni, Kootenay Boundary and Prince Rupert in the 1970's, and Squamish's in 1990. Generally, it takes many years for transit to become firmly established in a community's mindset as an alternative transportation option.

Overall, the cost, revenue and ridership measures show that while ridership could be further improved, the fixed-route portion of the transit system is already operating at a relatively efficient and cost-effective level when compared with its peers.

3.3.2 Custom (handyDART) Service

Similar to the fixed-route system, Cranbrook's handyDART service is relatively cost-efficient. It has the lowest total cost per hour ($70.90), the second-lowest operating cost per hour ($54.46), and the second-highest cost recovery (6.9%).

However, the handyDART system's rides-per-hour ratio (1.6) performs below that of similar systems. Even though costs are very reasonable on a per-hour basis, the low number of passengers carried with those hours means that the overall cost per passenger ride is high($39.60) relative to that of its peer systems. Similar to the analysis of service hour and ridership trends in *Section 3.2.2* above, this indicates that the handyDART system may be oversupplied with hours at present. It should however be noted that the Provincial share of costs for custom service is far higher than for conventional, in part due to this type of service's unique and important demands, which must be considered when making comparisons to other systems.

3.4 Background to Present Service: Conclusions

Cranbrook's fixed-route service has seen minor changes since its implementation in late 2000, consisting mainly of small routing alterations to increase coverage, variations in the amount of evening and Sunday service, changes in location of the downtown transit exchange, and the introduction of the limited-service Route 4 Slaterville in 2011.

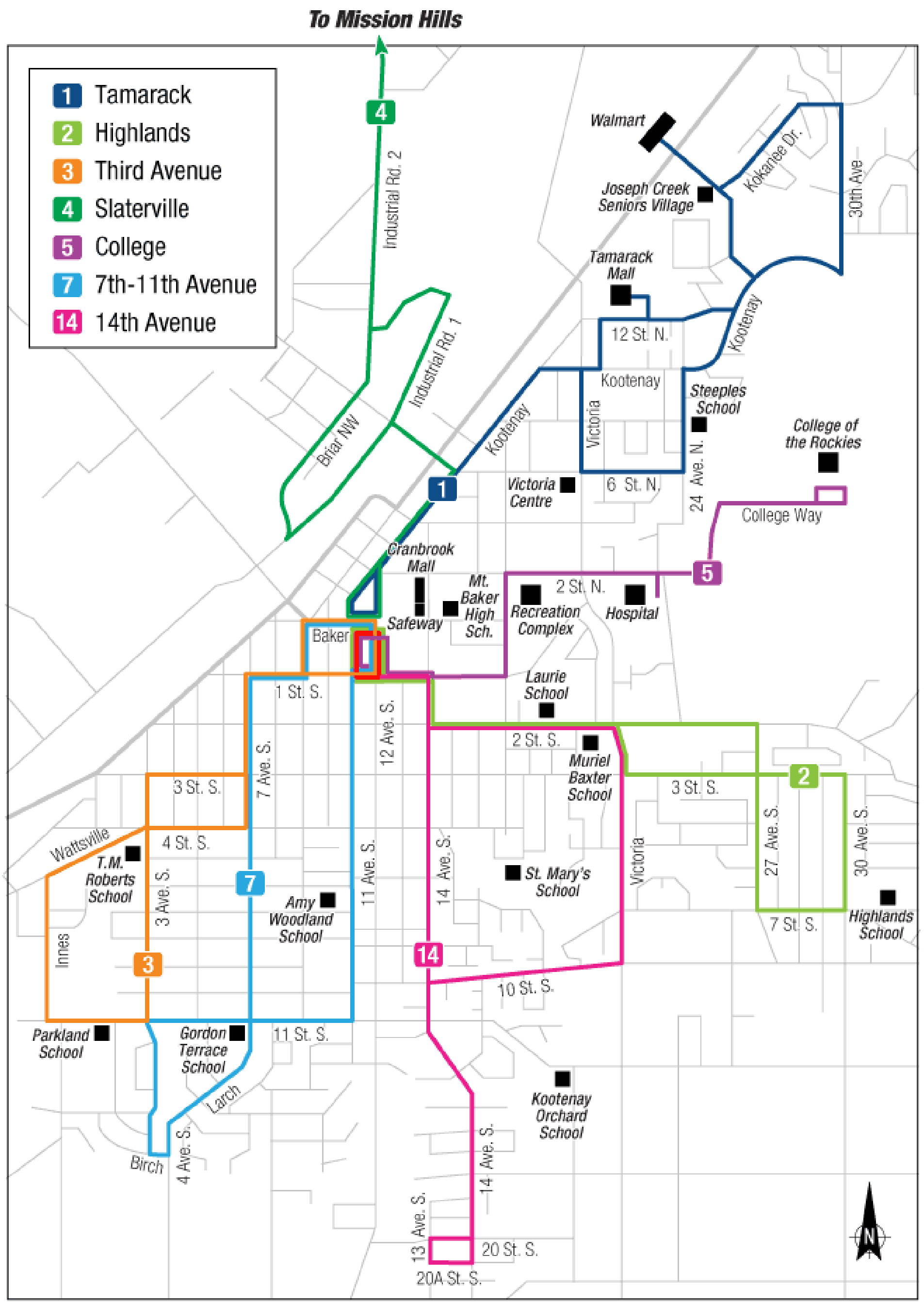
- Ridership has increased by around 250% since system implementation, due mainly to the increase in college student ridership following U-Pass implementation.
- While Cranbrook's ridership per service hour is below average relative to its peer transit systems, this should be considered in the context of its relatively young age as a transit system. It performs well in terms of cost per ride, cost recovery, total cost per hour and operating cost per hour among its peer group, demonstrating that it is a relatively efficient transit system.

With conventional system implementation, Cranbrook's custom service has transitioned into a specialist handyDART service for people with physical or cognitive impairments, and has seen a commensurate drop in ridership. While its total cost per hour and operating cost per hour are low and its cost recovery is high, its productivity (riders carried for the hours delivered) is low compared to peer systems, indicating that it may currently be oversupplied with service hours.

4.0 PRESENT SERVICE: MARKET ANALYSIS

4.1 Fixed-Route (Conventional) Service

The current conventional service operates seven routes, as shown in the map below.



The following table shows first and last trip times, and trip frequency, for each route:

	Weekday					Saturday				Sunday			
	Service Span		Frequency (mins)			Service Span		Frequency (mins)		Service Span		Frequency (mins)	
Route	First trip	Last trip	AM Peak	PM Peak	Midday	First trip	Last trip	Peak	Midday	First trip	Last trip	Peak	Midday
1	0715	1815	15 to 45	15 to 45	30	0915	1757	15 to 45	30	1015	1734	15 to 45	30
2	0730	1800	30 to 45	15 to 60	60	1015	1741	30 to 60	60	1115	1741	30 to 60	60
3	0745	1745	15 to 30	45	60	0945	1756	45 to 60	60	1045	1726	45 to 60	60
4	0745	1700	4.25 to 5 hrs			no service				no service			
5	0745	1745*	15	15	30	0930	1726	30		1030	1726	30	
7	0800	1815	15 to 45	15 to 45	60	0915	1741	30 to 60	60	1115	1741	30 to 60	60
14	0730	1800	15 to 30	30	30	0900	1756	30	60	1000	1711	30	60

* evening class drop-off service available 1900-2115, September through April

Cranbrook's weekday service frequency and span (the length of time it operates each day) is generally in keeping with that of similarly sized BC communities, but it offers a higher level of Sunday service. Typically, communities that offer Sunday service also have some level of evening service.

In terms of route and schedule structure, Cranbrook Transit's existing routes and schedules are well organized, easy to understand, and consistent. Consistency and ease of use are key in terms of attracting new users, and any service options that recommend changes to this consistency in an effort to increase system efficiency need to be weighed against the risk of disrupting this very important positive attribute of the existing system.

4.1.1 Ridership by Passenger Age Group and Type

The results of an on-board passenger survey conducted over two weekdays in December 2012 revealed that over those two days, of the 335 passengers who completed the survey:

- 2% were aged under 15
- 48% were aged between 15 and 24
- 24% were aged either between 25 and 34 (12%) or 35 and 44 (12%)
- 8% were aged either between 45 and 54 (4%) or 55 to 64 (4%)
- 14% were aged 65 or above

In terms of passenger type, 53% were either students up to and including Grade 12 (20%) or college students (33%), 31% were adults, and 14% were seniors.

This shows that on a typical weekday, the majority of ridership on Cranbrook's transit system is comprised of senior high students and college students. It also shows that there may be opportunities to further develop ridership amongst adults and seniors.

4.1.2 Ridership by Trip Purpose

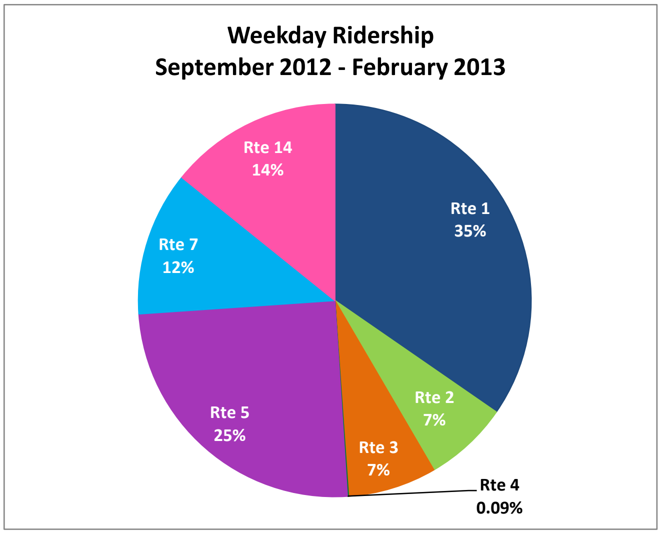
The same passenger survey revealed the following trip purposes among survey respondents:

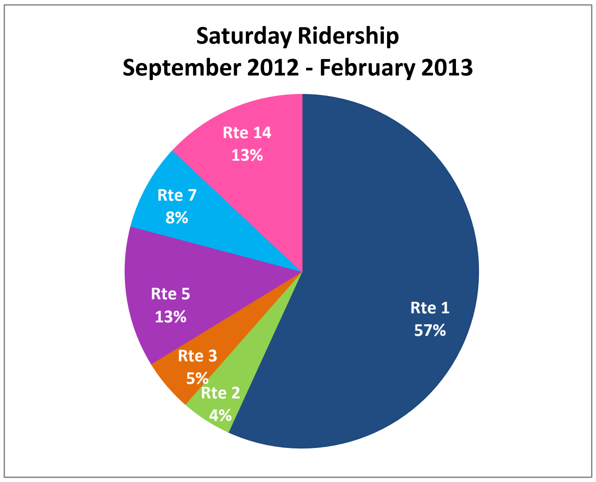
- school/college: 43%
- work: 10%
- shopping: 10%
- social/recreational activities: 4%
- other errands: 4%
- medical/dental appointments: 3%
- "other": 3%
- (no response to the question: 24%)

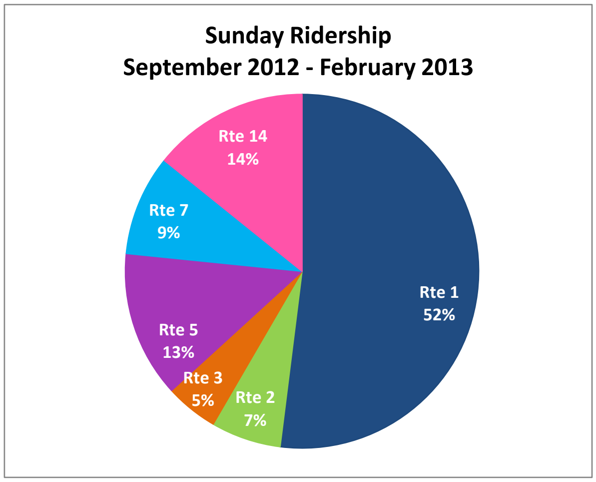
This confirms the findings of ridership by passenger type above, that school and college students as a category are by far the most frequent weekday users of transit in Cranbrook, and that there may be some potential for developing ridership by increasing transit use among work commuters and shoppers.

4.1.3 Ridership by Route

The following charts illustrate passenger distribution by route over a six-month period, gathered from electronic farebox data from the beginning of September 2012 to the end of February 2013. These charts show the relative share of ridership by route, with absolute ridership numbers for each route shown in *Appendix B: Detailed Ridership Analysis*.







In terms of weekday ridership:

- Route 1 Tamarack carries the highest proportion of ridership, one third of the total.
- This is followed by Route 5 College, which carries one quarter of the total.

Routes 1 and 5 are the only routes containing major trip generators: Tamarack Mall, the WalMart/Superstore complex, and the Save On Foods complex on Route 1, and the College and, to a lesser extent, the recreation complex and the hospital, on Route 5.

The remaining routes are "residential" routes, which serve as feeder routes to Routes 1 and 5, as well as covering elementary and middle schools and residential areas of mainly single-family homes, and therefore carry fewer passengers:

- Routes 7 and 14 combined carry one quarter of the remaining ridership
- The lowest ridership is found on Route 2 (7%), Route 3 (7%), and Route 4 (less than 0.1%).

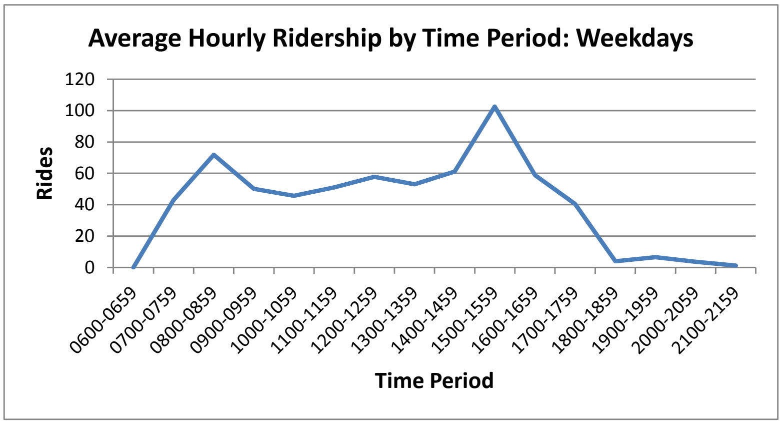
Saturday and Sunday ridership show a dramatic jump in the proportion of Route 1 ridership, to more than 50%, and a corresponding decrease in the ridership proportions of all other routes.

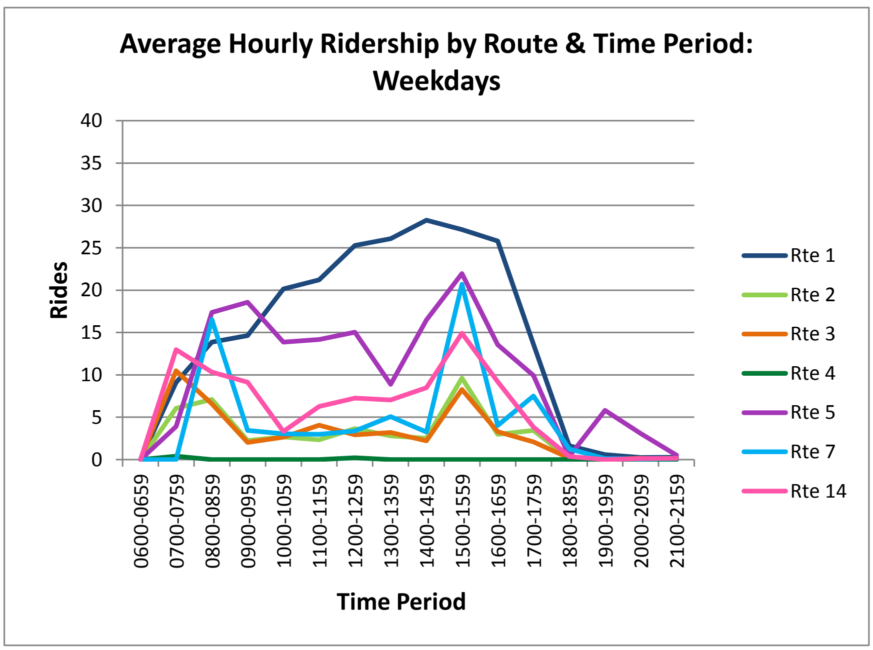
The electronic farebox data above supports the findings from the passenger survey that the majority of Cranbrook's weekday ridership comprises school and college students, and strongly suggests that overall weekend ridership comprises mainly shoppers travelling to Tamarack Mall, the WalMart/Superstore complex, and the Save On Foods complex.

4.1.4 Ridership by Time Period

Just as ridership can be examined by route and service day, it can also be looked at in terms of fluctuations over the course of a day, and seasonal variations. When looking at ridership by time period between September 2012 to February 2013, the following patterns emerge (*Appendix B: Detailed Ridership Analysis* provides further details):

Weekdays





- Overall weekday ridership shows two peaks, corresponding with school start and end times. The afternoon peak is the highest, showing approximately 100 total rides between the 3:00-3:59 p.m. hourly period, meaning that ridership from students returning home from school is likely coinciding with that of adults and seniors returning home from shopping and errands.
- There is a slight ridership rise in the evenings on Route 5 as the evening drop-off service for COTR students begins.
- Route 1 shows the highest ridership of all the routes, but rather than the typical morning and afternoon peak pattern it shows strong ridership across the day, supporting the premise that the

main trip purpose for passengers using Route 1 is shopping, rather than commuting to school or work.

- Of the residential routes, Routes 2 and 3 mirror each other very closely in terms of ridership levels and patterns, having relatively small morning and afternoon peaks, and very low off-peak ridership. Route 7 also displays very low off-peak ridership.
- Route 4 Slaterville shows minimal weekday ridership. This is likely due to two main reasons:
  a) The infrequency of service results in long intervals (4-4.5 hours) downtown between trips, which is inconvenient for people needing to run errands.
  b) From anecdotal reports, the relative isolation of Slaterville from the rest of Cranbrook, and probably also the relatively late addition of transit service to this neighbourhood, has resulted in a high proportion of vehicle ownership, as well as an attitude of self-sufficiency as regards transportation connections to the rest of Cranbrook.

  Section 8.0 Service Change Options below discusses measures for increasing ridership on this route.

Saturdays

Saturday overall ridership data shows that there is a relatively small ridership peak in the afternoon between 2:00 and 2:59 p.m., one hour earlier than for weekday ridership, to an average of 60 total rides.

- When looking at ridership by route, Route 1's ridership far exceeds that of any other route, corresponding with earlier findings that Cranbrook's highest Saturday ridership is for shopping purposes.
- Ridership on other routes remains relatively low, at between zero and eight rides per hourly period, and constant throughout the day. Route 5's shows the most significant decrease compared to weekdays, which brings it in line with the ridership on the residential routes.
- Saturdays are allocated 34% fewer hours than weekdays and carry 42% fewer rides.

Sundays

Sundays have the lowest overall ridership, with a steady peak between the 12:00-12:59 p.m. and 3:00-3:59 p.m. periods at approximately 33 total rides, the highest for this service day, per hourly period.

- As with Saturdays, Route 1 again has the highest ridership of all the routes with ridership on other routes consistently low, at between zero and six total rides per hourly period, throughout the day.
- Again, Route 5's ridership levels on Sundays are in line with that of the residential routes, while its frequency is double that of these routes. This could be revisited to increase its productivity.
- Sundays are allocated 44% fewer hours than weekdays but carry 67% fewer rides. Compared to Saturdays, they are allocated 15% fewer hours but carry 43% fewer rides. An option to mitigate this is discussed under *Section 8.0 Service Change Options*.

4.1.5 Comparison of Ridership versus Service Hours

A different way of looking at ridership is to compare ridership to hours of service provided on each service day. Based on electronic farebox data, overall trends are highlighted below, with details provided in *Appendix B: Detailed Ridership Analysis*:

- On weekdays, Route 1 and Route 5 have a higher percentage of ridership than the percentage of service hours allocated to them.
- While in a typical transit system Saturday and Sunday ridership drops compared to weekday ridership, with service hours scaled back accordingly, Cranbrook's relative ridership decrease from weekdays far exceeds its relative service hour decrease. For instance, on Sundays, overall ridership decreases by 67% while hours decrease by only 44% relative to weekdays.
- Routes 2, 3 and 5 show the biggest gap between Sunday service levels and ridership generated. While care must be taken to preserve as much consistency as possible, this presents an opportunity to adjust service levels to better match current ridership, discussed further in *Section 8.0 Service Change Options* below.

4.1.6 Ridership by Trip Origin and Destination

When looking at the 335 responses to the two-day passenger survey conducted in December 2012, the trip origin and destination results were highly scattered, with only four origins and four destinations accounting for three percent or more of survey responses. These origins and destinations were as follows:

Top 4 responses:

Trip origin	Percentage	Count
College of the Rockies	9%	29
Downtown Exchange	5%	16
Tamarack Mall	5%	16
Downtown	4%	12

Top 4 responses:

Trip destination	Percentage	Count
College of the Rockies	19%	62
Mount Baker Secondary	7%	24
Downtown	4%	14
WalMart	3%	11

The results above confirm the importance of the high school student and college student demographic to Cranbrook's transit system, and the dominance of the two "trip generator" routes, Route 5 College and Route 1 Tamarack.

4.1.7 Bus Stop Activity and Maximum Load Point

Ride checks were conducted over the period December 2012 through March 2013, counting passenger "ons" and "offs" at each bus stop along each route. Every weekday, Saturday, and Sunday trip was counted once. While this is little more than a spot check on a particular trip on one particular day and therefore unreliable for extrapolation purposes, some of the results may reflect general patterns. The table below gives a summary by route of the bus stops with the highest weekday activity.

Route:	**1 Tamarack**		**2 Highlands**		**3 Third Avenue**	
	Stop	**Total daily ONs & OFFs**	**Stop**	**Total daily ONs & OFFs**	**Stop**	**Total daily ONs & OFFs**
Busiest bus stops	Downtown	176	Downtown	45	Downtown	61
	Tamarack Mall	75	30 Ave & 7 St	10		
	WalMart	70	3 St & 26 Ave	10		
Max. load point:	Tamarack Mall		Laurie Middle School		1 St & 8 Ave	
Trip time:	1545		0800		1530	
# of passengers:	26		12		16	

Route:	**5 College**		**7 7th-11th Avenue**		**14 14th Avenue**	
	Stop	**Total daily ONs & OFFs**	**Stop**	**Total daily ONs & OFFs**	**Stop**	**Total daily ONs & OFFs**
Busiest bus stops	COTR	125	Downtown	86	Downtown	110
	Downtown	119	3 Ave & 15 St	18	20A St & 14 Ave	15
	Western Financial Place	20	11 St & 4 Ave	16	10 St & 19 Ave	10
	2 St & Victoria	13	Gordon Terrace School	11		
	2 St & 21 Ave	11				
Max. load point:	2 St & Victoria		11 Ave & 11 St		Downtown	
Trip time:	1415		0800		1530	
# of passengers:	14		33		20	

* data for Route 4 Slaterville is not displayed due to data unreliability

Amongst other things, the data shows that:

- All routes, with the exception of Route 5, were busiest at times coinciding with students travelling to and from school.

- With maximum passenger loads of 26 and 33 on Routes 1 and 7 respectively (and due to the interlining of all routes), it would not be feasible to replace Cranbrook's entire conventional fleet with smaller, community bus-sized vehicles.

  Pending further detailed ridership data gathering and analysis, it may be possible to exchange one conventional low-floor vehicle for a smaller low-floor vehicle when the conventional vehicles are due for replacement. However, this would only be cost effective if the smaller vehicle were identical to others used by the handyDART fleet, so that an additional spare would not be required.

4.1.8 Ridership by Trip

The ride check data also revealed a number of trips carrying minimal passenger loads. The ride check data gives only a snapshot of ridership on a particular trip on one particular day, which may not reflect general ridership patterns for that trip or route, so further monitoring would be required for a longer duration to produce statistically significant results. Again, it should be borne in mind that the Cranbrook Transit System is relatively young, and ridership may continue to increase as the system becomes more established. Additionally, several methods that could potentially attract new ridership more directly are outlined in *Section 9.2 Marketing*.

The ride check counts for the Friday evening trips in December, between 6:30-9:45 p.m., show minimal ridership on most trips (see below). These evening trips likely attract ridership only from shoppers rather than evening employees, given the unlikelihood that employees would switch from their usual commuting method for just one month of the year.

While the fact that this evening service is only offered one day per week for one month a year—and therefore not offering the consistency necessary to attract and build ridership—this evening ridership provides an initial sketch of ridership patterns that should be noted if considering extended service hours.

Route 1 Trip time	Total boardings	Route 2 Trip time	Total boardings	Route 3 Trip time	Total boardings	Route 7 Trip time	Total boardings	Route 14 Trip time	Total boardings
19:00	1	18:45	0	18:45	0	18:30	0	18:30	0
20:00	3	19:15	0	19:45	0	19:30	0	19:30	0
21:00	4	20:15	1	20:45	0	20:30	1	20:30	5
		21:15	0			21:30	0	21:30	0

4.2 handyDART (Custom) Service

Cranbrook's handyDART service currently operates Monday through Friday, from 7:30 a.m. to 5:00 p.m., using two vehicles. One vehicle operates from 7:30 a.m. to 4:00 p.m., and the second vehicle operates 9:30 a.m. to 5:00 p.m.

The handyDART vehicles provide the three conventional Route 4 Slaterville trips and a Route 2 Highlands trip September through April, plus a Route 3 Third Avenue trip May through August. This reduces the number of handyDART booking slots by approximately 9 hours per week. Additionally, one vehicle is dedicated for most of Friday afternoon to a volunteer-assisted shopping program.

There are currently 610 registered handyDART clients. The operator estimates that around 70%-80% of these are seniors, and that around 100 clients are users of wheelchairs or scooters.

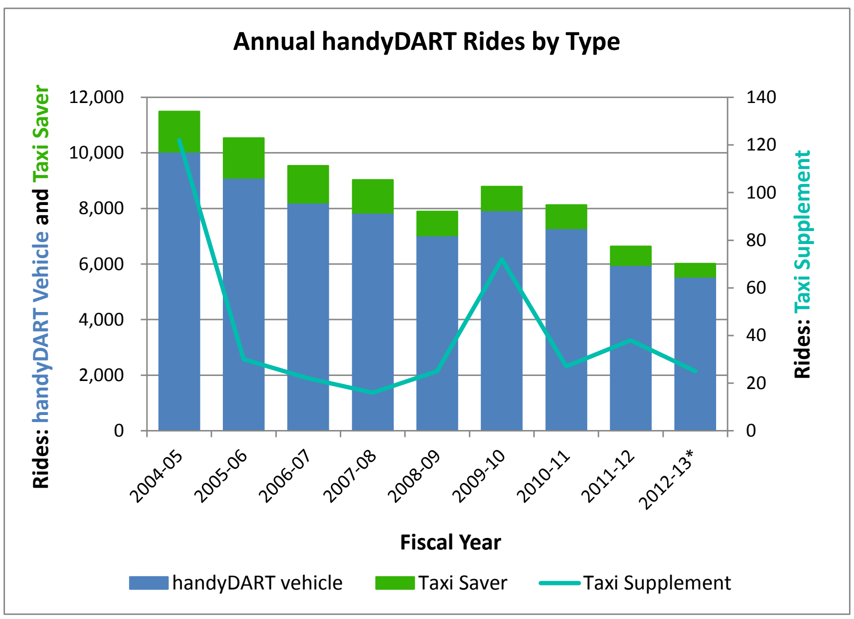
As a general policy, the operator requires ride bookings at least 24 hours in advance of travel, but same-day bookings are accommodated if the schedule permits.

Key City Cabs is the local service provider of BC Transit's **Taxi Supplement program**, which gives the operator the flexibility to use a taxi company to cover any "overflow" ride bookings. Key City along with Star Taxi are the local providers of the **Taxi Saver program**, which enables registered handyDART clients to purchase subsidized taxi coupons for their travel requirements. In November 2012, Star Taxi purchased Cranbrook's first wheelchair-accessible taxi.

4.2.1 handyDART Rides by Type

The chart below shows annual handyDART rides, since 2004-05, based on type: rides in the handyDART vehicles, Taxi Supplement rides, and Taxi Saver rides.

- Taxi Saver rides have shown a steady decrease in line with the handyDART vehicle rides decrease, representing 8% of the combined handyDART vehicle and Taxi Saver total in 2012-13 compared to 13% in 2004-05.
- The proportion of Taxi Supplement rides has been extremely low, averaging around 20 rides per year, although there were two peaks in 2004-05 and 2009-10. This shows that the handyDART system has sufficient service hours for its clients.

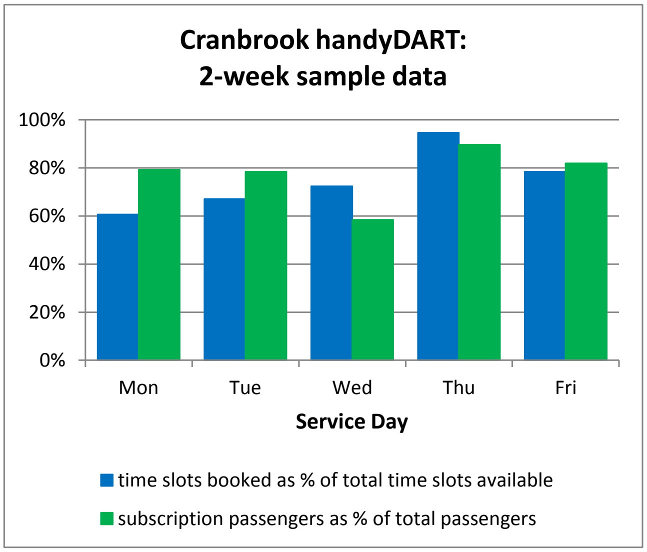


* Partial-year results: April 2012 through February 2013 only

According to historical data there have been very few trip bookings that were unable to be accommodated. 14 such "unmet trips" were recorded for 2004-05, with zero recorded for the years 2005-06 through 2011-12, and nine so far recorded for 2012-13. This again shows that Cranbrook's handyDART system has sufficient capacity to serve its clients in terms of service hours.

4.2.2 Booking Capacity and Type (Subscription Trips vs. Single Trips)

Sample data from ride booking logs over the period March 1-14, 2013 was analyzed from the point of view of booking capacity and booking type (subscription versus single trip):



Booking capacity ranged from 61% full on Mondays to 95% full on Thursdays, which is the busiest service day of the week. The proportion of subscription trip bookings varied from 58% on Wednesdays to 90% on Thursdays. This may point to a need to reduce overall handyDART service hours somewhat in order to make maximum use of them (see also *Section 8.0 Service Change Options*). There may also be an opportunity to work with handyDART clients to see if some subscription trips could be rescheduled to better balance demand across all service days.

4.2.3 Ridership by Trip Generator

Analysis of ride booking data in a typical two-week period revealed that one-way trips were booked most frequently to and from the following locations:

Location	# of 1-way trips
Community Living	46
R.E.A.L.M.	34
Safeway	28
Tamarack Mall	24
Joseph Creek Care Home	22
New Dawn	20
A & W	16
Bowling Alley	13
Salvation Army	12
Core Fitness	10
Hospital	9
Western Financial Place	8
Street Angel	7
Assessment clinic	7
WalMart	6
Cranbrook Mall	5

In terms of client volumes, trip generators with two or more clients were as follows:

Location	# of clients
Safeway	9
Tamarack Mall	8
Community Living	7
Joseph Creek Care Home	7
R.E.A.L.M.	6
Bowling Alley	5
Hospital	5
Assessment clinic	4
WalMart	4
Cranbrook Mall	3
Superstore	3
Green Clinic	3
Strokers	3
Salvation Army	2
Core Fitness	2
Western Financial Place	2

4.3 Present Service and Market Analysis: Conclusions

Fixed-route Service:

- School and college students are by far the most frequent weekday users of transit in Cranbrook.
- Route 1 (serving Tamarack Mall, the WalMart/Superstore complex, and the Save On Foods complex) and Route 5 (serving COTR, the recreation complex and the hospital) have the highest service frequency and carry by far the highest number of passengers on weekdays.
    - Route 1's ridership remains consistently high on Saturdays and Sundays and is appropriately served.
    - While Route 5's ridership merits the increased service on weekdays, its ridership drops to that of other routes on Saturdays and Sundays and may be over-served on those days.
- Of the remaining routes:
    - Route 14 (14th Avenue) is the strongest performer in terms of ridership.
    - Ridership on Routes 2 (Highlands) and 3 (Third Avenue) is consistently low across all service days and time periods, as is that of Route 7 (7th–11th Avenue) outside of the weekday morning and afternoon peaks. This low ridership is most marked on Sundays. These routes may be candidates for frequency or routing adjustments, or potentially for service by a smaller vehicle.
    - Route 4 Slaterville has the lowest overall ridership but also the most limited service, operating only three times per weekday, with no service on weekends. If the Slaterville route is to remain, at least two more trips per day should be added to reduce the gaps between trips and better coordinate with school and activity times.

handyDART Service:

- A ridership review shows that the system has overall capacity to meet the needs of passengers in terms of service hours and appears to have more hours than needed on the majority of service days (see also *Section 8.0 Service Change Options*).
- The system has a high spike in passenger activity on Thursdays and it may be beneficial to work with handyDART subscription clients to see if some trips can be moved to better balance demand across all service days.

5.0 SERVICE RELIABILITY AND OPERATING ISSUES

In general, the Cranbrook Transit System is operating well. At the time of this report, one conventional-service vehicle (0231) was showing an as yet undiagnosed electrical issue, so the handyDART spare vehicle (C929) is doubling up as the conventional-service spare/being shared with the conventional service as an interim measure.

As mentioned in *Section 4.0* above, exterior damage to vehicle fuel tanks had been noted in the past, due to them dragging on the ground in the cut-through between Kootenay St North and 12th St North to the downtown exchange. This was reportedly caused by poor road maintenance. The road surface has been repaired for now, and the most recent inspection noted no further damage. With up to fifteen buses an hour using it, timely maintenance of this cut-through needs to be prioritized.

5.1 Opportunities to Improve Coordination with City Engineering

There are cases where the transit system would benefit from increased coordination with the City of Cranbrook's Engineering Department. These include:

- Confirmation on how best to coordinate communication between Engineering functions and the transit system operator

- Provision of current transit route maps and priority area identification for plowing and sanding in snow conditions
- A process to ensure that protocols are followed to advise the transit system operator of road closures and detours (such as for road work or special events)
- A tree trimming program focused on maintaining sightlines at intersections used by transit vehicles and improving visibility of bus stop signs
- Prioritization of requisite maintenance on the Kootenay St N–12th St N cut-through

6.0 VEHICLE FLEET AND INFRASTRUCTURE REVIEW

6.1 Vehicle Fleet Review

The Cranbrook Transit System's vehicle fleet comprises five vehicles for its fixed-route (conventional) service and three for its handyDART (custom) service. The system already achieves some fleet efficiencies by using a custom vehicle to provide conventional service at peak times. The conventional fleet is operating outside of BC Transit's recommended spare vehicle ratio of two spares for a fleet size of four peak vehicles, which increases the risk of service reliability issues.

Current vehicle years and replacement years are as follows:

	Conventional service: 35' Dennis Darts					Custom service: Ford Polars		
						In-service vehicles		Spare vehicle
Vehicle number:	**0224**	**0229**	**0230**	**0231**	**0234**	**2239**	**C997**	**C929**
Year:	2002	2002	2002	2002	2002	2009	2005	2001
Replacement year:	2017	2017	2017	2017	2017	2015	2014	2014

Conventional fleet:

4 in-service vehicles plus one spare.

Vehicles are rotated through the "spare" designation.

The operator contracts vehicle maintenance out to Freightliner of Cranbrook Ltd., where the vehicles are stored overnight.

BC Transit's Fleet Inspection department reported vehicle maintenance is being carried out in a timely manner, which is allowing the transit system to operate with a less than desirable spare ratio. Exterior damage to vehicle fuel tanks had been noted in the past, but the situation has been resolved for now. *Section 5.0* above details this issue and future remediation measures.

Due to the compact nature of Cranbrook's transit network, there is no additional vehicle wear and tear caused by high mileage. All conventional service vehicles have undergone a cosmetic refit and have an estimated life span of up to the year 2017.

A potential replacement vehicle for the Cranbrook Transit System may include a community-sized vehicle, such as the Vicinity, shown below:

The Vicinity is more compact than the Dennis Darts used currently, with a capacity of 23 passengers seated and 37 with standees versus the Dart's 31 and 61 respectively. Cranbrook could be a good location for Vicinity vehicles given the desire to best match vehicle size to passenger demand and public feedback requesting smaller vehicles. Additionally, the vehicle maintenance facility is already equipped to handle the Vicinity's engine type.

6.2 Infrastructure Review

The review and consultation highlighted several stops where it would be helpful to improve the location or amenities to attract and retain customers. Similarly, it is possible to apply to BC Transit for funding through its Bus Stop Improvement Project for items such as shelters but these improvements need to be identified and formally approved at the local level.

The top priorities for improvement to bus stops and related infrastructure are as follows:

Bus Stop Priority 1: College of the Rockies (COTR)

<u>Issues and Opportunities</u>:
As noted in *Section 4.1.7*, the bus stop at COTR is one of the most heavily used in the system.

The current stop location and amenities predate the construction of a new entranceway to the College (the covered overhang shown on the left-hand side of the picture at right). The new entranceway provides cover and seating and is adjacent to a pleasant indoor student lounge area, an ideal location in which to wait for the bus in bad weather.

In contrast, the existing location (marked by the red curb in the picture) has limited seating and no shelter from the weather. Passengers wait inside the door of the former main entrance, which offers no seating and is through a door that locks behind them when they go through it.

Moving the bus stop closer to the new entrance would increase the attractiveness and ease of use of transit. Additionally, to facilitate improved marketing to COTR students (see also *Section 9.2 Marketing*), the following additions would be helpful:

- a more comprehensive transit information display in the new bus stop location, including system route map, schedules, and potentially a "U-Pass: Did you know?" sign describing how U-Pass works and its benefits
- a large transit system display and U-Pass advertisement inside the College near the entrance to the cafeteria

Bus Stop Priority 2: East Kootenay Regional Hospital

Issues and Opportunities:
The new stop at East Kootenay Regional Hospital has many positive attributes. It has seating and shelter and very visible signage. Its location also enables transit to offer fairly good proximity to the front doors of the building while staying out of the main flow of vehicle traffic by the front doors.

While these are to be commended, the one thing that would be an improvement to this important stop would be an accessible pathway between the shelter and front door of the Hospital.

Currently, there is a stairway that enables more mobile passengers to easily connect from the stop to the front door. However, in the case of people using a wheelchair or walker, or for parents who may be visiting the hospital with a stroller, those passengers need to walk through the roadway in order to access the hospital sidewalk below.

There appears to be sufficient space to pave a pathway down to the sidewalk. This improvement should be considered by the hospital as part of any future roadway or infrastructure construction on the grounds. A different treatment to the grade change that would be part of work to install a ramp may also enable removal of the concrete planters that line the back of this stop and prevent riders from using the buses' rear doors.

Top: The hospital stop and shelter and how it relates to the building itself. **Bottom:** picture showing the change in grade between the stop and the sidewalk to the Hospital that lies below.

Additionally, there have been requests from passengers to have the front of the shelter enclosed or some other type of windbreak provided.

Other Feedback on Stops and Shelters

Conversations with Cranbrook Transit staff and passengers also noted a number of other requested improvements that should be considered.

Requested shelter additions or improvements:

- Installation of a shelter at the well-used stop at Laurie Middle School (2nd Street S at 17th Ave N)

- A front enclosure or some other type of windbreak provided at the shelter located at WalMart, one of the busiest bus stops in the system

Requested accessible pad or signage improvements:

- The bus stop directly across from Joseph Creek Senior's Village should be paved to improve accessible for passengers, many of whom may be using mobility aids at this location. Alternatively, this stop could be moved east and an accessible pad and sidewalk improvements made in the vicinity of 1901 Wlillowbrook Drive, which would be enable passengers destined for Joseph Creek to use the crosswalk located at Kokanee at Willowbrook.
- The bus stop pole and sign needs reinstallation at the stop at 2nd Street and 24th Ave, adjacent to the Fire Hall. This sign and pole were removed during Fire Hall reconstruction but have not yet been put back.

Requested bus stop moves or closures:

Consolidating bus stops—or closing them if rarely used—helps the system by reducing travel times for passengers (since the bus may have to pull over fewer times) and by reducing the overall total number of stops the City must maintain. At the same time, by adding stops closer to key destinations, the system can reduce walk times for passengers and improve the convenience of the service.

The following details suggested bus stop moves, additions and consolidations to either reduce the total or improve the access or safety to key stops:

- Remove stop northbound on Victoria north of 8th St. N (Route 1) due to lack of passenger use and safety of access.
- Remove stop southbound on 14 Ave. S north of 2nd St. S (Routes 2 and 14) as difficult for buses to serve this stop and then make left turn onto 2nd St. Potentially this stop could be moved to a stop on southbound 14th Avenue S far side of the 2nd St intersection and a similar stop on eastbound 2nd St, far side of 14th Avenue, added.
- Add a westbound stop at 1st St. N near side 11th Avenue S or around the corner at northbound 11th Ave. far side of 1st St. N. This stop would be used by Routes 2, 3, 5, 7 and 14 and would better enable access to this corner of downtown.
- Add a stop on westbound 3rd St. S west of 7th Avenue S on Route 3 as there is a large gap between stops at this location. Alternately, consider moving the stop at southbound 7th Avenue S south of 3rd St. S to north of the intersection to enable the stop to be used by both routes 3 and 7 (as well as potentially the combined Sunday routing discussed in section 8.2).
- On Route 3, consider deleting the stop on Innes south of 11th St. S and consolidating it with the stop on 11th St. S at Innes (which also has a bench).
- The southbound stop on Larch just north of Birch should be moved around the corner to Birch at Larch. Transit drivers already have passengers waiting at Birch at Larch rather than the existing stop since Birch has a curb and sidewalk while the Larch stop is unpaved.

7.0 PHASE 1 PUBLIC CONSULTATION AND FEEDBACK

Feedback on Cranbrook's transit system was solicited from various sources, as outlined in the *Acknowledgements* on page 2 of this report. Appendix C details the public consultation methodologies used, with full results shown in Appendices D, E, F and G.

Top Priorities Heard: Key Stakeholder Workshop

Key stakeholders were given a variety of transit-related topics to discuss (see Appendix F). While round-table discussion results are difficult to quantify, participants' top three priorities for change appeared to be as follows, in descending order:

- Evening service
- Additional Slaterville service (weekday daytime)

- Rural connections with Kimberley (especially for commuters) and Creston

Top Priorities Heard: Passenger Survey
The most frequent responses from the passenger survey were as follows:

- Service is great/Drivers are great/Don't change anything (48%)
- More frequent/Expanded service (19%)
- Extended/Later hours (13%)
- Cheaper fares (6%)
- Run buses on time (4%)

Top Priorities Heard: Online Survey
The online survey, conducted December 2012 to February 2013, had the following most frequent responses:

- Service is great/Drivers are great/Don't change anything (11%)
- Use smaller buses (9%)
- Expand routes/coverage within Cranbrook (7%)
- Extended/Later hours (5%)

Top Priorities Heard: College of the Rockies (COTR) Open House

- Everything is good as is/Don't change anything (29%)
- Evening service (9%)
- More frequent service (7%)

The following section explores the most frequently mentioned responses above that are considered to be the most viable.

8.0 SERVICE CHANGE OPTIONS

This section presents potential service change options for consideration. These options are based on the feedback listed in *Section 7.0* above from the passenger and online surveys, the Key Stakeholder Workshop, and the Open Door at College of the Rockies, in conjunction with analysis of current ridership and service frequencies.

Once local government has approved a service option for implementation—and local and provincial funding has been approved for the year—an Implementation Agreement Memorandum of Understanding (MOU) will be developed for signature by the City of Cranbrook and BC Transit. This MOU will outline the exact service changes to be developed for implementation, and the timelines for this.

Cost and revenue projections are based on existing 2013/14 Annual Operating Agreement budget figures, and actual costs and impacts may vary depending on finalization of service and operating details. Ridership projections are also estimates, based on analysis of current ridership trends.

8.1 Recommended Service Strategy

As described earlier in this report, Cranbrook Transit's chief advantage is the consistency of its service and the relative simplicity of its route structure. Existing routes also strike a good balance between walk distance and directness.

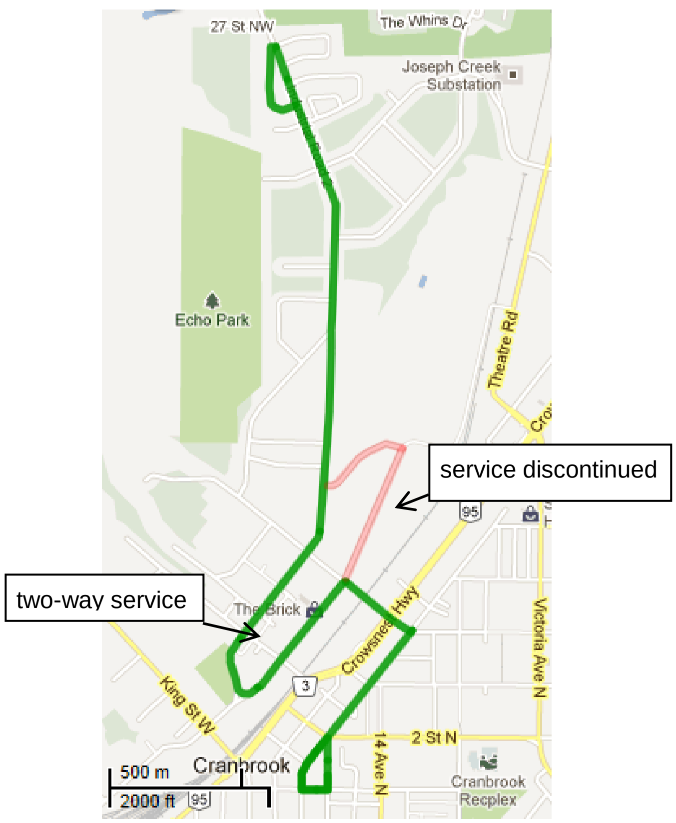
Consistency is a key attribute for attracting new riders, and measures that aim to increase the efficiency of existing service (such a reducing frequency or substantially altering or combining routes) run the risk of compromising consistency and therefore eroding current and future ridership. This risk would be more worthwhile if Cranbrook's ridership were in decline, but as it has instead been continuing to increase, every effort should be made to preserve this trend, rather than disrupting it.

Therefore, the overall recommended strategy to improve performance of the system is to concentrate on effectiveness (i.e. measures to increase ridership on existing service) rather than efficiency (options to reduce service or make large reallocations). To support this strategy, minor service adjustments for the short term are presented in *Section 8.2*, followed by fare and marketing proposals in subsequent sections. Since under BC Transit's partnership model, growing ridership and revenue is the best way to mitigate transit costs—as the City keeps all revenue collected but costs are shared with BC Transit--it is recommended that the City pursue these more minor changes first, and only consider more substantial adjustments at a future point if ridership does not respond to these measures.

8.2 Service Change Options: Short-Term

The service change options presented in this section are considered to be the most viable to implement for the Cranbrook Transit System over the short term.

Short-Term Option 1: Route 4 Slaterville Service Additions and Routing Adjustment



Description: This option would add two trips per weekday to Route 4 Slaterville, one in the mid-morning and one in the afternoon. It would also change the routing to offer two-way service along Slater Road and Briar Avenue, rather than outbound via Slater and Briar and inbound via Industrial Rd 2, Industrial Rd A and Industrial Rd 1.

Key Benefits: The addition of two trips per day in the mid-morning and afternoon, Monday through Friday, would reduce the interval time between trips from the current 4.25-5 hours down to between two to three hours. This level of service would make it more viable for use by seniors living in the mobile home parks at the bottom of Echo Field Road.

In terms of the routing change, there appears to be a greater potential to attract riders from the residential area, which has higher density, than from the light industrial area. Additionally, two-way service is generally easier to understand, and more attractive to new users.

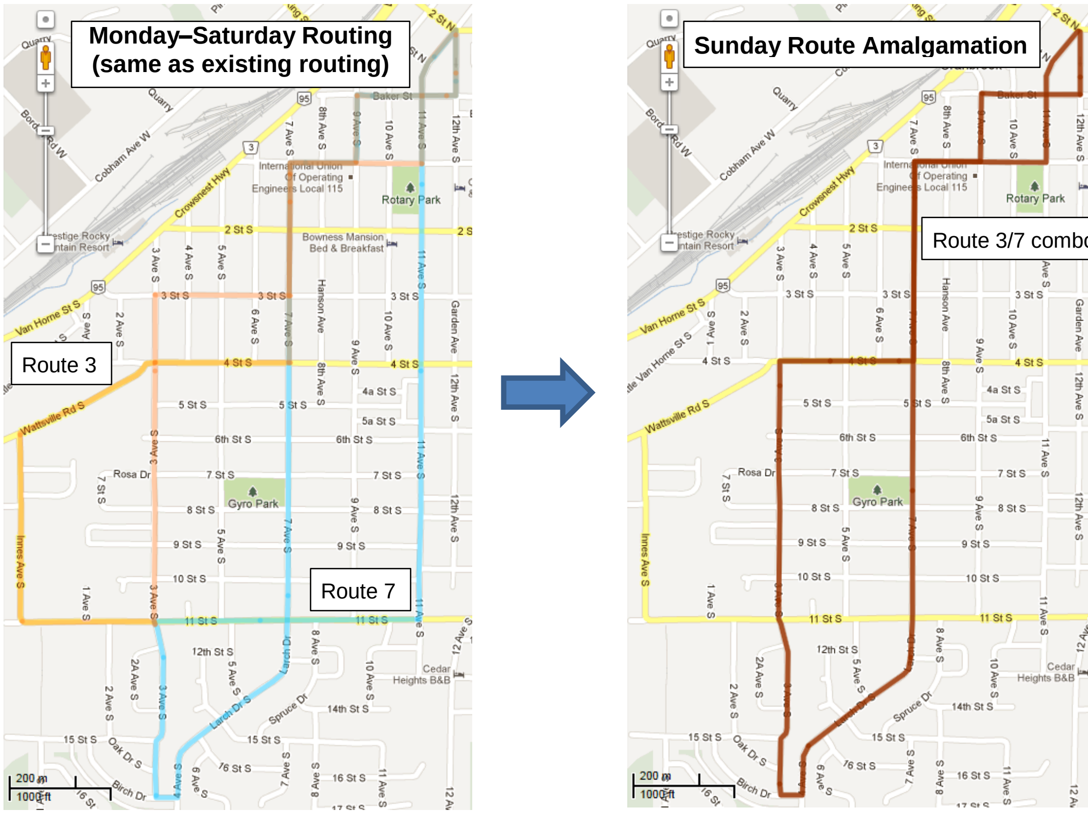
Challenges: The proposed solution would convert a half hour of handyDART time to provide the afternoon trip and add time to the fixed route system for the mid-morning trip. The reallocation of handyDART may require a few existing handyDART users to adjust their subscription trips slightly. However, this would begin to address the issue of handyDART having an oversupply of service hours relative to its current ridership (see also *Section 4.2.2* above).

Initial High Level Estimate – Additional Annual Impacts			
1) Service Addition: Route 4 Slaterville			
Service Hours:	260	Passenger Revenue:	$900
Annual Ridership:	800	Total Cost:	$20,500
Vehicles Required:	0	Net Local Share of Costs:	$10,000
		Provincial Share of Costs:	$9,600

Initial ridership estimates are conservative. Ridership should be evaluated at the 12-month point after implementation. If it has shown no improvement, the provision of Route 4 Slaterville may need to be reconsidered.

Short-Term Option 2: Sunday Service Reductions

Description: This option would apply to Sunday service, reducing Route 5's frequency from 30 minutes currently to 60 minutes, and amalgamating Route 3 and Route 7 into a combination route, as shown in the maps below:



Key Benefits: These service reductions would ensure Sunday service levels better reflect current Sunday ridership, allow one less vehicle to operate, and make service more efficient.

Challenges: There would likely be a drop in ridership, as a few users of Routes 3 and 7 may find the resulting increased walk distance to a bus stop a disincentive. This is expected to be slight, but initially it may be exacerbated by a temporary ridership drop as riders along these routes adjust to the new combination routing. Detailed scheduling would be required to confirm final savings, and the resulting schedule may have slightly more variation between Saturday and Sunday trip times than is now the case in order to preserve sufficient recovery time between trips. (Among communities with transit in BC, this type of variation is standard.)

Considerations: The resulting service hour savings could be either:

a) Kept, to reduce costs. This could result in passengers regarding the transit system as not being supported or valued, and lead to the start of a downwards ridership spiral; or
b) Repurposed, for example to add 1.5 hours on weekdays, allowing service to be extended by half an hour into the evening on most routes, or to add 7.5 hours on Saturdays, allowing up to 3 ½ hours of evening service.

Note: Like the above routes, Route 2 also has minimal Sunday ridership. However, due to trip times, combining Route 2 with Route 5 would not result in savings, and reducing Route 2's frequency beyond its currently hourly service would have a substantial negative impact on ridership.

Initial High Level Estimate – Additional Annual Impacts			
2) Sunday Service Reductions			
Service Hours:	-380	Passenger Revenue:	-$200
Annual Ridership:	-200	Total Cost:	-$27,700
Vehicles Required:	0	Net Local Share of Costs:	-$14,600
		Provincial Share of Costs:	-$12,900

8.3 Short-Term Service Options Summary and Conclusions

The following table summarizes the estimated impacts for the short-term service options presented above. All figures are annual and are based on 2013/14 Annual Operating Agreement budgets. These estimates would require review based on confirmed service and operational details.

Short-Term Service Options

Cranbrook Transit System Short-Term Service Options Summary: Preliminary Estimated Additional Annual Impacts*							
Service Option	**Vehicles**	**Service Hours**	**Rides**	**Total Revenue**	**Total Costs**	**Net Local Share of Costs**	**BC Transit Share of Costs**
1) Service Addition: Route 4 Slaterville	0	260	800	$900	$20,500	$10,000	$9,600
2) Sunday Service Reductions	0	-380	-200	-$200	-$27,700	-$14,600	-$12,900

Notes:
* Based on 2013/14 budgets. Final costs may change based onconfirmation of final operational details.

Again, Sunday service reductions shown as Option 2 could be used to offset costs for Option 1, with the remainder taken as savings. This would, however, likely have longer-term, further-reaching negative impacts on revenue and ridership. Alternatively, these savings could be reallocated to other service, such as a slight extension of weekday service or the introduction of Saturday evening service, which would result in revenue and ridership gains.

8.4 Service Change Options: Longer-Term Considerations

The following service additions are for consideration for the longer term, as demand warrants.

(Longer-Term) Option 3: Vehicle Fleet Composition

To better align current passenger volumes with vehicle capacities, ideally a mix of community-sized vehicles could be introduced to the Cranbrook Transit System's fleet over time as vehicle replacement dates are reached. There would however be several considerations involved, including the following:

1. Cranbrook's transit system is extremely young in relative terms, and likely will see further ridership growth before it reaches maturity. Existing passenger loads, in particular at peak times, would need to be investigated in detail, with care taken to ensure that new vehicle types and numbers would still be able to absorb further ridership increases.
2. Scheduling and vehicle assignments would need to be looked at carefully to determine how smaller vehicles could be used on routes and trips generating low ridership, yet larger vehicles assigned to routes and trips whose ridership levels demand greater capacity.

(Longer-Term) Option 4: Wildstone Neighbourhood

As development progresses in the Wildstone area and density increases, a routing extension on Route 4 Slaterville could be considered to serve this neighbourhood. This routing extension is estimated to require an additional six minutes per trip.

(Longer-Term) Option 5: Regional Service

Regional service between Cranbrook and Cranbrook Airport, St. Eugene Golf Resort and Casino, Kimberley, and Creston was suggested by Key Stakeholder Workshop participants. Additionally, the City of Cranbrook OCP mentions future transit service to the St. Mary/Shadow Mountain development area, located approximately eight kilometers north of downtown Cranbrook, once adequate service level requirements can be achieved.

Discussions of service to Cranbrook Airport and St. Eugene were focused on meeting the needs of employees. There are currently links between Cranbrook and Creston twice weekly on the Health Connections service, and between Cranbrook and Kimberley Tuesdays through Fridays on a mixture of Health Connections service and BC Transit service. However, discussions for Kimberley were mainly centered on providing commuter service for Kimberley residents employed in Cranbrook, which would require detailed demand analysis at the request of the City of Kimberley. While the airport and the St. Mary area have been incorporated within the City's boundaries, St. Eugene lies within the Regional District of East Kootenay. Continuing discussion would be required at a regional level to determine potential service options linking these various areas, but in the short term, private shuttle operators could be consulted to provide service, as demand warrants.

9.0 Other Considerations and Supporting Strategies

9.1 Fares

The fare implemented with the system's startup was in line with those of other BC Transit systems with similar levels of service. Since that time, fares have increased every two to three years, but these increases have outstripped those of comparable transit systems within BC. Cranbrook's fares are now on par with those of the major urban transit systems found in, for example, Abbotsford, Kamloops, Kelowna, and up until April 1, 2013, Victoria.

A separate *Fare Structure Review* has been prepared by BC Transit's Sales and Marketing department and is included in this report as *Appendix K*.

Additional Fare Consideration 1: Semester Pass

Analysis of feedback received at the Key Stakeholder Workshop indicates that there would be merit in examining the viability of a Semester Pass program for school students. This is also suggested in the *Fare Structure Review* under *Implementation Strategies* (page 8 of the review). Used in a number of BC communities for both school student and post-secondary student travel, semester passes bundle together four monthly passes at a discounted rate—normally 20% less than if the four passes were bought separately. In the case of Cranbrook, this would mean that students and parents would be able to purchase travel from September to December for $112 as a semester pass, versus the $140 that it would be to purchase individual passes each month.

The key advantages of semester passes are that they offer parents and students the convenience of buying passes all at once as well as savings. For the municipality, the semester pass program offers more stable revenue. In the case of Cranbrook, the semester pass could be especially helpful since walking and cycling are such viable options in the City during good weather, which means that many parents and students delay purchasing passes until the winter months. Offering a semester pass may be a way of capturing ridership and revenue when the weather is still good.

The potential challenge would be ensuring that Cranbrook Transit's vehicle capacity could handle the introduction of a semester pass. However, if the target is on boosting ridership during good weather months, this many not be an issue since it would less affect ridership during the winter peak. A more detailed analysis of ridership and pass sales should be undertaken before implementing this option.

9.2 Marketing

Marketing is a key component in promoting a transit system amongst community residents and helping to increase ridership, especially in newer transit systems such as Cranbrook's. Strategies focusing on the following potential ridership sources may help to increase Cranbrook Transit System's productivity:

Marketing Strategy 1: School Outreach

Introducing the semester pass, detailed above, for elementary, middle and high school students would present a prime opportunity to promote the transit system to parents (e.g. through bundling the Rider's Guide with school agendas) and garner ridership from students who perhaps are currently being driven to school.

Given reports that customers find the Rider's Guide difficult to understand, this would present an opportunity to create a separate flyer with a simplified schedule focusing on trips that meet school bell times.

Marketing Strategy 2: College of the Rockies Outreach

Interviews with students during the COTR Open House suggested that a significant number were unaware of the existence of the U-Pass program. Working with COTR to include more information on the U-Pass and the transit system to students as part of their orientation may help to further increase ridership amongst college students, especially if Route 5's schedule and map were included in a simplified flyer.

Marketing Strategy 3: Outreach to Shoppers

Route 1 Tamarack is ideally suited to be promoted as a frequent, convenient link between key shopping destinations: Downtown Cranbrook, Tamarack Mall, the Wal-Mart/Superstore complex and the Save On Foods complex. One additional strategy might be to promote Route 1 in this light, potentially by creating a flyer showing a simplified schedule focusing on these destinations and a single route map, or as part of other business-related promotions.

Marketing Strategy 4: Seniors Outreach

As noted under *Section 2.0 Community Profile*, seniors represent a growing proportion of Cranbrook's population. It would helpful to look at opportunities to further promote the system to this age group, in particular to younger seniors who are still mobile but who may be willing to try transit for specific purposes.

Given that seniors in particular are reported to find the Rider's Guide challenging to understand, events could potentially be hosted at key seniors' locations to demonstrate how to use it.

Marketing Strategy 5: Outreach via the City of Cranbrook

Adding a direct link on the City of Cranbrook's website to the main BC Transit webpage for the Cranbrook Transit System would help to advertise the system to the community and to raise its local profile. Additionally, experience in other transit systems has shown that continued transit ridership growth often correlates with the continued support and positive perception of transit by the City and elected officials.

10.0 PHASE 2 PUBLIC CONSULTATION AND FEEDBACK

10.1 Public Open Houses

Public Open Houses were held on September 18 and 19, 2013, with more than one hundred local residents welcomed at the two events. The first event was conducted at the downtown transit exchange, the second at Tamarack Mall. Both events were open for a three-hour period.

Citizens were asked to vote on the two specific service change proposals contained in this Service Review Report:

1. **Route 4 – Slaterville:**
   - Adding two extra trips per weekday, for a total of five trips daily
   - Making routing the same in both directions, i.e. bidirectional, and removing the loop through the industrial area in the inbound direction
2. **Sunday Service:**
   - Reducing Route 5 **–** College frequency
   - Combining Route 3 **–** Third Avenue and Route 7 **–** 7th-11th Avenue

Additionally, they were asked for their comments on these proposals, as well as for any other comments on how public transit in Cranbrook could be improved.

For the Route 4 Slaterville proposal, 53% of attendees expressed support, 47% said it would make no difference to them, and 0% said they did not support it.

For the Sunday service proposal, 56% of attendees expressed support, 44% said it would make no difference to them, and 0% said they did not support it.

Attendees supporting the Sunday service proposal were then asked how they would like the cost savings resulting from this proposal to be utilized. 92% of these attendees expressed a preference for re-investing these cost savings into additional service, while 4% (one person) said they would prefer to save them for net cost savings and 4% said it made no difference to them.

Attendees supporting the re-investment of these cost savings were asked their preference regarding how these savings (service hours) should be spent. 48% of these attendees said they would prefer one hour of additional evening service on Fridays and Saturdays, while 35% said they would prefer an extra thirty minutes of evening service on weekdays. 10% and 6% said they would prefer two hours of Saturday evening service and increased Saturday daytime service frequency, respectively. No attendees expressed a desire to have weekday service begin 30 minutes earlier.

Open House attendees were also shown information on the longer term options, including the introduction of a Semester Pass program. In general, feedback received on these proposals was positive.

When asked to respond with any additional thoughts on how Cranbrook Transit could be improved, the top three general comments received from attendees were as follows:

1. Requests for evening service (9 attendees, or 25%)

2. Appreciation and liking for the existing service (8 attendees, or 22%)
3. Appreciate and liking for the drivers (5 attendees, or 14%)

10.2 Online Survey

An online survey was available September 12 through September 30, and along with the Open House events advertised on the buses, in local print media, on the City of Cranbrook, College of the Rockies, and BC Transit websites, and on Facebook.

Despite these publicity efforts, only three people participated in the survey, including one complete set of responses.

All three respondents supported the proposed changes for both Route 4 Slaterville and Sunday service. Two preferred to keep the cost savings from the Sunday service proposal, while one respondent wanted them spent on other service options, specifically, to provide two additional hours of evening service on Saturdays.

10.3 Phase 2 Consultation and Feedback: Summary and Conclusions

Feedback on the proposed short-term service change options was solicited at two public open houses, as well as via an online survey. Overall, 55% of public consultation participants stated support for the proposed changes to Route 4 Slaterville (with the remaining 45% saying the changes would not affect them), and 59% stated support for the proposed changes on Sundays to Route 5, and Routes 3 and 7 (with 41% saying that they would not affect them). This indicates that future implementation of these service changes will likely be met with a positive public response.

The vast majority (92%) of respondents wanted to see any savings realized through the changes reinvested in the transit system, with an additional hour of evening service on Fridays and Saturdays as the favoured option for improved service through reallocation.

In general, there was also verbal support for the proposed introduction of a Semester Pass program.

11.0 RECOMMENDATIONS FOR IMPLEMENTATION

Based on the analysis contained in this report and public consultation results, it is recommended that the City of Cranbrook and its partners undertake the following for implementation:

D. Service

- Approve Short Term Service Option 1 (Route 4 Slaterville Service Additions and Routing Adjustment) and Option 2 (Sunday Service Reductions) for implementation, with any cost savings to be reinvested into the system, in particular to provide longer evening service on Fridays and Saturdays;

- Work with BC Transit, as vehicle replacement plans and other opportunities arise, to examine introducing a mix of community-sized vehicles to the Cranbrook Transit System's fleet over time, pending review of ridership and capacity needs.

E. Fares

- Approve the introduction of a Semester Pass program for September 2014, at a rate of $112.

  As the Cranbrook Transit System's fares are relatively high compared to its peers and the last fare change occurred in September 2011, a fare increase is not recommended at this time. However, there is opportunity for the City to accrue higher ridership and potentially more consistent revenue by implementing a Semester Pass program, combining four one-month passes for purchase by school students at a reduced rate.

F. Marketing

- Direct staff to work with BC Transit, Sun City Coach Lines and College of the Rockies staff to create a working group to meet on a regular basis and explore how the marketing strategies outlined in Section 9.2 could be implemented, including outreach to schools, the College of the Rockies, shoppers, seniors, and outreach via the City of Cranbrook.

Once local government has approved a service option for implementation, an Implementation Agreement Memorandum of Understanding (MOU) will be developed for signature by the City and BC Transit. This MOU will outline the exact service changes to be developed for implementation, and the implementation timeline. Once signed, any changes to the scope of service changes in the MOU may change timelines. Detailed costing would be confirmed through implementation.

12.0 RECOMMENDATIONS

It is recommended that the City of Cranbrook:

- **Receive this report as information, provide comment, and approve it for finalization by City and BC Transit Staff;**

- **Approve the implementation recommendations as outlined in Section 11.0 above;**

- **Direct staff to work with BC Transit in order to proceed with implementation of any approved service change and fare options, including assisting with the development and signing of an Implementation Agreement Memorandum of Understanding (MOU).**

13.0 LIST OF APPENDICES

Appendix A: BC Transit Development Referral Response (Sample)
Appendix B: Detailed Ridership Analysis
Appendix C: Public Consultation Methodologies
Appendix D: Phase 2 Public Consultation: Public Open Houses – Results Summary
Appendix E: Phase 2 Public Consultation: Online Survey – Results Summary
Appendix F: Phase 1 Public Consultation: Key Stakeholder Workshop – Results Summary
Appendix G: Phase 1 Public Consultation: On-Board Passenger Survey – Results Summary
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Appendix I: Phase 1 Public Consultation: COTR Open House – Results Summary
Appendix J: Fares Summary
Appendix K: Fare Structure Review

APPENDICES

Appendix A: BC Transit Development Referral Response (Sample)

Development referrals can be sent to developmentreferrals@bctransit.com.

BCTransit
Linking Communities, Businesses & Lifestyles

Development Referral Response

April 2, 2013

Development Location: Bear Mountain Development (File no: SUB10-0054,55,56)
Local Government: City of Langford
Transit System: Victoria Regional Transit System

Overall Transit Impact

The proposed site:

- Is not currently served by transit and is not included in any long term plans for transit service. In general, 400 metres is considered a reasonable walk distance to access transit.
- Bear Mountain Parkway has been identified for future transit service in BC Transit's draft long-term Transit Future Plan. The Transit Future Plan Network has been developed from consultation with Langford municipal staff and a review of Langford's OCPs and transportation plans.

Land Use

- The proposed site plan is comprised of lots for single-family housing. In general, land use that concentrates higher-density multi-family units near arterial and collector roadways and commercial nodes is more supportive of transit.
- Pedestrian pathways and cut-throughs can improve connectivity by reducing the walk distance to Bear Mountain Parkway where transit use is planned.

Bus Stops and Stations

- As the area is not currently served by transit and is outside current long-term transit plans, this development referral response does not provide recommendations on suggested bus stop location and requirements.

BC Transit Level of Support

- BC Transit has no objection to the development as it is consistent with current local area plans. **However, it should be emphasized that there is currently no long-term plan for future transit service to this area.**

Thank you for the opportunity to review this proposed development. If you have any questions or would like further comments on this proposal, please contact:

James Wadsworth
Senior Transit Planner
BC Transit Strategic Planning
Email: james_wadsworth@bctransit.com, Phone: 250-995-5632

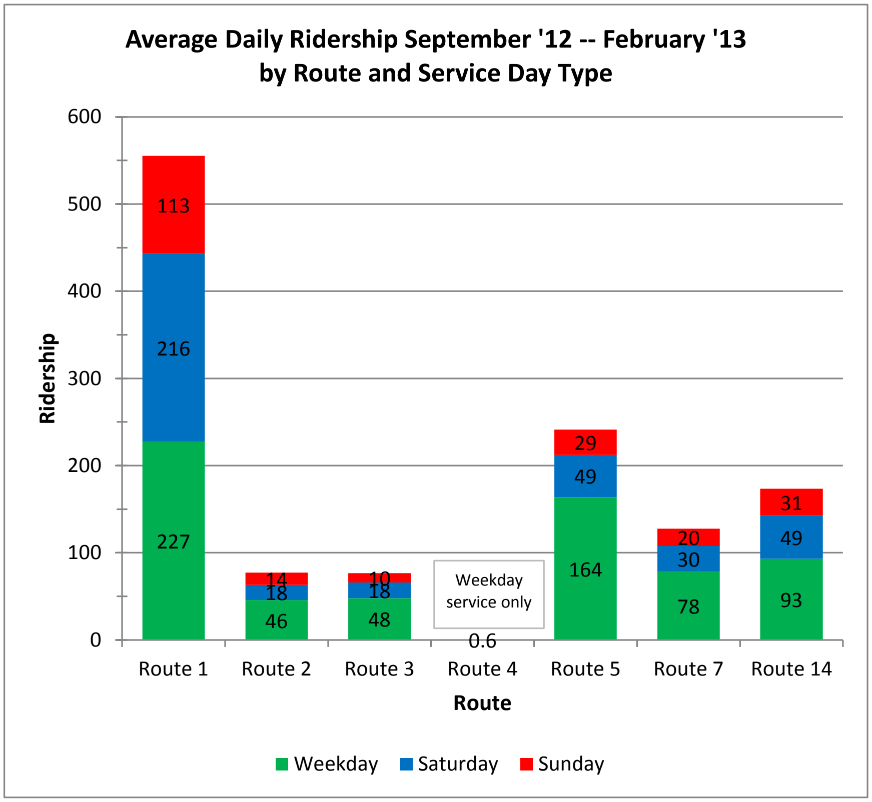
520 Gorge Road East P.O. Box 610 Victoria BC V8W 2P3 Phone. 250.385.2551 Fax. 250.995.5639 www.bctransit.com

Appendix A: BC Transit Development Referral Response (Sample)

Appendix B: Detailed Ridership Analysis

1. Ridership by Route

Based on electronic farebox data, *Section 4.1.3* above shows average ridership by route and service day as a percentage of total ridership. However, in terms of absolute numbers, this ridership data can be expressed as follows:



Highlights from this chart include the following:

On Saturdays:

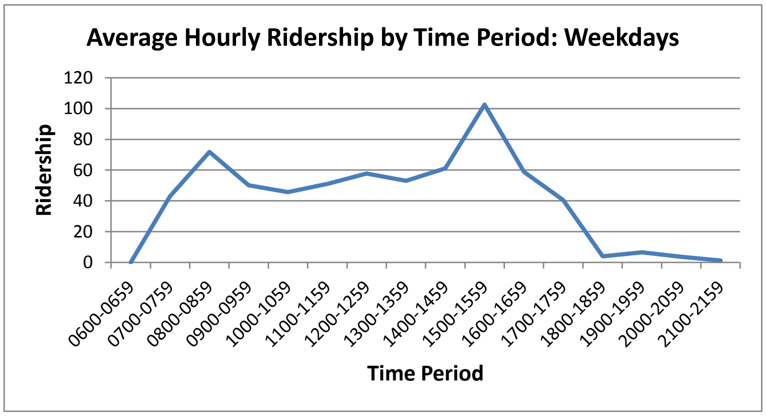
- Except for Route 1, all routes show a marked decrease in ridership compared to weekday ridership by up to 70%. In a typical transit system, Saturday ridership does drop compared to weekday ridership, and service hours are scaled back accordingly. However, Cranbrook's relative ridership decrease far exceeds its relative service hours' decrease, which is 34%.
- Route 5 shows a 70% relative decrease in ridership compared to weekdays.
- Routes 2, 3, and 7 show a 62% relative ridership decrease.
- Route 14 shows a 47% relative ridership decrease.
- Route 1 shows only a 5% relative ridership decrease.

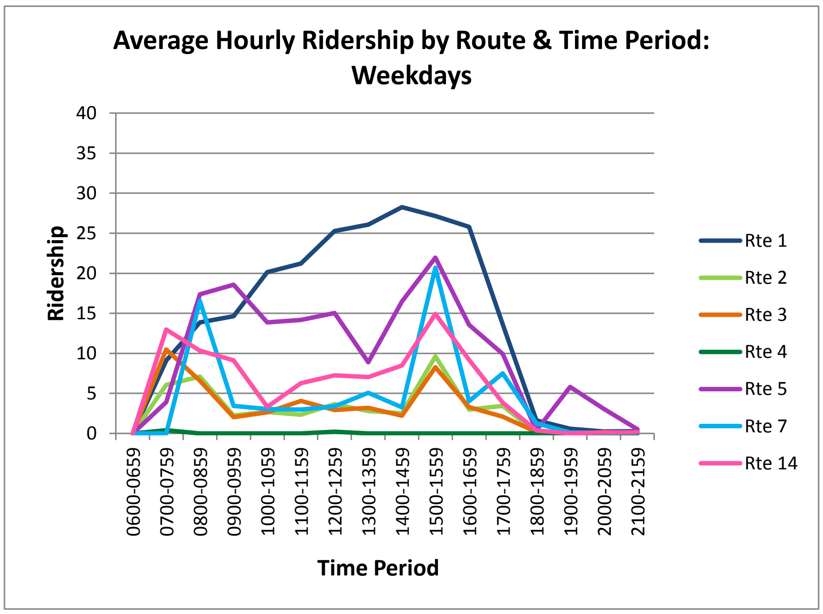
On Sundays:

- All routes, including Route 1, show a ridership decrease compared to weekdays (of up to 82%) and Saturdays (of up to 48%). Typically, Sundays carry the lowest ridership of all service days, with concomitant reductions in service hours. However, Cranbrook's relative ridership decrease again far exceeds its service hours' decrease of 44% relative to weekdays and 15% relative to Saturdays.

2. Ridership by Time Period

Weekdays





Overall **weekday** ridership shows two peaks, corresponding with school start and end times. The afternoon peak is the highest, showing approximately 100 total rides between the 3:00-3:59 p.m. hourly period. This compares to approximately 70 total rides between the 8:00-8:59 a.m. hourly period, and an average of approximately 50 total rides per hourly period during the midday off-peak hours, 9:00 a.m. to 2:59 p.m. A steep decline from the afternoon peak, down to about 4 total rides between the 6:00-6:59 hourly period as regular service finishes, is followed by a minimal rise as the evening drop-off service for COTR students begins.

The breakdown of ridership by route shows that, in terms of the four “residential” routes:

- Routes 2 and 3 mirror each other quite closely in terms of ridership levels and patterns, having relatively small morning and afternoon peaks, and very low off-peak ridership.
- Route 7 also has very low off-peak ridership but the highest peak ridership of all the “residential” routes
- Route 14’s peaks are lower than those of Route 7 but higher than those of Routes 2 and 3. Route 14 carries more ridership during the off-peak period than the other three residential routes.

Overall, this suggests that Routes 2 and 3, and to a lesser extent Route 7, could be candidates for adjustments to routing or schedules to improve performance.

Of the two "major trip generator" routes:

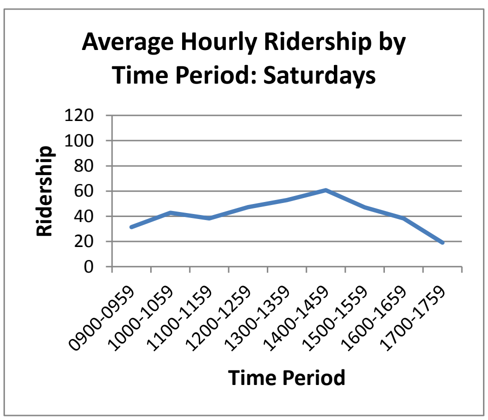
- Route 5's ridership patterns mimic those of the "residential" routes, although with distinctly higher passenger volumes, and with a minor peak showing in the evening period owing to its evening class drop-off service.
- Route 1 shows the highest ridership of all the routes, but rather than the typical morning and afternoon peak pattern its off-peak ridership is far higher than morning peak ridership, increasing steadily, and almost doubling, between the 8:00-8:59 a.m. and 2:00-2:59 p.m. time periods. This supports the premise that the main trip purpose for passengers using Route 1 is shopping, rather than commuting to school or work.

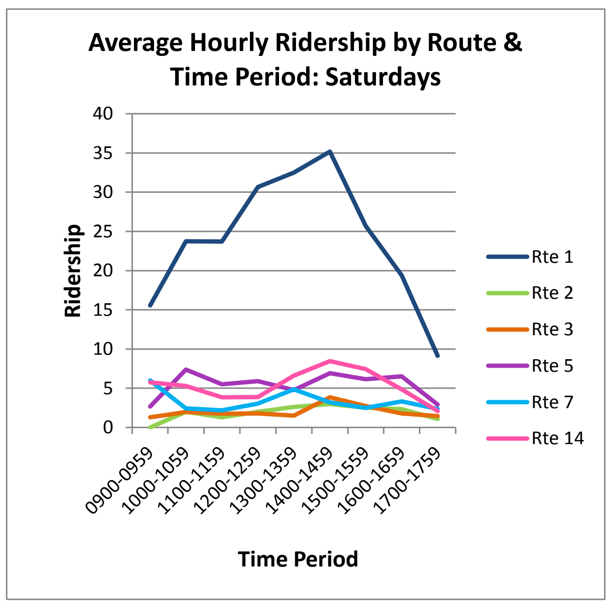
There are two principal reasons for the extremely low ridership on Route 4 Slaterville:

1. The infrequency of service results in long, four- to five-hour intervals downtown between trips, which is inconvenient for people needing to run errands.
2. From anecdotal reports, the relative isolation of Slaterville from the rest of Cranbrook, and perhaps also the relatively late addition of transit service to this neighbourhood, has resulted in a high proportion of vehicle ownership as well as an attitude of self-sufficiency as regards transportation connections to the rest of Cranbrook.

Section 8.0 discusses measures for increasing ridership on this route.

Saturdays



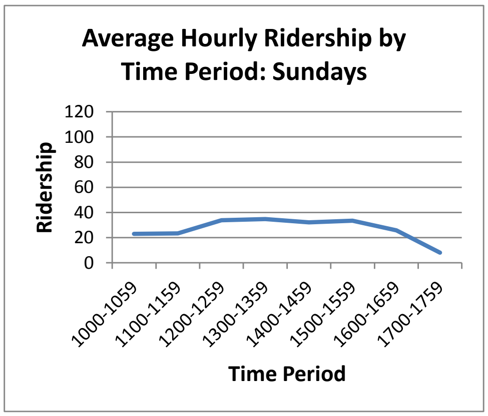


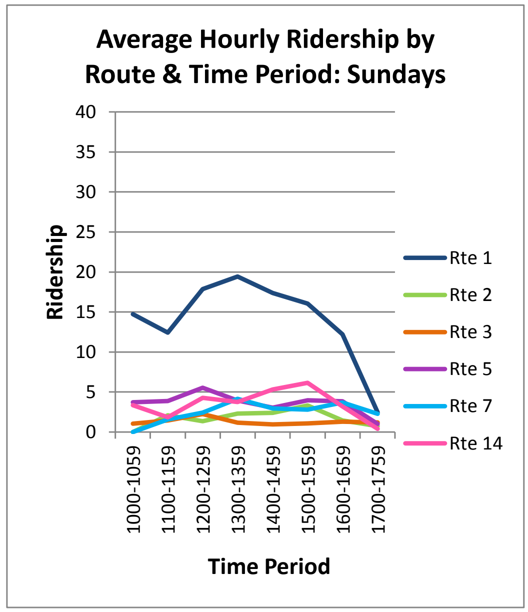
Saturday overall ridership data shows that there is a relatively small ridership peak in the afternoon between 2:00 and 2:59 p.m., one hour earlier than for weekday ridership, to an average of 60 total rides. There are 30 to 40 total rides per hourly service period from service start in the 9:00-9:59 a.m. period to the 11:00-11:59 a.m. period, after which ridership increases slowly to the afternoon peak, before decreasing slowly until service end.

When looking at ridership by route, Route 1's ridership far exceeds that of any other route, corresponding with earlier findings that Cranbrook's highest Saturday ridership is for shopping purposes. Whereas ridership on the other routes remains relatively low, at between zero and eight total rides per hourly period, and constant throughout the day, Route 1's shows a significant climb up to the 2:00 and 2:59 p.m. time period, followed by a sharp decline over the following three hourly periods until end of service.

Ridership on the Route 5 shows the most significant decrease on Saturdays compared to weekdays, and is in line with that of the residential routes. However, Route 5's frequency on Saturdays is double, and thus its productivity half, that of these other routes, and could be considered for adjustments in light of its ridership levels, in particular for the summer period, shown below:

Sundays





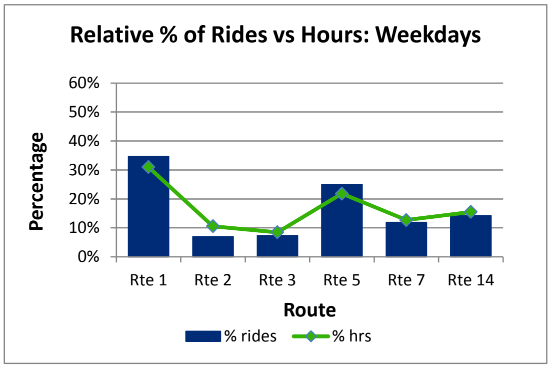
In terms of ridership on all the routes combined, Sundays have the lowest ridership. It remains steady between the 12:00-12:59 p.m. and 3:00-3:59 p.m. periods at approximately 33 total rides, the highest for this service day, per hourly period. The first two hours of service, 10:00-11:59 a.m., show 20 total rides per hourly period, and from 4:00 p.m. ridership drops, reaching around eight total rides during the last service hour of the day, 5:00-5:59 p.m.

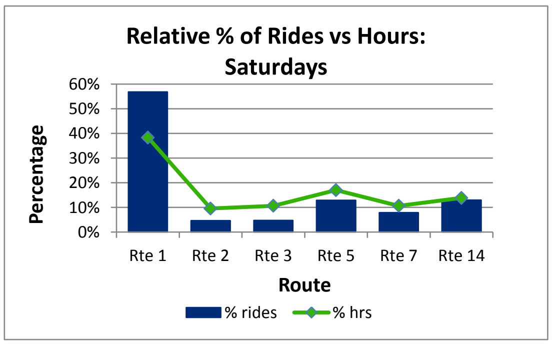
As with Saturdays, Route 1 has the highest ridership of all the routes, by a large margin. Route 1 ridership peaks to a total of around 20 rides between 1:00-1:59 p.m., decreases relatively slowly until the 3:00-3:59 p.m. hourly period, and then sharply between 4:00 p.m. until service end. Ridership on the other routes remains consistently low, at between zero and six total rides per hourly period, throughout the day.

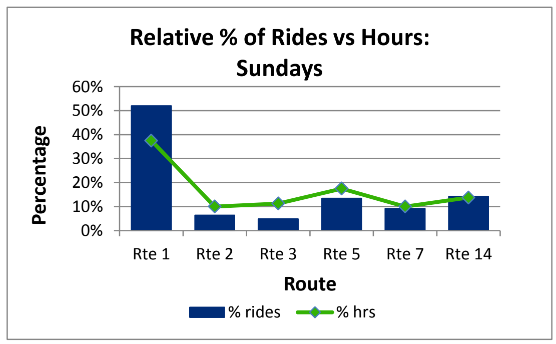
Again, Route 5's ridership levels on Sundays are in line with that of the residential routes, as shown below, and its frequency, double that of these other routes, could be revisited to increase its productivity (see also *Section 8.0* above for details):

3. Ridership Compared to Service Hours

The following graphs show the percentage of total ridership, based on electronic farebox data, carried by each route and the percentage of total service hours allotted to each route:



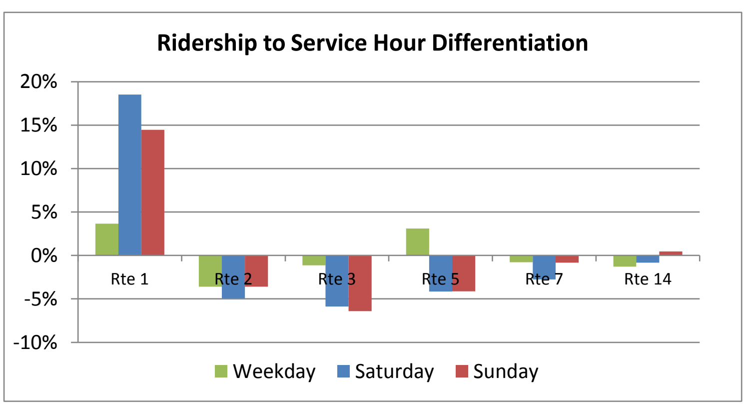




It can be seen that:

- Route 1's share of ridership exceeds its share of service hours on every service day, most notably on weekends
- Route 5's ridership share exceeds its service hour share on weekdays, but the reverse is true on weekends
- Route 7's and Route 14's riders shares closely match their hour shares on all service days
- Route 3's hour share closely matches its rides share on weekdays but exceeds it on weekends
- Route 2's service hour share exceeds its ridership share on all service days

The graph below summarizes, by route, the difference between the percentage of total ridership carried by a particular route compared to the percentage of service hours allotted to that route. For example, on Saturdays, Route 1 carried 57% percent of total rides but was allotted 38% of total service hours, meaning that it carried proportionately +19% more rides than the service hours allotted to it.



Appendix B: Detailed Ridership Analysis

Public Consultation Methodologies

Phase 1 Public Engagement:

1. Key Stakeholder Workshop

Key community stakeholders were consulted during a BC Transit Key Stakeholder Workshop on January 31, 2013. There were 30 attendees, representing a wide variety of community organizations, as detailed in the *Acknowledgements* section on page 2. Results are shown in Appendix F.

2. On-Board Passenger Survey

An on-board passenger survey was conducted December 5-6, 2012, with 335 responses. Results are shown in Appendix G.

3. Online Survey

An online survey was conducted between December 2012 and February 2013, with 70 responses. Results are shown in Appendix H.

4. College of the Rockies Open Door

Students currently attending the College of the Rockies were consulted during an Open Door event on January 30. 33 students gave their comments. Results are shown in Appendix I.

Phase 2 Public Engagement:

1. Public Open Houses

Public Open Houses were held on September 18, 2013 at Cranbrook's downtown transit exchange and on September 19, 2013 at the Tamarack Mall. These open houses presented the short-term service change option proposals formulated from the analysis of the existing transit system and from the Phase 1 Public Engagement results. More than 100 local residents gave their opinions on these proposals. Results are shown in Appendix D.

2. Online Survey

An online survey was made available during September 2013 as another forum to gain public feedback on the short-term proposals devised from analysis of the existing transit system and Phase 1 Public Engagement results. Despite extensive publicity, there were only three respondents to the survey. Results are shown in Appendix E.

Appendix C: Public Consultation Methodologies

Public Open Houses: Results Summary

The Public Open Houses asked local residents to vote on four service change option proposals:

1) Route 4 Slaterville: Add two extra trips per weekday and make routing bidirectional through the residential part of Slaterville – do you support this, not support this, or would it make no difference to you?
2) Sunday service: Reduce frequency on Route 5 College, and combine Route 3 Third Avenue and Route 7 7th-11th Avenue – do you support this, not support this, or would it make no difference to you?

2a) If you support the proposed Sunday service change option, what would you do with the resulting cost savings: save them, use them for other service, or would it make no difference to you (or do you not support this option)?

2b) If you would like to see these cost savings used for other service, what would you like to see them spent on – an extra thirty minutes of evening service on weekdays, one hour of evening service on Fridays and Saturdays, two hours of evening service Saturdays, increased service frequency during the daytime on Saturdays, or weekday service beginning thirty minutes earlier in the morning?

The voting results for these questions, plus a summary of general comments received at these Open Houses, are displayed on the following page.

Public Open House Results

Voting on Service Change Option Proposals

1) Route 4 Slaterville:
- Add two extra trips per weekday, for five trips total, daily
- Make routing the same in both directions

Support		No difference to me		Do not support	
Count	%	Count	%	Count	%
28	**53%**	25	47%	0	0%

2) Sunday Service:
- Reduce Route 5 College frequency
- Combine Route 3 and Route 7

Support		No difference to me		Do not support	
Count	%	Count	%	Count	%
26.5	**56%**	20.5	44%	0	0%

2a) If you support this proposed change, what would you do with the resulting cost savings?

Save them		Use for other service		No difference to me		Do not support	
Count	%	Count	%	Count	%	Count	%
1	4%	**22**	**92%**	1	4%	0	0%

2b) If you would like other service, where would you like to see it?

1 hour of evening service on Fridays and Saturdays		An extra 30 mins of evening service weekdays		2 hours of evening service Saturdays		Increase service frequency Saturdays		Begin service 30 mins earlier weekdays	
Count	%	Count	%	Count	%	Count	%	Count	%
15	**48%**	11	35%	3	10%	2	6%	0	0%

General Comments

	Count	Percentage
The service is great/I love the service	8	22%
The drivers are great	5	14%
More frequent service	2	6%
Evening service	9	25%
Commuter service between Kimberley and Cranbrook	2	6%
Other*	10	28%
Total	**36**	**100%**

* The "Other" category was assigned to comments made by no more than one respondent.

Appendix E: Phase 2 Public Consultation: Online Survey – Results Summary

Online Survey: Results Summary

The online survey asked local residents to vote on the same four service change option proposals as were presented at the public open houses above. These results are displayed below:

1) Route 4 Slaterville - Route Realignment and Additional Service

Response	Chart	Percentage	Count
I support the proposed changes.		100%	3
Makes no difference to me.		0%	0
I do not support the proposed changes.		0%	0
	Total Responses		**3**

2) Sunday Service - Route 5 Service Reduction, Combined Route 3 and Route 7 Routing

Response	Chart	Percentage	Count
I support the proposed changes.		100%	3
Makes no difference to me.		0%	0
I do not support the proposed changes.		0%	0
	Total Responses		**3**

2a) If you support this proposed service change, what would you do with the resulting cost savings?

Response	Chart	Percentage	Count
Save them (to reduce system costs).		67%	2
Use them for other service options.		33%	1
Makes no difference to me.		0%	0
	Total Responses		**3**

2b) If you would like other service, where would you like to see it?

Response	Chart	Percentage	Count
Add an extra 30 minutes of evening service weekdays		0%	0
Additional 2 hours of evening service on Saturdays		100%	1
Add 1 hour of evening service to Fridays and Saturdays		0%	0
Start service 30 minutes earlier on weekday mornings		0%	0
More frequent service on Saturdays		0%	0
Other, please specify...		0%	0
	Total Responses		**1**

Appendix E: Phase 2 Public Consultation: Online Survey – Results Summary

Key Stakeholder Workshop Results Summary

What does the existing transit system do well?

- Run well
- Good on-time service
- Friendly helpful drivers
- Works well for students (buses full at peak)
- Positive profile
- Feel safe on bus
- Atmosphere (Christmas bus), community feeling
- Ability to ride bike and bus
- Accessibility
- Good on-time service on Rte 5
- Interaction on bus
- U-Pass Program (demo of importance of education)
- Good coverage
- Vehicles
- Frequency decent

What are some of the ways we could promote the transit system and increase community awareness?

- Route/schedule at shelter? Or at each bus stop
- Knowledge of frequency of service from/at a stop
- Easier to walk
- Rider’s Guide complicated to read and understand
- Extension of evening hour service – perhaps on some routes
- Make it cool to ride the bus
- Promote to schools at schools , educate at schools, SHAW Cable promotion (show full bus – all kinds of people)
- Ride-for-free day – Family Day, Earth Day, Farmers Market
- Welcome Wagon -- Free Ride Token -- Transit Guide
- You Tube Video- Band on the Bus “Good Old Goats”
- Get link to transit on other websites – COTR, Chamber, Airport, Tamarack, RDEK, Tourism Cranbrook
- Ability to buy pass at High School
- Create incentive prize
- Add information to utility bills; City Webpage
- Target parents – don’t drive take the bus
- Educate at schools
- Increase COTR student awareness of service
- Promote through advertising at events
- Provide promotion at COTR
- Fun event – bus scavenger hunt,
    - Ride with the Kootenay Ice bus day, Sam Steele parade, service fun ideas/YouTube
- Free ride promotions linked to community event
- Unused advertising space discounted or made available for local promotion

Are there ways to link the transit system with other sustainability initiatives?

- Free ride to Farmer’s Market with recyclable bag; token showing future use of system once for free
- Events centered on downtown with free ride – Sam Steele
- Event-based Transit e.g. Kootenay Ice games
- Extend hours to match high employment centres (shift work)
- Bus decoration

- Employer engagement – Marketing
- Tie into Rails to Trails

What are the most important improvements we could make to the Cranbrook Transit System to attract more passengers? What are the priorities?

- Stops not shovelled (identify priority stops)
- More students on bus (via in-school program)
- Better web page
  - Separate page for map and schedule is difficult
- Get more information on routing at different locations
- Distribute w/ city distributions (talk to Chris)
- More outlets for fare products
- Better shelters at certain locations
- Longer hours
- Advertising on bus actually promotes ridership
- More visibility of transit (stops, promotion)
- Get more information on routing at different locations
- Safety – wait for passengers to be seated
- How do we address affordability for key groups
- Connections to after-school programs
- More outlets for fare products
- Can non-profits buy in bulk at a discount
- Employers who advertise get passes
- Certain areas free (Downtown core)
- Can maps show all stops
- At the stops include times for that stop
- No stops on main highway (i.e. service hotels)
- How can we make more affordable for family – Family Fare
- Safety – wait for passengers to be seated
- More outlets for fare products
- Encourage links from other major destinations
- Information distributed in Welcome Wagon
- Employers who advertise get passes
- Wider availability of Riders' Guides
- More emphasis on Pro-Pass
- More education/conversation w/senior groups
- Reduced fares at off-peak times
- Wi-Fi on bus

What are changes we could make to bus stops to improve passenger comfort and ease of use? Are there accessibility, bench or shelter improvements you would recommend for specific stops?

- Shovelling access points (snow removal), sanding (ice)
- Lighting (Winter)
- Curb friendly stops – landing pad to/from doorway
- Mobility aid flag at stops to alert driver
- Ramp availability knowledge
- Shelter at Seniors Centre
- 18th/Kootenay – Realm – Safety of bus stop location
- Map/Schedule at bus shelter
- More shelters: Laurie School, 14th
- Route/Schedule knowledge at each bus stop
- Ask the driver
- Web page – BC Transit – upside down and printability

- More shelter
- Snow clearing at stops
- Locations
  - Highlands – windy
  - by Green Clinic, Apartments
  - 2nd North near hospital
  - Walk from bus stop at hospital – stairs, walkers of seniors
- Attention to needs of aging population – use by seniors
- Larger print of schedule guide, improve ease of use/understandability
- Posting of routes/schedule at shelters
- Location of bus stops on map
- Google maps – route map
- Cleanliness of busses and bus stops/shelters – reflects on the system
- Movement of bus before seated
- To be able to carry more with you? (groceries, golf clubs) – retrofit buses
- Visibility of bus stop signs – may attract non-user

Thinking of development and community changes proposed over the next 5 to 10 years, what are the opportunities for transit? How do we capture them?

- Kootenay Orchard School area experienced booms
- More seniors needing (more friendly)
- Reduce barriers to trying bus
- Rural Connections (i.e. Creston & Kimberley)

For youth and students, what are the most important destinations and activities to serve? Where are they and do they have a key start and end time?

- Key City Gym – opened up in Slaterville, participants are middle & high school students, classes are 3:30 – 9:00 PM
- Hockey, sports, Key City gym
- Evening runs (weekends)
- 10:30, 3:30 Slaterville
- Slaterville:
  - No school bus service – walking right now
  - Mainly go to Parkland Elementary
  - Needs better times and frequency
- Hockey, sports, Key City gym
- Big Brothers & Big Sisters did youth asset mapping
- Jim Smith Lake fish hatchery
- Idlewild Park and Elizabeth Lake
- Hockey, sports, Key City gym
- 10:30, 3:30 Slaterville: some courtesy riders from kids who walk to Pinewood Elementary
- Area around Kootenay Orchard request to Mt Baker
- Key City gym: 3:30-8:30 PM, 50-60 students a night, 500 total
- Evening runs (weekends)
- 10:30, 3:30 Slaterville
- College:
  - Trade students start at 07:30 – end at 2:30 – can't get there in time
  - Evening classes – 6:00 PM – 9:00 PM
  - Door-to-door service – needs to be promoted
  - Only for U-Pass holders not continuing ed
  - Residence students can't get home

For youth employment:

- Wal-Mart/Superstore/Home Depot/Home Hardware

- Timing issues to & from work
- Highway corridor – mall & around Baker
- Mall and around Baker

What about for seniors or people with disability?

- Joseph Creek:
    - Mondays, Wednesdays and Fridays: has own bus
    - Tuesdays, Thursdays and weekends: can't get out
    - 134 residents: would like a presentation
    - Has its own chapel
- Medical clinics:
    - Tamarack Centre
    - 10th Avenue South
    - Green Clinic: on Baker by RecPlex
- Churches?
- More information on transit resources:
    - Lions' light-up tour
    - Cognitive tests for seniors
- Food bank (downtown on 8th Ave at 1st – taking hamper home on handyDart an issue. Policy.
- Slaterville seniors:
    - Shopping
    - Medical appointments
- Mountain View – seniors' living
    - Bus stop is down the hill and very far away – match bus stops & seniors' homes
- Charity bingos – end at 10:30 PM by Mt. Baker School
- Churches
- R.E.A.L.M. – on Kootenay & 18th by Canadian Tire
- Seniors' centre
- Seniors' centre: 2nd Street N, behind hospital
- Hospital, housing, shelters
- Hearing clinic on Baker by highway
- Dentist
- Clinics behind Canadian Tire
- Working seniors: malls. Timing issues.

What about adults who are commuting? Shopping? Travelling with small children to family programs?

- Joseph Creek:
    - 400 staff
    - 7:00 AM start, 3:00 PM end.
    - Employees get off at 08:00 AM – to get home takes an hour
    - Latest shift 11:00 PM
    - Open to survey
- Hospital (shifts are 7:00 to 7:00), COTR
- Airport (75 employees, half are from Cranbrook) 8:30 a.m. to 4:00-5:00 PM
- Mall open Thursday-Friday till 9:00 PM
- Street Angels:
    - Serves dinner, people leaving around 10:00 PM
- St. Eugene:
    - 300 employees
    - Shifts are 7:00 AM – 3:00 PM
    - 300-400 people living out there
- KNC (Ktunaxa Nation Council) new location downtown: 120 employees
- Airport (75 employees, half are from Cranbrook) 8:30 a.m. to 4:00-5:00 PM
- Kimberley commuter bus coming in from St Mary's

- Alpine resort
- WalMart
- Special events, e.g. hockey games, concerts – timing
- Better Babies program runs lots of programs – located in building behind RecPlex
- Slaterville, to COTR and Parkland Elementary
- Knights Hall:
  - Low-income housing
  - 20-25 apartments
  - Some residents w/ physical and mental disabilities
- Trailer parks
- Homeless people:
  - Street Angels
  - United Church by Cranbrook Mall
  - Salvation Army (Slaterville)
  - Other options would be possible if there was transit elsewhere
- Affordable housing – by Canadian Tire
  - Access Pass – City program to provide lower income
- Affordable passes for low income people
  - Tying in passes w/ other passes (swimming pool, etc.)
- Salvation Army:
  - Dinner event on Wednesdays, ends at 6:30 PM
  - 60 – 80 people – mostly walkers – service to get them there
  - No sidewalks, no lights

Where are the key destinations and neighbourhood centres to serve in Cranbrook? Thinking of the whole city, what are the areas or destinations that you think require more service?

- Events downtown (evening parking issues)
- Evening service
- Trailer parks outside city limits
- Cranbrook Health Unit (IHA)
- Salvation Army
- Stops on Cranbrook St (highway)
- COTR
- Hospital (no bus map at bus shelter)
- Outlying communities (connector buses)
- Ktunaxa Nation – new HQ downtown: employees
- Airport
- Events downtown (evening parking issues) e.g. ice games
- Mt Baker School
- Wal-Mart
- Hospital
- Nursing Homes
- COTR – 30% of employees reside in Kimberley
- Outlying communities (connector buses)
- Ktunaxa Nation
- Evening service for movie theatres, bowling, WalMart, Tamarack Mall (late night Thu and Fri) for staff especially, and shoppers
- Ktunaxa Nation – new HQ downtown: employees
- Kimberley (at commuter times)
- Airport – for employees, too
- Central point along Rails to Trails: Park & Ride: 2 buses meet from Kimberley & Cranbrook. Link this to St Eugene. Higher fare? (Different zone?)
- Slaterville service:

    - Gymnastics club (very high registration – approx. 500. Includes Junior High students). Starts at 3:30 PM, ends at 8:00 PM (parents would pick up).
    - To/from school (times don't work)
    - Service to soccer fields
- Evening service, and promote it
- Re: stops on Cranbrook St (highway): no stopping allowed on highway due to safety issues
- Kimberley (at commuter times)

Other Ideas?

- Show bus stops on route maps
- Evening service
- Publicize COTR evening drop-off service
- Promotional events to get people onto the bus
- Stops closer to Mt. Baker High
- # of bags allowed per passenger on HandyDART
- Snow shovelling at stops
- Change mentality: "It's OK to take the bus"
- Young ridership is key
- School passes: offer semester passes, sold at the school
- Competitions, win free passes
- Get bus information to students' parents
- Evening service – especially for high school students: future potential riders
- Promote the system (advertising)
- More visible stops
- Driver education re: ramp deployment
- Have route-specific maps on each bus, showing individual bus stops and/or schedule times

Passenger Survey Results
Conducted December 5-6, 2012

Total number of respondents: 335

Q1 - Which of the following age groups do you fall into?

Response	Chart	Percentage	Count
Under 15		2%	6
15-24		48%	160
25-34		13%	42
35-44		12%	40
45-54		4%	12
55-64		4%	15
65 or above		14%	46
No response		4%	14
		Total Responses	**335**

Q2 - Please indicate which category you are in:

Response	Chart	Percentage	Count
Student to grade 12		20%	68
College Student		33%	111
Adult		30%	102
Senior		14%	48
No response		2%	6

Q3 - What time did you board this bus?

Response	Chart	Percentage	Count
07:00-07:59		8%	27
08:00-08:59		23%	78
09:00-09:59		10%	33
10:00-10:59		5%	17
11:00-11:59		4%	14
12:00-12:59		8%	27
13:00-13:59		8%	27
14:00-14:59		8%	28
15:00-15:59		11%	36
16:00-16:59		5%	18
17:00-17:59		3%	11
18:00-18:59		1%	2
19:00-19:59		1%	2
20:00-20:59		1%	2
21:00-21:59		1%	3
No response		3%	10
		Total Responses	**335**

Appendix G: Phase 1 Public Consultation: On-Board Passenger Survey – Results Summary

Q4 - On which route did you start your trip?

Response	Chart	Percentage	Count
1 Tamarack Mall		19%	63
2 Highlands		10%	34
3 Third Avenue		8%	27
4 Slaterville		1%	2
5 College		24%	79
7 7th - 11th Avenue		17%	58
14 14th Avenue		20%	66
No response		2%	6
		Total Responses	**335**

Q5 - Where did you start your trip today?

Top 4 responses:

Trip origin		Percentage	Count
College of the Rockies		9%	29
Downtown Exchange		5%	16
Tamarack Mall		5%	16
Downtown		4%	12

Q6 - If you need a transfer, or have just transferred from another route, please indicate the transfer location

Response	Chart	Percentage	Count
No transfer		44%	148
Downtown (Transit Exchange)		46%	155
Other:		0%	1
No response		9%	31
		Total Responses	**335**

Q7 - If you are transferring or have just transferred, what other route will (did) you use?

Response	Chart	Percentage	Count
1 Tamarack Mall		28%	53
2 Highlands		5%	10
3 Third Avenue		7%	13
4 Slaterville		0%	0
5 College		30%	57
7 7th - 11th Avenue		8%	15
14 14th Avenue		9%	9
No response		16%	30
No transfer			148
		Total Responses	**335**

Q8 - What is the location you are going to?

Top 4 responses:

Trip destination	Count
College of the Rockies	62
Mount Baker Secondary	24
Downtown	14
WalMart	11

Q9 - What is the main reason for making this trip?

Response	Chart	Percentage	Count
Work		10%	32
School/College		43%	143
Shopping		10%	33
Medical/Dental		3%	11
Social/Recreational		4%	14
Other errands		4%	14
Other		3%	9
No response		24%	79
		Total Responses	**335**

Q10 - Overall, how satisfied are you with your present transit service?

Response	Chart	Percentage	Count
Very satisfied		47%	156
Satisfied		25%	85
Neutral		7%	24
Dissatisfied		2%	6
Very dissatisfied		3%	9
Don't know		0%	1
No response		16%	54
		Total Responses	**335**

Q11 - How satisfied are you with the following aspects of the transit service?

a) Frequency of service

Response	Chart	Percentage	Count
Very satisfied		45%	150
Satisfied		25%	85
Neutral		11%	37
Dissatisfied		7%	25
Very dissatisfied		3%	9
Don't know		0%	0
No response		9%	29
		Total Responses	**335**

b) Convenience of routes

Response	Chart	Percentage	Count
Very satisfied		47%	159
Satisfied		29%	97
Neutral		10%	32
Dissatisfied		3%	11
Very dissatisfied		1%	2
Don't know		0%	0
No response		10%	34
		Total Responses	**335**

c) Closeness of stop to your home

Response	Chart	Percentage	Count
Very satisfied		64%	213
Satisfied		18%	60
Neutral		5%	18
Dissatisfied		2%	6
Very dissatisfied		1%	4
Don't know		0%	0
No response		10%	34
		Total Responses	**335**

d) Comfort and cleanliness of busses

Response	Chart	Percentage	Count
Very satisfied		55%	184
Satisfied		27%	89
Neutral		6%	19
Dissatisfied		1%	4
Very dissatisfied		1%	2
Don't know		0%	0
No response		11%	37
		Total Responses	**335**

e) Courtesy of drivers

Response	Chart	Percentage	Count
Very satisfied		60%	200
Satisfied		21%	72
Neutral		6%	19
Dissatisfied		1%	3
Very dissatisfied		1%	2
Don't know		0%	0
No response		12%	39
		Total Responses	**335**

f) Personal security

Response	Chart	Percentage	Count
Very satisfied		61%	205
Satisfied		19%	62
Neutral		8%	26
Dissatisfied		1%	3
Very dissatisfied		1%	3
Don't know		0%	0
No response		11%	36
		Total Responses	**335**

g) Value for money (of fares)

Response	Chart	Percentage	Count
Very satisfied		50%	169
Satisfied		18%	61
Neutral		15%	50
Dissatisfied		3%	11
Very dissatisfied		1%	5
Don't know		0%	1
No response		11%	38
		Total Responses	**335**

h) Schedule information at bs stops

Response	Chart	Percentage	Count
Very satisfied		49%	163
Satisfied		25%	84
Neutral		9%	30
Dissatisfied		4%	12
Very dissatisfied		3%	9
Don't know		0%	1
No response		11%	36
		Total Responses	**335**

i) Access to schedule information (e.g. Info-line, website, Rider's Guides)

Response	Chart	Percentage	Count
Very satisfied		53%	176
Satisfied		20%	68
Neutral		10%	33
Dissatisfied		2%	7
Very dissatisfied		1%	2
Don't know		1%	5
No response		13%	44
		Total Responses	**335**

Q12 - Please rate the importance of the following aspects of transit service.

a) Frequency

Response	Chart	Percentage	Count
Very important		53%	177
Important		15%	49
Neutral		4%	14
Not important		2%	8
Not at all important		2%	8
No response		24%	79
		Total Responses	**335**

b) Reliability of service

Response	Chart	Percentage	Count
Very important		48%	162
Important		17%	57
Neutral		7%	24
Not important		1%	4
Not at all important		3%	9
No response		24%	79
		Total Responses	**335**

c) Convenience of routes

Response	Chart	Percentage	Count
Very important		53%	178
Important		11%	37
Neutral		6%	21
Not important		3%	10
Not at all important		3%	10
No response		24%	79
		Total Responses	**335**

d) Bus cleanliness

Response	Chart	Percentage	Count
Very important		44%	147
Important		17%	57
Neutral		7%	25
Not important		3%	9
Not at all important		4%	12
No response		25%	85
		Total Responses	**335**

e) Driver courtesy

Response	Chart	Percentage	Count
Very important		50%	167
Important		13%	43
Neutral		6%	20
Not important		2%	8
Not at all important		4%	14
No response		25%	83
		Total Responses	**335**

f) Safety

Response	Chart	Percentage	Count
Very important		56%	189
Important		10%	34
Neutral		3%	11
Not important		1%	4
Not at all important		4%	15
No response		24%	82
		Total Responses	**335**

g) Value (fares)

Response	Chart	Percentage	Count
Very important		44%	148
Important		16%	52
Neutral		8%	26
Not important		3%	9
Not at all important		4%	13
No response		26%	87
		Total Responses	**335**

h) Amenities at stops

Response	Chart	Percentage	Count
Very important		41%	139
Important		15%	50
Neutral		11%	36
Not important		2%	8
Not at all important		5%	18
No response		25%	84
		Total Responses	**335**

i) Access to information

Response	Chart	Percentage	Count
Very important		49%	165
Important		11%	38
Neutral		8%	26
Not important		1%	3
Not at all important		5%	18
No response		25%	85
		Total Responses	**335**

Q13 - On average, how frequently do you ride the bus?

Response	Chart	Percentage	Count
Every day		49%	165
Every weekday		21%	70
2-4 times a week		19%	64
2-4 times a month		3%	9
Less than 2-4 times a month		1%	5
No response		7%	22
		Total Responses	**335**

Q14 - What other transportation options are usually available to you?

Response	Chart	Percentage	Count
Vehicle (Driver)		8%	40
Vehicle (Passenger)		18%	90
Taxi		5%	26
Walk		37%	189
Bicycle		9%	47
None. The bus is my only means of transportation		17%	87
No response		5%	26
		Total Responses*	**505**

* Multiple responses allowed

Q15 - How can we make the Cranbrook Transit System better for you?

	No. of comments	% of comments	% of respondents
Service is great/Drivers are great/Don't change anything	104	27%	48%
More frequent/Expanded service	41	11%	19%
Extended/Later hours	29	8%	13%
Cheaper fares	14	4%	6%
Run buses on time	8	2%	4%
Have schedules at bus shelters/stops	6	2%	3%
Cleaner seats/buses	6	2%	3%
Better connection times	6	2%	3%
Windbreak for shelters at WalMart and hospital	5	1%	2%
More service to Slaterville (specifically)	5	1%	2%
Have more bus shelters	4	1%	2%
Have better road maintenance	4	1%	2%
Earlier weekend service	4	1%	2%
Complaints re: drivers (attitude, driving)	4	1%	2%
More frequent bus stops	3	1%	1%
Fix farebox card readers	3	1%	1%
Get newer buses	2	1%	1%
Other	18	5%	8%
No response	119	31%	55%
Total no. of comments*	**385**	**100%**	
Total no. of respondents to question	**216**		**100%**

* Multiple responses allowed

** The "Other" category was used for comments made by a single respondent in each instance

Appendix H: Phase 1 Public Consultation: Online Survey – Results Summary

Online Survey Results
Conducted December 2012 through February 2013

Total number of respondents: 70

Q 1a - How many people in you household are . . .

… age 16 years or older?

Response	Chart	Percentage	Count
0		0%	0
1		19%	13
2		40%	28
3		20%	14
4 or more		9%	6
No response		13%	9
		Total Responses	**70**

… under the age of 16 years?

Response	Chart	Percentage	Count
0		1%	1
1		17%	12
2		6%	4
3		4%	3
4 or more		0%	0
No response		71%	50
		Total Responses	**70**

Q 1b - How many people in your household. . .

… work full-time outside the home?

Response	Chart	Percentage	Count
0		3%	2
1		37%	26
2		31%	22
3		0%	0
4 or more		0%	0
No response		29%	20
		Total Responses	**70**

… attend school (including post-secondary) full-time?

Response	Chart	Percentage	Count
0		1%	1
1		20%	14
2		20%	14
3		3%	2
4 or more		1%	1
No response		54%	38
		Total Responses	**70**

Appendix H: Phase 1 Public Consultation: Online Survey – Results Summary

Q 2 - How many registered, licensed vehicles does your household have?

Response	Chart	Percentage	Count
0		23%	16
1		34%	24
2		29%	20
3		7%	5
4		1%	1
5 or more		0%	0
No response		6%	4
		Total Responses	**70**

Q 3 - Of those in your household who work outside the home full-time, how do they usually get to work?

Response	Chart	Percentage	Count
Vehicle (driver)		41%	35
Vehicle (passenger)		6%	5
Taxi		4%	3
Public Transit		18%	15
Bicycle		8%	7
Walk		21%	18
Other, please specify...		2%	2
		Total Responses*	**85**

* Multiple responses allowed

Q 4 - What is the general workplace location of those who work full-time outside the home?

Response	Chart	Percentage	Count
Downtown		36%	24
College of the Rockies		18%	12
Tamarack Mall & area		7%	5
Cranbrook Mall		1%	1
Walmart & area		10%	7
Cranbrook Regional Hospital		6%	4
Other, please specify...		21%	14
Industrial Rd area			4
Baker park area			2
Highway strip			1
Highlands School			1
Kimberley			2
E Kootenay region - other			3
Alberta			1
		Total Responses*	**67**

* Multiple responses allowed

Q 5 - Of those in your household attending school/college full-time, how do they usually get there?

Response	Chart	Percentage	Count
Vehicle (driver)		16%	9
Vehicle (passenger)		18%	10
Taxi		0%	0
Public Transit		31%	17
School bus		2%	1
Bicycle		4%	2
Walk		29%	16
Other, please specify...		0%	0
		Total Responses*	**55**

* Multiple responses allowed

Q 6 - Select which school or post secondary institution for those attending full-time:

Response	Chart	Percentage	Count
Amy Woodland Elementary		5%	2
Gordon Terrace Elementary		2%	1
Highlands Elementary		5%	2
Kootenay Orchards Elementary		2%	1
Laurie Middle School		5%	2
Mt. Baker Secondary School		27%	11
Parkland Middle School		12%	5
Steeples Elementary		2%	1
College of the Rockies		37%	15
Other, please specify...		2%	1
		Total Responses*	**41**

* Multiple responses allowed

Q 7 - What locations beside work and/or school, would you consider other key destinations?

Response	Chart	Percentage	Count
Downtown/Transit Exchange		16%	41
College of the Rockies		9%	22
Tamarack Centre		18%	46
Cranbrook Mall / Safeway		13%	32
Walmart		17%	44
Hospital		11%	28
Western Financial Place (Rec Plex)		10%	26
Steeples School area / Park Royal		1%	3
Baker Hill		0%	1
Slaterville		2%	5
Other, please specify...		3%	7
		Total Responses*	**255**

* Multiple responses allowed

Appendix H: Phase 1 Public Consultation: Online Survey – Results Summary

Q 8 - Which of the following age groups do YOU fall into?

Response	Chart	Percentage	Count
under 15		1%	1
15 to 24		14%	10
25 to 34		10%	7
35 to 44		13%	9
45 to 54		23%	16
55 to 64		14%	10
65+		13%	9
No response		11%	8
		Total Responses	**70**

Q 9 - On average, how frequently do YOU ride the bus or use handyDART?

Response	Chart	Percentage	Count
5 or more days a week		19%	13
3 to 4 days a week		11%	8
1 to 2 days a week		7%	5
1 to 2 times a month		6%	4
Less than once a month		16%	11
Never		30%	21
No response		11%	8
		Total Responses	**70**

Q 10 - Please indicate which category you fall in:

Response	Chart	Percentage	Count
Adult		31%	22
Senior		7%	5
Youth/Student to Grade 12		4%	3
College Student		13%	9
No response		44%	31
		Total Responses	**70**

Q 11 - What is the main purpose for most of your bus trips?

Response	Chart	Percentage	Count
Work		19%	13
School/College		13%	9
Social/Recreation		3%	2
Medical/Dental		4%	3
Shopping/Errands		14%	10
Other, please specify...		0%	0
No response		47%	33
		Total Responses	**70**

Q 12 - What bus routes do you use most often?

Response	Chart	Percentage	Count
1 Tamarack		20%	14
2 Highlands		11%	8
3 3rd Avenue		4%	3
4 Slaterville		1%	1
5 College		20%	14
7 7th-11th Avenue		4%	3
14 14th Avenue		10%	7
handyDART		1%	1
No response		46%	32
		Total Responses	**70**

* Multiple responses allowed

Q 13 - Overall, how satisfied are you with your present transit service?

Response	Chart	Percentage	Count
Very satisfied		13%	9
Satisfied		17%	12
Neutral		13%	9
Dissatisfied		10%	7
Very dissatisfied		1%	1
Don't know		0%	0
No response		46%	32
		Total Responses	**70**

Q 14 - How satisfied are you with these aspects of transit in Cranbrook?

a) Frequency of service

Response	Chart	Percentage	Count
Very satisfied		6%	4
Satisfied		21%	15
Neutral		7%	5
Dissatisfied		9%	6
Very dissatisfied		6%	4
Don't know		4%	3
No response		47%	33
		Total Responses	**70**

b) Convenience of routes

Response	Chart	Percentage	Count
Very satisfied		9%	6
Satisfied		19%	13
Neutral		11%	8
Dissatisfied		7%	5
Very dissatisfied		3%	2
Don't know		4%	3
No response		47%	33
		Total Responses	**70**

c) Closeness of stop to your home

Response	Chart	Percentage	Count
Very satisfied		20%	14
Satisfied		20%	14
Neutral		3%	2
Dissatisfied		3%	2
Very dissatisfied		3%	2
Don't know		4%	3
No response		47%	33
		Total Responses	**70**

d) Comfort and cleanliness of busses

Response	Chart	Percentage	Count
Very satisfied		13%	9
Satisfied		24%	17
Neutral		9%	6
Dissatisfied		3%	2
Very dissatisfied		0%	0
Don't know		4%	3
No response		47%	33
		Total Responses	**70**

e) Courtesy of drivers

Response	Chart	Percentage	Count
Very satisfied		20%	14
Satisfied		17%	12
Neutral		6%	4
Dissatisfied		4%	3
Very dissatisfied		1%	1
Don't know		4%	3
No response		47%	33
		Total Responses	**70**

f) Personal security

Response	Chart	Percentage	Count
Very satisfied		19%	13
Satisfied		20%	14
Neutral		9%	6
Dissatisfied		1%	1
Very dissatisfied		0%	0
Don't know		4%	3
No response		47%	33
		Total Responses	**70**

g) Value for money (of fares)

Response	Chart	Percentage	Count
Very satisfied		11%	8
Satisfied		19%	13
Neutral		11%	8
Dissatisfied		3%	2
Very dissatisfied		3%	2
Don't know		6%	4
No response		47%	33
		Total Responses	**70**

h) Schedule information at bs stops

Response	Chart	Percentage	Count
Very satisfied		13%	9
Satisfied		13%	9
Neutral		7%	5
Dissatisfied		13%	9
Very dissatisfied		3%	2
Don't know		4%	3
No response		47%	33
		Total Responses	**70**

i) Access to schedule information (e.g. Info-line, website, Rider's Guides)

Response	Chart	Percentage	Count
Very satisfied		14%	10
Satisfied		20%	14
Neutral		7%	5
Dissatisfied		4%	3
Very dissatisfied		0%	0
Don't know		6%	4
No response		49%	34
		Total Responses	**70**

Q 15 - If you rarely or never use transit what is your main reason for this decision?

	No. of comments	% of comments	% of respondents
It's more convenient/quicker to drive/cycle	13	37%	37%
I don't need to	7	20%	20%
Schedule times/Frequency	4	11%	11%
It doesn't come close enough to my house	3	9%	9%
No evening service	3	9%	9%
I need my vehicle for work	2	6%	6%
It doesn't go where I need it to	2	6%	6%
Other**	1	3%	3%
No response		0%	0%
Total no. of comments*	**35**	**100%**	
Total no. of respondents to question	**35**		**100%**

* Multiple responses allowed

** The "Other" category was used for comments made by a single respondent in each instance

Q 16 - How important to you are the following aspects of a transit system?

a) Reliability

Response	Chart	Percentage	Count
Very important		67%	47
Important		13%	9
Neutral		1%	1
Not important		0%	0
Not at all important		0%	0
No response		19%	13
		Total Responses	**70**

b) Frequency

Response	Chart	Percentage	Count
Very important		47%	33
Important		31%	22
Neutral		4%	3
Not important		0%	0
Not at all important		0%	0
No response		17%	12
		Total Responses	**70**

c) Good connections/Reasonable wait times

Response	Chart	Percentage	Count
Very important		63%	44
Important		17%	12
Neutral		1%	1
Not important		0%	0
Not at all important		0%	0
No response		19%	13
		Total Responses	**70**

d) Comfortable buses

Response	Chart	Percentage	Count
Very important		20%	14
Important		44%	31
Neutral		16%	11
Not important		3%	2
Not at all important		0%	0
No response		17%	12
		Total Responses	**70**

e) Clean buses

Response	Chart	Percentage	Count
Very important		33%	23
Important		44%	31
Neutral		6%	4
Not important		0%	0
Not at all important		0%	0
No response		17%	12
		Total Responses	**70**

f) Safety

Response	Chart	Percentage	Count
Very important		57%	40
Important		21%	15
Neutral		3%	2
Not important		0%	0
Not at all important		0%	0
No response		19%	13
		Total Responses	**70**

g) Accurate information

Response	Chart	Percentage	Count
Very important		56%	39
Important		21%	15
Neutral		4%	3
Not important		0%	0
Not at all important		0%	0
No response		19%	13
		Total Responses	**70**

h) Amenities at stops

Response	Chart	Percentage	Count
Very important		36%	25
Important		39%	27
Neutral		7%	5
Not important		0%	0
Not at all important		1%	1
No response		17%	12
		Total Responses	**70**

i) Value (fares)

Response	Chart	Percentage	Count
Very important		43%	30
Important		39%	27
Neutral		1%	1
Not important		0%	0
Not at all important		0%	0
No response		17%	12
		Total Responses	**70**

j) Courteous service

Response	Chart	Percentage	Count
Very important		49%	34
Important		33%	23
Neutral		1%	1
Not important		0%	0
Not at all important		0%	0
No response		17%	12
		Total Responses	**70**

Q 17 - How important to you would the following changes to transit be?

a) More frequent service

Response	Chart	Percentage	Count
Very important		34%	24
Important		23%	16
Neutral		19%	13
Not important		4%	3
Not at all important		1%	1
No response		19%	13
		Total Responses	**70**

b) Earlier service

Response	Chart	Percentage	Count
Very important		19%	13
Important		24%	17
Neutral		24%	17
Not important		7%	5
Not at all important		7%	5
No response		19%	13
		Total Responses	**70**

c) Later service

Response	Chart	Percentage	Count
Very important		43%	30
Important		13%	9
Neutral		16%	11
Not important		10%	7
Not at all important		0%	0
No response		19%	13
		Total Responses	**70**

d) Add holiday service

Response	Chart	Percentage	Count
Very important		20%	14
Important		24%	17
Neutral		16%	11
Not important		13%	9
Not at all important		7%	5
No response		20%	14
		Total Responses	**70**

e) Later service Fridays and Saturdays

Response	Chart	Percentage	Count
Very important		34%	24
Important		21%	15
Neutral		14%	10
Not important		9%	6
Not at all important		3%	2
No response		19%	13
		Total Responses	**70**

Q 18 - What other changes could we make to improve the Cranbrook Transit System for you?

	No. of comments	% of comments	% of respondents
Service is great/Drivers are great/Don't change anything	11	11%	26%
Use smaller buses	9	9%	21%
Expand routes/coverage within Cranbrook	7	7%	16%
Extended/Later hours	5	5%	12%
More frequent/Expanded service	3	3%	7%
Cheaper fares	3	3%	7%
The buses always/often look empty	3	3%	7%
Better snow clearing at stops for passengers using mobility aids	3	3%	7%
Complaints re: drivers (attitude, driving)	3	3%	7%
Expansion of service outside Cranbrook city limits	3	3%	7%
Alter routing	3	3%	7%
Run buses on time	2	2%	5%
Better connection times	2	2%	5%
Add bus shelters	2	2%	5%
Add bus service for special events	2	2%	5%
Late-night service	2	2%	5%
Holiday service	1	1%	2%
More weekend service	1	1%	2%
Other**	8	8%	19%
No response	27	27%	63%
Total no. of comments*	**100**	**100%**	
Total no. of respondents to question	**43**		**100%**

* Multiple responses allowed

** The "Other" category was used for comments made by a single respondent in each instance

Appendix I: Phase 1 Public Consultation: COTR Open House – Results Summary

College of the Rockies Open Door

The most frequent responses from the students interviewed were that everything is good the way it is, followed by requests for evening service, more frequent service, and improved on-time performance:

	No. of comments	% of comments
Everything is good as is/Don't change anything	13	29%
Evening service	4	9%
More frequent service	3	7%
Improve on-time performance	2	4%
I take transit in winter only	2	4%
Improve driver courtesy	2	4%
Introduce service to outlying areas of Cranbrook	2	4%
Other*	17	38%
Total no. of comments**	**45**	**100%**

* Category for comments made by only one respondent

** Multiple comments allowed

Appendix I: Phase 1 Public Consultation: COTR Open House – Results Summary

Fare Information

Conventional Fares

Effective: September 1, 2011

Cash Fares	
Adult	$2.25
College Student	$2.25
Senior**	$2.00
Student to Gr. 12***	$2.00
Child 4 or under	no charge
10 Tickets	
Adult	$20.00
College Student	$20.00
Senior**	$17.00
Student***	$17.00
DayPASS	
Adult	$3.75
College Student	$3.75
Senior**	$3.25
Student***	$3.25
Monthly Pass	
Adult	$50.00
Senior**	$35.00
Student, to Gr. 12***	$35.00

**Reduced fare for seniors aged 65 and older with valid ID.
***Reduced fare for students to grade 12. Must be in full-time attendance, with valid Student ID.

Vendor Locations: Ticket and Pass Outlets

Greyhound Bus Depot, 1229 Cranbrook St
Cranbrook RecPlex, Leisure Services Desk, 1777 2nd St N.
City Hall, 40 - 10th Avenue South

U-PASS

U-PASS gives all College of the Rockies students unlimited access on all Cranbrook Transit routes during a four-month semester. The U-PASS costs $44.40 (equal to $10.10 per month), and is included in student fees.

Custom Fares

Effective: September 1, 2011

Cash Fares

One-way trip	
Passenger	$3.00
Attendants	no charge

Appendix J: Fares Summary

Fare Structure Review

City of Cranbrook

March, 2013

City of Cranbrook | BCTransit

GLOSSARY

Average Fare – Total revenue from fare sources divided by ridership from fare sources.

Canadian Urban Transit Association – CUTA is the association for providers of urban transit services and the voice of the public transit industry in Canada

Conventional transit – Serves the general population in urban settings using mid-sized, large or double-deck buses. The buses are accessible and low-floor and run on fixed routes and fixed schedules

handyDART – Custom door-to-door service for those passengers who cannot use conventional transit due to a disability. Riders must be registered with the handyDART office before they can use the service. Also known as custom transit, handyDART stands for handy Dial-a-Ride-Transit.

Cost recovery – Reflects annual total revenue divided by total cost. This ratio indicates the proportion of costs recovered from total revenue. A strong cost recovery is desirable, as it reduces the subsidy from the taxpayer. This factor, however, is a municipal policy decision

Performance measures – Statistical ratios combining system outputs and transit service area statistics to benchmark performance within the industry and operational trends over time

Total revenue – Includes passenger and advertising revenue; excludes property tax and fuel tax revenue

Discount fare – Discounts on cash fares and prepaid products are applicable to seniors and students upon proof of eligibility

Regular fare – A regular fare must be paid by all passengers who do not qualify for a discount or cannot prove eligibility

1.0 OVERVIEW

BC Transit has prepared this report for the City of Cranbrook to examine the effectiveness of the transit system's current fare structure.

The report discusses historic revenue and ridership trends, and compares the transit system's fare structure to its peer transit systems and to BC Transit's recommended fare guidelines. It will predict revenue and ridership changes that may result from a change in fares and will review available fare products for consideration.

1.1 Ridership and Revenue History

The table below outlines some key performance statistics for the Cranbrook Transit System. Discussion involving these figures will be presented throughout the document.

TABLE 1: KEY FACTS AND FIGURES

Ridership Growth (5-year annual compound rate)	6.0%
Revenue Growth (5-year annual compound rate)	5.9%
2011/12 Total Ridership	246,780
2011/12 Ridership from Fare Sources*[1]	190,444
2011/12 Total Revenue	$271,867
2011/12 Total Revenue from Fare Sources**	$216,263
Average Fare	$1.14
Cost Recovery	21%
Date of Last Fare Adjustment	September 1, 2011

*Excludes BC Bus Pass ridership
**Excludes advertising, BC Bus Pass, and miscellaneous revenue

[1] Please note that all analyses are based on ridership and revenue from fare sources which exclude BC Bus Pass, advertising, and miscellaneous revenue as these are not affected by a fare adjustment.

1.2 Ridership and Revenue Composition

The charts below indicate how ridership and revenue are divided by fare type:

EXHIBIT 1: 2011/12 REVENUE BY FARE SOURCE

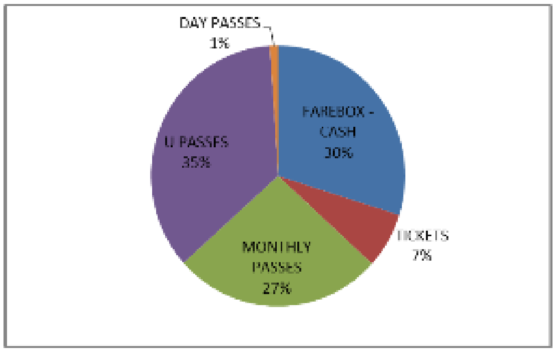
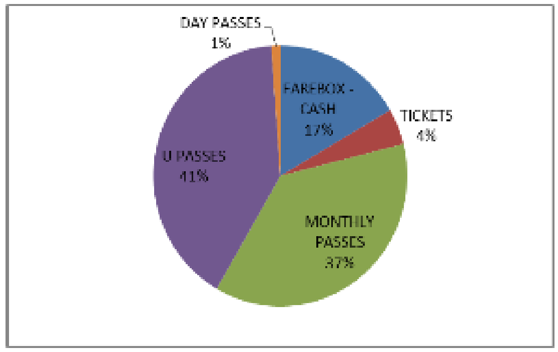


EXHIBIT 2: 2011/12 RIDERSHIP BY FARE SOURCE



These charts show that the largest portion of revenue comes from U-PASS followed by farebox cash whereas the largest portion of ridership comes from U-PASS followed by monthly passes. The transit system collects 30% of its passenger revenue in cash. Ideally a low proportion of revenue would come from farebox cash as prepaid fares offer greater stability, predictability, and security of revenue for the City as well as promoting more frequent ridership from existing transit customers.

Looking at Exhibits 1 and 2, we can draw three conclusions. First, it can be expected that any change to cash fares will impact 17% of riders; a change to monthly pass prices will impact up to 78% of riders assuming that U-PASS rates are linked to monthly pass prices[2]; and a change to ticket prices will impact only 4% or riders. Second, assuming that the U-PASS rate is increased along with the monthly pass price, and assuming proportionate increases to each fare category, the greatest increase in revenue can be achieved by a change in the monthly pass price. If U-PASS rates are not increased along with the monthly pass price, the greatest increase in revenue would be achieved by a change in cash fares. Changes to ticket prices will result in a minimal change in revenue. Finally, monthly passes and U-PASS generate 62% of revenue and 78% of ridership indicating that many riders are taking advantage of discounted pass products by riding frequently. This relationship is an indication that the average fare may be noticeably lower than the cash fare.

[2]The U-PASS contract stipulates that U-PASS prices can be increased along with monthly pass prices without requiring a student referendum. For further information, please reference the contract.

2.0 CURRENT FARES

The following two tables outline the conventional fare structure and the handyDART fare structure presently used in the Cranbrook Transit System.

TABLE 2: CONVENTIONAL FARES

	Cash Fares	10 Tickets	Monthly Passes	DayPASS
Regular	$2.25	$20.00	$50.00	$3.75
Discount*	$2.00	$17.00	$35.00	$3.25
Child 4 yrs. and under	No Charge	-	-	

*Reduced fare for seniors age 65+, with valid ID and for students up to grade 12 in full-time attendance with valid Student ID.

TABLE 3: handyDART FARES

	One-Way Trip
Passenger & companions	$3.00
Attendants (needed to help passenger travel)	No Charge

3.0 PERFORMANCE EVALUATION

In the next two sections, the report outlines how the Cranbrook Transit System's performance indicators compare to those of its peer transit systems and how the conventional service fares compare to general fare guidelines recommended by BC Transit.

3.1 Comparison to Peer Systems

As evidenced in Table 4 below, the adult cash fare in Cranbrook is at par with that of its regional system peer groups and is higher than that of its Tier 3 peer group. The adult monthly pass price is slightly more expensive than that of both peer groups.

The Cranbrook Transit System performs below its peers in terms of the average fare indicator. The average fare indicator measures the average fare paid by all riders excluding BC Bus Pass holders. The low average fare in Cranbrook suggests that the current fare structure may not be capturing the optimum level of revenue per passenger.

The cost recovery indicator, on which Cranbrook measures higher than its peers, measures the percentage of total costs that are recovered by passenger revenue. When the percentage of cost recovery is higher, the percentage of costs that must be recovered by other funding sources (including taxation) is lower. Cost recovery is a policy decision and so it may or may not be appropriate to compare across transit systems, however, Local Governments commonly prefer to have a higher cost recovery and a lesser reliance on local taxation.

TABLE 4: COMPARISON TO PEER SYSTEMS

	Cranbrook Transit System	Average of Tier 3* Systems	Average of Regional** Systems
Regular Cash Fare	$2.25	$1.93	$2.25
Regular Monthly Pass Price	$50.00	$47.27	$49.00
Average Fare	$1.14	$1.22	$1.26
Cost Recovery	21%	15%	15%

*Average of 11 Tier 3 communities including Dawson Creek, Kitimat, Powell River and Terrace
**Average of 2 Kootenay communities: Kootenay Boundary and Nelson

3.3 Comparison to BC Transit Fare Guidelines

The table below compares the present transit fare structure in Cranbrook to BC Transit's recommended fare guidelines. The adult cash fare is the base from which other fares are calculated.

TABLE 6: COMPARISON TO BC TRANSIT FARE GUIDELINES

	BC Transit Fare Guideline	Cranbrook Fare Structure
CASH FARES		
Regular	Base Fare	$2.25
Discount	Equal to Base Fare	88.9% of Base Fare
TICKETS		
Regular	9 times Base Fare	8.9 times Base Fare
Discount	9 times Base Fare less 15%	8.9 times Base Fare less 15%
MONTHLY PASSES		
Regular	20 - 30 times Base Fare	22.2 times Base Fare
Discount	20 - 30 times Base Fare less 15%	22.2 times Base Fare less 30%
DAY PASSES		
Regular	2.5 times Base Fare	1.7 times Base Fare
Discount	2.5 times Base Fare less 15%	1.7 times Base Fare less 13%

Previously BC Transit had suggested discounted cash fares for seniors and students. This recommendation has recently changed to a single cash fare with discounted prepaid products. The single cash fare is becoming a popular choice for numerous transit systems across Canada. A single cash fare has several benefits: it offers simplicity in the fare structure, increased quality of data collected from fareboxes, reduced reliance on operators to enforce age-based fares thereby reducing the likelihood of fare disputes, and provides incentive for riders to switch to prepaid products potentially encouraging more consistent ridership all while reducing fare collection costs.

Presently the fare structure maintains a discounted cash fare. The fare increases that would be required in order for the present fare structure to conform to BC Transit guidelines would be as follows: an increase of $0.25 to the discount cash fare, a $0.25 increase to all ticket prices, an increase of $7.50 to the discount monthly pass price, and an increase of $1.50 to the price of both day passes.

The general fare guideline recommended by BC Transit is that handyDART fares align with conventional cash fares. In order to align the fare structure with this guideline conventional cash fares would need to be increased by $0.75 or handyDART fares would need to be reduced by $0.75.

4.0 FARE STRATEGY OPTIONS

There are two options that emerge from the above analysis: (1) leave fare unchanged, and (2) align fares with BC Transit fare guidelines.

4.1 Leave Fares Unchanged

An argument can be made for leaving fares unchanged. The last fare increase took place only about 18 months ago; it is possible that the system has not finished reacting to the last fare change. BC Transit recommends a three-year cycle for reviewing fares. In addition, when compared to those of peer transit systems, the Cranbrook Transit System's fares are already at the higher end of the spectrum. Although immediate revenue gains will not be realized by leaving fares unchanged, lower fares generally promote healthy ridership growth and may allow for more organic revenue growth in the future.

4.2 Align Fares with BC Transit Fare Guidelines

If the required changes to bring the fare structure into alignment with BC Transit's recommended fare guidelines, the fare structure would become as follows:

TABLE 7: CONVENTIONAL FARES (CURRENT FARES IN BRACKETS)

	Cash Fares	10 Tickets	Monthly Passes	DayPASS
Regular	$2.25 ($2.25)	$20.25 ($20.00)	$50.00 ($50.00)	$5.75 ($3.75)
Discount*	$2.25 ($2.00)	$17.25 ($17.00)	$42.50 ($35.00)	$4.75 ($3.25)
Child 4 yrs. and under	No Charge	-	-	

*Reduced fare for seniors age 65+, with valid ID and for students up to grade 12 in full-time attendance with valid Student ID.

TABLE 8: handyDART FARES

	One-Way Trip
Passenger & companions	$2.25 ($3.00)
Attendants (needed to help passenger travel)	No Charge

If this fare structure was implemented, the resulting revenue increase is estimated at $7,835 annually or 2.9% over total revenue. Although this option is likely to create some immediate revenue gains, ridership would be projected to decline by 3,250 riders per year.

This option also presents one potential drawback: having rates for seniors and students increase across the board whereas rates for adults are held basically constant. Some segments of the population may not support such an increase.

As a slight differentiation, this option can be adjusted to work in small increments towards such a fare structure. For example, changing discount cash fares to equal base fare while holding prepaid products constant. The following section provides a sensitivity analysis to show the revenue and ridership changes that may result from fare chances for each of the available fare products.

5.0 SENSITIVITY ANALYSIS

The following table shows the results that could be expected if the stated incremental fare increases were implemented.

TABLE 9: SENSITIVITY ANALYSIS

Fare Category	Incremental Increases from Current Fares	Estimated Change in Annual Ridership	Estimated Change in Annual Revenue*
Regular Cash	$0.25	(745)	$3185
Discount Cash	$0.25	(510)	$1920
Regular Tickets (10)	$1.00	(60)	$245
Discount Tickets (10)	$1.00	(85)	$275
Regular Monthly Pass	$1.00	(55)	$215
Discount Monthly Pass	$1.00	(305)	$755
U-PASS	$1.00 per term	(730)	$1215
Regular Day Pass	$0.25	(40)	$70
Discount Day Pass	$0.25	(15)	$25

*The above estimates take into account a 0.3% drop in ridership for every 1% increase in fares. This guideline, known as the Simpson-Curtin Rule, is commonly applied in transit analyses.

The estimates should be interpreted as follows: all else equal, for every $0.25 increase in the regular cash fare, revenue is expected to increase by roughly $3,185 annually.

The following section concludes the report with suggested considerations for the successful implementation of a fare change.

6.0 IMPLEMENTATION STRATEGIES

If the City were to decide to increase fares, the following tips should be considered to mitigate the risk of ridership loss:

- Fare increases should not be scheduled for September or January since this is when potential passengers are making travel decisions for the rest of the year or semester. July is considered the best time for an increase, followed by May and other spring months. Fare changes should be scheduled for the first of whichever month is chosen. **Please also note that BC Transit requires at least eight weeks' notice after Council approval to implement a fare change.**

- Linking a fare increase to service increases or improvements will mitigate ridership loss since riders will experience the benefits of increased pricing.

- Offering new programs or benefits to transit customers can help reduce the risk of ridership loss. An example of a benefit that could be offered in the Cranbrook Transit System is the Semester Pass Program. This program enables students up to grade 12 in full-time attendance and with valid student identification to purchase a four-month pass at a 20% discount from the base fare. The pass would be priced at $160 ($50x4x0.8). The introduction of this pass may help stimulate ridership but is not likely to have a significant revenue impact.

7.0 RECOMMENDATIONS

It is recommended that the City of Cranbrook receive this report as information.